

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Housing—Federal Housing Commissioner

24 CFR Part 81

[Docket No. FR-4494-P-01]

RIN 2501-AC60

HUD's Regulation of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)

AGENCY: Office of the Assistant Secretary for Housing-Federal Housing Commissioner, HUD.

ACTION: Proposed rule.

SUMMARY: Through this proposed rule, the Department of Housing and Urban Development is soliciting comments on proposed new housing goal levels for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (collectively, the Government Sponsored Enterprises, or GSEs) for calendar years 2000 through 2003. In accordance with the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, this rule proposes new goal levels for the purchase by Fannie Mae and Freddie Mac of mortgages financing low- and moderate-income housing, special affordable housing, and housing in central cities, rural areas, and other underserved areas. This rule also proposes to clarify HUD's guidelines for counting different types of mortgage purchases toward those goals, and to provide greater public access to certain types of mortgage data on the GSEs' mortgage purchases in HUD's public use database. This rule also solicits public comments on several other issues related to the housing goals.

While Fannie Mae and Freddie Mac have been successful in providing stability and liquidity in the market for certain types of mortgages, their share of the affordable housing market is substantially smaller than their share of the total conventional conforming mortgage market. There are several reasons for these disparities, related both to the GSEs' purchase and underwriting guidelines and to their relatively low level of activity in specific markets that serve lower-income families, including small multifamily rental properties, manufactured housing, single family owner-occupied rental properties, and seasoned affordable housing mortgages.

As the GSEs continue to grow their businesses, the proposed new goals will provide strong incentives for the two enterprises to more fully address the housing finance needs for very low-, low- and moderate-income families and residents of underserved areas and thus, more fully realize their public purposes.

DATES: Comments must be submitted on or before: May 8, 2000.

ADDRESSES: Interested persons are invited to submit written comments regarding this proposed rule to the Regulations Division, Office of General Counsel, Room 10276, Department of Housing and Urban Development, 451 Seventh Street, SW, Washington, DC 20410. Written comments may also be provided electronically to the following e-mail address: hsg-gse@hud.gov All communications should refer to the above docket number and title. Facsimile (FAX) comments are *not* acceptable. A copy of each communication submitted will be available for public inspection and copying between 7:30 a.m. and 5:30 p.m. weekdays at the above address.

FOR FURTHER INFORMATION CONTACT: Janet A. Tasker, Director, Office of Government Sponsored Enterprises Oversight, Room 6182, telephone (202) 708-2224. For questions on data or methodology, contact John L. Gardner, Director, Financial Institutions Regulation Division, Office of Policy Development and Research, Room 8234, telephone (202) 708-1464. For legal questions, contact Kenneth A. Markison, Assistant General Counsel for Government Sponsored Enterprises/RESPA, Office of the General Counsel, Room 9262, telephone (202) 708-3137. The address for all of these persons is: Department of Housing and Urban Development, 451 Seventh Street, SW, Washington, DC 20410.

Persons with hearing and speech impairments may access the phone numbers via TTY by calling the Federal Information Relay Service at (800) 877-8399.

SUPPLEMENTARY INFORMATION:

I. General

A. Purpose

Through this proposed rule, the Department of Housing and Urban Development (HUD or the Department) is soliciting comments on proposed new housing goal levels for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (collectively, the Government Sponsored Enterprises, or GSEs) for calendar years 2000 through 2003. The

housing goals will be phased in beginning in calendar year 2000 and will be fully implemented by calendar year 2001. In accordance with the Federal Housing Enterprises Financial Safety and Soundness Act of 1992,¹ which requires the GSEs to facilitate the financing of affordable housing for low- and moderate-income families and underserved neighborhoods and requires the Department to establish housing goals; this rule proposes increased housing goal levels for the purchase by Fannie Mae and Freddie Mac of mortgages financing low- and moderate-income housing, special affordable housing, and housing in central cities, rural areas, and other underserved areas. This rule also proposes to clarify HUD's guidelines for counting different types of mortgage purchases toward those goals, and to provide greater public access to certain types of mortgage data on the GSEs' mortgage purchases in HUD's public use database. This rule also solicits public comments on several other issues related to the housing goals.

While Fannie Mae and Freddie Mac have been successful in providing stability and liquidity in the market for certain types of mortgages, their share of the affordable housing market is substantially smaller than their share of the total conventional conforming mortgage market. The GSEs' mortgage purchases accounted for 39 percent of all owner and rental housing units that were financed in the market during 1997, but their purchases that qualified for the Low- and Moderate-Income Housing Goal represented only 30 percent of the low- and moderate-income housing market and their Special Affordable Housing Goal (directed toward very low- and low-income families) qualifying mortgage purchases represented only 24 percent of that market. There are several reasons for these disparities, related both to the GSEs' purchase and underwriting guidelines and to their relatively low level of activity in specific markets that serve lower-income families, including small multifamily rental properties, manufactured housing, single family owner-occupied rental properties, and seasoned affordable housing mortgages. As the GSEs continue to grow their businesses, the proposed new goals will provide strong incentives for the two enterprises to more fully address the housing finance needs of very low-, low- and moderate-income families and the residents of underserved areas, and,

¹ 12 U.S.C. 4501 et seq.; Pub. L. 102-550, approved Oct. 28, 1992.

thus, more fully realize their public purposes.

In determining the appropriate level of the housing goals, HUD must consider six statutory factors: national housing needs; economic, housing and demographic conditions; performance and effort of Fannie Mae and Freddie Mac toward achieving the housing goals in previous years; the size of the conventional mortgage market serving the targeted population or areas relative to the size of the overall conventional mortgage market; the ability of the GSEs to lead the industry in making mortgage credit available for the targeted population or areas; and the need to maintain the sound financial condition of the GSEs.

Based on consideration of all the statutory factors, HUD is proposing increases to the housing goal levels. In summary, the shares of the mortgage markets that qualify for each of the housing goals are higher than the current goal levels. The proposed goal levels will close the gap between the GSEs' performance and the opportunities available in the primary mortgage market. The proposed goal levels, while consistent with the Department's estimate of the market share for each goal, are higher than the GSEs' current level of performance, yet they would be reasonable even under economic conditions more adverse than have existed recently. There are a number of relatively untapped segments of the multifamily, single family owner-occupied, and single family rental markets where the GSEs might play an enhanced role and thereby increase their shares of targeted loans and their performance on the housing goals. These areas include small multifamily mortgage loans, multifamily rehabilitation loans, single family rental property loans, manufactured housing loans, A-minus mortgage loans, and affordable seasoned loan purchases. The proposed goal levels will challenge both Fannie Mae and Freddie Mac to increase their purchases of mortgages for lower-income families and for properties in underserved areas, and to further their efforts to meet the affordable housing needs of lower-income families, minorities, and residents of underserved areas, who continue to face problems obtaining mortgage credit and who would benefit from a more active and focused secondary market. The Department's analyses indicate that there are substantial opportunities in the mortgage market where the GSEs may purchase additional mortgages that qualify for one or more of the housing goals. The GSEs have the financial and operational capacity to improve their

affordable housing performance and lead the industry in supporting mortgage lending for families and neighborhoods targeted by the housing goals. Further, the GSEs themselves have indicated that they want to increase their market presence in many of the business areas identified above.

The current housing goal levels are 42 percent for the Low- and Moderate-Income Housing Goal, 24 percent for the Geographically Targeted Goal, and 14 percent for the Special Affordable Housing Goal. The Special Affordable Housing Goal includes a subgoal for mortgage purchases financing dwelling units in multifamily housing which is 0.8 percent of the dollar volume of mortgages purchased by the respective GSE in 1994—\$1.29 billion annually for Fannie Mae and \$988 million annually for Freddie Mac. The Department is proposing to increase the housing goal levels as follows: The proposed level of the Low- and Moderate-Income Housing Goal is 48 percent for calendar year 2000 and 50 percent in calendar years 2001–2003; the proposed level of the Geographically Targeted Goal is 29 percent for calendar year 2000 and 31 percent in calendar years 2001–2003; and the proposed level of the Special Affordable Housing Goal is 18 percent in calendar year 2000 and 20 percent in calendar years 2001–2003. In addition, HUD is proposing to increase the special affordable multifamily subgoal to 0.9 percent of the dollar volume of total 1998 mortgage purchases in calendar year 2000 and to 1.0 percent in calendar years 2001–2003.

Further discussion of the statutory factors HUD is required to consider in setting the housing goals, and the rationale for HUD's establishment of these goals, are provided throughout the remainder of this preamble and in the Appendices to the Proposed Rule. In particular, because of the importance of the GSEs' ability to lead the industry in making mortgage credit available for targeted populations and areas, HUD is seeking comment on the following: Are the proposed housing goals appropriate given the statutory factors HUD must consider in setting the goals, and in light of the market estimates of the GSEs' shares of the affordable housing market? (See Section E.7, "Closing the Gap Between the GSEs and The Market.").

B. Background

1. *Fannie Mae and Freddie Mac.* The GSEs engage in two principal businesses: investing in residential mortgages and guaranteeing securities backed by residential mortgages. Fannie Mae and Freddie Mac are Government

Sponsored Enterprises, chartered by Congress in order to: (1) Provide stability in the secondary market for residential mortgages; (2) respond appropriately to the private capital market; (3) provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing; and (4) promote access to mortgage credit throughout the nation (including central cities, rural areas, and other underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.²

Fannie Mae and Freddie Mac receive significant explicit benefits through their status as GSEs that are not enjoyed by any other shareholder-owned corporations in the mortgage market. These benefits include: (1) Conditional access to a \$2.25 billion line of credit from the U.S. Treasury;³ (2) exemption from the securities registration requirements of the Securities and Exchange Commission and the States;⁴ and (3) exemption from all State and local taxes except property taxes.⁵

Additionally, although the securities the GSEs guarantee and the debt instruments they issue are not backed by the full faith and credit of the United States, and nothing in this proposed rule should be construed otherwise, the GSEs' securities trade at yields only a few basis points over those of U.S. Treasury securities and at yields lower than those received for securities issued by potentially higher-capitalized, fully private, but otherwise comparable firms. The market prices for GSE debt and mortgage-backed securities, and the fact that the market does not require that those securities be rated by a national rating agency, suggest that investors perceive that the government implicitly backs the GSEs' debt and securities. This perception evidently arises from the GSEs' relationship to the Federal

² See sec. 301 of the Federal National Mortgage Association Charter Act (Fannie Mae Charter Act) (12 U.S.C. 1716); sec. 301(b) of the Federal Home Loan Mortgage Corporation Act (Freddie Mac Act) (12 U.S.C. 1451 note).

³ Secs. 306(c)(2) of the Freddie Mac Act and 304(c) of the Fannie Mae Charter Act.

⁴ Secs. 306(g) of the Freddie Mac Act and 304(d) of the Fannie Mae Charter Act.

⁵ Secs. 303(e) of the Freddie Mac Act and 309(c)(2) of the Fannie Mae Charter Act.

Government, including their public purposes, their Congressional charters, their potential direct access to U.S. Department of Treasury funds, and the statutory exemptions of their debt and mortgage-backed securities (MBS) from otherwise mandatory security laws. Consequently, each GSE's cost of doing business is significantly less than that of other firms in the mortgage market. According to the U.S. Department of Treasury, the benefits of federal sponsorship are worth almost \$6 billion annually to Fannie Mae and Freddie Mac. Of this amount, reduced operating costs (*i.e.*, exemption from SEC filing fees and from state and local income taxes) represent approximately \$500 million annually. These estimates are broadly consistent with the magnitudes estimated by the Congressional Budget Office and General Accounting Office. Fannie Mae and Freddie Mac appear to pass through part of these benefits to consumers through reduced mortgage costs and retain part for their own stockholders.⁶

2. Regulation of the GSEs—FHEFSSA. In 1968, Congress assigned HUD general regulatory authority over Fannie Mae⁷ and in 1989, Congress granted the Department essentially identical regulatory authority over Freddie Mac.⁸ Under the 1968 and 1989 legislation, HUD was authorized to require that a portion of Fannie Mae's mortgage purchases be related to the national goal of providing adequate housing for low- and moderate-income families. Accordingly, the Department established two housing goals—a goal for low- and moderate-income housing and a goal for housing located in central cities—by regulation, for Fannie Mae in 1978.⁹ Each goal was established at the level of 30 percent of mortgage purchases. Similar housing goals for Freddie Mac were proposed by the Department in 1991 but were not finalized before October 1992, when Congress revised the Department's GSE regulatory authorities including requirements for new housing goals.

In 1992, Congress enacted the Federal Housing Enterprises Financial Safety and Soundness Act (FHEFSSA),¹⁰

which revamped the statutory requirements and regulatory structure of the GSEs by separating the Government's financial regulation of the GSEs from its mission regulation. FHEFSSA created a new Office of Federal Housing Enterprise Oversight (OFHEO), within HUD, which was assigned new, independent, regulatory powers to ensure the GSEs' financial safety and soundness.¹¹ At the same time, FHEFSSA affirmed the Secretary of Housing and Urban Development's responsibility for mission regulation and provided that, except for the specific authority of the Director of OFHEO relating to the safety and soundness of the GSEs, the Secretary retains general regulatory power over the GSEs.¹² FHEFSSA also detailed and expanded the Department's specific powers and authorities, including the power to establish, monitor, and enforce housing goals for the GSEs' purchases of mortgages that finance housing for low- and moderate-income families, housing located in central cities, rural areas, and other underserved areas, and special affordable housing, affordable to very low-income families and low-income families in low-income areas.¹³

FHEFSSA also required that the Department prohibit the GSEs from discriminating in their mortgage purchases and charged the Department with several fair lending authorities including the power to take remedial action against lenders found to have engaged in discriminatory lending practices and to periodically review and comment on the GSEs' underwriting and appraisal guidelines to ensure that such guidelines are consistent with the Fair Housing Act and the fair housing requirements in FHEFSSA.¹⁴

FHEFSSA affirmed and detailed HUD's authority to review and approve new programs of the GSEs¹⁵ and to require reports from the GSEs¹⁶ including periodic data and information submissions.¹⁷ FHEFSSA also required that the Department establish a public use data base and implement

requirements for the protection of proprietary information provided by the GSEs.¹⁸ FHEFSSA also contained detailed procedural requirements for the exercise of HUD's regulatory authorities.¹⁹

FHEFSSA provided that performance under its income based housing goals—the low- and moderate-income and special affordable housing goals—would be counted based on the actual income of owners and renters. The earlier housing goal regulations governing Fannie Mae had counted performance under the then existing low- and moderate-income housing goal based on house prices and rent levels.²⁰ The previous central cities goal counted Fannie Mae's mortgage purchases in areas designated by the Office of Management and Budget (OMB) as central cities. Following a two year transition, FHEFSSA expanded the central cities goal to include rural and other underserved areas (see discussion below). Under FHEFSSA, the Department is required to establish each of the goals after consideration of certain prescribed factors relevant to the particular goal.²¹

3. Transition Period. For a transition period of calendar years 1993 and 1994, FHEFSSA established statutory targets for purchases by Fannie Mae and Freddie Mac of mortgages on housing for low- and moderate-income families and housing located in OMB-defined central cities; and mortgages on special affordable housing.²² FHEFSSA's targets for (a) low- and moderate-income mortgage purchases; and (b) central cities mortgage purchases were each established at the pre-FHEFSSA goal level of at least 30 percent of the units financed by each GSEs' total mortgage purchases for those years.²³ FHEFSSA's targets for the Special Affordable Housing Goal for the transition years,²⁴ unlike the other targets, were set at no less than a minimum amount of mortgage purchases measured in dollars financed, rather than the percentage of units, with the Fannie Mae goal greater than the Freddie Mac goal. For the transition period, FHEFSSA also set subgoals under the Special Affordable

⁶ U.S. Department of Treasury, *Government Sponsorship of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation* (1996), page 3.

⁷ Section 802(ee) of the Housing and Urban Development Act of 1968 (Pub. L. 90-448, approved August 1, 1968; 82 Stat. 476, 541).

⁸ See sec. 731 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) (Pub. L. 101-73, approved August 9, 1989), which amended the Freddie Mac Act.

⁹ See 24 CFR 81.16(d) and 81.17 (1992 codification).

¹⁰ Pub. L. 102-550; approved Oct. 28, 1992.

¹¹ Sec. 1311 of FHEFSSA; see also sec. 1313 of FHEFSSA. FHEFSSA charged OFHEO with designing and administering a stress test for capital adequacy and risk-based capital standards to ensure the financial safety and soundness of the GSEs. The proposed rule containing the risk-based capital requirements was published by OFHEO in the **Federal Register** (Vol. 64, No. 70) on April 13, 1999. Hereafter, unless otherwise specified, all section citations are citations to the Federal Housing Enterprises Financial Safety and Soundness Act of 1992.

¹² Sec. 1321.

¹³ See generally secs. 1331–34.

¹⁴ Sec. 1325(1)–(6).

¹⁵ Sec. 1322.

¹⁶ Sec. 1327.

¹⁷ See secs. 1381(o)–(p), 1382(r)–(s).

¹⁸ Secs. 1323, 1326.

¹⁹ Secs. 1322, 1336, and 1341–49.

²⁰ 24 CFR 81.2(1)(3) (1992 codification). Under the previous regulations, "housing for low- and moderate-income families" included "any single family dwelling * * * purchased at a price not in excess of 2.5 times the median family income * * * for the Standard Metropolitan Statistical Area."

²¹ Secs. 1332(b), 1333(a)(2), 1334(b).

²² Secs. 1332(d), 1333(d), and 1334(d).

²³ Secs. 1332(d)(1) and 1334(d)(1).

²⁴ Sec. 1333(d)(1) and (2).

Housing Goal for purchases of single family and multifamily mortgages.

FHEFSSA required HUD to establish interim goals for the transition period to improve the GSEs' performances relative to the statutory targets for low- and moderate-income and central cities mortgage purchases so that the GSEs would meet the targets by the end of the transition period.²⁵ Following the transition, the Department would establish the goals under the statutory factors and FHEFSSA required the Department to establish a broader underserved areas goal inclusive of rural and other underserved areas as well as central cities to be defined by HUD.

On October 13, 1993, HUD published notices in the **Federal Register** establishing the interim goals and subgoals for the GSEs' mortgage purchases, and requirements for implementing those goals.²⁶ For Fannie Mae, HUD set the interim goal for housing for low- and moderate-income families at 30 percent of the units financed by mortgage purchases for 1993 and 1994;²⁷ for housing located in central cities at 28 percent for 1993 and 30 percent for 1994;²⁸ and for special affordable housing at \$16.4 billion over the 1993–94 transition period.²⁹ For Freddie Mac, HUD set the interim goal for housing for low- and moderate-income families at 28 percent of the units financed by mortgage purchases for 1993 and 30 percent for 1994;³⁰ the interim goal for housing located in central cities at 26 percent for 1993 and 30 percent for 1994;³¹ and for special affordable housing at \$11.9 billion over the 1993–94 transition period.³² On November 30, 1994,³³ HUD extended the 1994 goals for both GSEs through 1995 while the Department completed its development of post transition goals.

Both GSEs surpassed their goals for low- and moderate-income housing in 1993, 1994, and 1995. Neither GSE met its central cities goal in 1993; while Fannie Mae successfully met its central cities goal for 1994 and 1995, Freddie Mac never achieved its central cities goal during the transition period from 1993 through 1995. Both GSEs exceeded their respective special affordable housing goals and their respective single family subgoals. Fannie Mae also exceeded its multifamily subgoals for the transition period. Although Freddie Mac did not achieve the multifamily subgoal during the 1993 through 1994 period, Freddie Mac's multifamily purchases increased every year during the transition period such that Freddie Mac did achieve its multifamily subgoal in 1995.

4. HUD's 1995 Rulemaking. The Department issued proposed and final rules in 1995 to establish and implement the housing goals for the years 1996 through 1999, and to implement the Department's other authorities in FHEFSSA.³⁴ These regulations replaced HUD's previous regulations governing Fannie Mae, and for the first time established regulations governing Freddie Mac. HUD benefited from substantial comment during the rulemaking process from the public, the GSEs, and representatives of lenders, developers, nonprofit groups, public interest organizations, other Federal agencies and academic experts. Through the 1995 rulemaking, HUD established counting requirements for the goals, revised and streamlined the special affordable housing goal, and redefined the central cities goal to target those geographic areas of central cities, rural areas, and other areas that are underserved by mortgage credit, including those areas—metropolitan and non-metropolitan—with low median incomes and/or high minority populations that typically experience the highest mortgage denial rates and the lowest mortgage origination rates. The new regulations also prohibit the GSEs from discriminating in their mortgage purchases, implement procedures by which HUD exercises its authority to review new programs of the GSEs, require reports from the GSEs, operate a public use data base on the GSEs' mortgage purchase activities while protecting confidential and proprietary information, and enforce HUD's authorities under FHEFSSA.

In setting the first, post-transitional period housing goals for the years 1996

through 1999, HUD sought to recognize the unique position the GSEs occupy in the nation's housing finance system and to ensure that, consistent with their Congressional mandates, the GSEs provide leadership in expanding housing opportunities and providing wider access to mortgage credit. In establishing each of the housing goals, HUD considered the factors presented in FHEFSSA, including national housing needs; economic, housing, and demographic conditions; the previous performance and effort of the GSEs in achieving the specific goal; the size of the primary mortgage market for that goal; the ability of the GSEs to lead the industry; and the need to maintain the sound financial condition of the GSEs.³⁵ HUD established the goals under the factors, based on its estimates of the market share at that time, at levels that were reasonable and appropriate, reflecting a margin to compensate for the cyclical nature of mortgage markets and the unpredictability of other economic indicators, and allowing the GSEs flexibility in choosing how to achieve the goals.³⁶ Recognizing the GSEs' and others concerns about need for predictability in order to manage their business operations, HUD established the levels of the goals for a four-year period. The rule provides that the housing goals for 1999 may continue beyond 1999 if the Department does not change the goals, and explained that HUD, under FHEFSSA may change the level of the goals for the years 2000 and beyond based upon HUD's experience and in accordance with HUD's statutory authority and responsibility.

In the 1995 rulemaking, HUD established the annual goals for each GSE's purchases of mortgages on housing for low- and moderate-income families as follows: for 1996, at 40 percent of the total number of dwelling units financed by each GSE's mortgage purchases; and for each of the years 1997 through 1999, at 42 percent of the total number of dwelling units financed by each GSE's mortgage purchases.³⁷ HUD established the following annual goals for purchases of mortgages on housing located in central cities, rural areas, and other underserved areas: 21 percent of the total number of dwelling units financed by each GSE's mortgage purchases for 1996; and 24 percent of the total number of dwelling units financed by each GSE's mortgage purchases for each of the years 1997

²⁵ Secs. 1332(d)(2)(A) and 1334(d)(2)(A).

²⁶ 58 FR 53048, 53072.

²⁷ 58 FR 53049.

²⁸ *Id.*

²⁹ HUD arrived at this amount of \$16.4 billion by doubling Fannie Mae's good faith estimate of its mortgage purchases that would have qualified for the Special Affordable Housing Goal in 1992 (*i.e.*, \$5.85 billion in single family mortgage purchases and \$1.34 billion in multifamily mortgage purchases), and adding the \$2 billion increment specified in section 1333(d)(1) of FHEFSSA. See 58 FR 53049.

³⁰ 58 FR 53072.

³¹ *Id.* at 53073.

³² HUD arrived at this amount of \$11.9 billion by doubling Freddie Mac's good faith estimate of its mortgage purchases that would have qualified for the Special Affordable Housing Goal in 1992 (*i.e.*, \$5.19 billion in single family mortgage purchases and \$0.02 billion in multifamily mortgage purchases), and adding the \$1.5 billion increment specified in section 1333(d)(2) of FHEFSSA. See 58 FR 53073.

³³ 59 FR 61504.

³⁴ HUD issued the proposed rule on February 16, 1995 (60 FR 9154) and the final rule on December 1, 1995 (60 FR 61846).

³⁵ Sec. 1332.

³⁶ 60 FR 61851.

³⁷ 24 CFR 81.12.

through 1999.³⁸ HUD established the annual goals for purchases of mortgages on special affordable housing as follows: for 1996, at 12 percent of the total number of dwelling units financed by each GSE's mortgage purchases; and for each of the years 1997 through 1999, at 14 percent of the total number of dwelling units financed by each GSE's mortgage purchases. The Special Affordable Housing Goal includes a subgoal for mortgage purchases financing dwelling units in multifamily housing set at 0.8 percent of the dollar volume of mortgages purchased by the respective GSE in 1994³⁹—\$1.29 billion annually for Fannie Mae and \$988 million annually for Freddie Mac. As described in more detail below, through 1998, the GSEs have met and in some cases exceeded the housing goals that HUD set for the 1996 to 1999 period.

C. Secretary's Approach to Regulating the Enterprises

As explained previously, the GSEs are Congressionally-chartered entities that enjoy substantial public benefits. Through these public benefits and successful corporate management strategies, the GSEs have continued to grow and to earn substantial profits for their shareholders.

In return for the public benefits they receive, Congress has mandated in the GSEs' Charter Acts that the GSEs carry out public purposes not required of other private sector entities in the housing finance industry. The GSEs' Charter Acts require them to continually assist in the efficient functioning of the secondary market for residential mortgages, including mortgages for low- and moderate-income families that may involve a reasonable economic return that is less than the economic return on other mortgages, and to promote access to mortgage credit throughout the nation, including central cities, rural areas, and other underserved areas. These requirements create an obligation for the GSEs to work to ensure that everyone throughout the country has a reasonable opportunity to enjoy access to the mortgage financing benefits resulting from the activities of these Federally-sponsored entities.

The GSEs have achieved an important part of their mission: providing stability and liquidity to large segments of the housing finance markets. As a result of the GSEs' activities, many home buyers have benefited from lower interest rates and increased access to capital, contributing, in part, to a record national homeownership rate of 66.3

percent in 1998. While the GSEs have been successful in providing stability and liquidity to certain portions of the mortgage market, the GSEs must further utilize their entrepreneurial talents and power in the marketplace and "lead the mortgage finance industry" to "ensure that citizens throughout the country enjoy access to the public benefits provided by these federally related entities."⁴⁰

Despite the record national homeownership rate in 1998, lower rates have prevailed for certain minorities, especially for African-American households (45.9 percent) and Hispanics (45.7 percent). These gaps are only partly explained by differences in income, age, and other socioeconomic factors. Disparities in mortgage lending are also reflected in loan denial rates of minority groups when compared to white applicants. Denial rates for conventional (non-government-backed) home purchase mortgage loans in 1997 were 53 percent for African Americans, 52 percent for Native American applicants, 38 percent for Hispanic applicants, 26 percent for White applicants, and 13 percent for Asian applicants.⁴¹ Despite strong economic growth, low unemployment, the lowest mortgage rates in more than 30 years, and relatively stable home prices, housing problems continue to persist for low-income families and certain minorities.

Certain segments of the population have not benefited to the same degree as have others from the advantages and efficiencies provided by Fannie Mae and Freddie Mac. The GSEs have been much less active in markets where there is a need for additional financing sources to address persistent housing needs including small multifamily rental properties, manufactured housing, single family owner-occupied rental properties, seasoned affordable housing mortgages, and older housing in need of rehabilitation.

While HUD recognizes that the GSEs have played a significant role in the mortgage finance industry by providing a secondary market and liquidity for mortgage financing for certain segments of the mortgage market, it is this recognition of their ability, along with HUD's comprehensive analyses of the size of the mortgage market and the opportunities available, America's unmet housing needs, identified credit gaps, and its consideration of all the statutory factors that causes HUD to propose increased goals so that as the GSEs grow their businesses they will

address new markets and persistent housing finance needs.

D. Statutory Considerations in Setting the Level of the Housing Goals

In establishing the housing goals, FHEFSSA requires the Department to consider six factors—national housing needs; economic, housing and demographic conditions; performance and effort of the GSEs toward achieving the goal in previous years; size of the conventional mortgage market serving the targeted population or areas, relative to the size of the overall conventional mortgage market; ability of the GSEs to lead the industry in making mortgage credit available for the targeted population or areas; and the need to maintain the sound financial condition of the GSEs. These factors are discussed in more detail in the following sections of this preamble and in the Appendices to this proposed rule. A summary of HUD's findings relative to each factor follows:

1. *National Housing Needs.* Analysis and research by HUD and others in the housing industry indicate that there are, and will continue to be in the foreseeable future, substantial housing needs among lower-income and minority families. Data from the 1990 Census and the American Housing Surveys demonstrate that there are substantial unmet housing needs among lower-income families. Many households are burdened by high homeownership costs or rent payments and will likely continue to face serious housing problems, given the dim prospects for earnings growth in entry-level occupations. According to HUD's "Worst Case Housing Needs" report, 21 percent of owner households faced a moderate or severe cost burden in 1995. Affordability problems were even more common among renters, with 40 percent paying more than 30 percent of their income for rent in 1995.⁴²

Despite the growth during the 1990s in affordable housing lending, disparities in the mortgage market remain, with certain minorities, particularly African-American and Hispanic families, lagging the overall market in rate of homeownership. In addition, there is evidence that the aging stocks of single family rental properties and small multifamily properties with 5–50 units, which play a key role in lower-income housing, have been affected by difficulties in obtaining credit. The ability of the

³⁸ 24 CFR 81.13.

³⁹ 24 CFR 81.14.

⁴⁰ S. Rep. No. 282, 102d Cong., 2d Sess. 34 (1992).

⁴¹ FFIEC Press Release, August 6, 1998.

⁴² Rental Housing Assistance—The Crisis Continues: The 1997 Report to Congress on Worst Case Housing Needs, Department of Housing and Urban Development, Office of Policy Development and Research, (April 1998).

nation to maintain the quality and availability of the existing affordable housing stock and to stabilize neighborhoods depends on an adequate supply of affordable credit to rehabilitate and repair older units.

a. *Single Family Mortgage Market.* Many younger, minority, and lower-income families did not become homeowners during the 1980s due to the slow growth of earnings, high real interest rates, and continued house price increases. Over the past six years, economic expansion, accompanied by low interest rates and increased outreach on the part of the mortgage industry, has improved affordability conditions for lower-income families. Between 1994 and 1998, record numbers of lower-income and minority families purchased homes. First time homeowners have become a major driving force in the home purchase market over the past five years. Thus, the 1990s have seen the development of a strong affordable lending market. However, despite the growth of lending to minorities, disparities in the mortgage market remain. For example, African-American applicants are still twice as likely to be denied a loan as white applicants, even after controlling for income.

b. *Multifamily Mortgage Market.* Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, although not to the same degree as the single family mortgage market. Loans on multifamily properties are still viewed as riskier by some than mortgages on single family properties. Property values, vacancy rates, and market rents in multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced for single family mortgages.

Recent volatility in the market for Commercial Mortgage Backed Securities (CMBS), an important source of financing for multifamily properties, underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by the fact that an increasing proportion of multifamily mortgages are now originated in accordance with secondary market standards.

The GSEs can play a role in promoting liquidity for multifamily mortgages and increasing the availability of long-term, fixed rate financing for these properties. Increased GSE presence would provide greater liquidity to lenders, *i.e.*, a viable "exit strategy," that in turn would serve to

increase their lending. It appears that financing of small multifamily rental properties with 5–50 units, where a substantial portion of the nation's affordable housing stock is concentrated, have been adversely affected by excessive borrowing costs. Multifamily properties with significant rehabilitation needs also appear to have experienced difficulty gaining access to mortgage financing. Moreover, the flow of capital into multifamily housing for seniors has been historically characterized by a great deal of volatility.

2. *Economic, Housing, and Demographic Conditions.* Studies indicate that changing population demographics will result in a need for the mortgage market to meet nontraditional credit needs and to respond to diverse housing preferences. The U.S. population is expected to grow by an average of 2.4 million per year over the next 20 years, resulting in 1.1 to 1.2 million new households per year. In particular, the continued influx of immigrants will increase the demand for rental housing while those who immigrated during the 1980s will be in the market to purchase owner-occupied housing. The aging of the baby-boom generation and the entry of the smaller baby-bust generation into prime home buying age is expected, however, to have a dampening effect on housing demand. Non-traditional households have, and will, become more important, as overall household formation rates slow down. With later marriages, divorce, and non-traditional living arrangements, the fastest growing household groups have been single-parent and single-person households. With continued house price appreciation and favorable mortgage terms, "trade-up buyers" will also increase their role in the housing market. There will also be increased credit needs from new and expanding market sectors, such as manufactured housing and housing for senior citizens. These demographic trends will lead to greater diversity in the homebuying market, which, in turn, will require greater adaptation by the primary and secondary mortgage markets.

As a result of the above demographic forces, housing starts are expected to average 1.5 million units between 1999 and 2003, essentially the same as in 1996–98.⁴³ Refinancing of existing mortgages, which accounted for 50 percent of originations in 1998, has continued to play a major role in 1999, but is expected to return to more normal

levels during 2000. Thus, the mortgage market remained strong with over one trillion dollars in expected originations in 1999, and a somewhat lower number of originations are expected in 2000.

3. *Performance and Effort of the GSEs Toward Achieving the Goal in Previous Years.* Both Fannie Mae and Freddie Mac have improved their affordable housing loan performance over the past five years. However, the GSEs' mortgage purchases continue to lag the overall market in providing financing for affordable housing to underserved borrowers and their neighborhoods, indicating that there is more that the GSEs can do to improve their performance. In addition, a large percentage of the lower-income loans purchased by the GSEs have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of those lower-income families which have little cash for making large down payments but can fully meet their monthly obligations. The discussion of the performance and effort of the GSEs toward achieving the housing goals in previous years is specific to each of the three housing goals. This topic is discussed further in Section II., B., "Subpart B—Housing Goals" below and in the Appendices to this proposed rule.

4. *Size of the Conventional Mortgage Market Serving the Targeted Population or Areas, Relative to the Size of the Overall Conventional Mortgage Market.* The Department's analyses indicate that the size of the conventional conforming market relative to each housing goal is greater than earlier estimates based mainly on HMDA data for 1992 through 1994 used in establishing the 1995–1999 housing goals. Due to inherent uncertainty about future market conditions, HUD has developed a plausible range under each goal, rather than a point estimate, for the current market. The discussion of the size of the conventional mortgage market serving targeted populations or areas relative to the size of the overall conventional mortgage market is specific to each of the three housing goals. The Department's estimate of the size of the conventional mortgage market is discussed further below in Section I, "Setting the Level of the Housing Goals," Section II., B., "Subpart B—Housing Goals" and in the Appendices to this proposed rule.

5. *Ability of the GSEs to Lead the Industry in Making Mortgage Credit Available for the Targeted Population or Areas.* Research concludes that the GSEs have generally not been leading the market, but have lagged behind the primary market in financing housing for

⁴³ Standard & Poor's DRI Review of the U.S. Economy. (September 1999), p. 53–55.

lower-income families and their communities. However, the GSEs' state-of-the-art technology, staff resources, share of the total conventional conforming market, and their financial strength suggest that the GSEs have the ability to lead the industry in making mortgage credit available for lower-income families and underserved neighborhoods.

The legislative history of FHEFSSA indicates Congress's strong concern that the GSEs need to do more to benefit low- and moderate-income families and the residents of underserved areas that lack access to credit.⁴⁴ The Senate Report on FHEFSSA emphasized that the GSEs should "lead the mortgage finance industry in making mortgage credit available for low- and moderate-income families."⁴⁵ FHEFSSA, therefore, specifically required that HUD consider the ability of the GSEs to lead the industry in establishing the level of the housing goals. FHEFSSA also clarified the GSEs' responsibility to complement the requirements of the Community Reinvestment Act⁴⁶ and fair lending laws⁴⁷ in order to expand access to capital to those historically underserved by the housing finance market.

During the 1995 rulemaking, HUD received comments regarding what it means for the GSEs to "lead the industry." The GSEs themselves and others pointed out that the GSEs are often "leaders" through their introduction of innovative products, technology, and processes. For example, both GSEs have introduced technological advances through their development of automated underwriting systems. Fannie Mae has also developed state-of-the-art mapping software for use by lenders, nonprofit organizations, and State and local governments to help implement community lending programs. In addition, Fannie Mae has established partnership offices in more than 30 cities, allowing it to reach out to local lenders and affordable housing groups regarding Fannie Mae's programs. While Freddie Mac has not established partnership offices, it has established alliances at the national and local level to expand affordable housing opportunities. Nonetheless, while the GSEs are "leaders" in these areas, leadership also involves increasing the availability of financing for homeownership and affordable rental housing. Thus, the GSEs' obligation to "lead the industry" also entails

leadership in facilitating access to affordable credit in the primary market for borrowers at different income levels and housing needs, as well as for underserved urban and rural areas.

While the GSEs cannot be expected to solve all of the nation's housing problems, the efforts of Fannie Mae and Freddie Mac have not matched the opportunities that are available in the primary mortgage market. Although the GSEs were directed by Congress to "lead the mortgage finance industry in making mortgage credit available for low- and moderate-income families," depository institutions have been more successful than the GSEs in providing affordable loans to lower income borrowers and in historically underserved neighborhoods.

For example, very low-income borrowers accounted for 9.9 percent of Freddie Mac's purchases of home loans in 1998, 11.4 percent of Fannie Mae's purchases, 15.2 percent of home loans originated and retained by depository institutions, and 13.3 percent of home purchase mortgages originated in the overall conventional conforming market. Similarly, mortgage purchases on properties located in underserved areas accounted for 20.0 percent and 23.5 percent of Freddie Mac's and Fannie Mae's purchases of home loans, respectively, 26.1 percent of home purchase mortgages originated and retained by depository institutions and 24.6 percent of home purchase mortgages originated in the overall conventional conforming market. Since 1992, Fannie Mae has improved its affordable lending performance and has made progress toward closing the gap between its performance and that of the overall mortgage market. Freddie Mac has shown less improvement and, as a result, has not made as much progress in closing the gap between its performance and that of the overall market for home loans.

The GSEs have been much less active in providing financing for the multifamily rental housing market. In 1997, Fannie Mae's multifamily purchases amounted to \$6.9 billion and Freddie Mac's, \$2.7 billion, for total multifamily purchases of \$9.6 billion. The GSEs' purchases have accounted for approximately 22 percent of the multifamily dwelling units that were financed in 1997. By way of comparison, HUD estimates that 4.9 million units were financed by mortgages on single family owner-occupied properties in 1997, and the GSEs have financed 2.4 million, or 49 percent of these units. Thus, the GSEs' presence in the multifamily mortgage market was less than one-half of their presence in the market for mortgages on

single family owner-occupied properties.

In addition, the GSEs continue to lag the overall conforming, conventional market in providing affordable home purchase loans to underserved neighborhoods. During 1998, mortgages financing housing in underserved census tracts (as defined by HUD)⁴⁸ accounted for 20.0 percent of Freddie Mac's single family mortgage purchases, compared with 22.9 percent of Fannie Mae's single family mortgage purchases, 26.1 percent of mortgage loans originated and held in portfolio by depository institutions, and 24.6 percent of the overall conforming conventional mortgage market. Fannie Mae has improved its performance in underserved areas to almost reach market levels. However, Freddie Mac has made much less progress through 1998 in serving families living in underserved neighborhoods.

Additionally, a large percentage of the lower-income loans purchased by both GSEs have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of lower-income families, who find it difficult to raise enough cash for a large down payment. Also, while single family rental properties are an important source of low- and moderate-income rental housing, they represent only a small portion of the GSEs' business.

The Appendices to this proposed rule provide more information on HUD's analysis of the extent to which the GSEs have not led the mortgage industry in funding loans to underserved borrowers and neighborhoods. From this analysis of the GSEs' performance in comparison with the primary mortgage market and with other participants in the mortgage markets, it is clear that the GSEs need to improve their performance relative to the primary market of conforming conventional mortgage lending. The need for improvements in the GSEs' performance is especially apparent with respect to the single family and multifamily rental markets.

6. Need to Maintain the Sound Financial Condition of the GSEs. Based on HUD's economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the proposed level of the goals will not adversely affect the sound financial condition of the GSEs.

E. Setting the Level of the Housing Goals

There are several reasons the Department, having considered all the

⁴⁴ See, e.g., S. Rep. at 34.

⁴⁵ S. Rep. at 34.

⁴⁶ 12 U.S.C. 2901 *et seq.*

⁴⁷ See section 1335(3)(B).

⁴⁸ 24 CFR 81.2(b).

statutory factors, is proposing increases in the housing goals.

1. *Market Needs and Opportunities.*

First, the GSEs appear to have substantial room for growth in serving the affordable housing mortgage market. For example, the Department calculated that the two GSEs' mortgage purchases accounted for 39 percent of the total conventional mortgage market during 1997 (as measured by the total number of units financed by the GSEs). In contrast, GSE purchases comprised only 30 percent of the low- and moderate-income mortgage market in 1997, 33 percent of the underserved areas market, and, a still smaller, 24 percent of the special affordable market.

The GSEs' role in the mortgage market varies somewhat from year to year in response to changes in interest rates, mortgage product types, and a variety of other factors. But underlying market trends show a clear and significant increase in the GSEs' role. Specifically, OFHEO estimates that the share (in dollars) of single-family mortgages outstanding accounted for by mortgage-backed securities issued by the GSEs and by mortgages held in the GSEs' portfolios has risen from 31 percent in 1990 to 37 percent in 1992, 40 percent in 1994, 43 percent in 1996, and 45 percent in 1998. In absolute terms, the GSEs' presence has grown even more sharply, as the total volume of single-family mortgage debt outstanding has increased rapidly over this period.

The GSEs have indicated that they expect their role in the mortgage market to continue to increase in the future, as they develop new products, refine existing products, and enter markets where they have not played a major role in the past. The Department's goals for the GSEs also anticipate that their involvement in the mortgage market will continue to increase.

The Department estimates that 7.4 million owner-occupied and rental units were financed by conventional conforming mortgages in 1997, and that the GSEs provided financing for 39 percent, or 2.9 million, of these units. However, the GSEs' mortgage market presence varies significantly by property type—while they accounted for about 49 percent of the owner-occupied units financed in the primary market in that year, their role was much less in the mortgage market for mortgages on rental properties.

Specifically, HUD estimates that Fannie Mae and Freddie Mac accounted for only about 19 percent of rental units financed in 1997. And within the rental category, the GSEs have yet to play a major role in financing mortgages for single family rental properties—those

with at least one rental unit and no more than four units in total.

For the types of units covered by HUD's goals, the GSEs' role is significantly less than their overall market presence of 39 percent. Specifically, HUD estimates that Fannie Mae and Freddie Mac financed 33 percent of the units that qualified for the Geographically Targeted Goal. The GSEs' role was even lower for HUD's other two goals—they financed just 31 percent of units qualifying for the Low- and Moderate-Income Housing Goal, and only 24 percent of special affordable units, for very low-income families and low-income families in low-income areas.

There are a number of relatively untapped segments of the multifamily, single-family owner, and single-family rental markets where the GSEs might play an enhanced role and thereby increase their shares of targeted loans and their performance on the housing goals. Six such areas are discussed below.

a. *Small Multifamily Properties.* One sector of the multifamily mortgage market where the GSEs could play an enhanced role involves loans on small multifamily properties—those containing 5–50 units. The GSEs typically purchase relatively few of these loans, which account for 37 percent of the stock of all multifamily units in mortgaged properties, according to the 1991 Survey of Residential Finance.

HUD estimates that the GSEs acquired loans financing only four percent of units in small multifamily properties originated during 1995 through 1997. This is substantially less than the GSEs' presence in the overall multifamily mortgage market, which the Department estimates was 22 percent in 1997.

Increased purchases of small multifamily mortgages would make a significant contribution to performance on the goals, since the percentages of these units qualifying for the income-based housing goals are high—in 1998, 94 percent of units backing both GSEs' combined multifamily mortgage purchases qualified for the Low- and Moderate-Income Housing Goal and about 55 percent of units backing Freddie Mac's multifamily mortgage purchases met the Special Affordable Housing Goal.⁴⁹

b. *Multifamily Rehabilitation Loans.* Another multifamily market segment holding potential for expanded GSE

presence involves properties with significant rehabilitation needs.

Properties that are more than 10 years old are typically classified as "C" or "D" properties, and are considered less attractive than newer properties by many lenders and investors. Fannie Mae's underwriting guidelines for negotiated transactions state that "the Lender is required to use a more conservative underwriting approach" for transactions involving properties 10 or more years old. Fannie Mae funding for rehabilitation projects is generally limited to \$6,000 per unit. Multifamily rehabilitation loans accounted for only 0.5 percent of units backing Fannie Mae's 1998 purchases. Freddie Mac's purchases of multifamily rehabilitation loans in 1998 were 1.9 percent of its multifamily total.

c. *Single Family Rental Properties.* Studies show that single family rental properties are a major source of affordable housing for lower-income families. Yet, these properties are only a small portion of the GSEs' overall business.

HUD estimates that approximately 127,000 mortgages were originated on owner-occupied single-family rental properties in 1997. These mortgages financed a total of 286,000 units—the owner units plus an additional 159,000 rental units. Data submitted to HUD by the GSEs indicates that the GSEs combined to finance 94,000 such units, only 33 percent of the units financed in the primary market.

There is ample room for an enhanced GSE role in this "goal-rich" market. For the GSEs combined, 64 percent of the units in these properties qualified for the low-mod goal in 1997, 33 percent qualified for the special affordable goal, and 56 percent qualified for the underserved areas goal. Thus significant gains could be made in performance on all of their goals if Fannie Mae and Freddie Mac played a larger role in the market for mortgages on single-family 2–4 unit owner-occupied properties.

d. *Manufactured Homes.* The Manufactured Housing Institute, in its Annual Survey of Manufactured Home Financing, reported that 116 reporting institutions originated \$15.6 billion in consumer loans on manufactured homes in 1998, and that, with an average loan amount of about \$30,000, approximately 520,000 loans were originated.

While the GSEs have traditionally played a minimal role in financing manufactured housing, they have recently stepped up their activity. But, even with this stepped-up activity in this market, the GSEs' purchases probably accounted for less than 15 percent of total loans on manufactured

⁴⁹Fannie Mae did not obtain some of the data necessary to qualify many of their multifamily loans for the Special Affordable Housing Goal.

homes in 1998—a figure well below their overall market presence of 39 percent.

There is ample room for an enhanced GSE role in this market, with its high concentration of goals-qualifying mortgage loans. For loans reported in 1998 in accordance with HMDA by 21 manufactured housing lenders, 76 percent qualified for the low-mod goal in 1998, 42 percent qualified for the special affordable goal, and 47 percent qualified for the underserved areas goal. Thus manufactured housing has significantly higher shares of goal-qualifying loans than all single-family owner-occupied properties, though they are not quite as “goal-rich” as loans on multifamily properties. In general, though, goal performance could be enhanced substantially if the GSEs were to play an increased role in the manufactured housing mortgage market.

e. *A-Minus Loans.* Industry sources estimate that subprime mortgage originations amounted to about \$125 billion in 1997, and that these loans are divided evenly between the more creditworthy (“A-minus”) subprime borrowers and less creditworthy (“B,” “C,” and “D”) borrowers. Based on HMDA data for 200 subprime lenders, the Department estimates that 58 percent of the units financed by subprime loans qualified for the low-mod goal in 1997, 29 percent qualified for the special affordable goal, and 45 percent qualified for the underserved areas goal.

Freddie Mac has begun to purchase loans originated in the A-minus mortgage market, as long as the loans are processed through its Loan Prospector system. Freddie Mac has estimated that 10–30 percent of subprime borrowers would qualify for a prime conventional loan. Freddie Mac has also purchased subprime loans through structured transactions that limit Freddie Mac’s risk to the “A” piece of a senior-subordinated transaction. Fannie Mae recently introduced a program aimed at borrowers with past credit problems that would lower the interest rates for those borrowers that were timely on their mortgage payments.

However, there is ample room for further enhancement of both GSEs’ roles in the A-minus market. A larger role by the GSEs could help standardize mortgage terms in this market, which would lead to lower interest rates.

f. *Seasoned Mortgages.* Over the past five years, depository institutions (banks and thrifts) have been expanding their affordable loan programs and, as a result, have originated substantial numbers of loans to low-income and

minority borrowers and their neighborhoods. Much of this outreach to underserved communities is due to the Community Reinvestment Act (CRA), which requires depository institutions to help meet the credit needs of their communities. A large number of the “CRA-type” loans that have recently originated remain in thrift and bank portfolios; selling these loans on the secondary market would free up capital for depositories to originate new CRA loans. Given its enormous size, the CRA market segment provides an opportunity for Fannie Mae and Freddie Mac to expand their affordable lending programs. While some of these loans, when originated, may not have met the GSE’s underwriting guidelines, it appears they are beginning to be purchased by GSEs after the loans have seasoning and through various structured transactions. As explained in Appendix A, Fannie Mae is beginning to purchase these seasoned loans, which has improved its performance on the housing goals. Freddie Mac, on the other hand, has not been as active as Fannie Mae in purchasing seasoned “CRA-type” loans. With billions of dollars worth of CRA loans in bank portfolios, the early experience of Fannie Mae suggests that this could not only be an important strategy for reaching the housing goals but could also provide needed liquidity for a market that is serving the needs of low-income and minority homeowners.

2. *Market Share Higher Than Goal Levels.* The shares of the mortgage markets that qualify for each of the housing goals are higher than the current goals. Specifically, the current Low-and Moderate-Income Housing Goal for 1997 through 1999 is 42 percent, but the market share for low-and moderate-income mortgages is estimated at 50–55 percent. The Geographically Targeted Goal for 1997 through 1999 is 24 percent, but the estimated market share of geographically targeted mortgages is 29–32 percent. The Special Affordable Housing Goal for 1997 through 1999 is 14 percent, but the estimated special affordable market share is 23–26 percent.⁵⁰ Thus, the proposed increases in the housing goals, described below, will significantly reduce the disparities that currently exist between the housing goals and HUD’s market estimates. HUD’s analysis indicates that the proposed goals are reasonable and

⁵⁰ The low-and moderate-income market share is the estimated proportion of newly mortgaged units in the market serving low-and moderate-income families. The two other shares are similarly defined. HUD’s range of estimates (such as 50–55 percent) reflects uncertainty about future market conditions.

feasible under more adverse economic environments than have recently existed. Reasons for the remaining disparity between the proposed GSE housing goals and the respective shares of the overall mortgage market qualifying for each of the housing goals are discussed below in Section E.7, “Closing The Gap Between the GSEs and The Market.”

3. *Need for Increased Affordable Single Family Mortgage Purchases.* Higher housing goals are needed to assure that both Fannie Mae and Freddie Mac increase their purchases of single family mortgages for lower-income families. The GSEs lag behind depository institutions and other lenders in the conventional conforming market in providing mortgage funds for these underserved families and their neighborhoods. Numerous studies have concluded that Fannie Mae and, especially, Freddie Mac have room to increase their purchases of affordable loans originated by primary lenders. The single family affordable market, which had only begun to grow when HUD set housing goals in 1995, has now established itself with six straight years (1993–1998) of solid performance. Current economic forecasts suggest that the strong housing affordability of the past several years will be maintained in the post-1999 period, leading to additional opportunities for the GSEs to support mortgage lending benefiting families targeted by the housing goals. But, as explained in Appendix D, HUD’s housing market estimates allow for more adverse economic conditions than have existed recently.

4. *Market Disparities.* Despite the recent growth in affordable lending, there are many groups who continue to face problems obtaining mortgage credit and who would benefit from a more active and targeted secondary market. Homeownership rates for lower-income families, certain minorities, and central city residents are substantially below those of other families, and the disparities cannot simply be attributed to differences in income. Immigrants represent a ready supply of potential first-time home buyers and will need access to mortgage credit. Special needs in the market, such as rehabilitation of older 2–4 unit properties, could be helped by new mortgage products and more flexibility in underwriting and appraisal guidelines. The GSEs, along with primary lenders and private mortgage insurers, have been making efforts to reach out to these underserved portions of the markets. However, more needs to be done, and the proposed increases in the housing goals are

intended to encourage additional efforts by Fannie Mae and Freddie Mac.

5. *Impact of Multifamily Mortgage Purchases.* When the 1996–99 goals were established in December 1995, Freddie Mac had only recently reentered the multifamily mortgage market, after an absence in the early 1990s. Freddie Mac has made progress in rebuilding its multifamily mortgage purchase program, with its purchases of these loans rising from \$191 million in 1993 to \$6.6 billion in 1998. Freddie Mac's limited role in the multifamily market was a significant constraint when HUD set the level of the housing goals for 1996 through 1999. While Freddie Mac has made progress by establishing a solid foundation of multifamily mortgage purchases, they

still lag the market in this area.

Accordingly, the Department is proposing to provide Freddie Mac with a temporary adjustment factor for purchases of mortgages in multifamily properties with more than 50 units, as discussed in more detail, below.

6. *Financial Capacity to Support Affordable Housing Lending.* A wide variety of quantitative and qualitative indicators demonstrate that the GSEs' have ample, indeed robust, financial strength to improve their affordable lending performance. For example, the combined net income of the GSEs has risen steadily over the last decade, from \$677 million in 1987 to \$5.1 billion in 1998, an average annual growth rate of 20 percent per year. This financial strength provides the GSEs with the

resources to lead the industry in making mortgage financing available for families and neighborhoods targeted by the housing goals.

7. *Closing the Gap Between the GSEs and the Market.* This section discusses the relationship between the housing goals, HUD's market estimates, and key segments of the affordable market in which the GSEs have had only a weak presence. To lay the groundwork for this discussion, the following table summarizes the Department's findings regarding market estimates and GSE performance as well as the levels of the housing goals during 1997–1999 and the goals proposed here:

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Percentage of Eligible Units Financed:

	1997-1999 Requirement	2001-2003 Proposed Requirements ¹	GSEs' Average Performance 1996-1998 (Fannie Mae/ Freddie Mac)	HUD's Estimated 1995-1997 Market Average ²	HUD's Projected Market Estimate
Low-and Moderate Income Goal	42%	50%	45.1% 42.2%	57.3%	50-55%
Geographically Targeted Goal	24%	31%	28.0% 25.8%	33.1%	29-32%
Special Affordable Housing Goal	14%	20%	15.6% 15.0%	28.6%	23-26%

¹ Proposed year 2000 transition goals are 48 percent, 29 percent, and 18 percent, respectively.

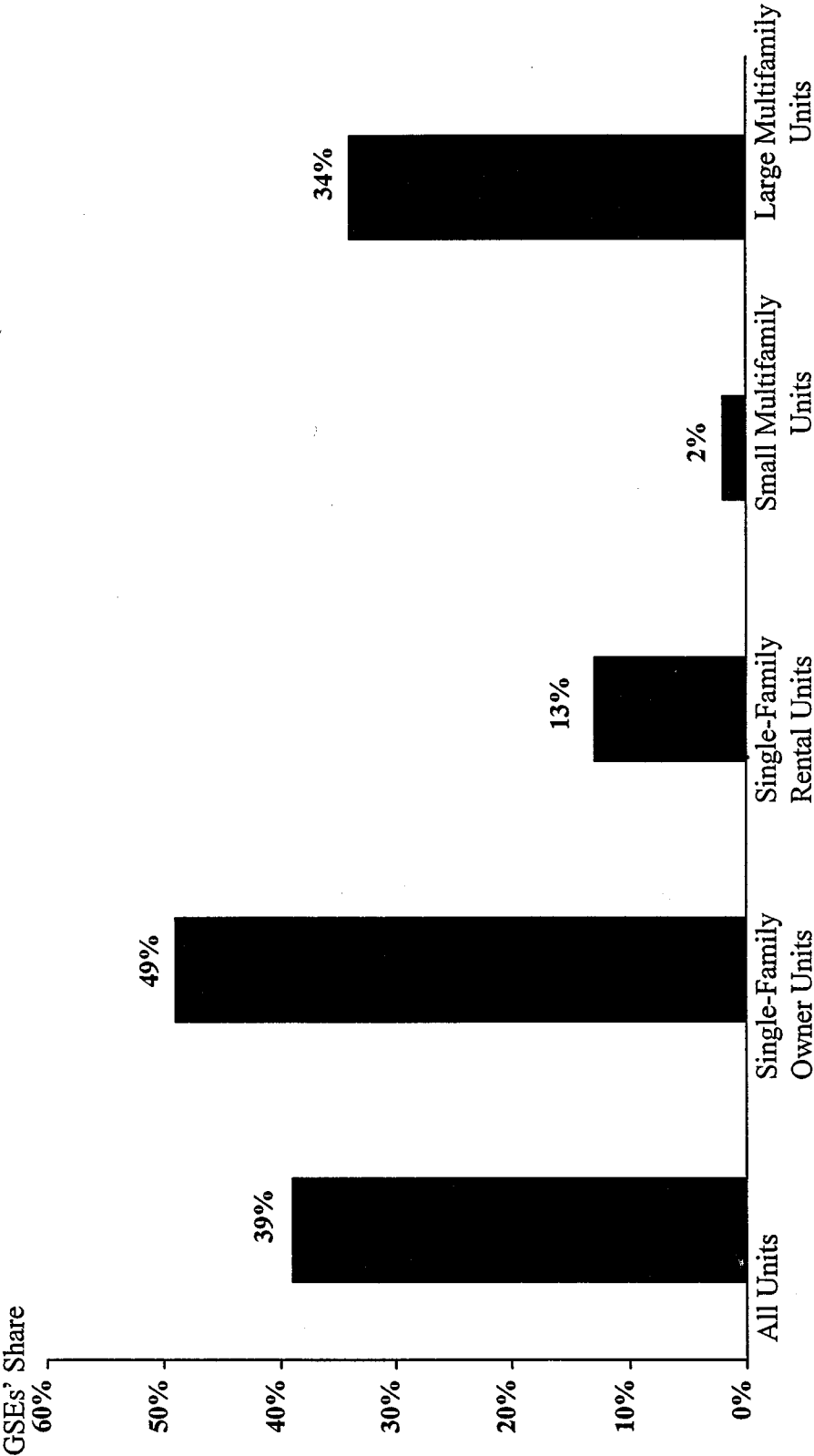
² Appendix D explains the specific reasons the 1995-97 market estimates for the low-mod and special affordable goals are higher than the upper end of HUD's market projections for the years 2000-2003. Based on average 1993-98 experience, HUD's projection model assumes that refinance borrowers have higher incomes than home purchase borrowers; however, during the 1995-97 period, refinance borrowers had lower incomes. The 1995-97 period also exhibited a slightly higher percentage of rental units financed than assumed in HUD's projection model. See Appendix D for other reasons the 1995-97 market estimates are higher than those projected for the years 2000-2003.

It is evident from this table that the proposed Low- and Moderate-Income and Special Affordable Housing Goals are below HUD's projected market estimate for the years (2000–2003) covered by the proposed housing goals. One reason for this disparity involves disaggregating GSE purchases by property type, which shows that the GSEs have little presence in some important segments of the affordable

housing market. For example, as shown in Figure 1, in 1997 the GSEs purchased loans representing only 13 percent of units in single-family rental properties, and only 2 percent of units in small multifamily properties mortgaged that year. (Figure 2 provides additional detail providing unit data comparing the GSEs' with the conventional conforming market). Typically, more than 90 percent of units in single-family rental

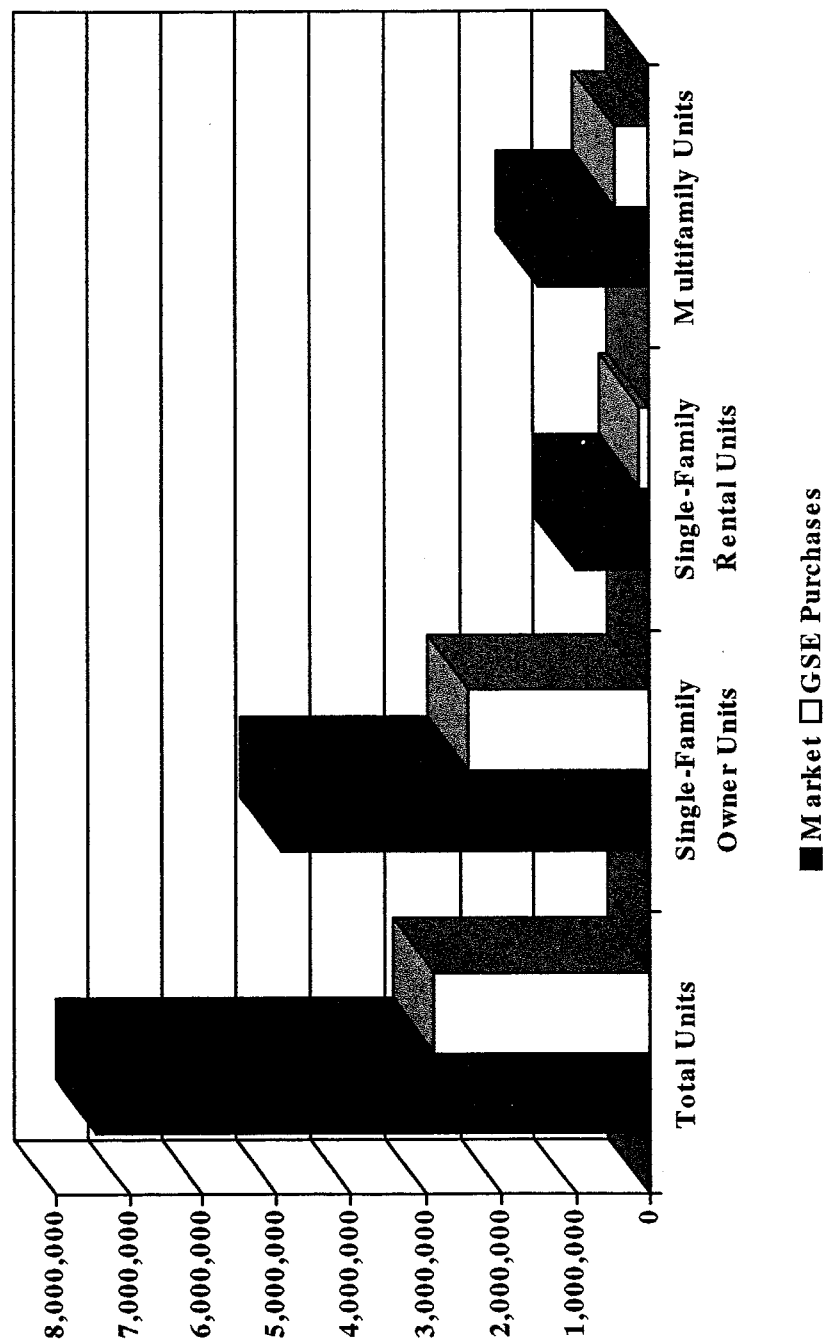
and small multifamily properties qualify for the Low- and Moderate-Income Housing Goal. Thus, one reason why the GSEs' performance on the Low- and Moderate-Income Housing Goal falls short of HUD's market estimate, is that the GSEs have had only a weak and inconsistent presence in financing these important sources of affordable housing, but these market segments are important components in the market estimate.

Figure 1
GSEs' Share of the 1997 Conventional Conforming Market
by Property Type



Source: See Table A7, Appendix A, and discussion of mortgages on small multifamily properties in Appendix A, Section G.

Figure 2
Units in the 1997 Conventional Conforming Mortgage
Market Compared to GSE Purchases
By Property Type



Source: See Table A.7, Appendix A.

The same disparities are seen in figures relating to GSE purchase shares and market shares in the relevant market segments, as utilized by HUD in preparing its market estimates for the Low- and Moderate-Income Housing Goal. In the overall conventional mortgage market, units in single-family rental properties and small multifamily properties are expected to represent approximately 19 percent of the overall mortgage market, and 31 percent of units backing mortgages qualifying for the Low- and Moderate-Income Housing Goal. Yet in 1997, units in such properties accounted for 5.5 percent of the GSEs' overall purchases, and only 10.5 percent of GSE purchases meeting the Low- and Moderate-Income Housing Goal. The continuing weakness in GSE purchases of mortgages on single-family rental and small multifamily properties is a major factor explaining the shortfall between GSE performance and that of the primary mortgage market.

For a variety of reasons, the GSEs have historically viewed the single-family rental and small multifamily market segments as more difficult for them to penetrate than the single-family owner-occupied mortgage market. In order to provide the GSEs with an incentive to enter these markets and provide the benefits of more consistent exposure to secondary markets, HUD is proposing to award "bonus points" for their purchases of mortgages on owner-occupied single-family rental properties and small multifamily properties in calculating credit toward the housing goals, as discussed below. The bonus points will make the Department's proposed housing goals easier for the GSEs to attain if they devote resources to affordable market segments where their past role has been limited. Further, awarding bonus points for these units would have resulted in some increases in the GSEs' performance for the three goals over the 1996–98 period. (See Subpart B, 5a.).

Because of the importance of the GSEs' ability to lead the industry in making mortgage credit available for targeted populations and areas, HUD wishes to solicit comments on the following:

Are the proposed housing goals appropriate given the statutory factors HUD must consider in setting the goals, and in light of the market estimates of the GSEs' share of the affordable housing market?

F. Principles Governing Regulation of the GSEs

In proposing these regulations, the Department was guided by and affirmed

the following principles established in the 1995 rulemaking:

1. To fulfill the intent of FHEFSSA, the GSEs should lead the industry in ensuring that access to mortgage credit is made available for very low-, low- and moderate-income families and residents of underserved areas. HUD recognizes that, to lead the mortgage industry over time, the GSEs will have to stretch to reach certain goals and close the gap between the secondary mortgage market and the primary mortgage market. This approach is consistent with Congress' recognition that "the enterprises will need to stretch their efforts to achieve" the goals.⁵¹

2. The Department's role as a regulator is to set broad performance standards for the GSEs through the housing goals, but not to dictate the specific products or delivery mechanisms the GSEs will use to achieve a goal. Regulating two exceedingly large financial enterprises in a dynamic market requires that HUD provide the GSEs with sufficient latitude to use their innovative capacities to determine how best to develop products to carry out their respective missions. HUD's regulations should allow the GSEs to maintain their flexibility and their ability to respond quickly to market opportunities. At the same time, the Department must ensure that the GSEs' strategies serve all families and markets and address unmet credit needs. The addition of subgoals and/or bonus points to the regulatory structure may provide an additional means of encouraging the GSEs' affordable housing activities to address identified, persistent credit needs while leaving the specific approaches to meeting these needs to the GSEs.

3. Discrimination in lending—albeit sometimes subtle and unintentional—has denied racial and ethnic minorities the same access to credit to purchase a home that has been available to similarly situated non-minorities. The GSEs have a central role and responsibility to promote access to capital for minorities and other identified groups and to thereby exhibit the feasibility of such lending.

4. In addition to the GSEs' purchases of single family home loans, the GSEs also must continue to assist in the creation of an active secondary market for multifamily loans. Affordable rental housing is essential for those families who cannot afford to become homeowners. The GSEs must assist in making capital available to assure the continued development of rental housing.

II. Discussion of Proposed Regulatory Changes

This proposed rule includes changes to definitions applicable to the housing goals, establishment of new housing goal levels, new requirements for counting mortgage purchases under the goals, discussion of possible regulatory incentives intended to spur greater GSE involvement in untapped segments of the affordable housing market, and an expansion of data available to the public on the GSEs' mortgage loan purchases. Much of the analysis referenced in this discussion is based on data through calendar year 1997. Information on the GSEs' mortgage purchases for 1998 is referenced where feasible.

Many of the proposed rule changes, included in the final rule, will involve changes in data reporting requirements. The final rule will identify the specific changes to data reporting necessary to implement any new requirements for counting mortgage purchases under the housing goals.

A. Subpart A—General

Since 1996, as a result of HUD's experience with the 1995 GSE rule, the Department has identified several definitions that require greater clarity to ensure consistent application of the housing goal requirements. Accordingly, some definitional changes are proposed for this purpose. Other definitional changes would be necessary as a result of the proposed changes to the housing goals. These types of definitional changes are discussed in the following Subpart B—Housing Goals.

1. *Definitions.* The following definitions are proposed to be added or revised in order to provide greater clarity, consistency and guidance with regard to this regulation.

a. *Metropolitan Area.* This rule proposes to revise the existing definition of "Metropolitan Area" to correct an ambiguity in the relevant area for defining median incomes. "Metropolitan Area" is defined in § 81.2 of the current regulation as a "metropolitan statistical area (MSA), a primary metropolitan statistical area (PMSA), or a consolidated metropolitan statistical area (CMSA), designated by the Office of Management and Budget of the Executive Office of the President." This definition gives rise to an ambiguity in the definitions of underserved area and the denominator of the affordability ratio used to compute the Low- and Moderate-Income Housing Goal and Special Affordable Housing Goal in whether to use the median income of the CMSA or the PMSA. For example, the underserved

⁵¹ See footnote 40.

area definition requires that the denominator be the metropolitan area median income. Should the median income of a census tract in Washington, D.C. be compared to median income of the Washington PMSA or the Baltimore-Washington CMSA? HUD has consistently defined underserved areas, as well as denominators for the other goals, using the median incomes of the PMSA. This rule would correct this ambiguity by revising the definition of "Metropolitan Area" in § 81.2 to eliminate the reference to CMSAs.

b. *Median Income.* Under § 81.2 of HUD's current regulations, the definition of "Median Income" with respect to an area is the unadjusted median family income for the area, as most recently determined and published by the Department; "area" includes metropolitan areas. "Metropolitan Area" is defined in § 81.2 in terms of areas designated as such by OMB. These definitions give rise to an inconsistency, in that HUD routinely publishes area median family income estimates but, in some cases, determines them not for MSAs, or PMSAs, but rather for portions of such areas. For example, OMB defines the Washington D.C. PMSA to include Berkeley and Jefferson counties in West Virginia and Culpeper, King George and Warren counties in Virginia. However, HUD's published area income estimates for these five counties are based on the incomes specific to these counties, not the PMSA. Moreover, HUD's published area income estimates for the other counties in the Washington MSA are based on data pertaining to the remaining counties and disregarding data for these five counties. As another example, OMB defines the New York City PMSA to include Rockland and Westchester Counties. HUD's published area income estimates for these two counties are based on incomes specific to the counties, not the PMSA. HUD's published area income estimates for the other counties in the New York City PMSA are based on data pertaining to the entire New York City PMSA including Rockland and Westchester Counties. Such differences between HUD's published area estimates and MSAs have led to ambiguity concerning the appropriate determination of area incomes by the GSEs. HUD proposes to change the definition of "Median Income" to require the GSEs to use HUD estimates of median family income. As part of this change to the definition of "Median Income," HUD would provide the GSEs, on an annual basis, with information specifying how HUD's published median family income estimates are to be applied.

c. *Underserved Area.* This rule proposes to revise the existing definition of "Underserved Area" to correct the parameters of rural underserved areas. The definition of rural underserved areas in § 81.2 has an "income-only" portion (*i.e.*, a median income at or below 95 percent of the state non-metropolitan median income or the nationwide non-metropolitan median income, whichever is greater) and "income/minority" portion (*i.e.*, a median income at or below 120 percent of the state non-metropolitan median income and a minority population of at least 30 percent). In the preamble to the 1995 Final Rule, HUD explained that for the income only portion of the definition, the median income of a county would be compared to the greater of either the state or the nationwide non-metropolitan median income, in order to ensure that poor counties in poor states would be included in the definition. However, the 1995 Final Rule did not recognize this comparison in the "income/minority" portion. Therefore, this proposed rule would correct this oversight by proposing to revise the definition of "Underserved Areas" in § 81.2. This rule also proposes a specific change to this definition related to tribal lands and discusses other possible changes to the definition related to metropolitan and non-metropolitan (rural) areas. The changes are proposed as discussed below in Section B., 3., *e.*, "Central Cities, Rural Areas and Other Underserved Areas Housing Goal."

B. Subpart B—Housing Goals

1. *Background.* The Department is required to establish, by regulation, annual housing goals for each GSE. The goals include a Low- and Moderate-Income Goal, a Special Affordable Housing Goal, and a Central Cities, Rural Areas, and Other Underserved Areas Housing Goal (the Geographically Targeted Goal). Section 1331(a) of FHEFSSA requires HUD to establish these goals in a manner consistent with sections 301(3) of the Fannie Mae Charter Act and 301(b)(3) of the Freddie Mac Charter Act, which require the GSEs "to provide ongoing assistance to the secondary market for residential mortgages (including * * * mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities)." Under section 1331(c) of FHEFSSA, HUD may, by regulation, adjust any housing goal from year to year.

In December 1995, HUD established housing goals for the GSEs for 1996–1999, revising and restructuring the

transition goals that had been in effect for 1993–1995. The current housing goal levels, which were in place for 1996–1999, are:

A *Low- and Moderate-Income Housing Goal*, which focuses on mortgages on housing for families with incomes no greater than area median income (as defined by HUD),⁵² and which was set at 40 percent of total units financed by each of the GSEs' mortgage purchases in 1996 and 42 percent for each calendar year from 1997 through 1999;

A *Geographically Targeted Goal*, which focuses on mortgages on properties located in "underserved areas," defined as low-income and/or high-minority census tracts and rural counties (excluding high-income, high-minority tracts), and which was set at 21 percent of total units financed by each of the GSEs' mortgage purchases in 1996 and at 24 percent for each calendar year from 1997 through 1999;

A *Special Affordable Housing Goal*, which focuses on mortgages on housing for very low-income families and low-income families living in low-income areas, and which was set at 12 percent of total units financed by each of the GSEs' mortgage purchases in 1996 and at 14 percent for calendar each year from 1997 through 1999; and

A *Special Affordable Multifamily Housing Subgoal*, which focuses on mortgages on housing for very low-income families and low-income families living in low-income areas, in multifamily properties (defined as properties with five or more units), and which was set at a fixed amount of 0.8 percent of the total dollar volume of mortgages purchased by each GSE in 1994. This formula results in a subgoal of special affordable multifamily mortgage purchases totaling \$1.29 billion per year for Fannie Mae and \$988 million per year for Freddie Mac for each calendar year from 1996 through 1999.

These housing goals, excluding the special affordable multifamily housing subgoal, share common characteristics: (1) Annual goal levels are the same for both GSEs; (2) they are percentage based goals defined in terms of percentages of housing units financed; and (3) one unit may qualify for one or more goals. In addition, under the current regulation, goals were established based on consideration of the statutory factors and set for a four-year period from 1996 through 1999 to allow the GSEs time to develop long-range strategies.

A key factor in determining the level of the goals was and is the estimated

⁵² 24 CFR 81.2.

size of the conventional market for each goal. In 1995, HUD estimated the low- and moderate-income share of the conventional market at 48–52 percent; the underserved (geographically targeted) areas share at 25–28 percent; and the special affordable share at 20–23 percent. These market estimates were based mainly on HMDA data for 1992 to 1994. Upon further analysis, however, these estimates are below what actual data shows for the period from 1995 to 1998. For example, HUD's 1995 market estimates underestimated the size of the rental market and did not anticipate the underlying strength and persistence of the affordable lending market. A large portion of new mortgages were originated for low-income families and first time homebuyers during the 1995 to 1998 period. Therefore, HUD estimates that the low- and moderate-income market accounted for 57–58 percent of all mortgages originated during the 1995 to 1997 period, and for 54 percent during the heavy refinancing year of 1998. Appendix D, "Estimating the Size of the Conventional Conforming Market for each Housing Goal," provides other reasons that the actual market shares were higher than anticipated in HUD's 1995 estimates.

In accordance with FHEFSSA, HUD has re-estimated the market shares of the mortgages in the primary conventional market that would qualify for each of the GSEs' housing goals for the years 2000 through 2003.⁵³ HUD estimates that for the years 2000 through 2003 the low- and moderate-income share of the conventional market will be 50–55 percent, the underserved (geographically targeted) areas share of the market will be 29–32 percent, and the special affordable share will be 23–26 percent. Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal," provides an extensive analysis of the Department's market share estimates.

The higher market estimates suggest that the gaps between the current goal levels and the market estimates of the opportunities available to the GSEs are wider than was anticipated in 1995. As with the 1995 estimates, these new market estimates also allow for more adverse economic conditions than recently experienced. For example, the lower end—50 percent—of the range for the low- and moderate-income market estimate is consistent with low- and

moderate-income borrowers accounting for 35 percent of home purchase loans in the single-family owner market. (The remainder of the low- and moderate-income market share estimate includes multifamily and single family rental properties.) Since the 1992–98 average for the low- and moderate-income share of the home purchase market was 41 percent, and the more recent 1995–1998 average was 42 percent, some leeway is allowed for more adverse income and interest rate conditions. Such leeway may be needed since it is possible that the affordable housing market may not continue at current rates, particularly if there is a slowdown in economic activity.

While the single family affordable market has not changed substantially since 1995 when HUD developed its first market estimates, HUD has revised its new market estimates upward based upon its analyses of the underlying strength of the single family affordable market. That market has been consistently strong for the past six years (1993–1998). When HUD produced the market estimates in 1995, the data was limited to the early 1990s, during which 1993 and 1994 demonstrated the strongest affordable housing markets. Now, with four additional years (1995 to 1998) of data indicating consistent trends in the affordable market, HUD is more confident about the underlying strength of this market.

At the same time, HUD has used assumptions about future economic and market conditions that are more conservative than those that have actually prevailed over the last six years. HUD is well aware of the volatility of mortgage markets and their possible impacts on the GSEs' ability to meet the housing goals. HUD's market estimates have also changed to a small extent by including manufactured housing loans in the single family owner market, and slightly increasing the affordability and underserved area parameters for rental housing.

Under HUD's current regulations, the current levels of the housing goals remain in effect in 2000 and thereafter until such time as the Department establishes new annual housing goals. In this rule, HUD is proposing to establish new levels for the three housing goals and for the special affordable multifamily housing subgoal for the years 2000 through 2003. The housing goals as proposed would be phased in beginning in calendar year 2000 and would be fully in place in calendar years 2001, 2002 and 2003. In proposing the level of the housing goals for 2000 and thereafter, HUD has applied the statutory factors and also

has concluded that the goals should be set far enough into the future to allow the GSEs to engage in long-term planning.

2. *Section 81.12 Low- and Moderate-Income Housing Goal.* This section discusses the Department's consideration of all the statutory factors in arriving at its proposed new housing goal level for the Low- and Moderate-Income Housing Goal. Additional information analyzing each of the statutory factors is provided in Appendix A, "Departmental Considerations to Establish the Low- and Moderate-Income Housing Goal," and Appendix D, "Estimating the Size of the Conventional Conforming Market for each Housing Goal."

a. *Definition.* The Low- and Moderate-Income Housing Goal counts mortgages on housing for families with incomes not in excess of area median incomes.

b. *Market Estimate for the Low- and Moderate Income Housing Goal in 2000.* The Department estimates that dwelling units serving low- and moderate-income families will account for 50–55 percent of total units financed in the overall conventional conforming mortgage market during the period 2000 through 2003. Due to inherent uncertainty about future market conditions, HUD has developed a plausible range, rather than a point estimate, for the market. The detailed analyses underlying this estimate are presented in Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal."

c. *Past Performance of the GSEs Under the Low- and Moderate-Income Housing Goal.* HUD's current goals specified that in 1996 at least 40 percent of the number of units financed by mortgage purchases of the GSEs and eligible to count toward the Low- and Moderate-Income Goal should qualify as low- and moderate-income, and at least 42 percent should qualify in each year from 1997 through 1999. Fannie Mae surpassed these goal levels by 5.6 percentage points in 1996, 3.7 percentage points in 1997, and 2.1 percentage points in 1998. Freddie Mac surpassed the goals by 1.1 percentage points, 0.6 percentage point and 0.9 percentage point in 1996, 1997 and 1998, respectively. The GSEs' performance under the Low- and Moderate-Income Housing Goal for the 1996 through 1998 period is summarized below:

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⁵³ The goal-qualifying market shares are estimated for the years 2000–2003 under several projections about the relative sizes of the single family and multifamily markets. Numerous sensitivity analyses that consider alternative market and economic conditions are examined in Appendix D.

**SUMMARY OF GSE PERFORMANCE UNDER THE
LOW- AND MODERATE-INCOME HOUSING GOAL¹**

	1996	1997	1998
Required Goal Level	40%	42%	42%
Fannie Mae:			
Percent Low-and Moderate-Income	45.6%	45.7%	44.1%
Freddie Mac:			
Percent Low-and Moderate-Income	41.1%	42.6%	42.9%

¹ The figures presented for goal performance are based on HUD analysis of the GSEs' loan level data. Some results differ marginally from the corresponding figures presented by Fannie Mae and Freddie Mac in their respective Annual Housing Activities Reports (AHARs) to HUD, reflecting differences in application of counting rules.

During the transition period from 1993 through 1995, Fannie Mae's performance under the Low- and Moderate-Income Housing Goal jumped sharply in one year, from 34.2 percent in 1993 to 44.8 percent in 1994, before tailing off to 42.3 percent in 1995. It then stabilized at just over 45 percent in 1996 and 1997. Fannie Mae's performance in 1998 declined to 44.1 percent due in large measure to the high volume of refinance loans that Fannie Mae funded in 1998.

During the transition period, Freddie Mac demonstrated steadier gains in performance under the Low- and Moderate-Income Housing Goal, from 29.7 percent in 1993 to 37.4 percent in 1994 and 38.9 percent in 1995. Freddie Mac then achieved 41.1 percent in 1996, and 42.6 percent and 42.9 percent in 1997 and 1998, respectively. Fannie Mae's performance on the Low- and Moderate-Income Housing Goal has surpassed Freddie Mac's in every year. Nonetheless, Freddie Mac's 1998 performance represented a 44 percent increase over its 1993 level, exceeding the 29 percent increase for Fannie Mae. Freddie Mac's performance was 97 percent of Fannie Mae's low- and moderate-income share in 1998, the highest ratio since the goals took effect in 1993. Freddie Mac's improved performance is due mainly to its increased purchases of multifamily loans as it has become more active in this market. Some housing industry observers believe that the Low- and Moderate-Income Housing Goal has been an important factor explaining Freddie Mac's re-entry into the multifamily market.

In fact, multifamily purchases represent a significant component of both GSEs' activities in meeting the Low- and Moderate-Income Housing Goal, even though multifamily loans comprise a relatively small portion of the GSEs' business activities. In 1997, while Fannie Mae's multifamily purchases represented only 13.4 percent of its total acquisition volume measured in terms of dwelling units, these purchases comprised 26.7 percent of units qualifying for the Low- and Moderate-Income Housing Goal. Multifamily purchases were 8.2 percent of the units financed by Freddie Mac's 1997 mortgage purchases but were 19 percent of Freddie Mac's low- and moderate-income mortgage purchases.

The GSEs' 1998 performance took place in the context of a record level of mortgage originations, with unusually high refinance volume reaching 50 percent of single family mortgage

originations. The GSEs relied upon a record volume of multifamily mortgage purchases in 1998—\$12.5 billion for Fannie Mae and \$6.6 billion for Freddie Mac—to exceed the 42 percent goal.

d. *Proposed Goal Levels for 2000–2003.* Having considered all statutory factors including housing needs, projected economic and demographic conditions for 2000 to 2003, the GSEs' past performance, the size of the market serving low- and moderate-income families, and the GSEs' ability to lead the market while maintaining a sound financial condition; HUD is proposing that the annual goal for mortgage purchases qualifying under the Low- and Moderate-Income Housing Goal be 48 percent of eligible units financed in calendar year 2000, and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003. This proposed goal level is intended to increase the GSEs' current level of performance to a level that is consistent with reasonable estimates of the low- and moderate-income housing market. HUD's detailed findings under the statutory factors for establishing the goal are described in Appendix A, "Departmental Considerations to Establish the Low- and Moderate-Income Housing Goal," and Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal."

3. *Section 81.13—Central Cities, Rural Areas, and Other Underserved Areas Housing Goal.* This section discusses the Department's consideration of all the statutory factors in arriving at its proposed new housing goal level for the Central Cities, Rural Areas, and Other Underserved Areas Housing Goal (the Geographically Targeted Goal). Additional information analyzing each of the statutory factors is provided in Appendix B, "Departmental Considerations to Establish the Central Cities, Rural Areas, and Other Underserved Areas Goal," and Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal." This section also discusses possible changes being considered to the definition of underserved areas.

a. *Definition.* The Geographically Targeted Goal focuses on areas currently underserved by the mortgage finance system. The 1995 Final Rule provides that for properties in metropolitan areas, mortgage purchases count toward the Geographically Targeted Goal if such purchases finance properties that are located in underserved census tracts. In § 81.2, HUD defined "underserved

areas" as areas where either: (1) The tract median income is at or below 90 percent of the area median income (AMI); or (2) the minority population is at least 30 percent and the tract median income is at or below 120 percent of AMI. The AMI ratio is calculated by dividing the tract median income by the MSA median income. The minority percent of a tract's population is calculated by dividing the tract's minority population by its total population.

For properties in non-metropolitan (rural) areas, mortgage purchases count toward the Geographically Targeted Goal where such purchases finance properties that are located in underserved counties. These are defined as counties where either (1) the median income in the county does not exceed 95 percent of the greater of the state or nationwide non-metropolitan median income; or (2) minorities comprise at least 30 percent of the residents and the median income in the county does not exceed 120 percent of the state non-metropolitan median income.

b. *Market Estimate for the Geographically Targeted Goal.* The Department estimates that dwelling units in underserved areas will account for 29–32 percent of total units financed in the overall conventional conforming mortgage market during the period 2000 through 2003. Due to inherent uncertainty about future market conditions, HUD has developed a plausible range, rather than a point estimate, for the market. The detailed analyses underlying this estimate are presented in Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal."

c. *Past Performance of the GSEs Under the Geographically Targeted Goal.* HUD's goals specified that in 1996 at least 21 percent of the units financed by the GSEs' mortgage purchases should count toward the Geographically Targeted Goal, and at least 24 percent in 1997 through 1999. Fannie Mae surpassed the goal by 7.1 percentage points in 1996, 4.8 percentage points in 1997, and 3.0 percentage points in 1998. Freddie Mac surpassed the goal by 4.0, 2.3 and 2.1 percentage points in 1996, 1997 and 1998, respectively. The GSEs' performance for the 1996–98 period is summarized below:

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**SUMMARY OF GSE PERFORMANCE UNDER THE
THE GEOGRAPHICALLY TARGETED GOAL¹**

	1996	1997	1998
Required Goal Level	21%	24%	24%
Fannie Mae:			
Percent Geographically Targeted	28.1%	28.8%	27.0%
Freddie Mac:			
Percent Geographically Targeted	25.0%	26.3%	26.1%

¹ The figures presented for goal performance are based on HUD's analysis of the GSEs' loan level data. Some results differ marginally from the corresponding figures presented by Fannie Mae and Freddie Mac in its AHARs, reflecting differences in application of counting rules.

Although both GSEs have improved their performance in underserved areas, on average, their mortgage purchases continue to lag the primary market in providing financing for affordable loans in underserved neighborhoods. During the 1996–1998 period, underserved areas accounted for 19.9 percent of Freddie Mac's purchases of single family home mortgages compared with 22.9 percent of Fannie Mae's purchases, 25.8 percent of mortgages retained by portfolio lenders, and 24.9 percent of all home purchase mortgages originated in the conventional conforming market. As these figures indicate, Freddie Mac has been less likely than Fannie Mae to purchase mortgages on properties in underserved neighborhoods. Freddie Mac has not made progress in reducing the gap between its performance and that of the overall market. In 1992, underserved areas accounted for 18.6 percent of Freddie Mac's purchases of home purchase mortgages and for 22.2 percent of home loans originated in the conforming market, which yields a "Freddie Mac-to-Market" ratio⁵⁴ of 0.84 percent. By 1998, the "Freddie Mac-to-Market" ratio had actually fallen to 0.81 percent. During the same period, the "Fannie Mae-to-Market" ratio increased from 0.82 percent to 0.93 percent.

Fannie Mae's performance under this goal improved due to its increased purchases during 1997 and 1998 of mortgages originated in prior years in underserved neighborhoods. For instance, Fannie Mae's purchases of single family home mortgage loans in underserved areas increased from 22.3 percent in 1996 to 23.5 percent in 1997. However, the percentage of Fannie Mae's purchases of newly originated mortgages on dwellings in underserved areas was lower in 1997 (20.8 percent) than in 1996 (21.9 percent). This decline was offset by the fact that a high percentage (30.1 percent) of Fannie Mae's purchases in 1997 of prior year mortgages were home mortgage loans on properties in underserved areas. This focus on prior year mortgages explains why Fannie Mae's performance increased across several affordable lending categories between 1996 and 1997. Fannie Mae's purchases of prior year affordable housing loans continued in 1998.

In evaluating the GSEs' past performance, it should be noted that while borrowers in underserved metropolitan areas tend to have much lower incomes than borrowers in other areas, this does not mean that GSE

purchase activity in underserved areas derives totally from lower income families. In 1997, above median-income households accounted for 37 percent of the mortgages the GSEs purchased in underserved areas.

d. *Proposed Goal Levels for 2000–2003.* Having considered all statutory factors including housing needs, projected economic and demographic conditions for 2000 to 2003, the GSEs' past performance, the size of the market for central cities, rural areas and other underserved areas, and the GSEs' ability to lead the market while maintaining a sound financial condition; HUD is proposing that the annual goal for mortgage purchases qualifying under the Geographically Targeted Goal be 29 percent of eligible units financed in calendar year 2000, and 31 percent of eligible units financed in each of calendar years 2001, 2002 and 2003. This proposed goal level is intended to increase the GSEs' current level of performance to a level that is consistent with reasonable estimates of the housing market in underserved areas. The Department's detailed findings under the statutory factors for establishing the goal are described in Appendix B, "Departmental Considerations to Establish the Central Cities, Rural Areas, and Other Underserved Areas Goal," and Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal."

e. *Proposed Definitional Changes for Underserved Areas.* (1) *Metropolitan Areas.* The Department is seeking comments on possible changes to the current metropolitan underserved areas definition in an effort to more accurately target underserved areas with higher mortgage denial rates and thereby promote access to mortgage credit nationwide. Specifically, HUD is considering changing the current tract income ratio to an "enhanced" tract income ratio and requiring that for tracts to qualify they must have an enhanced tract income ratio at or below 80 percent of area median income. The enhanced tract income ratio described below would make the underserved areas definition used by the GSEs consistent with the requirements of Federally insured depository institutions under the Community Reinvestment Act (CRA).

The "enhanced" option is two-fold. First, it would change the tract income ratio (described in the definition of "central city" or "other underserved area" in paragraph (1) of the definition of "Underserved areas" in § 81.2) from one that is calculated using MSA median income to one that is based on the greater of either the national

metropolitan median income or the MSA median income. This approach would ensure that low-income census tracts in low-income MSAs are classified as underserved. With this change, 994 tracts, with an average mortgage denial rate of 26.8 percent, would be added to the scope of the current definition.

Second, the enhanced option would change the level of the income ratio required in paragraph (1)(ii) of the definition of "Underserved areas." Tracts would qualify as underserved if their income ratio were 80 percent as compared to a tract income ratio of 90 percent under the current definition. With this change, 2,500 tracts, with an average mortgage denial rate of 17.8 percent, would be dropped from the scope of the current definition. Of the tracts that would be dropped, the mortgage denial rate is not much higher than the average mortgage denial rate for all metropolitan areas, which is 15.3 percent. This suggests that these areas are not experiencing severe problems in obtaining mortgage credit and should not be targeted. The overall number of tracts that would qualify with both parts of the enhanced option is 20,093, with an average mortgage denial rate of 25.0 percent.

Although the Department preliminarily favors adopting a definitional change based on the enhanced tract income option described above, another approach to targeting high mortgage denial areas is to increase the alternative requirement for an underserved area by increasing the minority concentration required from the current 30 percent to 50 percent. Adopting this option would exclude many tracts with high mortgage denial rates. This option would drop 1,045 tracts with a relatively high mortgage denial rate of 20.2 percent. Nevertheless, this proposal should stimulate conventional lending in high minority neighborhoods that have been traditionally underserved.

Either of the possible changes to the existing definition for underserved areas would likely affect the estimated market share for the Geographically Targeted Goal. If either of the possible changes were adopted, the Department would revise its market estimates of underserved areas accordingly and the level of the housing goal as needed to reflect the revised estimates.

HUD seeks comment on the proposed options for revising the definition of underserved metropolitan areas, including the extent to which these definitional changes are likely to increase the availability of credit to areas with high mortgage denial rates.

⁵⁴ GSE to market ratio is calculated by dividing the performance of the respective GSE by the performance of the market.

(2) Tribal Lands. In reviewing the criteria for underserved areas, HUD believes that difficulties in obtaining mortgage loans on qualifying American Indian Reservations and trust lands deserve attention. A February 1998 report by the General Accounting Office (GAO) concerning lending on tribal lands found that, during a five year period from 1992 through 1996, only 91 conventional home purchase loans were made to Native Americans on trust lands.⁵⁵ The eight lenders making these loans held all of them in portfolio. In addition, government-backed loans were insured by HUD under its Section 184 and Section 248 programs which promote affordable housing opportunities for Native American families, and through programs of the Department of Veterans Affairs, the U.S. Department of Agriculture, and the Federal Home Loan Banks. Fannie Mae has consistently purchased Section 184 loans, and Freddie Mac has recently become involved in this program.

A number of reservations cross county and census tract lines with a portion of the reservation in a county that is otherwise considered high-income and/or low-minority and a portion of the reservation in a county that is neither. Part of a reservation, therefore, may be considered an underserved area and part a served area. To remedy such anomalies, this rule proposes that reservations and trust lands would be considered separate geographic entities rather than parts of the counties in which they are located. Thus, in a non-metropolitan area, median income for the reservation would be compared with state (or national) non-metropolitan median income in determining whether the reservation is an "underserved area;" and in a metropolitan area, median income for the reservation would be compared with the median income of the respective metropolitan area.

HUD has determined that currently 173 non-metropolitan counties that contain Indian reservations or trust lands are classified as underserved areas and 88 such counties are classified as served areas. In metropolitan areas, 131 census tracts that contain Indian reservations or trust lands are currently classified as underserved areas and 115 such tract are classified as served areas. Inclusion of qualifying Indian reservations and trust lands in these 88 counties and 115 census tracts as underserved areas in calculating the Geographically Targeted Goal would not automatically be expected to have a major impact on lending in these areas,

at least initially, but it could heighten awareness and encourage future growth in conventional mortgage lending to these areas.

Based on this analysis, the Department proposes to revise § 81.2 to designate all qualifying Indian reservations and trust lands as underserved areas.

(3) Rural Areas. The current definition of underserved non-metropolitan or rural areas under the Geographically Targeted Goal accounts for 53 percent of the households, 57 percent of the census tracts, and 66 percent of the counties in rural areas. Unlike the underserved definition for metropolitan areas, which is based on the minority or low-income concentration of census tracts, the non-metropolitan/rural underserved definition is based on these criteria for counties. During the 1995 rulemaking process, experts on rural lending informed HUD that lenders' business operations in rural areas are oriented toward counties, not census tracts. In addition, counties are easy to identify and geocode, which facilitates the reporting process for lenders who provide the GSEs with loan-level data on mortgages. However, HUD recognized then, and experience has borne out, that, under its county-based definition, the GSEs can achieve the goal by purchasing mortgages located in the parts of underserved counties that have higher incomes.

The broad nature of the underserved definition for non-metropolitan areas raises at least two concerns. The first concern is that the broad definition appears to result in similar borrower characteristics in served and underserved counties. HUD's analysis indicates that the GSEs are less likely to purchase loans for first-time homebuyers and more likely to purchase mortgages for high-income borrowers in underserved than in served counties. Mortgages to first-time homebuyers account for 13.9 percent of the GSEs' mortgage purchases in served counties compared with 12.3 percent in underserved counties. Interestingly, it is more likely for borrowers in underserved counties (71.2 percent) to have incomes above the county median than in served counties (65.5 percent). These findings support the claim that, in rural underserved counties, the GSEs purchase mortgages of borrowers who probably encounter few obstacles to obtaining mortgage credit. Further, mortgages purchased by the GSEs in underserved areas do not have low down payments. In both served and underserved counties, only 27 percent of the GSEs' mortgage purchases have loan-to-value ratios above 80 percent.

Defining underserved areas in terms of an entire county also appears to encourage the GSEs to purchase mortgages in the more affluent tracts. HUD's analysis shows that even though the GSEs purchase a greater percentage of mortgages in high-minority and low-income tracts in underserved than in served counties, they purchase nearly the same percentage of mortgages in both underserved and served counties in high-income tracts. In underserved counties, 12.3 percent of the GSEs' mortgage purchases are in tracts above 120 percent area median income compared with 14.6 percent in served counties.

There are few conclusive studies on access to mortgage credit in rural areas, and the studies that do exist suggest only broad conclusions about credit flows in these areas. Moreover, evaluating which rural locations are underserved in terms of access to mortgage credit cannot be done with HMDA data on which HUD mainly relied in defining urban underserved areas. Other data bases available with mortgage market information have similar limitations with regard to coverage of mortgage activity in rural areas. Nonetheless, based on an analysis of the GSEs' mortgage purchases by tract median income, it does not appear that the current county definition is encouraging the GSEs to target their mortgage purchases to the most underserved portions of rural areas.

For these reasons, the Department is seeking public comment on alternative methodologies and sources of rural market data that HUD might use to define underserved non-metropolitan/rural areas. Specifically, HUD seeks comment on whether the Department should follow a tract-based approach in defining underserved rural areas, which would be consistent with the tract-based definition used in metropolitan areas. As technology and computer mapping capabilities have evolved since 1995, it may be appropriate to revisit the issue of whether entire counties or census tracts within the counties should be used to define rural underserved areas.

4. *Section 81.14 Special Affordable Housing Goal.* This section discusses the Department's consideration of all the statutory factors in arriving at its proposed new housing goal level for the Special Affordable Housing Goal. Additional information analyzing each of the statutory factors is provided in Appendix C, "Departmental Considerations to Establish the Special Affordable Housing Goal," and Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal." This section also

⁵⁵ GAO/RCED-98-49.

discusses possible changes being considered to the structure of the multifamily subgoal.

a. *Definition.* The Special Affordable Housing Goal targets mortgages on housing for very low-income families and low-income families living in low-income areas. Units that count toward the Special Affordable Housing Goal include units occupied by low-income owners and renters in low-income areas, and very-low-income owners and renters. In addition, low-income rental units in multifamily properties in which at least 20 percent of the units are affordable to families whose incomes are 50 percent of area median income, or less, or where at least 40 percent of the units are affordable to families whose incomes are 60 percent area median income, or less, count toward the goal.

b. *Market Estimate for the Special Affordable Housing Goal.* The Department estimates that dwelling units serving very low-income families

and low-income families living in low-income areas will account for 23–26 percent of total units financed in the overall conventional conforming mortgage market during the period 2000 through 2003. Due to inherent uncertainty about future market conditions, HUD has developed a plausible range, rather than a point estimate, for this market. The detailed analyses underlying this estimate are presented in Appendix D, “Estimating the Size of the Conventional Conforming Market for Each Housing Goal.”

c. *Past Performance of the GSEs’ Under the Special Affordable Housing Goal.* The Special Affordable Housing Goal is designed to ensure that the GSEs consistently focus on serving the very low-and low-income portion of the housing market. However, analysis of American Housing Survey and HMDA data show that the shares of mortgage loans for very low-income homebuyers are smaller for the GSEs’ mortgage

purchases than for depository institutions and others originating mortgage loans in the conforming conventional market. HUD’s analysis suggests that the GSEs should improve their performance in providing financing for the very low-income housing market.

HUD’s goals specified that in 1996 at least 12 percent of the number of units eligible to count toward the Special Affordable Housing Goal should qualify as special affordable, and at least 14 percent in 1997 through 1999. As indicated below, Fannie Mae surpassed the goal by 3.4 percentage points in 1996, 3.0 percentage points in 1997 and 0.3 percentage point in 1998. Freddie Mac surpassed the goal by 2.0, 1.2, and 1.9 percentage points in 1996, 1997 and 1998, respectively. The GSEs’ performance for the 1996–95 period is summarized below:

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**SUMMARY OF GSE PERFORMANCE UNDER
THE SPECIAL AFFORDABLE HOUSING GOAL¹**

	1996	1997	1998
Required Goal Level	12%	14%	14%
Fannie Mae:			
Special Affordable Housing Goal	15.4%	17.0%	14.3%
Freddie Mac:			
Special Affordable Housing Goal	14.0%	15.2%	15.9%

¹ The figures presented for goal performance are based on HUD's analysis of the GSEs' loan level data. Some results differ from the corresponding figures presented by Fannie Mae in its AHARs by one to two percentage points. The difference largely reflects differences between HUD and Fannie Mae in application of counting rules relating to counting of seasoned mortgage loans for purposes of this goal. Freddie Mac's AHAR figures for this goal differ marginally from the official figures presented above, also reflecting differences in application of counting rules.

HMDA and GSE data for metropolitan areas show that both GSEs lag depository institutions and other lenders in providing financing for home loans that qualify for the Special Affordable Housing Goal. Special affordable loans, which include loans for very low-income borrowers and low-income borrowers living in low-income areas, accounted for 9.8 percent of Freddie Mac's purchases of home purchase mortgages during 1996–98, 11.9 percent of Fannie Mae's purchases, 16.7 percent of newly originated loans retained by depository institutions, and 15.3 percent of all new originations in the conventional conforming market. While Freddie Mac has improved its special affordable lending over the past few years, it has not made as much progress as Fannie Mae in closing the gap with depository institutions and other lenders in the home loan market. In 1998, Freddie Mac's special affordable performance was 73 percent of the primary market proportion of home loans that would qualify under the Special Affordable Housing Goal, compared to Fannie Mae's performance of 85 percent during the same period.

The multifamily market is especially important in the establishment of the Special Affordable Housing Goal for Fannie Mae and Freddie Mac because of the relatively high percentage of multifamily units meeting the Special Affordable Housing Goal. In 1997, 57 percent of units financed by Freddie Mac's multifamily mortgage purchases met the Special Affordable Housing Goal, representing 31 percent of units counted toward its Special Affordable Housing Goal, at a time when multifamily units represented only eight percent of its total purchase volume. Corresponding percentages for Fannie Mae's multifamily purchases were: 54 percent of units financed by Fannie Mae's multifamily mortgage purchases met the Special Affordable Goal, multifamily units represented 44 percent of units meeting the Special Affordable Goal but only 13 percent of total purchase volume. In comparison, HUD estimates that multifamily mortgages accounted for 20 percent of the total number of dwelling units financed in the conventional conforming market in 1997.

d. *Proposed Goal Levels for 2000–2003.* Having considered all statutory factors including housing needs, projected economic and demographic conditions for 2000 to 2003, the GSEs' past performance, the size of the market serving very low-income families and low-income families living in low-income areas, and the GSEs' ability to lead the market while maintaining a sound financial condition; HUD is proposing that the annual goal for mortgage purchases qualifying under the Special Affordable Housing Goal be 18 percent of eligible units financed in calendar year 2000, and 20 percent of eligible units financed in each of calendar years 2001, 2002 and 2003. This proposed goal level is intended to increase the GSEs' current level of performance to a level that is consistent with reasonable estimates of the special affordable housing market. The Department's detailed findings under the statutory factors for establishing the goal are described in Appendix C, "Departmental Considerations to Establish the Special Affordable Housing Goal," and Appendix D, "Estimating the Size of the Conventional Conforming Market for Each Housing Goal."

e. *The Multifamily Subgoal.* Under the Special Affordable Housing Goal, HUD established a subgoal for purchases of multifamily mortgages. HUD established this subgoal at 0.8 percent of the dollar value of each GSE's respective 1994 dollar purchase volume, including both single family and multifamily mortgage purchases. This yielded subgoals of \$988 million for Freddie Mac and \$1.29 billion for Fannie Mae.⁵⁶

Freddie Mac narrowly exceeded the subgoal in 1996 and 1997, with multifamily special affordable acquisitions of \$1.1 billion and \$1.2 billion, respectively. Freddie Mac exceeded the goal by a wider margin in 1998, when it purchased \$2.7 billion in multifamily special affordable loans. Fannie Mae has consistently surpassed its multifamily subgoal, with multifamily mortgage purchases of \$2.4 billion in 1996, \$3.2 billion in 1997, and \$3.5 billion in 1998.⁵⁷

Approximately half of the GSEs' annual multifamily purchase volume usually qualifies toward the Special

Affordable Housing Goal. Moreover, multifamily acquisitions typically represent a significant proportion of all GSE purchases qualifying toward the Special Affordable Housing Goal. As noted earlier, multifamily acquisitions contributed 44.0 percent of units qualifying toward Fannie Mae's Special Affordable Housing Goal, with a corresponding figure of 31.4 percent for Freddie Mac.

One of the Department's principal objectives in establishing the subgoal was to ensure Freddie Mac's re-entry into the multifamily market. In 1991–1993, following losses on multifamily mortgage loans, Freddie Mac had virtually no multifamily mortgage purchase capacity. Over the past five years, however, Freddie Mac has built new capacity to support its multifamily mortgage purchase activity and has expanded its presence in the multifamily financing market to the point that it purchased \$6.6 billion of multifamily mortgages in 1998. Industry observers believe that the special affordable multifamily subgoal has contributed toward a significantly increased presence by Freddie Mac in the multifamily market.

Fannie Mae was well established in the multifamily mortgage market prior to the establishment of the multifamily special affordable subgoal. Fannie Mae's performance has consistently surpassed the subgoal by a wide margin, as noted above.

f. *Proposed Multifamily Subgoal Level.* The Secretary proposes to retain the special affordable multifamily subgoal for each of the calendar years for the period 2000 through 2003, and to increase the fixed minimum level to 0.9 percent of the dollar volume of combined (single family and multifamily) 1998 mortgage purchases in calendar year 2000, and 1.0 percent of the dollar volume of combined (single family and multifamily) 1998 mortgage purchases in each of calendar years 2001, 2002 and 2003. This approach is consistent with the approach taken under the current regulations.

The proposed subgoal would establish the following new annual thresholds for the two GSEs.⁵⁸

	2000	2001–2003
Proposed Goal Levels	0.9 percent	1.0 percent.

⁵⁶ Mortgages that are backed by properties that include both special affordable and other units are counted by multiplying the acquisition unpaid principal balance by the number of units qualifying for the Special Affordable Housing Goal, divided by the total number of units.

⁵⁷ These figures are as determined by HUD based on its analysis of GSE loan-level data. They differ somewhat from figures reported by the GSE in their Annual Housing Activities Reports submitted annually to HUD due to differences in application of counting rules, and for other reasons.

⁵⁸ HUD has determined that the total dollar volume of the GSEs' combined (single and multifamily) mortgage purchases in 1998, measured in unpaid principal balance at acquisition, was as follows: Fannie Mae \$367.589 million; Freddie Mac \$273, 231 million.

	2000	2001–2003
Fannie Mae	\$3.31 billion	\$3.68 billion.
Freddie Mac	\$2.46 billion	\$2.73 billion.

The proposed subgoal levels can be compared with Fannie Mae's 1998 performance of \$3.5 billion, and Freddie Mac's 1998 multifamily special affordable multifamily acquisition volume of \$2.7 billion. A 1.0 percent dollar-based multifamily subgoal for 2001–2003 would sustain and likely increase the efforts of both GSEs in the multifamily mortgage market, with particular emphasis upon the special affordable segment.

g. *Alternative Approaches to Setting the Subgoal Level.* A possible consequence of the subgoal as proposed, however, is that, to the extent that the GSEs experience certain fixed transactions costs in each multifamily acquisition, they can attain the special affordable multifamily subgoal with the smallest possible transactions costs by purchasing multifamily mortgages with large unpaid principal balances that have a high proportion of units that qualify for the Special Affordable Housing Goal. This approach, therefore, could foster the GSEs' purchases of loans on large properties with more than 50 units, the market for which is already relatively liquid, at the expense of loans on smaller properties, a sector which has not benefited from same degree of exposure to secondary markets, as discussed in Appendix A. In order to provide incentives for a greater commitment by the GSEs in the market for mortgages on small multifamily properties with 5–50 units, the Department is proposing to award "bonus points" for purchases of such loans, as described below.

A further consequence of a dollar-based goal is that the number of mortgages the GSEs would be required to purchase under the subgoal, and the number of units in the associated properties, would both be expected to decrease over the goals period, due to the effects of inflation and an expected rise in property values over the period of years during which the subgoal is in effect. For example, the rise in multifamily property values over 1996–1998 contributed to an increase in per-unit loan amounts in the GSEs' multifamily special affordable purchases of approximately 15 percent, with a commensurate decrease in the number of units corresponding to the minimum dollar-based purchase volume required under the multifamily special affordable subgoal.

While this proposed rule specifically proposes a dollar-based subgoal, the Department is considering three alternative approaches to structuring the special affordable multifamily subgoal—a unit-based subgoal, a subgoal based on a percentage of multifamily acquisitions, and a mortgage-based subgoal. These approaches may be structured as outlined in the following options. Additional discussion of these subgoal options in relation to GSE past performance is contained in Appendix C.

(1) *Option One—Subgoal Based on Number of Units.* In this approach, the multifamily special affordable subgoal would be expressed as a minimum number of units meeting the Special Affordable Housing Goal. A multifamily subgoal for 2001–2003 established at the level of the dollar-based subgoal defined above, divided by \$22,953, which is the average of Fannie Mae's and Freddie Mac's ratios of unpaid principal balance to the number of units in multifamily properties counted toward the Special Affordable Housing Goal in 1997 (as determined by HUD), would generate annual multifamily special affordable subgoals of 160,328 units per year for Fannie Mae and 118,939 units per year for Freddie Mac. Such a multifamily subgoal for 2001–2003 would sustain and likely increase the efforts of both GSEs in the multifamily mortgage market, with particular emphasis upon the special affordable segment.⁵⁹

A unit-based subgoal would result in a greater level of affordability among the GSEs' special affordable purchases than does a dollar-based subgoal. This conclusion is based on GSE loan-level data which shows that the more affordable the unit, the smaller is the associated unpaid principal balance per unit. Therefore, a subgoal based on number of units provides the GSEs with an incentive to purchase mortgages on properties with relatively low loan amounts per unit and, as a result, relatively high affordability, as the least costly method of attaining the subgoal. This unit-based approach also avoids the problem associated with the effects of inflation discussed above in regard to the proposed dollar based subgoal.

⁵⁹ If this option were selected, appropriate subgoal thresholds for the one-year transition period (2000) could be developed along the lines of those proposed under the multifamily special affordable subgoal above.

However, this approach also has one of the same consequences as the proposed subgoal based on dollar volume of acquisitions, in that a GSE can attain such a subgoal with the smallest possible transactions costs by purchasing a few multifamily mortgage loans with large unpaid principal balances which have a high proportion of units qualifying for the Special Affordable Housing Goal. This approach, therefore, may foster the GSEs' purchase of loans on large multifamily properties, which are already relatively well served by the mortgage market, at the expense of loans on smaller properties.

(2) *Option Two—Subgoal As A Percent of GSEs' Current Multifamily Mortgage Purchases.* Another possible approach is to establish the special affordable multifamily subgoal as a minimum percentage of each GSE's current total dollar volume of multifamily mortgage purchases. For example, the subgoal level for 2001–2003 could be expressed as 58 percent of a GSE's multifamily dollar volume in 2001, 2002 and 2003, respectively.⁶⁰

An advantage of expressing the subgoal in this manner is that it would be flexible, increasing and decreasing in a manner commensurate with the overall presence of the GSEs in the current-year multifamily market. It would not require a fixed quantity of units, or fluctuate based on the GSEs' involvement with the single-family market.

An operational disadvantage is that such a subgoal could undermine the GSEs' incentive to expand multifamily volume that has existed since 1994. For example, one of the GSEs, having met its special affordable multifamily subgoal by the end of the third quarter in a calendar year, could decide to withdraw from the multifamily market in the fourth quarter in order to avoid the possibility of not attaining the subgoal at the end of the year due to the uncertainty regarding the affordability characteristics of multifamily mortgages offered for sale during the remainder of the year. In order to mitigate any such disincentive effects, HUD could establish an "alternative minimum" subgoal floor based on dollar volume, units, or mortgages. However, this

⁶⁰ If this option were selected, appropriate subgoal thresholds for the one-year transition period (2000) could be developed.

would open the possibility that a GSE might choose to simply orient its multifamily business toward the required alternative minimum amount of multifamily mortgage purchases.

(3) *Option Three—Subgoal Based on Number of Mortgages Acquired.* Because the GSEs incur relatively large fixed costs in purchasing multifamily mortgage loans, another alternative to the Special Affordable Multifamily Housing Subgoal would be to establish a subgoal based on the number of mortgages acquired. In this approach, the Special Affordable multifamily subgoal would be expressed as a minimum number of each GSEs' total mortgage purchases. If all the units in the property securing the mortgage are not eligible for the Special Affordable Housing Goal, then subgoal performance would be pro-rated based on the number of qualifying units. In other words, if one mortgage secured a 100-unit property and 50 of the units qualified for the Special Affordable Housing Goal, then subgoal credit would be counted as one-half of a mortgage.⁶¹

A multifamily subgoal for 2001–2003 established at 0.035 percent of the number of mortgages acquired by each of the GSEs in 1998 (as determined by HUD) would generate annual subgoals of 1,129 multifamily special affordable mortgages for Fannie Mae and 854 for Freddie Mac.⁶² A 0.035 percent mortgage-based multifamily subgoal for 2001–2003 would sustain and likely increase the efforts of both GSEs in the multifamily mortgage market, with particular emphasis upon the special affordable segment.⁶³

As noted previously, the GSEs incur relatively large fixed costs when underwriting and purchasing multifamily mortgage loans. As a result, there could be an incentive to purchase large multifamily mortgage loans to reduce the cost of the transactions per unit. Under this approach to the special affordable multifamily subgoal utilizing the number of mortgages acquired as the benchmark, the GSEs would have additional incentive to choose a large pool of small loans over a pool consisting of a few large loans.⁶⁴ This

could facilitate liquidity in the market for mortgages on small multifamily properties where there continues to be unmet credit needs. Because multifamily mortgage purchases are an important source of affordable housing and contribute significantly to meeting the unit based housing goals, the GSEs also would be expected to continue to purchase mortgages secured by larger properties.

This approach also avoids the problem associated with the effects of inflation, discussed above, in regard to the proposed dollar-based subgoal. The magnitude of the goal is independent of the loan amount per unit.

However, while a mortgage-based approach to the subgoal may address the small multifamily rental property issue, it may not have the same impact in financing as many units overall as other approaches.

(4) *Comments Sought.* The Department seeks comment on whether the special affordable multifamily subgoal proposed that is based on a percentage of total dollar volume of mortgages purchased, or the possible alternative structures presented that base the subgoal on (a) the number of units financed, (b) a percent of current multifamily mortgage purchases, or (c) the number of mortgages acquired, are reasonable and desirable approaches to closing market gaps in the very low-and low-income rental market. HUD also solicits comment on the appropriate level for the subgoal as proposed, or under the various possible structures presented, and how the possible levels illustrated herein would likely impact multifamily acquisitions, especially for very low-and low-income multifamily units.

5. *Bonus Points and Subgoals.* Although the GSEs have been successful in meeting their housing goals, analyses of their housing goal performance and market needs indicate that certain credit gaps remain. For example, HUD's analysis reveals that the need for mortgage credit persists in specific markets that focus on lower-income families including small multifamily rental properties; single family, owner-occupied rental properties (2–4 units); manufactured housing; multifamily properties in need of rehabilitation; and properties in tribal areas. As a regulatory incentive to encourage the

same subgoal credit as a 100-unit property with a \$2.5 million mortgage (provided all units were eligible for the Special Affordable Housing Goal). If all the units in the property securing the mortgage are not eligible for the Special Affordable Housing Goal, then subgoal performance would be pro-rated based on the number of qualifying units, as discussed above.

GSEs to increase their mortgage purchase activity in these underserved markets, the Department is proposing the use of bonus points in certain important segments of the housing market. HUD also seeks comments on the utility of applying similar regulatory incentives (bonus points and/or subgoals) to other underserved segments.

a. *Bonus Points.* Section 1336(a)(2) of FHEFSSA directs the Department to “establish guidelines to measure the extent of compliance with the housing goals, which may assign full credit, partial credit, or no credit toward achievement of the housing goals to different categories of mortgage purchase activities of the enterprises, based on such criteria as the Department deems appropriate.” This provision confers broad authority upon HUD to assign varying levels of credit to differing types of mortgage purchases. Under this and other authorities, HUD may offer bonus points for particular categories of mortgage purchase transactions.

The Department proposes to introduce a system of bonus points to encourage the GSEs to increase their activity in underserved markets that serve lower-income families. The intent of bonus points is to encourage increased involvement by the GSEs over the 2000–2003 period in financing mortgages on small multifamily properties and mortgages on 2–4 unit owner-occupied properties that contain rental units, for which the GSEs' mortgage purchases have traditionally played a minor role.

Bonus points would be used in calculating goal performance under each of the affordable housing goals but would not apply in determining performance under the special affordable housing multifamily subgoal. All units counting toward a specific housing goal and, thus, included in the numerator of the fraction used to calculate goal performance under that particular housing goal would be eligible for bonus points provided that the units met the specific criteria for allowable bonus points. This provision would apply to all units included in the numerator even if a unit were missing affordability data and the missing affordability data were treated consistent with the proposal included in the following section II.B.6.b, “Data on Unit Affordability.”

(1) *Bonus Point Proposal for Small Multifamily Properties.* HUD proposes to add § 81.16(c)(10)(1) to provide for the assignment of double weight in the numerator for each of the three housing

⁶¹ A similar pro-rating technique is specified for the special affordable multifamily subgoal in the 1995 Final Rule. See footnote 62.

⁶² HUD has determined that the number of mortgage loans purchased by the GSEs in 1998 was as follows:

Fannie Mae: 3,226,786.

Freddie Mac: 2,439,194.

⁶³ If this option were selected, appropriate subgoal thresholds for the one-year transition period (2000) could be developed.

⁶⁴ For example, under this subgoal option, the purchase of a mortgage backed by a 10-unit property with \$300,000 mortgage would receive the

goals for units in small multifamily properties (5 to 50 units) that qualify under the goals. The GSEs purchase relatively few of these loans. Over the 1996–98 period, only eight percent of the units represented in the combined multifamily purchases of Fannie Mae and Freddie Mac were in properties in the 5–50 unit size range, compared to 37 percent of units which are in 5–50 unit properties among all mortgaged multifamily properties in 1991 (based on the Residential Finance Survey). Loans of this type which are not purchased by the GSEs are often structured with adjustable-rate mortgages, or with fixed-rate financing involving interest rates that are as much as 150 basis points above those on standard multifamily loans. Targeting the GSEs toward these purchases could make these properties and the units in them more available and affordable.

Awarding bonus points for these units would have increased Fannie Mae's and Freddie Mac's performance on the Low- and Moderate-Income Housing Goal by an average of 0.89 and 0.33 percentage points, respectively, over the 1996–98 period. Corresponding percentage point effects for the Special Affordable Housing Goal are 0.55 and 0.21 percentage points, and for the Geographically Targeted Goal, 0.66 and 0.21 percentage points for Fannie Mae and Freddie Mac, respectively. The impacts could be significantly larger in future years if such a bonus point framework provided a significant incentive for the GSEs to step up their role in financing small multifamily properties.

(2) *Counting Units in Small Multifamily Properties.* Implementing this provision would require clear specification of the concept of a multifamily property relative to which the 5–50 unit limit for bonus points would be applied. The Department proposes to award bonus points for small multifamily properties to address the significant needs for their financing, both for properties that are underwritten and financed individually and for properties that are aggregated into larger financing packages. However, the Department further intends that bonus points will not be awarded for properties that are aggregated or disaggregated into 5–50 unit financing packages solely for the purpose of earning bonus points. Normally, a property is the land and improvements associated with one mortgage as defined in HUD's regulations. Ambiguity may arise in connection with GSE financings which are not cash or swap transactions involving mortgages. In such cases, or in other cases where a GSE believes that it

would be appropriate to award bonus points in connection with a transaction, the GSEs should seek guidance from the Department concerning the delineation of properties associated with the financing and the consequent allowability of bonus points.

(3) *Bonus Points for Small Rental Properties.* HUD further proposes to add § 81.16(c)(10)(ii) to assign double weight in the numerator for each of the three housing goals for all units in 2- to 4-unit owner-occupied properties that qualify under the goals. Under this proposal, such units would receive bonus-point treatment to the extent that the number of such units financed by mortgage purchases are in excess of 60 percent of the average number of units qualifying for the respective housing goal during the immediately preceding five years. These loans represent a small portion of the GSEs' overall mortgage purchases although these units comprise a large percentage of the low-income housing stock. Use of bonus points in this category could provide incentives for the GSEs to increase their purchases in underserved areas.

The 60 percent threshold, if it were in effect for 1999 GSE mortgage purchases, would be set at the following levels:

	Fannie Mae (No. of units)	Freddie Mac (No. of units)
Low- and Moderate-Income Housing Goal ..	26,294	16,971
Geographically Targeted Goal	25,193	14,889
Special Affordable Housing Goal	12,720	8,564

The Department estimates that, if bonus points for small rental properties had been in effect during 1996–1998, Freddie Mac's goal percentages would have increased by 0.89 percentage point on the Low- and Moderate-Income Housing Goal, 0.67 percentage point on the Geographically Targeted Goal, and 0.47 percentage point on the Special Affordable Housing Goal, based on average purchase volumes over this three-year period. Fannie Mae's goal percentages would have increased by 0.91 percentage point on the Low and Moderate Income Housing Goal, 0.76 percentage point on the Geographically Targeted Goal, and 0.43 percentage point on the Special Affordable Housing Goal.

The purpose of bonus points is to encourage the GSEs to establish a larger and more consistent presence for the GSEs in targeted segments of the mortgage market. During the period that the goals under this proposal are

effective, the Department will carefully monitor the effects of the bonus points approach in the housing categories in which they are being applied, to determine whether they are effective in incorporating the financing of properties targeted by the bonus points into the GSEs' mainstream activities. The Department does not plan to award bonus points to the GSEs after December 31, 2003, unless the Department specifically chooses to extend their availability in accordance with provisions of the rule.

b. *Subgoals.* Alternatively, HUD is considering using subgoals to encourage the GSEs to undertake activities to address the unmet credit needs of groups or areas and/or to support public policy initiatives that are consistent with the GSEs' public purposes. HUD may establish subgoals under any of the three housing goals although HUD may only enforce subgoals under the Special Affordable Housing Goal.⁶⁵ While FHEFSSA prohibits the enforcement of subgoals under the Low- and Moderate-Income Housing Goal or the Geographically Targeted Goal, the use of subgoals, whether or not they are enforceable, could encourage the GSEs to address unmet credit needs by directing the GSEs' and the public's attention on particular needs. For example, the special affordable housing multifamily subgoal has focused the GSEs' attention on special affordable multifamily activities.

In the 1995 rulemaking, HUD chose not to establish subgoals under either the Low- and Moderate-Income Housing Goal or the Geographically Targeted Goal, despite a number of comments urging the use of such tools. At that time, HUD expressed concern that the establishment of subgoals might be construed as micromanagement of the GSEs' business decisions at that relatively early post-FHEFSSA stage.⁶⁶ However, since issuance of the 1996 to 1999 housing goals, HUD has conducted extensive analyses of the GSEs' operations under the housing goals, as well as the size and components of the primary mortgage market. Based on this analysis, HUD can better identify areas of unmet credit needs. Inasmuch as Congress, in FHEFSSA, explicitly authorized HUD to create subgoals—although they would be largely

⁶⁵ Section 1332(a) of the FHEFSSA grants HUD authority to "establish separate specific subgoals within the [Low- and Moderate-Income Housing] goal. * * *" Section 1334(a) contains a similar provision for the Geographically Targeted Goal. Section 1333 allows HUD to establish subgoals under the Special Affordable Housing Goal that are enforceable.

⁶⁶ See *id.*

unenforceable—and in light of increased experience under the goals, HUD requests comments on the extent to which HUD should utilize subgoals.

c. *Areas Under Consideration for Bonus Points and/or Subgoals.* In

addition to those areas described above, for which HUD proposes to award bonus points, HUD has identified several areas of unmet credit needs that could be addressed through the use of bonus points or subgoals, as

appropriate. These areas are listed below, along with the possible rationale for taking such approach(es).

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Area of Concern	Rationale
Manufactured housing	Manufactured housing provides some of the most affordable owner-occupied housing for families targeted by HUD's housing goals. In fact, three-quarters of
Single family loans to categories of minorities which data indicates are underserved	Data indicates that certain categories of borrowers have lower home ownership rates than "served" borrowers and they
Single family and multifamily rehabilitation loans	<u>Single family</u> : More funds are needed for purchasing (or refinancing) homes in need of repairs. <u>Multifamily</u> : GSEs apply more stringent underwriting requirements for properties that are
Single family and multifamily loans in tribal areas	While Fannie Mae has participated in HUD's Section 184 program, which promotes affordable housing opportunities for Native Americans,
Single family and multifamily loans in Empowerment Zones/ Enterprise Communities (EZ/EC)	Potential borrowers in these distressed communities have a greater demand for products that allow flexible underwriting including consideration of non-traditional credit information.
Low-income borrowers and tenants in underserved portions of non-metropolitan areas	Studies show that certain parts of rural areas continue to be underserved by the secondary market.
Expiring Section 8 contracts.	The Mark-to-Market legislation provided that the GSEs should receive credit for actions that assist in maintaining the affordability of assisted units in eligible multifamily housing

In addition to the specific rule changes proposed above, the Department invites comment on the following:

(1) Should HUD use either bonus points or subgoals to target mortgage purchases for one or more of the areas of concern identified above?

(2) Would one or more of these areas benefit more from bonus points or the establishment of subgoals and why? If bonus points are suggested, what amount of bonus points should be assigned, and why?

(3) Are there other areas not identified where bonus points and/or subgoals should be considered?

6. Calculating Performance Under the Housing Goals. In the current regulation, HUD set forth general requirements for counting the GSEs' performance under the housing goals in § 81.15, special counting requirements in § 81.16 (including specific exclusions from eligibility in § 81.16(b)), additional special requirements pertaining to counting under the Special Affordable Housing Goal in § 81.14, and rules for classifying families and units into income ranges in §§ 81.17–81.19. HUD's experience since the 1995 issuance of the current regulations indicates that several of these counting rules require clarification to ensure that they are understood and applied in a consistent manner and that the GSEs are achieving FHEFSSA's objectives. HUD invites comment on these clarifications and revisions described below.

a. Temporary Adjustment Factor for Freddie Mac. In response to widespread default losses, Freddie Mac ceased purchasing multifamily mortgages for a period of time in the early 1990s. However, Freddie Mac significantly expanded its presence in the multifamily mortgage market in the period since HUD's Interim Housing Goals took effect at the beginning of 1993, with purchases totaling \$191 million that year. Freddie Mac's purchases reached \$6.6 billion in 1998 and \$3.4 billion in the first six months of 1999.

Despite this progress, Freddie Mac's presence in the multifamily market lags far behind that in single-family. Multifamily mortgages held in portfolio or guaranteed by Freddie Mac represented only 3 percent of the outstanding stock of such mortgages as of the end of the third quarter of 1998, compared with 16 percent of single-family mortgages. Corresponding figures for Fannie Mae are 11 percent in

multifamily and 21 percent in single-family.⁶⁷

Because of the importance of multifamily acquisitions to the GSE housing goals, the limited scope of Freddie Mac's multifamily acquisition volume has impaired its performance on HUD's housing goals. For example, while multifamily units accounted for only 8 percent of Freddie Mac's overall 1997 business, they accounted for 31 percent of units qualifying toward the Special Affordable Housing Goal, and 19 percent of the units qualifying for the Low- and Moderate-Income Goal. Thus, improved performance by Freddie Mac on the housing goals will require strengthening its efforts in the multifamily mortgage market.

To overcome any lingering effects of Freddie Mac's decision to leave the multifamily market in the early 1990s, it is reasonable for the Department to provide an incentive for Freddie Mac to further expand its scope of multifamily operations. The Department is proposing a "Temporary Adjustment Factor" for Freddie Mac's multifamily mortgage purchases for purposes of calculating performance on the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal. In determining Freddie Mac's performance for each of these two goals, each unit in a property with more than 50 units meeting one or both of these two housing goals would be counted as 1.2 units in calculating the numerator of the respective housing goal percentage. The Temporary Adjustment Factor would be limited to properties with more than 50 units because of separate provisions regarding multifamily properties with 5–50 units, discussed separately in Section II.B.5.a.(1).

The Temporary Adjustment Factor would terminate December 31, 2003. The Adjustment Factor would not be applied to the Geographically Targeted Goal. The Adjustment Factor would not apply to Fannie Mae.

The Department estimates that, if the Temporary Adjustment Factor were in effect during 1996–1998, it would have raised Freddie Mac's performance on the Low- and Moderate-Income Housing Goal by 1.52 percentage points and the Special Affordable Housing Goal by 0.86 percentage points.

HUD specifically requests comments on whether the proposed temporary

adjustment factor for Freddie Mac is set at an appropriate level, and if such an adjustment factor should be phased out prior to 2003 or apply for the entire four year cycle.

b. Data on Unit Affordability. As indicated in § 81.15(a), each GSE must obtain all required information to determine whether units financed by the GSE purchased mortgages that qualify for one or more of the goals. If any of the information is missing, the GSEs must exclude the mortgage purchase from the numerator as not qualifying but they must include the mortgage in the denominator as a mortgage purchase in calculating performance under a housing goal.⁶⁸ The Senate Report on FHEFSSA noted the presence of an "information vacuum" with regard to the GSEs' mortgage purchases, indicating Congress' intention that the Department require accurate and comprehensive data regarding the GSEs' mortgage purchases for purpose of measuring compliance with the housing goals.⁶⁹ Therefore, the Department is committed to maintaining a complete and fully reliable loan level data base of the GSEs' mortgage purchases.

The GSEs have indicated that, for certain single family and multifamily mortgage purchases, it is difficult, and therefore costly, to obtain the necessary data on incomes and rents for all units associated with their mortgage purchases, especially for seasoned loan transactions and some negotiated transactions. The GSEs have requested the authority to use estimation techniques to approximate the unit rents in multifamily properties where current rental information is unavailable and to exclude units from the goal calculations where it is impossible to obtain full data or estimate values.

While providing the GSEs relief from the requirement to obtain rental data would remove an incentive to collect such information, the Department recognizes that the lack of such data in the mortgage market poses potentially insurmountable difficulties for the GSEs for a portion of their mortgage purchases. The Department, therefore, proposes the following measures for treatment of cases where a GSE does not obtain full data. The Department seeks comments on these proposals and welcomes suggestions for alternative ways of addressing the issue.

(1) Multifamily Rental Units. For purposes of counting rental units

⁶⁷ Source: *Federal Reserve Bulletin*, March 1999, p. A35. HUD estimates that, in 1997, Freddie Mac acquired mortgages representing approximately 7 percent of the conventional multifamily market, compared with 17 percent of the conventional, conforming single family market. Corresponding estimates for Fannie Mae are 21 percent of multifamily and 31 percent of single family.

⁶⁸ Purchases of mortgages originated prior to 1993 with missing data may be excluded from the denominator.

⁶⁹ See Sen. Rep. at 33.

toward achievement of the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, the current regulation requires that mortgage purchases financing eligible units be evaluated based on either the income of the tenant, or where this information is unknown, on the actual or average rent relative to area median income, as of the time the mortgage was acquired.⁷⁰ The GSEs generally use rental data in calculating goal achievement.

For units in multifamily properties (five or more units), the Department proposes to allow the use by a GSE of estimated rents based on market rental data. The Department will review and approve the GSEs' data sources and methodologies for estimating rents on multifamily units prior to their use, to assure reliability. Rental data submitted to the Department based on an estimation shall be so identified by the GSE. HUD requests comments on whether it should establish a percentage ceiling for the GSEs' use of estimated data for multifamily mortgage purchases.

The Department further proposes to exclude units in multifamily properties from the denominator as well as the numerator in calculating performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when sufficient information is not available to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the goal, and when the application of estimated rents based on an approved market rental data source and methodology is not possible. HUD requests comments on whether it should establish a percentage ceiling for the exclusion of multifamily units with missing data from the denominator for goal calculation purposes when estimated rents are not available. Because a relatively large portion of multifamily units count toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, an incentive for the GSEs to provide affordability data would remain in place even if such data were excluded from the denominator without limitation.

(2) *Single Family Rental Units.* For purposes of counting rental units in 1–4 unit single family properties toward achievement of the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, the Department proposes to exclude the

rental units in 1–4 unit properties from the denominator as well as the numerator in calculating performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when sufficient information is not available to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the Low- and Moderate Income Housing Goal or the Special Affordable Housing Goal. HUD requests comments on whether it should establish a percentage ceiling for the exclusion of single family rental units with missing data from the denominator for goal calculation purposes when estimated rents are not available. Because a relatively large proportion of rental units in 1–4 unit single family properties count toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, an incentive for the GSEs to provide affordability data would remain in place even if such data were excluded from the denominator without limitation.

(3) *Single Family Owner-Occupied Units.* For purposes of counting single family owner-occupied units toward achievement of the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, the current regulation requires that mortgage purchases financing eligible owner units be evaluated based on the income of the owner relative to area median income, as of the time the mortgage was originated.⁷¹

The Department proposes to allow a GSE to exclude certain single family owner-occupied units from the denominator as well as the numerator in calculating performance under the Low- and Moderate-Income Housing Goal when the GSE lacks sufficient information on borrower income to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the goal, provided the mortgaged property is located in a census tract with median income less than or equal to area median income according to the most recent census. Such exclusion from the denominator and numerator will be permitted up to a ceiling of one percent (1%) of the total number of single family, owner-occupied dwelling units eligible to be counted toward the respective housing goal in the current year. Mortgage purchases in excess of the ceiling will be included in the denominator and excluded from the numerator.

HUD's analysis of GSE loan-level data indicates that the share of single-family

owner-occupied units qualifying for the Low- and Moderate Income Housing Goal and the Special Affordable Housing Goal is significantly higher in tracts with median income less than or equal to area median income ("low-mod tracts") than in other tracts, and is in fact higher than the GSEs' overall goals performance across all property types. Consequently, excluding such units from the numerator and denominator in cases where income data are missing is unlikely to result in measured goals performance exceeding actual goals performance.

c. *Seasoned Mortgage Loan Purchases "Recycling" Requirement.* Under section 1333(b)(1)(B) of FHEFSSA, special rules apply for counting purchases of portfolios of seasoned mortgages under the Special Affordable Housing Goal. Specifically, the statute requires that purchases of seasoned mortgage portfolios receive full credit toward the achievement of the Special Affordable Housing Goal if "(i) the seller is engaged in a specific program to use the proceeds of such sales to originate additional loans that meet such goal; and (ii) such purchases or refinancings support additional lending for housing that otherwise qualifies under such goal to be considered for purposes of such goal."⁷² HUD refers to this provision as the "recycling requirement."

Section 81.14(e)(4)(i) of HUD's regulations clarify the meaning of the phrase "engaged in a specific program to use the proceeds of such sales to originate additional loans that meet" the Special Affordable Housing Goal by providing that:

[A] seller must currently operate on its own or actively participate in an ongoing program that will result in originating additional loans that meet the goal. Actively participating in such a program includes actively participating with a qualified housing group that operates a program resulting in the origination of loans that meet the requirements of the goal.

Section 81.14(e)(4)(ii) provides that the GSEs must verify and monitor that the seller is engaging in a specific program to use the proceeds of such sales to originate additional loans that meet the Special Affordable Housing Goal.

Based on a review of the GSEs' performance under the Special Affordable Housing Goal, the Department believes further guidance is needed with regard to the recycling requirements described above to ensure that mortgage purchases granted full credit under this provision satisfy the purposes of FHEFSSA and, at the same

⁷⁰ 24 CFR 81.15(e). Rental information may be presented for type-of-unit categories identified by number of bedrooms and average rent level.

⁷¹ 24 CFR 81.15(d).

⁷² 12 U.S.C. 4563(b)(1)(B).

time, to ensure that the rules are applied so as to avoid any unnecessary regulatory burden. The Department, therefore, proposes to amend its regulations to further explain the requirements for the GSEs to receive full credit under these provisions and to establish new, simpler rules when it is evident based on the characteristics of a mortgage seller, including the seller's legal responsibilities, that the recycling requirements are met. The new rules would provide that for a mortgage purchase to meet the recycling requirements:

(1) The seller must currently operate on its own or actively participate in an on-going, discernible, active, and verifiable program directly targeted at the origination of new mortgage loans that qualify under the Special Affordable Housing Goal.

(2) The seller's activities must evidence a current intention or plan to reinvest the proceeds of the sale into mortgages qualifying under the Special Affordable Housing Goal, with a current commitment of resources on the part of the seller to this purpose.

(3) The seller's actions must evidence willingness to buy qualifying loans when these loans become available in the market as part of active, on-going, sustainable efforts to ensure that additional loans that meet the goal are originated. Actively participating in such a program includes purchasing qualifying loans from a correspondent originator, including a lender or qualified housing group, that operates an on-going program resulting in the origination of loans that meet the requirements of the goal, has a history of delivering, and currently delivers, qualifying loans to the seller.

Under this proposed rule, as under the current requirements, the GSEs must ordinarily verify and monitor that sellers meet the foregoing requirements and develop any necessary mechanisms to ensure compliance with these requirements. However, HUD does not believe that the efforts of the GSEs are well spent on monitoring compliance when, because of the nature and responsibilities of particular sellers, it is clear that the seller meets the recycling requirements. For this reason, the rule proposes that an institution that is (1) regularly in the business of mortgage lending; (2) a BIF-insured or SAIF-insured depository institution; and (3) subject to, and has received at least a satisfactory performance evaluation rating for at least the two most recent consecutive examinations under, the Community Reinvestment Act,⁷³ (which

requires affordable lending), would meet the recycling requirements. The nature of such an institution's business and regulatory responsibilities require it to engage in a program that satisfies the recycling provisions. This rule, therefore, proposes that HUD and the GSEs may presume that such institutions, classified by the appropriate "Type of Seller Institution" data element, meet the recycling requirements.

Moreover, in the interest of further reducing unnecessary regulatory burden, HUD believes that there are certain additional classes of institutions or organizations that should be recognized as meeting the recycling requirements. For example, classes of institutions whose primary businesses are financing affordable housing mortgages, including possibly State Housing Finance Agencies or Special Affordable Housing Loan Consortia. For such classes of institutions or organizations, HUD is proposing that the GSEs may presume that they meet the recycling requirements. Classes of institutions or organizations must be approved by the Department and be appropriately identified in the GSEs' data submissions. Commenters are invited to provide their views on how to identify and define such classes of organizations or institutions.

In addition to specific changes proposed, commenters are invited to share their views as to whether any additional exemptions or changes to this provision should be established under the recycling provisions that would further its purpose. Comments are also specifically invited on (1) what, if any, provisions should be included in the proposed rule to address the various affiliate structures of depository institutions; and (2) the treatment under the recycling provisions of structured transactions where the mortgage loans included in the transaction were originated by a depository institution or mortgage banker engaged in mortgage lending on special affordable housing but acquired, packaged and re-sold by a third party, *e.g.*, an investment banking firm, that is not in the business of affordable housing lending.

An additional matter concerns the appropriate interpretation of § 81.16(c)(6) for counting seasoned mortgages. During the last four years, both GSEs have asserted that HUD's regulations permit the exclusion of purchases of seasoned mortgages from the denominator as well as from the numerator when the recycling requirements have not been met or when the status of loans with respect to this provision is unknown.

The GSEs believe that the regulation should be interpreted to mean that purchases of seasoned loans should not count in the denominator in calculating Special Affordable Housing Goal performance if the recycling requirements of section 1333(b)(1)(B) are not satisfied. The GSEs maintain that this provision defines whether such loans are "mortgage purchases" and thus, whether they are to be included in the denominator. As a result of this interpretation, Fannie Mae chooses not to undertake the verification and monitoring required to track compliance with the recycling provision and excludes the purchases from the denominator based on its lack of information. Freddie Mac chooses a similar treatment for those seasoned loans it does not count toward its Special Affordable Housing Goal performance.

In calculating its 1996 and 1997 performance under the Special Affordable Housing Goal, Fannie Mae excluded all seasoned loan purchases from both the numerator and the denominator for purposes of reporting its goals performance to HUD. The effect of this action was to reduce the denominator by 212,290 units in 1996 and 197,074 units in 1997, with the result that Fannie Mae considered its goal figures to be two percentage points higher than HUD's determination in 1996 and 2.15 percentage points higher in 1997. Freddie Mac counted most of its seasoned loan purchases towards the Special Affordable Housing Goal and, thus, there was only a marginal impact on its goal performance.

The Department has consistently maintained that the GSEs are required to count all mortgage purchases in the denominator. HUD's rules only permit the GSEs to exclude mortgages from the denominator under explicit circumstances. See §§ 81.15(a) and 81.16(b). As we have stated, the legislative history of FHEFSSA emphasizes the importance of accurate and comprehensive data.⁷⁴ On the other hand, experience indicates that incentives for the GSEs to gather accurate and comprehensive data may encourage the GSEs, in some instances, to avoid certain purchases altogether in order to keep such purchases out of their denominator, notwithstanding that such purchases may meet the other goals. Accordingly, while HUD has in the past disagreed with the GSEs' interpretation of its current rules, the Department is now proposing to consider the possibility of limited exceptions to the general rule where it

⁷³ 12 U.S.C. 2901 *et seq.*

⁷⁴ See Sen. Rep. at 33.

would be beneficial for the GSEs to purchase certain mortgages that simply will not meet recycling requirements, without having their goals performance effectively reduced by including the purchases in the denominator. An example would be a GSE's purchase of low- or moderate-income loans from a mortgage seller that enters and then leaves the affordable lending business. Such an entity may not meet the recycling requirements as a statutory matter because the seller would no longer be "engaged in a specific program to use the proceeds of such sales to originate additional loans that meet the goal."⁷⁵ However, a GSE's willingness to purchase such mortgages may cause other originators to embark on affordable lending secure that the GSE will provide a secondary market for these loans.

To encourage affordable lending, this rule proposes to permit the Department in certain cases or classes of cases to allow the GSEs to exclude mortgages from the numerator and the denominator under the Special Affordable Housing Goal when the Department determines that such treatment serves to encourage the GSEs' mortgage purchases to further the purposes of the goal. To implement this change, HUD proposes to revise the language in § 81.16(c)(6) so that the Department may permit the exclusion of cases or classes of purchases of seasoned mortgage loans from the numerator and the denominator in a GSE's calculations of performance under the Special Affordable Housing Goal when the Department determines such purchases further the purposes of the goal. The rule proposes that the GSE may request such treatment in writing and that the Department will respond to such request following the Department's determination. Commenters are specifically asked for their views regarding whether the Department should adopt this exclusion and, if so, what, if any, limits should be placed on it. To implement this change, HUD proposes to revise the language in § 81.16(c)(6) so that the Department may permit the exclusion of cases or classes of purchases of seasoned loans from the numerator and the denominator in a GSE's calculations of performance under the Special Affordable Housing Goal when the Department determines such purchases further the purposes of the goal. The rule proposes that the GSE may request such treatment in writing and the Department will respond to such request following the Department's

determination. Commenters are specifically asked for their views regarding whether the Department should adopt this exclusion and, if so, what, if any, limits should be placed on it.

d. *Counting Federally Insured Mortgages Including HECMs, Mortgages on Housing in Tribal Areas and Mortgages Guaranteed by the Rural Housing Service Under the Housing Goals.* Under HUD's current rules, non-conventional mortgages—mortgages that are guaranteed, insured or otherwise obligations of the United States—do not generally count under the three housing goals. (§ 81.16(b)(3)) Certain of these mortgages—including under the Home Equity Conversion Mortgage (HECM) Program, 12 U.S.C. 1715z–20, and the Farmers Home Administration's (now the Rural Housing Service's [RHS's]) Housing Loan Program—do, however, count under the Special Affordable Housing Goal. FHEFSA specifically provides that mortgages that cannot be readily securitized through GNMA or another Federal agency and where a GSE's participation substantially enhances the affordability by statute receive full credit under the Special Affordable Housing Goal. On this basis, these two categories of mortgages count under that goal if they are for very low-income families or low-income families in low-income areas.

HECMs provide an important source of funds for senior citizens, especially those with lower incomes, who have paid off most or all of the mortgages on their homes and who wish to draw on the equity in their home to pay unanticipated expenses or to maintain a higher standard of living than they could support from their current income alone. Under HUD's HECM program they can do this without selling or risking the loss of their home. Fannie Mae has played a major role in the secondary market for HECMs, purchasing 5800 such loans in 1997 and 6700 such loans in 1998. Freddie Mac has not been involved in this program to date; inclusion of these loans for possible credit under all three of the housing goals will provide an incentive for them to play a role in the HECM market.

RHS loans are especially important to cash-strapped families in rural areas, since loan-to-value ratios can be as high as 100 percent. And the RHS's new Section 502 Direct Loan program is targeted to low-income and especially low-income families. Both GSEs have been involved in this market, with Fannie Mae purchasing 1600 such loans in 1997 and 2100 such loans in 1998, and Freddie Mac sharply stepping up its

presence from 1400 such loans in 1997 to 3300 such loans in 1998. The GSEs also assist the RHS in outreach through the development of promotional and advertising materials.

One other area the Department is considering counting for goal credit are loans made to Native Americans under FHA's Section 248 program and HUD's Section 184 program. The paucity of home mortgage lending on American Indian reservations and trust lands has been well documented. Secretary Cuomo, in his remarks accompanying President Clinton to the Pine Ridge Indian Reservation in South Dakota, recently commented that "The descendants of the first Americans shouldn't be locked out of the American Dream of homeownership." Allowing goal credit for FHA's Section 248 loans and HUD's Section 184 loans on reservations and trust lands will provide some support for these programs, though much greater efforts will be needed to make this dream of homeownership a reality.

Nonetheless, based upon its review of data on the GSEs mortgage purchases, HUD has concluded that HECMs, RHS mortgages and loans made to Native Americans under FHA's Section 248 program and HUD's Section 184 program comprise very small shares of the GSEs' business. At the same time, the properties secured by these mortgages present substantial and growing financing needs. Accordingly, while HUD maintains that non-conventional mortgages should be excluded under the goals where financing needs are already met by government programs, the Department also believes that non-conventional loans may count where financing needs are not well served. In such cases the goals will serve to direct the GSEs toward these needs. Accordingly, HUD proposes to amend its rules at § 81.16(b)(3) to except mortgages under the HECM program, mortgages guaranteed by RHS, and loans made under FHA's Section 248 program and HUD's Section 184 program on properties in tribal lands from the general exclusion under the rules for non-conventional loans. In addition, the rule allows the Department to count mortgage purchases under other non-conventional mortgage program(s) to count under the goals where the Department determines, in writing, that the financing needs addressed by such program are not well served and that mortgage purchases under such program should count. The proposed rule provides that where non-conventional mortgage purchases will now count toward the goal, they no longer will be

⁷⁵ 12 U.S.C. 4563(b)(1)(B).

excluded from the denominator of the GSEs' mortgage purchases as are other non-conventional loans.

e. *Counting Title I Loans.* During the transition period, from 1993 to 1995, HUD explicitly provided that home improvement and manufactured home loans for which lenders are insured under HUD's Title I program received half credit toward all three housing goals for which they qualified.⁷⁶ Following the transition period, HUD's 1995 final rule provided that, in accordance with section 1333(b)(1)(A) FHEFSSA, GSE purchases of non-conventional mortgages do not count toward the housing goals.⁷⁷ The exception to the rule is that Federally-related mortgages may receive full credit toward the Special Affordable Housing Goal if the mortgages would otherwise qualify for the goal, the Government National Mortgage Association (Ginnie Mae) cannot readily securitize them, and participation by the GSE substantially enhances their affordability.⁷⁸

In a pilot program initiated between July 1996 and July 1997, Ginnie Mae was not successful in securitizing Title I loans. Moreover, while HUD has not analyzed whether GSE participation in these loans enhances their affordability, the pricing efficiencies that result from the securitization of mortgages suggest that an affordability analysis would be favorable.

Under the circumstances, HUD is proposing to amend § 81.14 to explicitly allow the GSEs to receive half credit for Title I loans under the Special Affordable Housing Goal. Units financed with Title I loans would be included at 100 percent (each unit counts as such) in the Special Affordable Housing Goal denominator, and included at 50 percent (each unit counts as such) in the Special Affordable Housing Goal numerator when they otherwise qualify for that goal. However, units financed with Title I loans would be excluded from the numerator and denominator in both the Low- and Moderate-Income Housing Goal and the Geographically Targeted Goal.⁷⁹

f. *Defining the Denominator.* Section 81.15(a) of the 1995 final rule defines the denominator as "the number of dwelling units that could count toward achievement of the goal under appropriate circumstances." HUD proposes to clarify this provision further

by adding language to § 81.15 that specifically provides that the denominator shall not include GSE transactions or activities that are not mortgages or that are mortgage purchases or transactions which are specifically excluded as ineligible under § 81.16(b) of the regulations.

g. *Balloon Mortgages.* Single family mortgage refinances that result from the conversion of balloon notes to fully amortizing notes shall not count as mortgage purchases where the GSE already owns or has an interest in the balloon note at the time the conversion occurs and the GSE owns or has an interest in the fully amortizing note. Such conversions shall not be treated as a refinancing and shall not be counted in the numerator or denominator in calculating goal performance. Refinancings of balloon mortgages not owned by the GSE will be included in the denominator and numerator as appropriate. To implement this change to the special counting requirements, HUD proposes to revise the definition of "Refinancing" in § 81.2 to specifically exclude the conversion of balloon mortgages on single family properties and to add this provision to the special counting requirements in § 81.16.

h. *Expiring Assistance Contracts.* Section 517(c) of the Multifamily Assisted Housing Reform and Affordability Act of 1997⁸⁰ (the 1997 Act) provides that actions taken to assist in maintaining the affordability of assisted units in eligible multifamily housing projects with expiring Section 8 contracts "shall constitute part of the contribution of each [GSE] in meeting its affordable housing goals * * *, as determined by the Secretary." The Department is proposing to add a provision to § 81.16 that provides partial or full credit for such actions. "Actions" under the 1997 Act relevant to the GSEs would include the restructuring or refinancing of mortgages, and credit enhancements or risk-sharing arrangements to modified or refinanced mortgages. Comments are invited on how and to what extent the GSEs should receive credit for such actions.

i. *Especially Low Income.* In accordance with section 1333 of FHEFSSA, § 81.14(d)(1)(i) currently provides that dwelling units in a multifamily property will count toward the Special Affordable Housing Goal if 20 percent of the units are affordable to families whose incomes do not exceed 50 percent of the area median income. Sections 81.17 through 81.19 provide that the income requirements are to be

adjusted based on family size, and provide such adjustments for moderate-income families (income not in excess of 100 percent of area median income), low-income families (income not in excess of 80 percent of area median income), and very low-income families (income not in excess of 60 percent of area median income); but there is no similar adjustment table provided for families whose incomes do not exceed 50 percent of area median income. While such adjustments could be extrapolated from the adjustment tables provided in §§ 81.17 through 81.19, in order to assist the public, this rule proposes to amend these sections to provide additional adjustment tables for such families. In the interests of consistency, this rule also proposes to designate such families as "especially low-income families" for purposes of the Department's GSE regulations. Section 81.14 of the proposed rule is amended to make such a designation.

j. *Provision for HUD to Review New Activities to Determine Appropriate Counting Under the Housing Goals.* While the GSEs participate in transactions and activities that support community and housing development in general, FHEFSSA is clear that only "mortgage purchases" count toward performance on the housing goals.⁸¹ HUD's regulations provide that HUD will determine whether a transaction or activity is a "mortgage purchase" and will therefore count toward one or more of the goals for which it qualifies. Section 81.16 of the current regulations provides that in determining whether a GSE will receive full credit toward one or more of the goals for a transaction or activity, the Department will consider whether the transaction or activity "is substantially equivalent to a mortgage purchase and either creates a new market or adds liquidity to an existing market."

As provided in § 81.16(b), HUD has determined that certain transactions do not meet those criteria and therefore will not count toward a GSE's performance toward the housing goals (e.g., equity investments in housing development projects; commitments, options, or rights of first refusal to acquire mortgages; state and local government housing bonds; and non-conventional mortgages, except under certain circumstances); such purchases are not included in the numerator or the denominator. HUD has also provided guidelines in the regulations for the treatment of other types of transactions, such as credit enhancements, real estate mortgage investment conduits

⁷⁶ Fannie Mae continued to count half credit for Title I purchases during 1996 through 1998.

⁷⁷ Section 81.16(b)(3).

⁷⁸ Section 81.14(e)(2).

⁷⁹ 12 U.S.C. 4563(b)(1)(A)(ii).

⁸⁰ Title V of HUD's 1998 Appropriations Act, Pub. L. 105-65, approved October 27, 1997.

⁸¹ See Sen. Rep. at 38.

(REMICs), risk-sharing arrangements, participations, cooperative housing and condominiums, seasoned mortgages, refinanced mortgages, and mortgage revenue bonds.

In meeting the goal levels proposed here the GSEs will need to continue to develop products and approaches to close the gap between their performance and that of the primary mortgage market. In doing so, however, HUD and the GSEs must be mindful of FHEFSSA's requirements. Since only mortgage purchases count under the goals, this rule proposes new requirements to ensure timely guidance to the GSEs regarding new approaches or new types of transactions. Under the proposed revisions, in order to eliminate confusion about whether a given transaction will receive credit under the housing goals, the GSEs may provide information about specific transactions to the Department for evaluation and a determination of whether the transaction will receive full, partial, or no credit. The Department may also continue to independently request information of the GSEs about certain types of mortgage transactions. The Department will review the transactions to ensure that the counting of such transactions under the housing goals is consistent with FHEFSSA and advise the GSEs of the Department's determination with regard to credit for purposes of counting such transactions under the housing goals. This proposed rule amends § 81.16 to further clarify this point.

k. *Credit Enhancements.* The GSEs utilize a large variety of credit enhancements, for both single family and multifamily mortgage purchases, to reduce the credit risk to which they might otherwise be exposed. For example, the GSEs generally require the use of mortgage insurance on single-family loans with loan-to-value ratios exceeding 80 percent. While more common in the multifamily mortgage market, seller-provided credit enhancements may also be required for GSE purchases of single family mortgage loans when mortgage insurance is not carried on individual mortgage loans. Other types of credit enhancements include:

(1) Credit enhancements in structured transactions where a GSE may acquire a pool of loans, mortgage-backed securities (MBS), or real estate mortgage investment conduits (REMICs), and then create separate senior and subordinated securities, structured so that the subordinated securities absorb credit losses. The senior securities are guaranteed by the GSE; the subordinated securities are not.

(2) Spread accounts, in which a GSE may create a special class of unguaranteed securities where pass-through payments will cease in the event of default of the underlying mortgage collateral. Proceeds from the sale of such securities provide a degree of protection against credit losses. Such transactions differ from structured transactions in that no senior securities are explicitly created. Freddie Mac's 1998 "MODERNS" transactions are an example.⁸²

(3) Acquisition of senior tranches of REMIC securities. In these transactions, the GSEs acquire senior tranches of REMICs which are enhanced by the presence of subordinate tranches. These senior tranches typically receive an investment-grade rating from one of the major rating agencies. A difference between this type of transaction and the structured transactions described above is that when the GSEs purchase a senior tranche, the collateral is already credit-enhanced prior to purchase.

(4) Agency pool insurance. A GSE reduces its exposure if insurance is provided by a mortgage seller on a pool of single family mortgage loans which may also individually carry mortgage insurance.

In its recent report titled "HUD's Implementation of Its Mission Oversight Needs to Be Strengthened," dated July 28, 1998, GAO reviewed the effectiveness of HUD's regulation of the GSEs. As part of that report, GAO commented on the Department's treatment of credit enhancements under the current rule. GAO noted that by allocating full credit toward the housing goals on multifamily mortgages with seller provided credit enhancements, through which the seller of mortgages retains some of the credit risk on mortgages, HUD may be providing a "regulatory incentive" for the GSEs to utilize such enhancements.⁸³ These credit enhancements typically take the form of recourse to the seller or loss-sharing agreements between the seller and the GSE purchasing the mortgage.

The GAO commented further that HUD's treatment of mortgage purchases involving credit enhancements under the housing goals appears inconsistent with HUD's treatment of mortgages acquired by the GSEs under a risk-

sharing program with FHA. Under § 81.16(c)(3) of the regulation, the GSEs receive housing goal credit for mortgage purchases under a risk-sharing arrangement only where the GSEs bear at least 50 percent of the credit risk. GAO noted that no similar requirement pertains to mortgages for which sellers provide credit enhancements, even, hypothetically, where a seller would bear 100 percent of the credit risk.

HUD responded that GSE credit enhancement transactions provide liquidity. Moreover, seller provided credit enhancements differ from the FHA risk-sharing program in that seller provided credit enhancements include an element of counterparty risk; in the sense that, in the event of default, some sellers lack the financial resources to fulfill their commitment to repurchase a loan or otherwise share in default losses.

In considering the treatment of credit enhancements, HUD invites comments on the following questions:

(i) Given the wide range of institutional arrangements pertaining to credit enhancements and the interrelationships between credit enhancements and other considerations such as loan-to-value ratio and guarantee fee, how might the credit risk to which the GSEs are exposed be measured under various types of credit enhancement scenarios?

(ii) Assuming credit risk can be adequately measured, should HUD give partial credit under the housing goals when credit enhancements result in a substantial portion of the credit risk of the transaction being borne by the seller or a third party? For example, if the GSE bears less than 50 percent of the credit risk of a transaction should the GSE receive no credit toward housing goal performance? If the GSEs assume between 50 percent and 75 percent of the credit risk of a transaction, should the GSE receive 50 percent credit for housing goal purposes?

(iii) What would be the advantages and disadvantages of linking the amount of goals credit on a GSE mortgage purchase to the degree of associated credit risk? What are the possible effects on low-and moderate-income families and on underserved areas of the GSEs' use of various credit enhancements and how might they be affected if goals credit were linked to the degree of associated credit risk? Would there be potential effects on liquidity or other mortgage market factors?

(iv) Assuming credit risk can be adequately measured, should HUD establish a minimum percentage in the range of 0 to 100 percent for the amount of credit risk borne by the GSEs on their

⁸² "MODERN" is an acronym for Mortgage Default Recourse Notes. See "Freddie Mac Trying Hand at One of Fastest Growing Practices in Mortgage Business: Captive Reinsurance," *Inside Mortgage Finance*, June 26, 1998, pp. 3; "New Details on Freddie Mac's Novel MODERNS Transactions Emerge: 27% Coverage on All Defaults," *Inside MBS & ABS*, June 19, 1998.

⁸³ HUD's Implementation of Its Mission Oversight Needs to Be Strengthened, page 29 (GAO/GGD-98-173, July 28, 1998).

mortgage purchases in order for such purchases to count toward the housing goals?

(v) If HUD establishes a minimum threshold for credit risk, should it be the same for multifamily and single family purchases, or should it be different for each? At what level should the threshold(s) be established? Should HUD establish the same threshold for all types of credit enhancements, or should this differ between types of credit enhancements? At what level should the threshold(s) be established?

(vi) Should HUD measure counterparty risk on seller-provided credit enhancements? If so, how?

(vii) Should HUD evaluate GSE performance in relation to the use of credit enhancements by calculating and comparing the risk-adjusted rate of return under the use of various credit enhancement alternatives?

1. *High Cost Mortgage Loans.* There is ample evidence that high cost mortgage lending and abusive lending practices increase defaults, have destabilizing effects on neighborhoods, and adversely affect homeownership. High cost mortgage loans characterized by high interest rates and front-end fees are often coupled with requirements for balloon payments, negative amortization, prepayment penalties, and lump sum credit life insurance. Loans with these features sometimes are characterized as “predatory; while they may prove profitable to some originators, they quickly erode home equity for unwary borrowers. Evidence suggests that high cost loans are often the product of “reverse redlining;” these loans tend to target low-income communities and elderly, minority, and immigrant borrowers who have traditionally been denied access to mainstream sources of credit.

In 1994, Congress addressed many abuses in the primary market with the Home Ownership and Equity Protection Act (HOEPA), which provides special disclosures and protections for borrowers of certain high cost refinance mortgages. (15 U.S.C. 1639) To be subject to HOEPA’s requirements, mortgage loans covered under the law must have: (1) An annual percentage rate at least 10 points higher than the yield on Treasury securities with comparable maturity to the transaction; or (2) total points and fees payable by the consumer in excess of the greater of either \$451 (an amount established annually under the law by the Federal Reserve) or eight percent of the amount loaned. (15 U.S.C. 1602(aa)) Purchasers of these loans, including the GSEs, assume certain legal responsibilities

under the Truth in Lending Act (“assignee liability”).

Given the concerns about the adverse effects of high cost loans and abusive lending practices on neighborhoods and homeownership, the Department invites comments on whether this rule should disallow goals credit for high cost mortgage loans. The Department also seeks comments on the following: (1) If goals credit is restricted for such loans should the HOEPA definition be used, or should an alternative definition be established for purposes of this rule? (2) What are the potential benefits, if any, associated with the GSEs’ presence in various higher cost mortgage markets including mortgages with annual percentage rates between those of the prime market and the market for high cost mortgage loans (for example, standardization of underwriting guidelines and reductions in interest rates)? (3) What are the potential dangers, if any associated with the GSEs’ presence in various higher cost mortgage markets?

The presence of the GSEs in the higher cost mortgage markets would seem to warrant increased monitoring and additional reporting by the GSEs to HUD. The Department seeks comments on what additional data would be useful and whether certain of these elements should be included in the public use data base. Possible data elements that could be collected for Department monitoring purposes include loan level data on the annual percentage rate, debt-to-income ratio, points and fees, and prepayment penalties.

C. Subpart F—Access to Information

This subpart discusses proposed modifications to the Department’s Final Order of October 1, 1996,⁸⁴ “*Proprietary Data Submitted by the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)*” (the Final Order), under sections 1323 and 1326 of FHEFSSA. In the Final Order, HUD determined that certain mortgage data that HUD requires the GSEs to submit is proprietary and not to be included in the public use data base. Upon reviewing the previous order published as Appendix F of the 1995 Final Rule,⁸⁵ the Final Order finalized existing and identified additional GSE loan-level data elements for single family and multifamily mortgages that HUD determined were proprietary and, therefore, withheld from the public. The

Final Order also identified certain data elements that HUD would recode, adjust, or categorize in ranges to protect against the release of proprietary information, as necessary. After careful review of the previous proprietary orders, the Department is proposing a number of changes to the classification of certain GSE single family and multifamily mortgage data elements. The list of data elements that HUD proposes to make available to the public is described in the following sections. Appendix E of this proposed rule also contains full matrices, similar to those found in proprietary orders, that incorporate the changes proposed in this rule. Release of these data elements to public access is consistent with Congress’s intent that “every effort should be made to provide public disclosure of the information required to be collected and/or reported to the regulator, consistent with the exemption for proprietary data.”⁸⁶

1. *Background on Public Use Data Base and Public Information.* Section 1323 of FHEFSSA requires that HUD make available to the public, data relating to the GSEs’ mortgage purchases. In the legislative history of FHEFSSA, Congress indicated its intent that the GSE public use data base supplement the HMDA data.⁸⁷ The purpose of the data base is to assist mortgage lenders, planners, researchers, and housing industry groups, as well as HUD and other government agencies, in studying the flow of mortgage credit and capital into the nation’s communities. At the same time, Section 1326 protects from public access and disclosure, proprietary data and information that the GSEs submit to the Department and requires HUD to protect such data or information by Order or regulation.

To comply with FHEFSSA, HUD established a public use data base to collect and make available to the public, loan-level data on the GSEs’ single family and multifamily mortgage purchases. In Appendix F to the December 1, 1995 final rule, the Department specified the structure of the GSE public use data base and identified the data to be withheld from public use. The single family data was to be disclosed in three separate files—a Census Tract File (with geographic identifiers down to the census tract level), a National File A (with mortgage-level data on owner-occupied 1-unit properties), and a National File B (with unit-level data on all single-family properties). The national files do not

⁸⁴ Notice of the Order was published in the *Federal Register* on October 17, 1996 (61 FR 54322).

⁸⁵ 60 FR 62001.

⁸⁶ Senate Report 102–282, 102d Cong., 2d Sess. 40 (19992).

⁸⁷ See, e.g., Rep. at 39.

have geographic indicators. The multifamily data was to be disclosed in two separate files—a Census Tract File and a National File consisting of two parts—one part containing mortgage loan level data and the other containing unit level data for all multifamily properties. For each file, the appendix identified data elements that were considered proprietary and those that were not proprietary and available to the public, and specified further that certain proprietary elements would be recoded or categorized into ranges to protect the proprietary information and to permit the release of non-proprietary information to the public. This multi-file structure was designed at that time to allow the greatest dissemination of loan-level data, without revealing information that would allow competitors to determine the GSEs' marketing and pricing strategies at the local level.

On October 17, 1996, the Final Order describing each data element submitted by the GSEs and the proprietary nature of each element was published in the **Federal Register**. The Final Order also recoded, adjusted, or categorized in ranges certain proprietary loan-level data elements to protect the proprietary nature of the GSE information. HUD released the recoded data elements and the data elements that were identified as non-proprietary information to the public.

In the fall of 1996, the Department released the first GSE public-use data base that contained non-proprietary information on every mortgage purchased by the GSEs from 1993 to 1995. Subsequently, HUD made the 1996 and 1997 databases available to the public.

2. Changes Proposed in This Rule. After consideration of the current structure of the public use data base, the Department is proposing several changes to its classifications of the GSEs' mortgage data. These changes are either technical in nature or would make available to the public the same data from the GSEs that is made available by primary lenders under HMDA. These changes, therefore, would not appear to release proprietary information and would, at the same time, affirm Congress's intent that the HMDA data base and the GSE data base complement each other.

a. GSE Single Family Mortgage Data

(1) The Department proposes to change the MSA Code (Field #4) from YES (proprietary) to YES but Recode and to make the recoded data publicly available in National File A and

National File B. The Department proposes to recode this data as:

- 1=Metropolitan
- 2=Non-Metropolitan
- 9=Missing

This change will make possible analyses at the national level by researchers beyond HUD of a variety of issues relating to metropolitan and non-metropolitan mortgage lending and GSE activities and will facilitate comparison between the GSE and HMDA data bases. Individual MSAs will not be identified.

(2) The Department proposes to code the Borrower's Annual Income (Field #15) to "99999999" when missing. This change will permit the coding of larger borrower incomes.

(3) The Department proposes to change the Purpose of Loan (Field #22) from YES (proprietary) to NO (non-proprietary) and to make such data publicly available in the Census Tract File and National File A. The Department also proposes to add the following values:

- 4=Rehabilitation
- 9=Not Applicable/Not Available

These changes will make possible separate analyses by researchers beyond HUD of home purchase, refinance, second, and rehabilitation mortgages and will facilitate comparisons between the GSE and HMDA data bases.

(4) The Department proposes to change the Federal Guarantee (Field #27) from YES (proprietary) to NO (non-proprietary) and to make such data publicly available in the Census Tract File. These changes will make possible analyses by researchers beyond HUD of conventional and Federally guaranteed mortgages at the local level and will facilitate comparisons between the GSE and HMDA data bases.

(5) The Department proposes to change the Borrower Race/National Origin (Field #41) from YES (proprietary) to NO (non-proprietary) and to make such data publicly available in National File A and National File B. The Department also proposes not to combine Field #41 and Field #42 in National File A and National File B and to delete subgroup #7 indicating that Borrower and Co-Borrower are in different race/national origin categories. The Department also proposes to distinguish in the public use data base causes of missing data coded by the GSEs as "7" (information not provided in mail or telephone application), "8" (not applicable), and "9" (not available). These changes will make possible more precise analyses at the national level by researchers beyond HUD relating to household minority

status and will facilitate comparisons between the GSE and HMDA data bases.

(6) The Department proposes to change Co-Borrower Race/National Origin (Field #42) from YES (proprietary) to NO (non-proprietary) and to make such data publicly available in National File A and National File B, as discussed above in paragraph (5) with respect to Field #42. (7) The Department proposes to change the Occupancy Code (Field #47) from YES (proprietary) to (a) "NO" (non-proprietary) and make the data publicly available in National File A; and (b) "YES but Recode" and to make the recoded data publicly available in the Census Tract File. The Department proposes to recode this data as:

- 1=Owner-Occupied Property (1–4 units)
- 2=Investment Property (1–4 units)
- 9=Not Available

This change will make possible separate analyses by researchers beyond HUD for owner-occupied properties and rental properties and will facilitate comparisons between the GSE and HMDA data bases.

b. GSE Multifamily Mortgage Data

(1) The Department proposes to make Date of Mortgage Note (Field #19) available in the National File, subject to recoding as follows:

- 1=Originated Same Calendar Year as Acquired
- 2=Originated Prior to Calendar Year of Acquisition
- 9=Missing

The change will permit analysis of multifamily loans originated in prior years by researchers beyond HUD and will facilitate comparisons between the GSE and HMDA data bases.

(2) The Department proposes to change the Purpose of Loan (Field #21) to revise the definition of value "9" as follows: 9=Not Applicable/Not Available.

This is a clarifying change.

(3) The Department proposes to change Type of Seller Institution (Field #33) from YES (proprietary) to NO (non-proprietary) in the National File. This change, in connection with others being proposed, will facilitate comparisons between the GSE and HMDA data bases and will also facilitate analyses by researchers beyond HUD of affordability, property, size, and other key characteristics by type of seller at the national level.

3. Comments Sought. HUD's specification of the data elements to be included in the public use data base involves complex issues and requires sensitivity to both Congress's concern that there be complete and accurate data

on the GSEs' activities and that there be protection of legitimately proprietary information submitted by the GSEs to the Department. In addition to public comments on these issues along with specific examples of data where disclosure furthers the public interest, comments are requested on the specific changes proposed above. HUD is considering two other changes to the multifamily mortgage data base and invites comments on the nature of these changes—(a) making available information on the term of the mortgage at origination recoded to group the data into buckets (e.g., less than seven years, seven years to less than ten years, ten years to less than 20 years, and more than 20 years); and (b) making available information on the type of acquisition (e.g., cash, swap, credit enhancement, bond/debt purchased, missing and other). Both of these changes would enhance the type of multifamily analyses that could be conducted using the public use data base. Comment is also sought about whether certain data elements that are classified as proprietary when submitted to the Department might no longer be so classified after several years, because they would be unlikely to provide proprietary information about the GSEs' current business activities.

Finally, the Department requests comments on what additional loan level information regarding the GSEs' mortgage purchases—on either a census tract or national level—would be useful to release to expand the public's understanding of the role the GSEs play in the mortgage market. The Department must protect the GSEs' proprietary interests with regard to the loan level data. However, when initially establishing the loan level data base, HUD took a conservative approach in making determinations about the proprietary nature of the loan level data elements. With the benefit of several years of experience with the public use data base, HUD believes it is appropriate to review the initial determinations with regard to the proprietary nature of individual loan level elements and welcomes public comment on what additional data should be made available, why it is needed and how the GSEs might be impacted through the release of this information. Possible examples of data that might be of interest to the public is the availability of data on loan-to-value ratios, special loan program characteristics, and how individual loans are scored for housing goal purposes at the census tract level.

III. Specific Areas for Public Comment

Comment is invited on all aspects of the proposed regulation. In addition, the Department requests comments on several specific issues. These questions are discussed in context in Section II of the preamble and are repeated below for the convenience of commenters:

This proposed rule solicits comments on specific changes to definitions applicable to the housing goal levels, establishment of new housing goals, new requirements for counting mortgage purchases under the goals, and an expansion of loan level data available to the public on the GSEs' mortgage loan purchases.

A. Definitions

Comments are requested to the proposed definitional changes of the terms "Median Income," "Metropolitan Areas," "Refinancing" and "Underserved Areas" in § 81.2.

B. Housing Goal Levels

Comments are requested on the proposed level of the housing goals described below and on whether the level of the proposed housing goals is appropriate given the statutory factors HUD must consider in setting the goals, and in light of the market estimates of the GSEs' shares of the affordable housing market.

1. *Low- and Moderate-Income Housing Goal.* The rule proposes to amend § 81.2 to change the level of the annual housing goal for mortgage purchases qualifying under the Low- and Moderate-Income Housing Goal to be 48 percent of eligible units financed in calendar year 2000, and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003.

2. *Central Cities, Rural Areas, and Other Underserved Areas Housing Goal (Geographically Targeted Goal).* The rule proposes to amend § 81.13 to change the level of the annual housing goal for mortgage purchases qualifying under the Geographically Targeted Goal to be 29 percent of eligible units financed in calendar year 2000, and 31 percent of eligible units financed in each of calendar years 2001, 2002 and 2003.

3. *Special Affordable Housing Goal.* The rule proposes to amend § 81.14 to change the level of the annual housing goal for mortgage purchases qualifying under the Special Affordable Housing Goal to be 18 percent of eligible units financed in calendar year 2000, and 20 percent of eligible units financed in each of calendar years 2001, 2002 and 2003.

4. *Special Affordable Housing Multifamily Subgoal.* For the calendar

years 2000 through 2003, the rule proposes to amend § 81.14 to change the level of the annual housing subgoal for mortgage purchases qualifying under the Special Affordable Housing Multifamily Subgoal to be 0.9 percent of the dollar volume of combined (single family and multifamily) 1998 mortgage purchases in calendar year 2000, and 1.0 percent of the dollar volume of combined (single family and multifamily) 1998 mortgage purchases in each of calendar years 2001, 2002 and 2003.

C. Possible Changes to Underserved Areas in Geographically Targeted Goal

The Department is considering several possible changes to what is considered an underserved area for purposes of counting mortgage purchases under the Geographically Targeted Goal.

1. *Metropolitan Area.* HUD seeks comment on the proposed options for revising the definition of underserved metropolitan areas in an effort to more accurately target underserved areas with higher mortgage denial rates. Specifically, HUD is considering two possible changes to the definition. The first option being considered is to change the current tract income ratio to an "enhanced" tract income ratio and to require that for tracts to qualify they must (1) calculate the tract income ratio based on the ratio of tract median income to the greater of the national metropolitan median income or the MSA median income; and (2) have a tract income ratio at or below 80 percent. The second option being considered is to increase the requirement for a tract's minority population from the current 30 percent to 50 percent. The Department is also requesting comments on the extent to which these definitional changes are likely to increase the availability of credit to areas with high denial rates.

2. *Tribal Lands.* The Department seeks comment on the amended definition of underserved areas in § 81.2 that includes low-income and/or high minority American Indian Reservations and trust lands in the definition of underserved areas for both metropolitan and non-metropolitan areas.

3. *Rural Areas.* HUD also seeks public comment on alternative methodologies and sources of rural market data that HUD might use to define underserved non-metropolitan/rural areas. Specifically, HUD seeks comment on whether the Department should follow a tract-based approach in defining underserved rural areas, which would be consistent with the tract-based definition used in metropolitan areas. As technology and computer mapping

capabilities have evolved since 1995, it may be appropriate to revisit the issue of whether entire counties or census tracts within the counties should be used to define rural underserved areas.

D. Possible Changes to the Structure of the Special Affordable Housing Multifamily Subgoal

The Department seeks comment on whether the special affordable multifamily subgoal proposed that is based on a percentage of total dollar volume of mortgages purchased, or the possible alternative structures presented that base the subgoal on (a) the number of units financed, (b) a percent of current multifamily mortgage purchases, or (c) the number of mortgages acquired, are reasonable and desirable approaches to closing market gaps in the very low- and low-income rental market. HUD also solicits comment on the appropriate level for the subgoal as proposed, or under the various possible structures presented, and how the possible levels illustrated herein would likely impact multifamily acquisitions, especially for very low- and low-income multifamily units.

E. Bonus Points and Subgoals

Specifically, the Department invites comments on (a) whether, for the four year period ending December 31, 2003, § 81.16(c)(10) should be added to allow small multifamily properties (5–50 units) and all the units in owner-occupied 2–4 unit properties to receive double weight in the numerator for each of the three housing goals that otherwise qualify for the housing goals; and (b) how to count small multifamily properties for purposes of receiving bonus points that may be aggregated into larger financing packages. The Department also seeks comments on the utility of applying similar regulatory incentives (bonus points and/or subgoals) to other underserved segments of the market. In addition, HUD requests comments on the following questions that relate to bonus points and subgoals in general:

1. Whether HUD should use either bonus points or subgoals to target mortgage purchases for one or more of the areas of concern identified earlier?
2. Whether one or more of these areas would benefit more from bonus points or establishment of subgoals and why? If bonus points are suggested, the amount of bonus points which should be assigned and why?
3. Whether there are other areas not identified where bonus points and/or subgoals should be considered?

F. Calculating Performance Under the Housing Goals

The Department invites comments on clarifications and revisions to certain requirements for calculating performance under the housing goals.

1. *Temporary Adjustment Factor for Freddie Mac.* HUD requests comments on the proposal to provide Freddie Mac with an incentive to further expand the scope of its multifamily operations by providing them with a Temporary Adjustment Factor. The proposed rule calculates Freddie Mac's performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal by counting each unit in a multifamily property with more than 50 units meeting the definition of one or both housing goals as 1.2 units (the Temporary Adjustment Factor) in the numerator in determining the respective housing goal percentage. HUD specifically requests comments on whether the proposed temporary adjustment factor for Freddie Mac is set at an appropriate level, and if such an adjustment factor should be phased out prior to 2003 or apply for the entire four year goal cycle.

2. *Data on Unit Affordability.* The Department seeks comments on the proposed revisions to § 81.15(d) and (e)(6) that identify the treatment for purposes of counting under the housing goals of those cases where a GSE does not obtain rental data on units, and welcomes suggestions for alternative ways of addressing the issue.

a. *Multifamily Rental Units.* For units in multifamily properties, the Department proposes to allow the use by a GSE of estimated rents based on market rental data. The Department will review and approve the GSEs' data sources and methodologies for estimating rents on multifamily units prior to their use, to assure reliability. Estimated rental data submitted to the Department shall be so identified by the GSE. HUD requests comments on whether it should establish a percentage ceiling for the GSEs' use of estimated data for multifamily mortgage purchases. The Department further proposes to allow a GSE to exclude units in multifamily properties from the denominator as well as the numerator in calculating performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when the GSE lacks sufficient information to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the goal, and when the application of estimated rents based on an approved

market rental data source and methodology is not possible.

b. *Single Family Rental Units.* For purposes of counting rental units in 1–4 unit single family properties toward achievement of the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, the Department proposes to allow a GSE to exclude the rental units in 1–4 unit single family properties from the denominator as well as the numerator in calculating performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when the GSE lacks rent sufficient information to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the Low- and Moderate Income Housing Goal or the Special Affordable Housing Goal.

c. *Single Family Owner-Occupied Units.* Comments are requested on the Department's proposal to allow a GSE to exclude certain single family owner-occupied units from the denominator as well as the numerator in calculating performance under the Low- and Moderate-Income Housing Goal when the GSE lacks sufficient information on borrower income to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the goal, provided the mortgaged property is located in a census tract with median income less than or equal to area median income according to the most recent census. Such exclusion from the denominator and numerator will be permitted up to a ceiling of one percent (1%) of the total number of single family, owner-occupied dwelling units eligible to be counted toward the respective housing goal in the current year. Mortgage purchases in excess of the ceiling will be included in the denominator and excluded from the numerator.

3. *Seasoned Mortgage Loan Purchases.* Comments are requested on specific changes that are proposed in § 81.14 that address how purchases of seasoned mortgage portfolios receive full credit under the Special Affordable Housing Goal. Changes to § 81.16 are proposed to clarify the treatment of seasoned mortgages in calculating goal performance. The suggested changes specifically provide direction and guidance to the GSEs for the purpose of determining whether a seller of special affordable seasoned mortgage portfolios is adequately engaged in a specific program to reinvest the proceeds of the loan sale into additional special affordable lending. In addition, commenters are invited to provide their views on how to identify and define

those classes of organizations or institutions who are primarily engaged in financing affordable housing mortgages, including possibly State Housing Finance Agencies or Special Affordable Housing Loan Consortia, or other types of businesses that further the purpose of the Special Affordable Housing Goal. In addition to specific proposed changes to the regulation, commenters are invited to share their views as to whether any additional exemptions or changes should be established under the recycling provisions that further its purpose. Comments are also specifically invited on (1) what, if any, provisions should be included in the proposed rule to address the various affiliate structures of depository institutions; and (2) the treatment under the recycling provisions of structured transactions where the mortgage loans acquired were originated by a depository institution or mortgage banker engaged in mortgage lending on special affordable housing but acquired and sold by a third party, *e.g.*, an investment banking firm that is not in the business of affordable housing lending.

4. *Certain Federally Insured or Guaranteed Mortgages.* Comments are requested on the proposed change to § 81.16(b)(3) to except mortgages under the HECM program, mortgages guaranteed by RHS and loans made under FHA's Section 248 program and HUD's Section 184 program on properties in tribal lands from the general exclusion under the rules for non-conventional mortgage loans, and to allow the Department to count non-conventional mortgage purchases under the goals where the Department determines, in writing, that the financing needs addressed by such program are not well served and that mortgage purchases under such program should count. In addition, the proposed rule provides that where non-conventional mortgage purchases will now count toward the housing goals, they no longer will be excluded from the denominator of the GSEs' mortgage purchases as are other non-conventional mortgage loans.

5. *Other Counting Changes.* Comments are welcome on the following specific changes to counting requirements contained in the proposed rule: (a) Allowing half-credit for purchases of HUD Title I loans under the Special Affordable Housing Goal (§ 81.14); (b) amending the calculation of "Denominator" to clarify that the denominator does not include GSE transactions or activities that are not mortgages or that are specifically excluded mortgage purchase

transactions (§ 81.16); (c) excluding certain single family balloon mortgages from treatment as a refinancing at the time of conversion to a fully amortizing note (§§ 81.2 and 81.16); (d) providing partial or full credit for actions that assist in maintaining the affordability of multifamily properties with expiring assistance contracts including how and to what extent the GSEs should receive credit for such actions; and (e) adding the designation of "especially low-income" in relationship to the Special Affordable Housing Goal (§§ 81.14, 81.17, 81.18, and 81.19). In addition, while no specific change has been proposed, comments are requested on whether the final rule should disallow goals credit for high cost mortgage loans. The Department also seeks comments on the following: (i) If goals credit is restricted for such loans, should the HOEPA definition be used, or should an alternative definition be established for purposes of this rule? (ii) What are the potential benefits, if any, associated with the GSEs' presence in the various higher cost mortgage markets including mortgages with annual percentage rates between those of the prime market and the market for high cost mortgage loans (for example, standardization of underwriting guidelines and reductions in interest rates)? (iii) What are the potential dangers, if any, associated with the GSEs' presence in various higher cost mortgage markets? Finally, the Department requests comments on what additional reporting data would be useful for the purposes of monitoring the GSEs' activities in this area and on whether certain of these data elements should be included in the public use data base. Possible data elements that could be collected for Department monitoring purposes include loan level data on the annual percentage rate, debt-to-income ratio, points and fees, and prepayment penalties.

6. *Provision for HUD to Review New Activities to Determine Appropriate Counting Under the Housing Goals.* The Department is requesting comments on the proposal to add a provision (§ 81.16(d)) for HUD to review activities of the GSEs to ensure that the counting of transactions towards the housing goals is consistent with FHEFSSA and advise the GSEs of the Department's determination with regard to credit for purposes of counting such transactions under the housing goals.

7. *Credit Enhancements.* In relation to credit enhancements, HUD invites comments on the following questions:

a. Given the wide range of institutional arrangements pertaining to credit enhancements and the inter-

relationships between credit enhancements and other considerations such as loan-to-value ratio and guarantee fee, how should the credit risk to which the GSEs are exposed be measured under various types of credit enhancement scenarios?

b. Assuming credit risk can be adequately measured, should HUD give partial credit under the housing goals when credit enhancements result in a substantial portion of the credit risk of the transaction being borne by the seller or a third party? For example, if the GSE bears less than 50 percent of the credit risk of a transaction should the GSE receive no credit toward housing goal performance? If the GSE assumes between 50 percent and 75 percent of the credit risk of a transaction, should the GSE receive 50 percent credit for housing goal purposes?

c. What would be the advantages and disadvantages of linking the amount of goals credit on a GSE mortgage purchase to the degree of associated credit risk? What are the possible effects on low- and moderate-income families and on underserved areas of the GSEs' use of various credit enhancements and how might they be affected if goals credit were linked to the degree of associated credit risk? Would there be potential effects on liquidity or other mortgage market factors?

d. Assuming credit risk can be adequately measured, should HUD establish a minimum percentage in the range of 0 to 100 percent for the amount of credit risk borne by the GSEs on their mortgage purchases in order for such purchases to count toward the housing goals?

e. If HUD establishes a minimum threshold for credit risk, should it be the same for multifamily and single family purchases, or should it be different for each? Should HUD establish the same threshold for all types of credit enhancements, or should this differ between types of credit enhancements? At what level should the threshold(s) be established?

f. Should HUD measure counterparty risk on seller-provided credit enhancements? If so, how?

g. Should HUD evaluate GSE performance in relation to the use of credit enhancements by calculating and comparing the risk-adjusted rate of return under the use of various credit enhancement alternatives?

G. Access to Information

HUD's specification of the data elements to be included in the public use data base involves complex issues and requires sensitivity to both Congress's concern that there be

complete and accurate data on the GSEs' activities and that there be protection of legitimately proprietary information submitted by the GSEs to the Department. In addition to public comments on these issues along with specific examples of data where disclosure furthers the public interest, comments are requested on the specific changes proposed to the rule. HUD is considering two other changes to the multifamily mortgage data base and invites comments on the feasibility of these changes—(a) making available information on the term of the mortgage at origination recoded to group the data into buckets; and (b) making available information on the type of acquisition. Both of these changes would enhance the type of multifamily analyses that could be conducted using the public use data base. Comment is also sought about whether certain data elements that are classified as proprietary when submitted to the Department might no longer be so classified after several years, because they would be unlikely to provide proprietary information about the GSEs' current business activities. Finally, the Department requests comments on what additional loan level information regarding the GSEs' mortgage purchases—on either a census tract or national level—would be useful to release to expand the public's understanding of the role the GSEs play in the mortgage markets.

IV. Findings and Certifications

A. Executive Order 12866

The Office of Management and Budget (OMB) reviewed this proposed rule under Executive Order 12866, *Regulatory Planning and Review*, which the President issued on September 30, 1993. This rule was determined economically significant under E.O. 12866. Any changes made to this proposed rule subsequent to its submission to OMB are identified in the docket file, which is available for public inspection between 7:30 a.m. and 5:30 p.m. weekdays in the Office of the Rules Docket Clerk, Office of General Counsel, Room 10276, Department of Housing and Urban Development, 451 Seventh Street, S.W., Washington, DC. The initial Economic Analysis prepared for this rule is also available for public inspection in the Office of the Rules Docket Clerk.

B. Congressional Review of Major Final Rules

This rule is a "major rule" as defined in Chapter 8 of 5 U.S.C. The rule will be submitted for Congressional review

in accordance with this chapter at the final rule stage.

C. Paperwork Reduction Act

HUD's collection of information on the GSEs' activities has been reviewed and authorized by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520), as implemented by OMB in regulations at 5 CFR part 1320. The OMB control number is 2502–0514.

D. Environmental Impact

In accordance with 24 CFR 50.19(c)(1) of HUD's regulations, this proposed rule would not direct, provide for assistance or loan and mortgage insurance for, or otherwise govern or regulate real property acquisition, disposition, lease, rehabilitation, alteration, demolition, or new construction; nor would it establish, revise, or provide for standards for construction or construction materials, manufactured housing, or occupancy. Therefore, this proposed rule is categorically excluded from the requirements of the National Environmental Policy Act.

E. Regulatory Flexibility Act

The Secretary, in accordance with the Regulatory Flexibility Act (5 U.S.C. 605(b)), has reviewed this rule before publication and by approving it certifies that this rule would not have a significant economic impact on a substantial number of small entities. This proposed regulation is applicable only to the GSEs, which are not small entities for purposes of the Regulatory Flexibility Act, and, thus, does not have a significant economic impact on a substantial number of small entities.

F. Executive Order 13132, Federalism

Executive Order 13132 ("Federalism") prohibits, to the extent practicable and permitted by law, an agency from promulgating a regulation that has federalism implications and either imposes substantial direct compliance costs on State and local governments and is not required by statute, or preempts State law, unless the relevant requirements of section 6 of the Executive Order are met. This final rule does not have federalism implications and does not impose substantial direct compliance costs on State and local governments or preempt State law within the meaning of the Executive Order.

G. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995⁸⁸ (UMRA) establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments, and the private sector. This proposed rule would not impose any Federal mandates on any State, local, or tribal governments, or on the private sector, within the meaning of the UMRA.

List of Subjects in 24 CFR Part 81

Accounting, Federal Reserve System, Mortgages, Reporting and recordkeeping requirements, Securities.

Accordingly, 24 CFR part 81 is proposed to be amended as follows:

PART 81—THE SECRETARY OF HUD'S REGULATION OF THE FEDERAL NATIONAL MORTGAGE ASSOCIATION (FANNIE MAE) AND THE FEDERAL HOME LOAN MORTGAGE CORPORATION (FREDDIE MAC)

1. The authority citation for 24 CFR part 81 continues to read as follows:

Authority: 12 U.S.C. 1451 *et seq.*, 1716–1723h, and 4501–4641; 42 U.S.C. 3535(d) and 3601–3619.

2. Section 81.2, is amended by revising the definitions of "Median Income" "Metropolitan Area", and "Underserved Area," and by adding a new paragraph (7) to the definition of "Refinancing," to read as follows:

§ 81.2 Definitions.

* * * * *

Median Income means, with respect to an area, the unadjusted median family income for the area and most recently determined and published by HUD. HUD will provide the GSEs, on an annual basis, with information specifying how HUD's published median family income estimates for metropolitan areas are to be applied for the purposes of determining median family income in such areas.

Metropolitan Area means a metropolitan statistical area ("MSA"), or primary metropolitan statistical area ("PMSA"), or a portion of such an area for which median family income estimates are published annually by HUD.

* * * * *

Refinancing means: * * *

* * * * *

(7) A conversion of a balloon mortgage note on a single family property to a fully amortizing mortgage note provided the GSE already owns or

⁸⁸ Pub. L. 104–4, approved March 22, 1995.

has an interest in the balloon note at the time of the conversion.

* * * * *

Underserved Area means:

(1) For purposes of the definitions of “Central City” and “Other Underserved Area”, a census tract, a Federal or State American Indian reservation or tribal or individual trust land, or the balance of a census tract excluding the area within any Federal or State American Indian reservation or tribal or individual trust land, having:

(i) A median income at or below 120 percent of the median income of the metropolitan area and a minority population of 30 percent or greater; or

(ii) A median income at or below 90 percent of median income of the metropolitan area.

(2) For purposes of the definition of “Rural Area”:

(i) In areas other than New England, a whole county, a Federal or State American Indian reservation or tribal or individual trust land, or the balance of a county excluding the area within any Federal or State American Indian reservation or tribal or individual trust land, having:

(A) A median income at or below 120 percent of the greater of the State non-metropolitan median income or the nationwide non-metropolitan median income and a minority population of 30 percent or greater; or

(B) A median income at or below 95 percent of the greater of the State non-metropolitan median income or nationwide non-metropolitan median income.

(ii) In New England, a whole county having the characteristics in paragraph (2)(i)(A) or (2)(i)(B) of this definition; a Federal or State American Indian reservation or tribal or individual trust land, having the characteristics in paragraph (2)(i)(A) or (2)(i)(B) of this definition; or the balance of a county, excluding any portion that is within any Federal or State American Indian reservation or tribal or individual trust land, or metropolitan area where the remainder has the characteristics in paragraph (2)(i)(A) or (2)(i)(B) of this definition.

(3) Any Federal or State American Indian reservation or tribal or individual trust land that includes land that is both within and outside of a metropolitan area and that is designated as an underserved area by HUD. In such cases, HUD will notify the GSEs as to applicability of other definitions and counting conventions.

* * * * *

3. Section 81.12 is amended as follows:

a. Paragraph (b) is amended by revising the last sentence; and

b. Paragraph (c) is revised, to read as follows:

§ 81.12 Low- and Moderate-Income Housing Goal.

* * * * *

(b) *Factors.* * * * A statement documenting HUD’s considerations and findings with respect to these factors, entitled “Departmental Considerations to Establish the Low- and Moderate-Income Housing Goal,” was published in the **Federal Register** on [date of publication of final rule will be inserted].

(c) *Goals.* The annual goals for each GSE’s purchases of mortgages on housing for low- and moderate-income families are:

(1) For calendar year 2000, 48 percent of the total number of dwelling units financed by that GSE’s mortgage purchases unless otherwise adjusted by HUD in accordance with FHEFSSA;

(2) For each of the calendar years 2001–2003, 50 percent of the total number of dwelling units financed by that GSE’s mortgage purchases in each of those years unless otherwise adjusted by HUD in accordance with FHEFSSA; and

(3) For calendar year 2004 and thereafter HUD shall establish annual goals. Pending establishment of goals for calendar year 2004 and thereafter, the annual goal for each of those calendar years shall be 50 percent of the total number of dwelling units financed by that GSE’s mortgage purchases in each of those calendar years.

4. Section 81.13 is amended as follows:

a. Paragraph (b) is amended by revising the last sentence; and

b. Paragraph (c) is revised, to read as follows:

§ 81.13 Central Cities, Rural Areas, and Other Underserved Areas Housing Goal.

* * * * *

(b) *Factors.* * * * A statement documenting HUD’s considerations and findings with respect to these factors, entitled “Departmental Considerations to Establish the Central Cities, Rural Areas, and Other Underserved Areas Housing Goal,” was published in the **Federal Register** on [date of publication of final rule will be inserted].

(c) *Goals.* The annual goals for each GSE’s purchases of mortgages on housing located in central cities, rural areas, and other underserved areas are:

(1) For calendar year 2000, 29 percent of the total number of dwelling units financed by that GSE’s mortgage purchases unless otherwise adjusted by HUD in accordance with FHEFSSA;

(2) For each of the calendar years 2001–2003, 31 percent of the total number of dwelling units financed by that GSE’s mortgage purchases in each of those years unless otherwise adjusted by HUD in accordance with FHEFSSA; and

(3) For calendar year 2004 and thereafter HUD shall establish annual goals. Pending establishment of goals for calendar year 2004 and thereafter, the annual goal for each of those calendar years shall be 31 percent of the total number of dwelling units financed by that GSE’s mortgage purchases in each of those calendar years.

* * * * *

5. Section 81.14 is amended as follows:

a. Paragraph (b) is amended by revising the last sentence;

b. Paragraph (c) is revised;

c. Paragraph (d) is amended by revising paragraph (d)(1)(i);

d. Paragraph (e) is amended by revising paragraphs (e)(2), (e)(3), and (e)(4);

e. Paragraph (f) is redesignated as paragraph (g) and the last sentence of the newly redesignated paragraph (g) is revised; and

f. A new paragraph (f) is added; to read as follows:

§ 81.14 Special Affordable Housing Goal.

* * * * *

(b) * * * A statement documenting the HUD’s considerations and findings with respect to these factors, entitled “Departmental Considerations to Establish the Special Affordable Housing Goal,” was published in the **Federal Register** on [date of publication of final rule will be inserted].

(c) *Goals.* The annual goals for each GSE’s purchases of mortgages on rental and owner-occupied housing meeting the then existing, unaddressed needs of and affordable to low-income families in low-income areas and very low-income families are:

(1) For calendar year 2000, 18 percent of the total number of dwelling units financed by that GSE’s mortgage purchases unless otherwise adjusted by HUD in accordance with FHEFSSA. The goal shall include mortgage purchases financing dwelling units in multifamily housing totaling not less than 0.9 percent of the dollar volume of combined (single family and multifamily) mortgages purchased by the respective GSE in 1998 unless otherwise adjusted by HUD in accordance with FHEFSSA;

(2) For each of the calendar years 2001, 2002, and 2003, 20 percent of the total number of dwelling units financed by that GSE’s mortgage purchases in

each of those years unless otherwise adjusted by HUD in accordance with FHEFSSA. The goal for each calendar year shall include mortgage purchases financing dwelling units in multifamily housing totaling not less than 1.0 percent of the dollar volume of combined (single family and multifamily) mortgages purchased by the respective GSE in 1998 unless otherwise adjusted by HUD in accordance with FHEFSSA; and

(3) For calendar year 2004 and thereafter HUD shall establish annual goals. Pending establishment of goals for calendar year 2004 and thereafter, the annual goal for each of those calendar years shall be 20 percent of the total number of dwelling units financed by that GSE's mortgage purchases in each of those calendar years. The goal for each such calendar year shall include mortgage purchases financing dwelling units in multifamily housing totaling not less than 1.0 percent of the dollar volume of combined (single family and multifamily) mortgages purchased by the respective GSE in 1998.

* * * * *

(d)(1) * * *

(i) 20 percent of the dwelling units in the particular multifamily property are affordable to especially low-income families; or

* * * * *

(e) * * *

* * * * *

(2) Mortgages under HUD's Home Equity Conversion Mortgage ("HECM") Insurance Program, 12 U.S.C. 1715 z-20; mortgages guaranteed by the Rural Housing Services' Guaranteed Rural Housing Loan Program, 7 U.S.C. 1933; and mortgages on properties on tribal lands insured under FHA's Section 248 program, 12 U.S.C. 1715 z-13, or HUD's Section 184 program, 12 U.S.C. 1515 z-13a; meet the requirements of 12 U.S.C. 4563(b)(1)(A)(i) and (ii).

(3) HUD will give full credit toward achievement of the Special Affordable Housing Goal for the activities in 12 U.S.C. 4563(b)(1)(A), provided the GSE submits documentation to HUD that supports eligibility under 12 U.S.C. 4563(b)(1)(A) for HUD's approval.

(4)(i) For purposes of determining whether a seller meets the requirement in 12 U.S.C. 4563(b)(1)(B), a seller must currently operate on its own or actively participate in an on-going, discernible, active, and verifiable program directly targeted at the origination of new mortgage loans that qualify under the Special Affordable Housing Goal.

(ii) A seller's activities must evidence a current intention or plan to reinvest the proceeds of the sale into mortgages qualifying under the Special Affordable

Housing Goal, with a current commitment of resources on the part of the seller to this purpose.

(iii) A seller's actions must evidence willingness to buy qualifying loans when these loans become available in the market as part of active, on-going, sustainable efforts to ensure that additional loans that meet the goal are originated.

(iv) Actively participating in such a program includes purchasing qualifying loans from a correspondent originator, including a lender or qualified housing group, that operates an on-going program resulting in the origination of loans that meet the requirements of the goal, has a history of delivering, and currently delivers, qualifying loans to the seller.

(v) The GSE must verify and monitor that the seller meets the requirements in paragraphs (e)(4)(i) through (e)(4)(iv) of this section and develop any necessary mechanisms to ensure compliance with the requirements, except as provided in paragraph (e)(4)(vi) of this section.

(vi) Where a seller's primary business is originating mortgages on housing that qualifies under this Special Affordable Housing Goal (e.g., when such seller is an institution that is regularly in the business of mortgage lending; a BIF-insured or SAIF-insured depository institution; and subject to, and has received at least a satisfactory performance evaluation rating for at least the two most recent consecutive examinations under, the Community Reinvestment Act), such seller is presumed to meet the requirements in paragraphs (e)(4)(i) through (e)(4)(iv) of this section.

(vii) For a class or classes of institutions or organizations whose primary business is financing affordable housing mortgages, e.g., State Housing Finance Agencies or Special Affordable Housing Loan Consortia, such classes of organizations or institutions are presumed to meet the requirements of paragraphs (e)(4)(i) through (e)(4)(iv) of this section. A determination that specific classes of institutions or organizations are primarily engaged in the business of financing affordable housing mortgages must be made in advance by HUD.

* * * * *

(f) *Partial credit activities.* Mortgages insured under HUD's Title I program, which includes property improvement and manufactured home loans, shall receive one-half credit toward the Special Affordable Housing Goal until such time as the Government National Mortgage Association fully implements a program to purchase and securitize Title I loans.

(g) *No credit activities.* * * * For purposes of this paragraph (g), "mortgages or mortgage-backed securities portfolios" includes mortgages retained by Fannie Mae or Freddie Mac and mortgages utilized to back mortgage-backed securities.

* * * * *

6. In § 81.15, paragraph (a) is revised, paragraph (d) is amended by adding a new sentence at the end, and paragraph (e) is amended by redesignating paragraph (e)(6) as (e)(7), and by adding a new paragraph (e)(6), to read as follows:

§ 81.15 General requirements.

(a) *Calculating the numerator and denominator.* Performance under each of the housing goals shall be measured using a fraction that is converted into a percentage.

(1) *The numerator.* The numerator of each fraction is the number of dwelling units financed by a GSE's mortgage purchases in a particular year that count toward achievement of the housing goal.

(2) *The denominator.* The denominator of each fraction is, for all mortgages purchased, the number of dwelling units that could count toward achievement of the goal under appropriate circumstances. The denominator shall not include GSE transactions or activities that are not mortgages or mortgage purchases as defined by HUD or transactions that are specifically excluded as ineligible under § 81.16(b).

(3) *Missing data or information.* When a GSE lacks sufficient data or information to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of a particular housing goal, that mortgage purchase shall be included in the denominator for that housing goal, except under the circumstances described in paragraphs (d) and (e)(6) of this section.

* * * * *

(d) *Counting owner-occupied units.*

* * * When the income of the mortgagors is not available to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the Low- and Moderate-Income Housing Goal or the Special Affordable Housing Goal, a GSE may exclude single-family owner-occupied units located in census tracts with median income less than or equal to area median income according to the most recent census from the denominator as well as the numerator, up to a ceiling of one percent of the total number of single-family owner-occupied dwelling units eligible to be counted toward the respective housing goal in the current year. Mortgage

purchases in excess of the ceiling will be included in the denominator and excluded from the numerator.

(e) * * *

* * * * *

(6) *Income or Rent Data Unavailable.*

(i) *Multifamily.* When neither the income of prospective or actual tenants of a dwelling unit nor actual or average rent data is available, a GSE's performance with respect to such a unit may be evaluated with estimated rents based on market rental data, so long as the Department has reviewed and approved the data source and methodology for such estimated data. The GSE must identify such data as estimated data. When the application of estimated rents based on an approved market rental data source and methodology is not possible, and therefore the GSE lacks sufficient information to determine whether the purchase of a mortgage originated after 1992 counts toward the achievement of the Low- and Moderate-Income Housing Goal or the Special Affordable Housing Goal, a GSE may exclude units in multifamily properties from the denominator as well as the numerator in calculating performance under those goals.

(ii) *Rental units in 1-4 unit single family properties.* When neither the income of prospective or actual tenants of a rental unit in a 1-4 unit single family property nor actual or average rent data is available, and, therefore, the GSE lacks sufficient information to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the Low- and Moderate-Income Housing Goal or the Special Affordable Housing Goal, a GSE may exclude rental units in 1-4 unit single family properties from the denominator as well as the numerator in calculating performance under those goals.

* * * * *

7. Section 81.16 is amended as follows:

- a. Paragraph (a) is revised;
- b. Paragraph (b) is amended by revising paragraphs (b)(3) and (b)(9) and by adding a new paragraph (b)(10);
- c. Paragraph (c) is amended by revising the heading, by adding introductory text, by revising paragraph (c)(6), and by adding new paragraphs (c)(9), (c)(10) and (c)(11); and
- d. A new paragraph (d) is added; to read as follows:

§ 81.16 Special counting requirements.

(a) *General.* HUD shall determine whether a GSE shall receive full, partial, or no credit for a transaction toward achievement of any of the housing goals. In this determination, HUD will

consider whether a transaction or activity of the GSE is substantially equivalent to a mortgage purchase and either creates a new market or adds liquidity to an existing market, provided however that such mortgage purchase actually fulfills the GSE's purposes and is in accordance with its Charter Act.

(b) * * *

* * * * *

(3) Purchases of non-conventional mortgages except:

(i) Where such mortgages are acquired under a risk-sharing arrangement with a Federal agency;

(ii) Mortgages under HUD's Home Equity Conversion Mortgage ("HECM") Insurance Program, 12 U.S.C. 1715 z-20; mortgages guaranteed by the Rural Housing Services' Guaranteed Rural Housing Loan Program, 7 U.S.C. 1933; and mortgages on properties on tribal lands insured under FHA's Section 248 program, 12 U.S.C. 1715 z-13, or HUD's Section 184 program, 12 U.S.C. 1515 z-13a; or

(iii) Mortgages under other mortgage programs involving Federal guarantees, insurance or other Federal obligation where the Department determines in writing that the financing needs addressed by the particular mortgage program are not well served and that the mortgage purchases under such program should count under the housing goals, provided the GSE submits documentation to HUD that supports eligibility for HUD's approval.

* * * * *

(9) Single family mortgage refinancings that result from conversion of balloon notes to fully amortizing notes, if the GSE already owns or has an interest in the balloon note at the time conversion occurs. New purchases of balloon mortgages or mortgages for which the borrower has exercised a conversion option prior to purchase and/or guarantee by the GSE will be included in the numerator and denominator as appropriate in accordance with § 81.15.

(10) Any combination of (1) through (9) above.

(c) *Supplemental rules.* Subject to HUD's primary determination of whether a GSE shall receive full, partial, or no credit for a transaction toward achievement of any of the housing goals as provided in paragraph (a) of this section, the following supplemental rules apply:

* * * * *

(6) *Seasoned mortgages.* A GSE's purchase of a seasoned mortgage shall be treated as a mortgage purchase for purposes of these goals and shall be included in the numerator, as appropriate, and the denominator in

calculating the GSE's performance under the housing goals, except where the GSE has already counted the mortgage under a housing goal applicable to 1993 or any subsequent year, or where the Department determines, based upon a written request by a GSE, that a seasoned mortgage or class of such mortgages should be excluded from the numerator and the denominator in order to further the purposes of the Special Affordable Housing Goal.

* * * * *

(9) *Expiring assistance contracts.* In accordance with 12 U.S.C. 4565(a)(5), actions that assist in maintaining the affordability of assisted units in eligible multifamily housing projects with expiring Section 8 contracts shall receive partial to full credit under the housing goals as determined by HUD. For purposes of the paragraph, "actions" include the restructuring or refinancing of mortgages, and credit enhancements or risk-sharing arrangements to modified or refinanced mortgages.

(10) *Bonus points.* The following transactions or activities, to the extent the units otherwise qualify for one or more of the housing goals, will receive bonus points toward the particular goal or goals, by receiving double weight in the numerator under a housing goal or goals and receiving single weight in the denominator for the housing goal or goals. Bonus points will not be awarded for the purposes of calculating performance under the special affordable housing multifamily subgoal included in § 81.14(c). All transactions or activities meeting the following criteria will qualify for bonus points even if a unit is missing affordability data and the missing affordability data is treated consistent with § 81.15(a)(3). Bonus points are available to the GSEs for purposes of determining housing goal performance through December 31, 2003. Beginning in calendar year 2004, bonus points are not available for goal performance counting purposes unless the Department extends their availability beyond December 31, 2003, for one or more types of activities and notifies the GSEs by letter of that determination.

(i) *Small multifamily properties.* HUD will assign double weight in the numerator under a housing goal or goals for each unit in small multifamily properties (5 to 50 units), provided, however, that bonus points will not be awarded for properties that are aggregated or disaggregated into 5-50

unit financing packages for the purpose of earning bonus points.

(ii) *Rental units in 2-4 unit owner-occupied properties.* HUD will assign double weight in the numerator under the housing goals for each unit in 2- to 4-unit owner-occupied properties, to the extent that the number of such units financed by mortgage purchases are in excess of 60 percent of the average number of units qualifying for the respective housing goal during the immediately preceding five years.

(11) *Temporary adjustment factor for Freddie Mac.* In determining Freddie Mac's performance on the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, HUD will count each qualifying unit in a property with more than 50 units as 1.2 units in calculating the numerator and as one unit in calculating the denominator, for the respective housing goal. HUD will apply this temporary adjustment factor for each calendar year from 2000 through 2003; for calendar years 2004 and thereafter, this temporary adjustment factor will no longer apply.

(d) *HUD review of transactions.* HUD will determine whether a class of transactions counts as a mortgage purchase under the housing goals. If a GSE is considering a class of transactions for purposes of counting under the housing goals, the GSE may provide HUD detailed information regarding the transactions for evaluation and determination in accordance with this section. In making its determination, HUD may also request and evaluate information from a GSE with regard to how the GSE believes the transactions should be counted. HUD will notify the GSE of its determination regarding the extent to which the class of transactions should count under the goals.

8. Section 81.17 is amended by adding a new paragraph (d), to read as follows:

§ 81.17 Affordability—Income level definitions—family size and income known (owner-occupied units, actual tenants, and prospective tenants).

* * * * *

(d) *Especially-low-income* means, in the case of rental units, where the income of actual or prospective tenants is available, income not in excess of the following percentages of area median income corresponding to the following family sizes:

Number of persons in family	Percentage of area median income
1	35

Number of persons in family	Percentage of area median income
2	40
3	45
4	50
5 or more	(*)

*50% plus (4.0% multiplied by the number of persons in excess of 4).

9. Section 81.18 is amended by adding a new paragraph (d), to read as follows:

§ 81.18 Affordability—Income level definitions—family size not known (actual or prospective tenants).

(d) *For especially-low-income*, income of prospective tenants shall not exceed the following percentages of area median income with adjustments, depending on unit size:

Unit size	Percentage of area median income
Efficiency	35
1 bedroom	37.5
2 bedrooms	45
3 bedrooms or more	(*)

*52% plus (6.0% multiplied by the number of bedrooms in excess of 3).

10. In § 81.19, paragraph (d) is redesignated as paragraph (e), and a new paragraph (d) is added, to read as follows:

§ 81.19 Affordability—Rent level definitions—tenant income is not known.

* * * * *

(d) *For especially-low-income*, maximum affordable rents to count as housing for especially-low-income families shall not exceed the following percentages of area median income with adjustments, depending on unit size:

Unit size	Percentage of area median income
Efficiency	10.5
1 bedroom	11.25
2 bedrooms	13.5
3 bedrooms or more	(*)

*15.6% plus (1.8% multiplied by the number of bedrooms in excess of 3).

* * * * *

Dated: January 20, 2000.

William C. Apgar,

Assistant Secretary for Housing.

Note: The following Appendices will not appear in the Code of Federal Regulations.

Appendix A—Departmental Considerations to Establish The Low- and Moderate-Income Housing Goal

A. Introduction

1. Establishment of Goal

In establishing the Low- and Moderate-Income Housing Goals for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), collectively referred to as the Government-Sponsored Enterprises (GSEs), Section 1332 of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (12 U.S.C. 4562) (FHEFSSA) requires the Secretary to consider:

1. National housing needs;
2. Economic, housing, and demographic conditions;
3. The performance and effort of the enterprises toward achieving the Low- and Moderate-Income Housing Goal in previous years;
4. The size of the conventional mortgage market serving low- and moderate-income families relative to the size of the overall conventional mortgage market;
5. The ability of the enterprises to lead the industry in making mortgage credit available for low- and moderate-income families; and
6. The need to maintain the sound financial condition of the enterprises.

2. Underlying Data

In considering the statutory factors in establishing these goals, HUD relied on data from the 1995 American Housing Survey (AHS), the 1990 Census of Population and Housing, the 1991 Residential Finance Survey (RFS), the 1995 Property Owners and Managers Survey (POMS), other government reports, reports submitted in accordance with the Home Mortgage Disclosure Act (HMDA), and the GSEs. In order to measure performance toward achieving the Low- and Moderate-Income Housing Goal in previous years, HUD analyzed the loan-level data on all mortgages purchased by the GSEs for 1993-98 in accordance with the goal counting provisions established by the Department in the December 1995 rule (24 CFR part 81).

3. Conclusions Based on Consideration of the Factors

The discussion of the first two factors covers a range of topics on housing needs and economic and demographic trends that are important for understanding mortgage markets. Information is provided which describes the market environment in which the GSEs must operate (for example information on trends in refinancing activity) and is useful for gauging the reasonableness of specific levels of the Low- and Moderate-Income Housing Goal. In addition, the severe housing problems faced by lower-income families are discussed.

The third factor (past performance) and the fifth factor (ability of the GSEs to lead the industry) are also discussed in some detail in this Appendix. The fourth factor (size of the market) and the sixth factor (need to maintain the GSEs' sound financial condition) are mentioned only briefly in this

Appendix. Detailed analyses of the fourth factor and the sixth factor are contained in Appendix D and in the economic analysis of this proposed rule, respectively.

The factors are discussed in sections B through H of this appendix. Section I summarizes the findings and presents the Department's conclusions concerning the Low- and Moderate-Income Housing Goal. The consideration of the factors in this Appendix has led the Secretary to the following conclusions:

(i) Despite the record national homeownership rate of 66.3 percent in 1998, much lower rates prevailed for minorities, especially for African-American households (46.1 percent) and Hispanics (44.7 percent), and these lower rates are only partly accounted for by differences in income, age, and other socioeconomic factors.

(ii) Pervasive and widespread disparities in mortgage lending continued across the nation in 1997, when the loan denial rate was 10.2 percent for white mortgage applicants, but 23.3 percent for African Americans and 18.8 percent for Hispanics.¹

(iii) Despite strong economic growth, low unemployment, the lowest mortgage rates in more than 30 years, and relatively stable home prices, there is clear and compelling evidence of deep and persistent housing problems for Americans with the lowest incomes. The number of very-low-income American households with "worst case" housing needs remains at an all-time high—5.3 million.²

(iv) Changing population demographics will result in a need for the primary and secondary mortgage markets to meet nontraditional credit needs, respond to diverse housing preferences and overcome information barriers that many immigrants face. In addition, market segments such as single-family rental properties, small multifamily properties, manufactured housing, and older inner city properties would benefit from the additional financing and pricing efficiencies of a more active secondary mortgage market.

(v) The Low- and Moderate-Income Housing Goals for both GSEs were 40 percent in 1996 and 42 percent in 1997. Fannie Mae surpassed these goals, with a performance of 45.6 percent in 1996, 45.7 percent in 1997 and 44.1 percent in 1998. Freddie Mac's performance of 41.1 percent in 1996, 42.6 percent in 1997 and 42.9 percent in 1998 narrowly exceeded these goals.

(vi) Several studies have shown that both Fannie Mae and Freddie Mac lag behind depository institutions and the overall conventional conforming market in providing affordable home loans to lower-income borrowers and underserved neighborhoods. Fannie Mae has made efforts to improve its performance. Freddie Mac, however, has made much less improvement, and therefore continues to fall behind Fannie Mae, depositories, and the overall market in

serving lower-income and minority families and their neighborhoods. Thus, there is room for both GSEs (but particularly Freddie Mac) to improve their funding of single-family home mortgages for lower-income families and underserved communities.

(vii) The GSEs' presence in the goal-qualifying market is significantly less than their presence in the overall mortgage market. Specifically, HUD estimates that they accounted for 39 percent of all owner-occupied and rental units financed in the primary market in 1997, but only 30 percent of low- and moderate-income units financed. Their role was even lower for low- and moderate-income rental properties, where they accounted for 24 percent of low- and moderate-income multifamily units financed and only 13 percent of low- and moderate-income single-family rental units financed.

(viii) Other issues have also been raised about the GSEs' affordable lending performance. A large percentage of the lower-income loans purchased by the enterprises have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the mortgage credit needs of lower-income families who do not have the cash to make a high down payment. Also, while single-family rental properties are an important source of low- and moderate-income rental housing, they represent only a small portion of the GSEs' business.

(ix) Freddie Mac has re-entered the multifamily market after withdrawing for a time in the early 1990s. Thus, concerns regarding Freddie Mac's multifamily capabilities no longer constrain their performance with regard to the Low- and Moderate-Income Housing Goal and for the Special Affordable Housing Goal to the same degree that prevailed at the time the Department issued its 1995 GSE regulations. However, Freddie Mac's multifamily presence remains proportionately lower than that of Fannie Mae. For example, units in multifamily properties accounted for 7.9 percent of Freddie Mac's mortgage purchases during 1996–1998, compared with 12.2 percent for Fannie Mae. Because a relatively large proportion of multifamily units qualify for the Low- and Moderate-Income Housing Goal and for the Special Affordable Housing Goal, Freddie Mac's weaker multifamily presence is a major factor contributing to its weaker overall performance on these two housing goals relative to Fannie Mae.

(x) The overall presence of both GSEs in the multifamily mortgage market falls short of their involvement in the single-family market. Specifically, the GSEs' purchases of 1997 originations have accounted for 49 percent of the owner market, but only 22 percent of the multifamily market. Further expansion of the presence of both GSEs in the multifamily market is needed in order for them to make significant progress in closing the gaps between the affordability of their mortgage purchases and that of the overall conventional market.

(xi) The GSEs have proceeded cautiously in expanding their multifamily purchases during the 1990s. Fannie Mae's multifamily lending has been described by Standard & Poor's as "extremely conservative," and Freddie Mac has not experienced a single

default on the multifamily mortgages it has purchased since 1993.³ By the end of the 1998 calendar year, both GSEs' multifamily performance had improved to the point where multifamily delinquency rates were less than those in single-family.⁴

(xii) Because of the advantages conferred by Government sponsorship, the GSEs are in a unique position to provide leadership in addressing the excessive cost and difficulty in obtaining mortgage financing for underserved segments of the multifamily market, including small properties with 5–50 units and properties in need of rehabilitation.

B. Factor 1: National Housing Needs

This section reviews the general housing needs of low- and moderate-income families that exist today and are expected to continue in the near future. In so doing, the section focuses on the affordability problems of lower-income families and on racial disparities in homeownership and mortgage lending. It also notes some special problems, such as the need to rehabilitate our older urban housing stock.

1. Homeownership Gaps

Despite a record national homeownership rate, many Americans, including disproportionate numbers of racial and ethnic minorities, are shut out of homeownership opportunities. Although the national homeownership rate for all Americans was at an all-time high of 66.3 percent in 1998, the rate for minority households was less. The homeownership rate for African-American households was 46.1 percent. Similarly, just 44.7 percent of Hispanic households owned a home.

Importance of Homeownership. Homeownership is one of the most common forms of property ownership as well as savings.⁵ In fact, home equity is the largest source of wealth for most Americans. Median net wealth for renters was less than five percent of the median net wealth for homeowners in 1995. Half of all homeowners in 1995 held more than half of their net wealth in the form of home equity. Even among low-income homeowners (household income less than \$20,000), half held more than 70 percent of their wealth in home equity in 1995.⁶ Thus a homeownership gap translates directly into a wealth gap.

Homeownership promotes social and community stability by increasing the

³ "Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight," February 3, 1997; Freddie Mac, *1998 Annual Report to Shareholders*, p. 6.

⁴ Freddie Mac reported delinquency rates of 0.37 for multifamily and 0.50 percent for single-family in its *1998 Annual Report to Shareholders*, p. 30. Corresponding figures for Fannie Mae were 0.29 percent for multifamily and 0.58 percent for single-family (*1998 Annual Report to Shareholders*, p. 28).

⁵ According to the National Association of Realtors, *Housing Market Will Change in New Millennium as Population Shifts*, (November 7, 1998), 45 percent of U.S. household wealth is in the form of home equity. Since 1968, home prices have increased each year, on average, at the rate of inflation plus up to two percentage points.

⁶ Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1997* (1997).

¹ Mortgage denial rates are based on 1997 HMDA data; data for selected manufactured housing lenders and subprime lenders are excluded from these comparisons.

² U.S. Department of Housing and Urban Development. *Waiting in Vain: Update on America's Rental Housing Crisis*. (March, 1999).

number of stakeholders and reducing disparities in the distributions of wealth and income. There is growing evidence that planning for and meeting the demands of homeownership may reinforce the qualities of responsibility and self-reliance. White and Green⁷ provide empirical support for the association of homeownership with a more responsible, self-reliant citizenry. Both private and public benefits are increased to the extent that developing and reinforcing these qualities improve prospects for individual economic opportunities.

Barriers to Homeownership. Insufficient income, high debt burdens, and limited savings are obstacles to homeownership for younger families. As home prices skyrocketed during the late 1970s and early 1980s, real incomes also stagnated, with earnings growth particularly slow for blue collar and less educated workers. Through most of the 1980s, the combination of slow income growth and increasing rents made saving for home purchase more difficult, and relatively high interest rates required large fractions of family income for home mortgage payments. Thus, during that period, fewer households had the financial resources to meet down payment requirements, closing costs, and monthly mortgage payments.

Economic expansion and lower mortgage rates have substantially improved homeownership affordability during the 1990s. Many young, lower-income, and minority families who were closed out of the housing market during the 1980s have re-entered the housing market. However, many of these households still lack the financial resources and earning power to take advantage of today's homebuying opportunities. Several trends have contributed to the reduction in the real earnings of young adults without college education over the last 15 years, including technological changes that favor white-collar employment, losses of unionized manufacturing jobs, and wage pressures exerted by globalization. Fully 45 percent of the nation's population between the ages of 25 and 34 have no advanced education and are therefore at risk of being unable to afford homeownership.⁸ African Americans and Hispanics, who have lower average levels of educational attainment than whites, are especially disadvantaged by the erosion in wages among less educated workers.

In addition to low income, high debts are a primary reason households cannot afford to purchase a home. According to a 1993 Census Bureau report, nearly 53 percent of renter families have both insufficient income and excessive debt problems that may cause difficulty in financing a home purchase.⁹ High debt-to-income ratios frequently make potential borrowers ineligible for mortgages

based on the underwriting criteria established in the conventional mortgage market.

An additional barrier to homeownership is the fear and uncertainty about the buying process and the risks of ownership. A study using focus groups with renters found that even among those whose financial status would make them capable of homeownership, many feel that the buying process was insurmountable because they feared rejection by the lender or being taken advantage of.¹⁰ Also, many fear the obligations of ownership, because of the concerns about the risk of future deterioration of the house or the neighborhood.

Finally, discrimination in mortgage lending continues to be a barrier to homeownership. Disparities in treatment between borrowers of different races and neighborhoods of different racial makeup have been well documented. These disparities are discussed in the next section.

2. Disparities in Mortgage Financing

Disparities Between Borrowers of Different Races. Research based on Home Mortgage Disclosure Act (HMDA) data suggests pervasive and widespread disparities in mortgage lending across the Nation. For 1997, the denial rate for white mortgage applicants was 10.2 percent, while 23.3 percent of African-American and 18.8 percent of Hispanic applicants were denied. Even after controlling for income, the African-American denial rate was approximately twice that of white applicants. A major study by researchers at the Federal Reserve Bank of Boston found that mortgage denial rates remained substantially higher for minorities in 1991–93, even after controlling for indicators of credit risk.¹¹ African-American and Hispanic applicants in Boston with the same borrower and property characteristics as white applicants had a 17 percent denial rate, compared with the 11 percent denial rate experienced by whites. A subsequent study conducted at the Federal Reserve Bank of Chicago reports similar findings.¹²

Several possible explanations for these lending disparities have been suggested. The studies by the Boston and Chicago Federal Reserve Banks found that racial disparities cannot be explained by reported differences in creditworthiness. In other words, minorities are more likely to be denied than whites with similar credit characteristics,

which suggests lender discrimination. In addition, loan officers, who may believe that race is correlated with credit risk, may use race as a screening device to save time, rather than devote effort to distinguishing the creditworthiness of the individual applicant.¹³ This violates the Fair Housing Act.

Underwriting Rigidities. Underwriting rigidities may fail to accommodate creditworthy low-income or minority applicants. For example, under traditional underwriting procedures, applicants who have conscientiously paid rent and utility bills on time but have never used consumer credit would be penalized for having no credit record. Applicants who have remained steadily employed, but have changed jobs frequently, would also be penalized. Over the past few years, lenders, private mortgage insurers, and the GSEs have adjusted their underwriting guidelines to take into account these special circumstances of lower-income families. Many of the changes recently undertaken by the industry to expand homeownership have focused on finding alternative underwriting guidelines to establish creditworthiness that do not disadvantage creditworthy minority or low-income applicants.

However, because of the enhanced roles of credit scoring and automated underwriting in the mortgage origination process, it is unclear to what degree the reduced rigidity in industry standards will benefit borrowers who have been adversely impacted by the traditional guidelines. Some industry observers have expressed a concern that the greater flexibility in the industry's written underwriting guidelines may not be reflected in the numerical credit and mortgage scores which play a major role in the automated underwriting systems that the GSEs and others have developed. Thus lower-income and particularly minority loan applicants, who often have lower credit scores than other applicants, may be dependent on the willingness of lenders to take the time to look beyond such credit scores and consider any appropriate "mitigating factors," such as the timely payment of their bills, in the underwriting process. For example, there is a concern in the industry that a "FICO" score less than 620 means an automatic rejection of a loan application without further consideration of any such factors.¹⁴ This could disproportionately affect minority applicants. More information on the distribution of credit scores and on the

⁷ Michelle J. White, and Richard K. Green. "Measuring the Benefits of Homeowning: Effects on Children," *Journal of Urban Economics*. 41 (May 1997), pp. 441–61.

⁸ Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998* (1998).

⁹ Howard Savage and Peter Fronczek, *Who Can Afford to Buy A House in 1991?*, U.S. Bureau of the Census, Current Housing Reports H121/93–3, (July 1993), p. ix.

¹⁰ Donald S. Bradley and Peter Zorn. "Fear of Homebuying: Why Financially Able Households May Avoid Ownership," *Secondary Mortgage Markets* (1996).

¹¹ Munnell, Alicia H., Geoffrey M. B. Tootell, Lynn E. Browne, and James McEneaney, "Mortgage Lending in Boston: Interpreting HMDA Data," *American Economic Review*. 86 (March 1996).

¹² William C. Hunter. "The Cultural Affinity Hypothesis and Mortgage Lending Decisions," WP–95–8, Federal Reserve Bank of Chicago, (1995). In addition, a study undertaken for HUD also found higher denial rates among FHA borrowers for minorities after controlling for credit risk. See Ann B. Schnare and Stuart A. Gabriel. "The Role of FHA in the Provision of Credit to Minorities," ICF Incorporated, Prepared for the U.S. Department of Housing and Urban Development, (April 25, 1994).

¹³ See Charles W. Calomiris, Charles M. Kahn and Stanley D. Longhofer. "Housing Finance Intervention and Private Incentives: Helping Minorities and the Poor," *Journal of Money, Credit and Banking*. 26 (August 1994), pp. 634–74, for more discussion of this phenomenon, which is called "statistical discrimination."

¹⁴ The FICO score, developed by Fair, Isaac and Company, is summary index of an individual's credit history. The FICO score is based on elements from the applicant's credit report, such as number of delinquencies in the past year, number of trade lines, and the amount owed on trade lines as compared to the available maximum credit limits. The FICO score is said to reflect the credit risk of the applicant and a score of 620 is often cited as a threshold between being an acceptable and an unacceptable credit risk.

effects of implementing automated underwriting systems is needed.¹⁵

Disparities Between Neighborhoods.

Mortgage credit also appears to be less accessible in low-income and high-minority neighborhoods. As discussed in Appendix B, 1997 HMDA data show that mortgage denial rates are nearly twice as high in census tracts with low-income and/or high-minority composition, as in other tracts (23 percent versus 12 percent). Numerous studies have found that mortgage denial rates are higher in low-income census tracts, even accounting for other loan and borrower characteristics.¹⁶ These geographic disparities can be the result of cost factors, such as the difficulty of appraising houses in these areas because of the paucity of previous sales of comparable homes. Sales of comparable homes may also be difficult to find due to the diversity of central city neighborhoods. The small loans prevalent in low-income areas are less profitable to lenders because up-front fees to loan originators are frequently based on a percentage of the loan amount, although the costs incurred are relatively fixed. Geographic disparities in mortgage lending and the issue of mortgage redlining are discussed further in Appendix B.

3. Affordability Problems and Worst Case Housing Needs

The severe problems faced by low-income homeowners and renters are documented in HUD's "Worst Case Housing Needs" report. This report, which is prepared biennially for Congress, is based on the American Housing Survey (AHS), conducted every two years by the Census Bureau for HUD. The latest report analyzes data from the 1995 AHS and focuses on the housing problems faced by low-income renters, but some data is also presented on families living in owner-occupied housing. In introducing a recent HUD report, Secretary Cuomo noted that it found "clear and compelling evidence of deep and persistent housing problems for Americans with the lowest incomes."¹⁷

The "Worst Cases" report measures three types of problems faced by homeowners and renters:

- (i) Cost or rent burdens, where housing costs or rent exceed 50 percent of income (a "severe burden") or range from 31 percent to 50 percent of income (a "moderate burden");
- (ii) The presence of physical problems involving plumbing, heating, maintenance, hallway, or the electrical system, which may lead to a classification of a residence as "severely inadequate" or "moderately inadequate;" and
- (iii) Crowded housing, where there is more than one person per room in a residence.

¹⁵ Section 3.b of this appendix provides a further discussion of automated underwriting.

¹⁶ Robert B. Avery, Patricia E. Beeson and Mark E. Sniderman. *Understanding Mortgage Markets: Evidence from HMDA*, Working Paper Series 94-21. Federal Reserve Bank of Cleveland (December 1994).

¹⁷ *Rental Housing Assistance—The Crisis Continues: The 1997 Report to Congress on Worst Case Housing Needs*, Department of Housing and Urban Development, Office of Policy Development and Research, (April 1998), p. i. All statistics in this subsection are taken from this report, except as noted.

The study reveals that in 1995, 5.3 million households had "worst case" housing needs, defined as housing costs greater than 50 percent of household income or severely inadequate housing among unassisted households. A preliminary HUD analysis of 1997 AHS data indicates that worst case needs have remained at or near this level.¹⁸

a. Problems Faced by Owners

Of the 63.5 million owner households in 1995, 4.9 million (8 percent) confronted a severe cost burden and another 8.1 million (13 percent) faced a moderate cost burden. There were 1.2 million households with severe physical problems and 0.9 million which were overcrowded. The report found that 25 percent of American homeowners faced at least one severe or moderate problem.

Not surprisingly, problems were most common among very low-income owners.¹⁹ Nearly a third of these households faced a severe cost burden, and an additional 22 percent faced a moderate cost burden. And nearly 10 percent of these families lived in severely or moderately inadequate housing, while 3 percent faced overcrowding. Only 40 percent of very low-income owners reported no problems.

Over time the percentage of owners faced with severe or moderate physical problems has decreased, as has the portion living in overcrowded conditions. However, affordability problems have grown—the shares facing severe (moderate) cost burdens were only 3 percent (5 percent) in 1978, but rose to 5 percent (11 percent) in 1989 and 8 percent (13 percent) in 1995. The increase in affordability problems apparently reflects a rise in mortgage debt in the late 1980s and early 1990s, from 21 percent of homeowners' equity in 1983 to 36 percent in 1995.²⁰ As a result of the increased incidence of severe and moderate cost burdens, the share of owners reporting no problems fell from 84 percent in 1978 to 78 percent in 1989 and 75 percent in 1995.

b. Problems Faced by Renters

Problems of all three types listed above are more common among renters than among homeowners. In 1995 there were 6.2 million renter households (18 percent of all renters) who paid more than 50 percent of their income for rent.²¹ Another 8 million faced a moderate rent burden, thus in total 40

percent of renters paid more than 30 percent of their income for rent.

Among very low-income renters, 70 percent faced an affordability problem, including 41 percent who paid more than half of their income in rent. More than one-third of renters with incomes between 51 percent and 80 percent of area median family income also paid more than 30 percent of their income for rent.

Affordability problems have increased over time among renters. The shares of renters with severe (moderate) rent burdens rose from 14 percent (18 percent) in 1978 to 15 percent (21 percent) in 1989 and 18 percent (22 percent) in 1995.

The share of families living in inadequate housing in 1995 was higher for renters (9 percent) than for owners (5 percent), as was the share living in overcrowded housing (5 percent for renters, but only 1 percent for owners). Crowding and inadequate housing were more common among lower-income renters, but among even the lowest income group, affordability was the dominant problem. The prevalence of inadequate and crowded rental housing has diminished over time, while affordability problems have grown.

Other problems faced by renters discussed in the "Worst Cases" report include the loss between 1993 and 1995 of 900,000 rental units affordable to very low-income families, the increase in "worst case needs" among working families between 1991 and 1995, and the shortage of units affordable to very low-income households (especially in the West).

The "Worst Cases" report presented analysis of 20-year trends in affordable housing units up through 1995, showing a steady decline in the number of such units. A recently-released HUD analysis of housing vacancy survey data reveals that this trend has continued since 1995, and that in the two years from 1996 to 1998 the number of units that rent for less than \$300 (inflation-adjusted) declined by 19 percent.²² The same study reports the median asking rent for new rental units as \$726, or beyond the affordable range.

HUD's recent study on market trends includes also an analysis of trends in the Consumer Price Index from 1996 to 1998.²³ During this two-year period the price index for all items grew by 3.9 percent, but the price index for residential rent rose 6.2 percent. The same report also cites Bureau of Labor Statistics data showing that rents slightly outpaced income between 1995 and 1997 for the 20 percent of U.S. households with the lowest incomes. The report concludes that low-income renters are continuing to face an affordability crisis.

4. Other National Housing Needs

In addition to the broad housing needs discussed above, there are additional needs confronting specific sectors of the housing and mortgage markets. This section presents a brief discussion of three such areas and the roles that the GSEs play or might play in addressing the needs in these areas. Other

¹⁸ U.S. Department of Housing and Urban Development. *Waiting in Vain: Update on America's Rental Housing Crisis*. (March, 1999), section I.

¹⁹ Very low-income households are defined in the report as those whose income, adjusted for family size, is less than 50 percent of area median income. This differs from the definition adopted by Congress in the GSE Act of 1992, which uses a cutoff of 60 percent and which does not adjust income for family size for owner-occupied dwelling units.

²⁰ Edward N. Wolff, "Recent Trends in the Size Distribution of Household Wealth," *The Journal of Economic Perspectives*, 12(3), (Summer 1998), p. 137.

²¹ Rent is measured in this report as gross rent, defined as contract rent plus the cost of any utilities which are not included in contract rent.

²² "Waiting in Vain" (cited above), section III.2.

²³ *Ibid.*, section III.1.

needs are discussed throughout these appendices.

a. Single-family Rental Housing

The 1995 American Housing Survey (AHS) reported that 43 percent of all rental housing units are located in "multifamily" properties—i.e., properties that contain 5 or more rental units. The bulk (57 percent) of rental units are found in the "mom and pop shops" of the rental market—"single-family" rental properties, containing 1–4 units. These small properties are largely individually-owned and managed, and in many cases the owner-managers live in one of the units in the property. They include many properties in older cities, such as the duplexes in Baltimore and the triple-deckers in Boston. A number of these single-family rental properties are in need of financing for rehabilitation, discussed in the next subsection.

Single-family rental units play an especially important role in lower-income housing. The 1995 AHS found that 57 percent of such units were affordable to very low-income families—exceeding the corresponding share of 49 percent for multifamily units. These units also play a significant role in the GSEs' performance on the housing goals, since 34 percent of the single-family rental units financed by the GSEs in 1997 were affordable to very low-income families.

There is not, however, a strong secondary market for single-family rental mortgages. While single-family rental properties comprise a large segment of the rental stock for lower-income families, they make up a small portion of the GSEs' business. In 1997 the GSEs purchased \$11.6 billion in mortgages for such properties, but this represented only 4 percent of the total dollar volume of each enterprise's 1997 business and only 7 percent of total single-family units financed by each GSE. With regard to their credit market share, HUD estimates that the GSEs have financed only about 13 percent of all single-family rental units that received financing in 1997, well below the GSEs' estimated market share of 49 percent for single-family owner properties.

Given the large size of this market, the high percentage of these units which qualify for the GSEs' housing goals, and the weakness of the secondary market for mortgages on these properties, an enhanced presence by Fannie Mae and Freddie Mac in the single-family rental mortgage market would seem warranted.²⁴

b. Rehabilitation Problems of Older Areas

A major problem facing lower-income households is that low-cost housing units continue to disappear from the existing housing stock. Older properties are in need of upgrading and rehabilitation. These aging properties are concentrated in central cities and older inner suburbs, and they include

not only detached single-family homes, but also small multifamily properties that have begun to deteriorate.

The ability of the nation to maintain the quality and availability of the existing affordable housing stock and to stabilize the neighborhoods where it is found depends on an adequate supply of credit to rehabilitate and repair older units. But obtaining the funds to fix up older properties can be difficult. The owners of small rental properties in need of rehabilitation may be unsophisticated in obtaining financing. The properties are often occupied, and this can complicate the rehabilitation process. Lenders may be reluctant to extend credit because of a sometimes-inaccurate perception of high credit risk involved in such loans.

The GSEs and other market participants have recently begun to pay more attention to these needs for financing of affordable rental housing rehabilitation.²⁵ However, extra effort is required, due to the complexities of rehabilitation financing, as there is still a need to do more.

c. Small Multifamily Properties

There is evidence that small multifamily properties with 5–50 units have been adversely affected by differentials in the cost of mortgage financing relative to larger properties.²⁶ While mortgage loans can generally be obtained for most properties, the financing that is available is relatively expensive, with interest rates as much as 150 basis points higher than those on standard multifamily loans. Loan products are characterized by shorter terms and adjustable interest rates. Borrowers typically incur costs for origination and placement fees, environmental reviews, architectural certifications (on new construction or substantial rehabilitation projects), inspections, attorney opinions and certifications, credit reviews, appraisals, and market surveys.²⁷ Because of a large fixed element, these costs are usually not scaled according to the mortgage loan amount or number of dwelling units in a property and

²⁵ One program that shows promise is Fannie Mae's HomeStyle Home Improvement Mortgage Loan Product. Under this program, Fannie Mae will purchase mortgages that finance the purchase and rehabilitation of 1- to 4-unit properties in "as-is" condition. The mortgage amount is limited to 90 percent of the appraised "as completed" value, with the rehab amount not to exceed 50 percent of this value.

²⁶ See Drew Schneider and James Follain, "A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing," *Cityscape: A Journal of Policy Development and Research* 4(1), (1998), pp. 43–58; and William Segal and Christopher Herbert, *Segmentation of the Multifamily Mortgage Market: The Case of Small Properties*, paper presented to annual meetings of the American Real Estate and Urban Economics Association, (January 2000).

²⁷ These costs have been estimated at \$30,000 for a typical transaction. Presentation by Jeff Stern, Vice President, Enterprise Mortgage Investments, HUD GSE Working Group, July 23, 1998. The most comprehensive account of the multifamily housing finance system as it relates to small properties is contained in Schneider and Follain (see above reference).

consequently are often prohibitively high on smaller projects.

d. Other Needs

Further discussions of other housing needs and mortgage market problems are provided in the following sections on economic, housing, and demographic conditions. In the single-family area, for example, an important trend has been the growth of the subprime market and the GSEs' participation in the A-minus portion of that market. Manufactured housing finance and rural housing finance are areas that could be served more efficiently with an enhanced secondary market presence. In the multifamily area, properties in need of rehabilitation represent a market segment where financing has sometimes been difficult. Other housing needs and mortgage market problems are also discussed.

C. Factor 2: Economic, Housing, and Demographic Conditions: Single-Family Mortgage Market

This section discusses economic, housing, and demographic conditions that affect the single-family mortgage market. After a review of housing trends and underlying demographic conditions that influence homeownership, the discussion focuses on specific issues related to the single-family owner mortgage market. This subsection includes descriptions of recent market interest rate trends, homebuyer characteristics, and the state of affordable lending. Section D follows with a discussion of the economic, housing, and demographic conditions affecting the multifamily mortgage market.

1. Recent Trends in the Housing Market

Solid economic growth, low interest rates, price stability, and the lowest unemployment rate since 1969 combined to make 1998 a very strong year for the housing market. The employment-population ratio reached a record 64.1 percent last year, and a broad measure of labor market distress, combining the number of unemployed and the duration of unemployment, was down by 47 percent from its 1992 peak.²⁸ Rising real wages, a strong stock market, and higher home prices all contributed to a continuation of the rise in net household worth, following an estimated \$4 trillion gain in 1997, contributing to the strong demand for housing.²⁹

Homeownership Rate. In 1980, 65.6 percent of Americans owned their own home, but due to the unsettled economic conditions of the 1980s, this share fell to 63.8 percent by 1989. Major gains in ownership have occurred over the last few years, with the homeownership rate reaching a record level of 66.3 percent in 1998, when the number of households owning their own home was 9 million greater than in 1989.

²⁸ This measure is discussed in Paul B. Manchester, "A New Measure of Labor Market Distress," *Challenge*, (November/December 1982).

²⁹ Office of Federal Housing Enterprise Oversight, *1998 Report to Congress*, (June 1998), p. 28.

²⁴ A detailed discussion of the GSE's activities in this area is contained in Theresa R. Diventi, *The GSE's Purchases of Single-Family Rental Property Mortgages*, Housing Finance Working Paper No. HF-004, Office of Policy Development and Research, Department of Housing and Urban Development, (March 1998).

Gains in homeownership have been widespread over the last four years.³⁰ As a result, the homeownership rate rose from:

- (i) 42.0 percent in 1993 to 46.1 percent in 1998 for African American households,
- (ii) 39.4 percent in 1993 to 44.7 percent in 1998 for Hispanic households,
- (iii) 73.7 percent in 1993 to 77.3 percent in 1998 for married couples with children,
- (iv) 65.1 percent in 1993 to 66.9 percent in 1998 for household heads aged 35–44, and
- (v) 48.9 percent in 1993 to 50.0 percent in 1998 for central city residents.

However, as these figures demonstrate, sizable gaps in homeownership remain—gaps which must be reduced if President Clinton's National Housing Strategy's goal of a homeownership rate of 67.5 percent by the year 2000 is to be met.

*Sales of New and Existing Homes.*³¹ New home sales rose at a rate of 10 percent per year between 1991 and 1998 and exceeded the previous record level (set in 1977) by eight percent in 1998. The market for new homes has been strong throughout the nation, with record sales in the South and Midwest during 1998. New home sales in the Northeast and West, while strong, are running below the peak levels attained during their strong job markets of the mid-1980s and late-1970s, respectively.

The National Association of Realtors reported that 4.8 million existing homes were sold in 1998, overturning the old record set in 1997 by nearly 14 percent. The combined new and existing home sales also set a record of 5.7 million last year. Since existing homes account for more than 80 percent of the total market and sales of existing homes are strong throughout the country, combined sales reach record levels in three of the four major regions of the nation and came within 99 percent of the record in the Northeast.

One of the strongest sectors of the housing market in recent years has been shipments of manufactured homes, which more than doubled between 1991 and 1996, and leveled off at the 1996 record level during 1997 before rising slightly to 373,000 in 1998. Over two-thirds of manufactured home placements were in the South, where they comprised more than one-third of total new homes sold in 1998.

Economy/Housing Market Prospects. As noted above, the U.S. economy is coming off several years of economic expansion accompanied by low interest rates and high housing affordability. In fact, 1998 was a record year for the housing market. This leads to an important issue, what are the future prospects for the housing market?

While the housing market is expected to slow down over the next four years, the sales of existing homes during 1999 are on a record breaking pace of over five million single-family units.³² Between 2000 and 2003,

existing single-family home sales are expected to average 4.4 million units. In addition to existing home sales, housing starts are expected to average 1.5 million units over the same period. Housing should remain affordable, as indicated by out-of-pocket costs as a share of disposable income, which is expected to continue its downward trend through 2003, dipping below 25 percent. According to Standard & Poor's/DRI, mortgage interest rates are expected to average 7.1 percent over the next four years for a 30-year fixed rate mortgage.

The Congressional Budget Office (CBO)³³ projects that real Gross Domestic Product will grow at an average rate of 2.4 percent through 2003, down somewhat from the expected 4.0 percent growth rate during 1999. The ten-year Treasury rate is projected to average 5.6 percent between 2000 and 2003. Inflation, as measured by the Consumer Price Index (CPI) is projected to remain modest during the same period, averaging 2.5 percent. The unemployment rate is expected to remain low over the next four years, ranging between 4.6 and 5.1 percent. CBO expects housing starts to average 1.6 million units between 2000 and 2003, slightly off the 1999 level.

Certain risks exist, however, which could undermine the well-being of the economy. The probability of a recession still exists for the next couple of years. Under a pessimistic scenario (10 percent probability), Standard & Poor's DRI predicts that housing starts could fall during 2000, but by the end of the year, the economy would be well on its way to recovery with housing starts increasing steadily.³⁴ An alternate scenario has a recession arriving in 2002 (which DRI predicts with a probability of 30 percent). Under this scenario, housing starts would fall, but rebound strongly, along with the economy, in 2003.³⁵

2. Underlying Demographic Conditions

Over the next 20 years, the U.S. population is expected to grow by an average of 2.4 million per year. This will likely result in 1.1 to 1.2 million new households per year, creating a continuing need for additional housing.³⁶ This section discusses important demographic trends behind these overall numbers that will likely affect housing demand in the future. These demographic forces include the baby-boom, baby-bust and echo baby-boom cycles; immigration trends; "trade-up buyers;" non-traditional and single households; and the growing income inequality between people with different levels of education.

As explained below, the role of traditional first-time homebuyers, 25-to-34 year-old

forecasts are obtained from Standard & Poor's DRI, *The U.S. Economy*. (September 1999), pp. 53–5.

³³ Real GDP, unemployment, inflation, and treasury note interest rate projects are obtained for fiscal years 2000–2009 from *The Economic and Budget Outlook: An Update*, Washington DC: Congressional Budget Office, (July 1, 1999).

³⁴ Standard & Poor's DRI, *The U.S. Economy*. (September 1999), p. 54.

³⁵ Standard & Poor's DRI, *The U.S. Economy*. (September 1999), p. 54.

³⁶ National Association of Realtors. *Housing Market Will Change in New Millennium as Population Shifts*. (November 7, 1998).

married couples, in the housing market will be smaller in the next decade due to the aging of the baby-boom population. However, growing demand from immigrants and non-traditional homebuyers will likely fill in the void. The echo baby-boom (that is, children of the baby-boomers) will also add to housing demand later in the next decade. Finally, the growing income inequality between people with and without a post-secondary education will continue to affect the housing market.

The Baby-Boom Effect. The demand for housing during the 1980s and 1990s was driven, in large part, by the coming of homebuying age of the baby-boom generation, those born between 1945 and 1964. Homeownership rates for the oldest of the baby-boom generation, those born in the 1940s, rival those of the generation born in the 1930s. Due to significant house price appreciation in the late-1970s and 1980s, older baby-boomers have seen significant gains in their home equity and subsequently have been able to afford larger, more expensive homes. Circumstances were not so favorable for the middle baby-boomers. Housing was not very affordable during the 1980s, their peak homebuying age period. As a result, the homeownership rate, as well as wealth accumulation, for the group of people born in the 1950s lags that of the generations before them.³⁷

As the youngest of the baby-boomers, those born in the 1960s, reached their peak homebuying years in the 1990s, housing became more affordable. While this cohort has achieved a homeownership rate equal to the middle baby-boomers, they live in larger, more expensive homes. As the baby-boom generation ages, demand for housing from this group is expected to wind down.³⁸

The baby boom generation was followed by the baby bust generation, from 1965 through 1977. Since this population cohort is smaller than that of the baby boom generation, it is expected to lead to reduced housing demand during the next decade, though, as discussed below, other factors have kept the housing market very strong in the 1990s. However, the echo baby-boom generation (the children of the baby-boomers, who were born after 1977), while smaller than the baby-boom generation, will reach peak homebuying age later in the first decade of the new millennium, softening the blow somewhat.³⁹

Immigrant Homebuyers. Past, present, and future immigration will also help keep homeownership growth at a respectable level. During the 1980s, 6 million legal immigrants entered the United States, compared with 4.2 million during the 1970s and 3.2 million during the 1960s.⁴⁰ As a result, the foreign-born population of the United States doubled from 9.6 million in 1970 to 19.8 million in 1990, and is expected

³⁷ Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998*. (1998), p. 14.

³⁸ Joint Center for Housing Studies of Harvard University. (1998), p. 15.

³⁹ National Association of Realtors. *Housing Market Will Change in New Millennium As Population Shifts*. (November 7, 1998).

⁴⁰ Joint Center for Housing Studies of Harvard University. (1998).

³⁰ Homeownership rates prior to 1993 are not strictly comparable with those beginning in 1993 because of a change in weights from the 1980 Census to the 1990 Census.

³¹ All of the home sales data in this section are obtained from *U.S. Housing Market Conditions, 2nd Quarter 1999*, U.S. Department of Housing and Urban Development, (August 1999).

³² Existing home sales, housing starts, housing affordability and 30-year fixed rate mortgage rate

to reach 31 million by 2010.⁴¹ While immigrants tend to rent their first homes upon arriving in the United States, homeownership rates are substantially higher among those that have lived here for at least 6 years. In 1996, the homeownership rate for recent immigrants was 14.7 percent while it was 67.4 percent for native-born households. For foreign-born naturalized citizens, the homeownership rate after six years was a remarkable 66.9 percent.⁴²

Immigration is projected to add even more new Americans in the 1990s, which will help offset declines in the demand for housing caused by the aging of the baby-boom generation. While it is projected that immigrants will account for less than four percent of all households in 2010, without the increase in the number of immigrants, household growth would be 25 percent lower over the next 15 years. As a result of the continued influx of immigrants and the aging of the domestic population, household growth over the next decade should remain at or near its current pace of 1.1–1.2 million new households per year, even though population growth is slowing. If this high rate of foreign immigration continues, it is possible that first-time homebuyers will make up as much as half of the home purchasing market over the next several years.⁴³

Past and future immigration will lead to increasing racial and ethnic diversity, especially among the young adult population. As immigrant minorities account for a growing share of first-time homebuyers in many markets, HUD and others will have to intensify their focus on removing discrimination from the housing and mortgage finance systems. The need to meet nontraditional credit needs, respond to diverse housing preferences, and overcome the information barriers that many immigrants face will take on added importance.

Trade-up Buyers. The fastest growing demographic group in the early part of the next millennium will be 45- to 65-year olds. This will translate into a strong demand for upscale housing and second homes. The greater equity resulting from recent increases in home prices should also lead to a larger role for “trade-up buyers” in the housing market during the next 10 to 15 years.

Nontraditional and Single Homebuyers. While overall growth in new households has slowed down, nontraditional households have become more important in the homebuyer market. With later marriages and more divorces, single-person and single-parent households have increased rapidly. First-time buyers include a record number of never-married single households, although their ownership rates still lag those of

married couple households. According to the Chicago Title and Trust's Home Buyers Surveys, the share of first-time homebuyers who were never-married singles rose from 21 percent in 1991 to 37 percent in 1996, and to a record 43 percent in 1997. The shares for divorced/separated and widowed first-time homebuyers have stayed constant over the period, at eight percent and one percent, respectively.⁴⁴ The National Association of Realtors reports that “single individuals, unmarried couples and minorities are entering the market as first-time buyers in record numbers.”⁴⁵ With the increase in single person households, it is expected that there will be a greater need for apartments, condominiums and townhomes.

Due to weak house price appreciation, traditional “trade-up buyers” stayed out of the market during the early 1990s. Their absence may explain, in part, the large representation of nontraditional homebuyers during that period. Single-parent households are also expected to decline as the baby-boom generation ages out of the childbearing years. For these reasons, nontraditional homebuyers may account for a smaller share of the housing market in the future.

Growing Income Inequality. The Census Bureau recently reported that the top 5 percent of American households received 21.7 percent of aggregate household income in 1997, up sharply from 16.1 percent in 1977. The share accruing to the lowest 80 percent of households fell accordingly, from 56.5 percent in 1977 to 50.7 percent in 1997. The share of aggregate income accruing to households between the 80th and 95th percentiles of the income distribution was virtually unchanged over this period.⁴⁶

The increase in income inequality over the past two decades has been especially significant between those with and those without post-secondary education. The Census Bureau reports that by 1997, the mean income of householders with a high school education (or less) was less than half that for householders with a bachelor's degree (or more). According to the Joint Center for Housing Studies, inflation-adjusted median earnings of men aged 25 to 34 with only a high-school education decreased by 14 percent between 1989 and 1995.⁴⁷ So, while homeownership is highly affordable, this cohort lacks the financial resources to take advantage of the opportunity. As discussed earlier, the days of the well-paying unionized factory job have passed. They have given way to technological change that favors white-collar jobs requiring college degrees, and wages in the manufacturing jobs that remain are experiencing downward pressures from economic globalization. The effect of this is that workers without the benefit of a post-

secondary education find their demand for housing constrained.

3. Single-Family Owner Mortgage Market

The mortgage market has undergone a great deal of growth and change over the past few years. Low interest rates, modest increases in home prices, and growth in real household income have increased the affordability of housing and resulted in a mortgage market boom. Total originations of single-family loans increased from \$458 billion in 1990 to \$859 billion in 1997 and then jumped to \$1.507 trillion during the heavy refinancing year of 1998.⁴⁸ There has also been many changes in the structure and operation of the mortgage market. Innovations in lending products, added flexibility in underwriting guidelines, the development of automated underwriting systems and the rise of the subprime market, have had impacts on both the overall market and affordable lending during the 1990s.

The section starts with a review of trends in the market for mortgages on single-family owner-occupied housing. Next, trends in affordable lending, including new initiatives and changes to underwriting guidelines and the prospects for potential homebuyers are discussed. The section concludes with a summary of the activity of the GSEs relative to originations in the primary mortgage market.

a. Basic Trends in the Mortgage Market

Interest Rate Trends. The high and volatile mortgage rates of the 1980s and early 1990s have given way to a period with much lower and more stable rates in the last six years. Interest rates on mortgages for new homes were above 12 percent as the 1980s began and quickly rose to more than 15 percent.⁴⁹ After 1982, they drifted downward slowly to the 9 percent range in 1987–88, before rising back into double-digits in 1989–90. Rates then dropped by about one percentage point a year for three years, reaching a low of 6.8 percent in October-November 1993 and averaging 7.2 percent for the year as a whole.

Mortgage rates turned upward in 1994, peaking at 8.3 percent in early 1995, but fell to the 7.5 percent–7.9 percent range for most of 1996 and 1997. However, rates began another descent in late-1997 and averaged 6.95 percent for 30-year fixed rate conventional mortgages during 1998, the lowest level since 1968.⁵⁰

Other Loan Terms. When mortgage rates are low, most homebuyers prefer to lock in a fixed-rate mortgage (FRM). Adjustable-rate

⁴¹ John R. Pitkin and Patrick A. Simmons. “The Foreign-Born Population to 2010: A Prospective Analysis by Country of Birth, Age, and Duration of U.S. Residence,” *Journal of Housing Research*. 7(1) (1996), pp. 1–31.

⁴² Fred Flick and Kate Anderson. “Future of Housing Demand: Special Markets,” *Real Estate Outlook*. (1998), p. 6.

⁴³ Mark A. Calabria. “The Changing Picture of Homebuyers,” *Real Estate Outlook*. (May 1999), p. 10.

⁴⁴ Chicago Title and Trust Family of Insurers, *Who's Buying Homes in America*. (1998).

⁴⁵ Calabria. (May 1999), p. 11.

⁴⁶ Bureau of the Census, “Money Income in the United States: 1997,” *Current Population Report P60–200*, (September 1998).

⁴⁷ Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998*. (1998).

⁴⁸ Data for 1990–97 from *U.S. Housing Market Conditions, 1st Quarter 1999*, U.S. Department of Housing and Urban Development, (May 1999), Table 17; 1998 from the Mortgage Bankers Association.

⁴⁹ Interest rates in this section are effective rates paid on conventional home purchase mortgages on new homes, based on the Monthly Interest Rate Survey (MIRS) conducted by the Federal Housing Finance Board and published by the Council of Economic Advisers annually in the *Economic Report of the President* and monthly in *Economic Indicators*. These are average rates for all loan types, encompassing 30-year and 15-year fixed-rate mortgages and adjustable rate mortgages.

⁵⁰ *U.S. Housing Market Conditions, 2nd Quarter 1999*, (August 1999), Table 12.

mortgages (ARMs) are more attractive when rates are high, because they carry lower rates than FRMs and because buyers may hope to refinance to a FRM when mortgage rates decline. Thus the Federal Housing Finance Board (FHFB) reports that the ARM share of the market jumped from 20 percent in the low-rate market of 1993 to 39 percent when rates rose in 1994.⁵¹ The ARM share has since trended downward, falling to 22 percent in 1997 and a record low of 12 percent in 1998.

In 1997 the term-to-maturity was 30 years for 83 percent of conventional home purchase mortgages. Other maturities included 15 years (11 percent of mortgages), 20 years (2 percent), and 25 years (1 percent). The average term was 27.5 years, up slightly from 26.9 years in 1996, but within the narrow range of 25–28 years which has prevailed since 1975.

One dimension of the mortgage market which has changed in recent years is the increased popularity of low- or no-point mortgages. FHFB reports that average initial fees and charges (“points”) have decreased from 2.5 percent of loan balance in the mid-1980s to 2 percent in the late-1980s, 1.5 percent in the early 1990s, and less than 1.0 percent in 1995–97. Last year 21 percent of all loans were no-point mortgages. These lower transactions costs have increased the propensity of homeowners to refinance their mortgages.⁵²

Another recent major change in the conventional mortgage market has been the proliferation of high loan-to-value ratio (LTV) mortgages. Loans with LTVs greater than 90 percent (that is, down payments of less than 10 percent) made up less than 10 percent of the market in 1989–91, but 25 percent of the market in 1994–97. Loans with LTVs less than or equal to 80 percent fell from three-quarters of the market in 1989–91 to an average of 56 percent of mortgages originated in 1994–97. As a result, the average LTV rose from 75 percent in 1989–91 to nearly 80 percent in 1994–97.⁵³

The statistics cited above pertain only to home purchase mortgages. Refinance mortgages generally have shorter terms and lower loan-to-value ratios than home purchase mortgages.

Mortgage Originations: Refinance Mortgages. Mortgage rates affect the volume of both home purchase mortgages and mortgages used to refinance an existing mortgage. The effects of mortgage rates on the volume of home purchase mortgages are felt through their role in determining housing affordability, discussed in the next

subsection. However, the largest impact of rate swings on single-family mortgage originations is reflected in the volume of refinancings.

During 1992–93, homeowners responded to the lowest rates in 25 years by refinancing existing mortgages. In 1989–90 interest rates exceeded 10 percent, and refinancings accounted for less than 25 percent of total mortgage originations.⁵⁴ The subsequent sharp decline in mortgage rates drove the refinance share over 50 percent in 1992 and 1993 and propelled total single-family originations to more than \$1 trillion in 1993—twice the level attained just three years earlier.

The refinance wave subsided after 1993, because most homeowners who found it beneficial to refinance had already done so and because mortgage rates rose once again.⁵⁵ Total single-family mortgage originations bottomed out at \$639 billion in 1995, when the refinance share was only 15 percent. This meant that refinance volume declined by more than 80 percent in just two years.

A second surge in refinancings began in late-1997, abated somewhat in early 1998, but regained momentum in June 1998. The refinance share rose above 30 percent in mid-1997, exceeded 40 percent in late-1997, and peaked at 64 percent in January, before falling to 40 percent by May 1998. This share increased steadily over the June–September 1998 period, and averaged 50 percent for 1998. Total originations, driven by the volume of refinancings, amounted to \$859 billion in 1997 and were \$1.507 trillion in 1998, nearly 50 percent higher than the previous record level of \$1.02 trillion attained in 1993. Total refinance mortgage volume in 1998 was estimated to be nearly 10 times the level attained in 1995. The 1997–98 refinance wave reflects other factors besides interest rates, including greater borrower awareness of the benefits of refinancing, a highly competitive mortgage market, and the enhanced ability of the mortgage industry (including the GSEs), utilizing automated underwriting and mortgage origination systems, to handle this unprecedented volume expeditiously.

Mortgage Originations: Home Purchase Mortgages. In 1972 the median price of existing homes in the United States was \$27,000 and mortgage rates averaged 7.52 percent; thus with a 20 percent down payment, a family needed an income of \$7,200 to qualify for a loan on a median-priced home. Actual median family income was \$11,100, exceeding qualifying income by 55 percent. The National Association of Realtors (NAR) has developed a housing affordability index, calculated as the ratio of median income to qualifying income, which was 155 in 1972.

By 1982 NAR’s affordability index had plummeted to 70, reflecting a 154 percent increase in home prices and a doubling of mortgage rates over the decade. That is, qualifying income rose by nearly 400 percent, to \$33,700, while median family income barely doubled, to \$23,400. With so many families priced out of the market, single-family mortgage originations amounted to only \$97 billion in 1982.

Declining interest rates and the moderation of inflation in home prices have led to a dramatic turnaround in housing affordability in the last decade and a half. Remarkably, qualifying income in 1993 was \$27,700 in 1993—\$6,000 less than it had been in 1982. Median family income reached \$37,000 in 1993, thus the NAR’s housing affordability index reached 133, reflecting the most affordable housing in 20 years. Housing affordability has remained at about 130 since 1993, with home price increases and somewhat higher mortgage rates in 1994–97 being offset by gains in median family income.⁵⁶

The high affordability of housing, low unemployment, and high consumer confidence meant that home purchase mortgages reached a record level in 1997. However, this record was surpassed in 1998, as a July 1998 survey by Fannie Mae found that “every single previously cited barrier to homeownership—from not having enough money for a down payment, to not having sufficient information about how to buy a home, to the confidence one has in his job, to discrimination or social barriers—has collapsed to the lowest level recorded in the seven years Fannie Mae has sponsored its annual National Housing Survey.”⁵⁷ Specifically, the Mortgage Bankers Association estimates that home purchase mortgages rose to about \$750 billion in 1998, well above the previous record of \$576 billion established in 1997.

First-time Homebuyers. First-time homebuyers have been the driving force in the recovery of the nation’s housing market over the past several years. First-time homebuyers are typically people in the 25–34 year-old age group that purchase modestly priced houses. As the post-World War II baby boom generation ages, the percentage of Americans in this age group decreased from 28.3 percent in 1980 to 25.4 percent in 1992.⁵⁸ Even though this cohort is smaller, first-time homebuyers increased their share of home sales. First-time buyers accounted for about 47 percent of home sales in 1997. Participation rates for first-time homebuyers so far this decade are all in excess of 45 percent. This follows participation rates that averaged 40 percent in the 1980s, including a low of 36 percent in 1985. The highest first-

⁵¹ All statistics in this section are taken from the Federal Housing Finance Board’s MIRS.

⁵² This is discussed in more detail in Paul Bennett, Richard Peach, and Stavros Peristani, *Structural Change in the Mortgage Market and the Propensity to Refinance*, Staff Report Number 45, Federal Reserve Bank of New York, (September 1998).

⁵³ Other sources of data on loan-to-value ratios such as the American Housing Survey and the Chicago Title and Trust Company indicated that high-LTV mortgages are somewhat more common in the primary market than the Finance Board’s survey. However, the Chicago Title survey does not separate FHA-insured loans from conventional mortgages.

⁵⁴ Refinancing data is taken from Freddie Mac’s monthly *Primary Mortgage Market Survey*.

⁵⁵ There is some evidence that lower-income borrowers did not participate in the 1993 refinance boom as much as higher-income borrowers—see Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996–97 Update*, Housing Finance Working Paper No. HF-006, Office of Policy Development and Research, Department of Housing and Urban Development, (August 1998), pp. 30–32.

⁵⁶ Housing affordability varies markedly between regions, ranging in May 1998 from 164 in the Midwest to 100 in the West, with the South and Northeast falling in between.

⁵⁷ Fannie Mae, <http://www.fanniemae.com/news/housingsurvey/1998>, (July 16, 1998).

⁵⁸ U.S. Department of Commerce, Bureau of the Census, *Money Income of Households, Families, and Persons in the United States: 1992*, Special Studies Series P-60, No. 184, Table B-25, (October 1993).

time homebuyer participation rate was achieved in 1977 when it was 48 percent.⁵⁹

The Chicago Title and Trust Company reports that the average first time-buyer in 1997 was 32 years old and spent 5 months looking at 14 homes before making a purchase decision. Most such buyers are married couples, but in 1997 21 percent were never-married males and 13 percent were never-married females.

First time buyers paid an average of 35 percent of after-tax income, or \$1,020 per month, on their mortgage payments in 1997, and saved for 2.2 years to accumulate a down payment. The National Association of Realtors reports that first-time buyers took out an average mortgage of \$102,000 in 1997, corresponding to an LTV of 90 percent, compared with a mortgage of \$132,000 and an average LTV of 84 percent for repeat buyers.

GSEs' Acquisitions as a Share of the Primary Single-Family Mortgage Market. The GSEs' single-family mortgage acquisitions have generally followed the volume of originations in the primary market for conventional mortgages, falling from 5.3 million mortgages in the record year of 1993 to 2.2 million mortgages in 1995, but rebounding to 2.9 million mortgages in 1996. In 1997, however, single-family originations were essentially unchanged, but the GSEs' acquisitions declined to 2.7 million mortgages.⁶⁰ This pattern was reversed in 1998, when originations rose by 73 percent, but the GSEs' purchases jumped to 5.8 million mortgages.

Reflecting these divergent trends, the Office of Federal Housing Enterprise Oversight (OFHEO) estimates that the GSEs' share of the conventional single-family mortgage market, measured in dollars, declined from 42 percent in 1996 to 37 percent in 1997—well below the peak of 58 percent attained in 1993.⁶¹ OFHEO attributes the 1997 downturn in the GSEs' role to increased holdings of mortgages in portfolio by depository institutions and to increased competition with Fannie Mae and Freddie Mac by private label issuers. However, OFHEO estimates that the GSEs' share of the market rebounded sharply in 1998, to 48 percent.

Mortgage Market Prospects. The Mortgage Bankers Association (MBA) reports that 1998 was a record-breaking year, with \$1.507 trillion in mortgage originations. Refinancing of existing mortgages was also up in 1998, accounting for 50 percent share of the total mortgage originations. Meanwhile, ARMs accounted for a smaller share, 12 percent, of originations than usual. The mortgage market should remain strong in 1999, but should settle down a bit in the year 2000. The MBA predicts that originations will amount to \$1.29 trillion, with refinancings representing

35 percent of originations, during 1999. The MBA expects originations and refinancing activity to return to a more normal pace in 2000. ARMs are expected to account for a larger share, 23 percent in 1999 and 32 percent in 2000, of total mortgage originations.⁶²

b. Affordable Lending in the Mortgage Market

In the past few years, conventional lenders, private mortgage insurers and the GSEs have begun implementing changes to extend homeownership opportunities to lower-income and historically underserved households. The industry has started offering more customized products, more flexible underwriting, and expanded outreach so that the benefits of the mortgage market can be extended to those who have not been adequately served through traditional products, underwriting, and marketing. This section summarizes recent initiatives undertaken by the industry to expand affordable housing. The section also discusses the significant role FHA plays in making affordable housing available to historically underserved groups.

Down Payments. GE Capital's 1989 Community Homebuyer Program first allowed homebuyers who completed a program of homeownership counseling to have higher than normal payment-to-income qualifying ratios, while providing less than the full 5-percent down payment from their own funds. Thus the program allowed borrowers to qualify for larger loans than would have been permitted under standard underwriting rules. Fannie Mae made this Community Homebuyer Program a part of its own offerings in 1990. Affordable Gold is a similar program introduced by Freddie Mac in 1992. Many of these programs allowed 2 percentage points of the 5-percent down payment to come from gifts from relatives or grants and unsecured loans from local governments or nonprofit organizations.

In 1994, the industry (including lenders, private mortgage insurers and the GSEs) began offering mortgage products that required down payments of only 3 percent, plus points and closing costs. Other industry efforts to reduce borrowers' up front costs have included zero-point-interest-rate mortgages and monthly insurance premiums with no up front component. These new plans eliminated large up front points and premiums normally required at closing.

During 1998, Fannie Mae introduced its "Flexible 97" and Freddie Mac introduced its "Alt 97" low down payment lending programs. Under these programs borrowers are required to put down only 3 percent of the purchase price. The down payment, as well as closing costs, can be obtained from a variety of sources, including gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets. While these programs started out slowly, by November 1998 both GSEs' programs reached volumes of \$200 million per month. However, the GSEs are expected to purchase less than \$4 billion in their 97

percent LTV programs by the end of 1998, well below the \$75 billion of 97 percent LTV loans that FHA is expected to insure in 1998.⁶³

In early 1999, Fannie Mae announced that it would introduce several changes to their mortgage insurance requirements. The planned result is to provide options for low downpayment borrowers to reduce their mortgage insurance costs. Franklin D. Raines, Fannie Mae chairman and chief executive officer stated, "Now, thanks to our underwriting technology, our success in reducing credit losses, and innovative new arrangements with mortgage insurance companies, we can increase mortgage insurance options and pass the savings directly on to consumers."⁶⁴

Partnerships. In addition to developing new affordable products, lenders and the GSEs have been entering into partnerships with local governments and nonprofit organizations to increase mortgage access to underserved borrowers. Fannie Mae's partnership offices in 33 central cities, serving to coordinate Fannie Mae's programs with local lenders and affordable housing groups, are an example of this initiative. Another example is the partnership Fannie Mae and the National Association for the Advancement of Colored People (NAACP) announced in January 1999.⁶⁵ Under this partnership, Fannie Mae will provide funding for technical assistance to expand the NAACP's capacity to provide homeownership information and counseling. It will also invest in NAACP-affiliated affordable housing development efforts and explore structures to assist the organization in leveraging its assets to secure downpayment funds for eligible borrowers. Furthermore, Fannie Mae will provide up to \$110 million in special financing products, including a new \$50 million underwriting experiment specifically tailored to NAACP clientele.

Freddie Mac does not have a partnership office structure similar to Fannie Mae's, but it has undertaken a number of initiatives in specific metropolitan areas. Freddie Mac also announced on January 15, 1999 that it entered into a broad initiative with the NAACP to increase minority homeownership. Through this alliance, Freddie Mac and the NAACP seek to expand community-based outreach, credit counseling and marketing efforts, and the availability of low-downpayment mortgage products with flexible underwriting guidelines. As part of the initiative, Freddie Mac has committed to purchase \$500 million in mortgage loans.⁶⁶

The above are only examples of the partnership efforts undertaken by the GSEs. There are more partnership programs than can be adequately described here. For full descriptions of Fannie Mae's and Freddie

⁵⁹ Chicago Title and Trust Family of Insurers, *Who's Buying Homes in America*, (1998).

⁶⁰ Single-family originations rose by 10 percent in dollar terms in 1997, but the Mortgage Bankers Association estimates that they fell by 0.6 percent in terms of the number of loans.

⁶¹ Office of Federal Housing Enterprise Oversight, *1998 Report to Congress*, Figure 9, p. 32. The GSEs' market shares in terms of units financed in 1997 are shown below in Table A.7.

⁶² Mortgage market projections obtained from the MBA's *MBA Mortgage Finance Forecast*, October 1999.

⁶³ "After Slow Start, Fannie and Freddie Report Growing Interest in 97 Percent LTV Products," *Inside Mortgage Finance*, (November 20, 1998), pp. 10–11.

⁶⁴ Speech before the annual convention of the National Association of Home Builders in Dallas TX, (January 1999).

⁶⁵ Fannie Mae News Release (January 1999).

⁶⁶ Freddie Mac News Release (January 15, 1999).

Mac's partnership programs, see their respective Annual Reports.

Underwriting Flexibility. Lenders, mortgage insurers, and the GSEs have also been modifying their underwriting standards to attempt to address the needs of families who find qualifying under traditional guidelines difficult. The goal of these underwriting changes is not to loosen underwriting standards, but rather to identify creditworthiness by alternative means that more appropriately measure the circumstances of lower-income households. The changes to underwriting standards include, for example:

(i) Using a stable income standard rather than a stable job standard. This particularly benefits low-skilled applicants who have successfully remained employed, even with frequent job changes.

(ii) Using an applicant's history of rent and utility payments as a measure of creditworthiness. This measure benefits lower-income applicants who have not established a credit history.

(iii) Allowing pooling of funds for qualification purposes. This change benefits applicants with extended family members.

(iv) Making exceptions to the "declining market" rule and clarifying the treatment of mixed-use properties.⁶⁷ These changes benefit applicants from inner-city underserved neighborhoods.

These underwriting changes have been accompanied by homeownership counseling to ensure homeowners are ready for the responsibilities of homeownership. In addition, the industry has engaged in intensive loss mitigation to control risks.

*Increase in Affordable Lending, 1993–1997.*⁶⁸ Home Mortgage Disclosure Act

⁶⁷ Standard underwriting procedures characterize a property in a declining neighborhood as one at high risk of losing value. Implicitly, these underwriting standards presume that the real estate market is inefficient in economic terms, that is, prices do not reflect all available information.

⁶⁸ For an update of this analysis to include 1998, see Randall M. Scheessele, *1998 HMDA Highlights*, Housing Finance Working Paper HF-009, Office of Policy Development and Research, U.S. Department

(HMDA) data suggest that the new industry initiatives may be increasing the flow of credit to underserved borrowers. Between 1993 and 1997, conventional loans to low-income and minority families increased at much faster rates than loans to higher income and non-minority families. As shown below, over this period home purchase originations to African Americans and Hispanics grew by almost 60 percent, and purchase loans to low-income borrowers (those with incomes less than 80 percent of area median income) increased by 45 percent.

	1993–97 percent	1995–97 percent
All Borrowers	28.1	11.1
African Americans/ Hispanics	57.7	–0.2
Whites	21.9	8.9
Income Less Than 80% AMI	45.1	15.4
Income Greater Than 120% AMI	31.5	24.5

However, as also shown, in the latter part of this period conventional lending for some groups slowed significantly. Between 1995 and 1997, the slowing of the growth of home purchase originations was much greater for low-income borrowers than for higher-income borrowers. Moreover, even though remaining at near-peak levels in 1997, conventional home purchase originations to African Americans and Hispanics actually decreased by two-tenths of a percent over the past three years. It should be noted, however, that total loans (conventional plus government) originated to African-American and Hispanic borrowers increased between 1995 and 1997, but this was mainly the result of a 40.0 percent increase in FHA-insured loans originated for African-American and Hispanic borrowers.

Affordable Lending Shares by Major Market Sector. The focus of the different sectors of the mortgage market on affordable lending can be seen by examining Tables

of Housing and Urban Development, (October 1999).

A.1a, A.1b, and A.2. Tables A.1a and A.1b present affordable lending percentages for FHA, the GSEs, depositories (banks and thrift institutions), the conventional conforming sector, and the overall market.⁶⁹ The discussion below will center on Table A.1a, which provides information on home purchase loans and thus, homeownership opportunities. Table A.1b, which provides information on total (both home purchase and refinance) loans, is included to give a complete picture of mortgage activity. Both 1997 and 1998 data are included in these tables; the year 1997 represents a more typical year of mortgage activity than 1998, which was characterized by heavy refinance activity.

The interpretation of the "distribution of business" percentages, reported in Table A.1a for several borrower and neighborhood characteristics, can be illustrated using the FHA percentage for low-income borrowers: during 1997, 47.5 percent of all FHA-insured home purchase loans in metropolitan areas were originated for borrowers with an income less than 80 percent of the local area median income. Table A.2, on the other hand, presents "market share" percentages that measure the portion of all home purchase loans for a specific affordable lending category (such as low-income borrowers) accounted for by a particular sector of the mortgage market (FHA or the GSEs). In this case, the FHA market share of 33 percent for low-income borrowers is interpreted as follows: of all home purchase loans originated in metropolitan areas during 1997, 33 percent were FHA-insured loans. Thus, this "market share" percentage measures the importance of FHA to the market's overall funding of loans for low-income borrowers.

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⁶⁹ The "overall" market is defined as all loans (including both government and conventional) below the 1997 conforming loan limit of \$214,600 and the 1998 conforming loan limit of \$227,150.

Table A.1a
Affordable Lending Shares for Major Sectors
of the Home Purchase Mortgage Market in Metropolitan Areas, 1997 and 1998

Borrower Characteristics	Total Market	FHA	Conventional Conforming Market				Total Conforming Market
			Freddie Mac	Fannie Mae	Both GSEs	Depositories	
Low-Income: 1997	32.0 %	47.5 % ¹	19.2 %	23.2 %	21.6 %	29.4 %	27.3 %
1998	32.3	49.1	22.4	25.6	24.3	29.9	27.8
African American: 1997	7.8	14.4	3.2	4.6	4.1	4.7	5.1
1998	7.4	14.2	3.3	4.0	3.7	4.8	4.9
Hispanic: 1997	8.7	17.8	5.1	6.3	5.8	5.1	5.9
1998	8.6	18.6	4.7	6.1	5.6	5.5	6.1
Minority: 1997	21.4	35.8	14.0	17.8	16.3	14.6	16.5
1998	21.0	36.5	13.1	16.6	15.2	15.2	16.6
Neighborhood Characteristics							
Low-Income Tract: 1997	12.8 %	19.1 %	7.9 %	9.7 %	9.0 %	12.0 %	10.9 %
1998	12.3	18.7	8.0	9.7	9.0	12.1	10.7
High-Minority Tract: 1997	17.3	27.1	11.4	15.5	13.9	12.2	14.1
1998	16.9	27.0	10.8	14.5	13.0	12.6	14.1
High African-American Tract: 1997	5.8	9.6	3.0	4.9	4.2	4.7	4.6
1998	5.5	9.2	3.2	4.1	3.8	4.7	4.5
Underserved Areas: 1997	29.1	41.3	19.9	23.8	22.3	26.3	25.2
1998	28.2	41.2	20.0	23.5	22.1	26.1	24.6

Notes: All the data are for home purchase mortgages. The FHA, depositories, and the two market percentages are derived from 1997 and 1998 HMDA data.

The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include all home loans purchased during 1997 and 1998; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998) as well as their purchases of mortgages originated during 1997 and 1998. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the 1997 (1998) conforming loan limit of \$214,600 (\$227,150). The "Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-1998 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six.

¹ Each percentage represents the share of a sector's portfolio accounted for by the borrower or neighborhood characteristic. For example, 47.5 percent of FHA-insured home loans were loans for low-income borrowers.

Table A.1b
Affordable Lending Shares for Major Sectors
of the Home Purchase and Refinance Mortgage Market in Metropolitan Areas, 1997 and 1998

Borrower Characteristics	Total Market	FHA	Conventional Conforming Market				Total Conforming Market
			Freddie Mac	Fannie Mae	Both GSEs	Depositories	
Low-Income: 1997	31.1 %	47.1 % ¹	20.6 %	22.7 %	21.8 %	28.0 %	28.1 %
1998	28.1	48.2	21.7	22.5	22.1	26.2	25.8
African American: 1997	8.0	14.2	3.2	4.2	3.8	4.8	6.3
1998	6.5	13.7	3.0	3.2	3.1	4.4	5.0
Hispanic: 1997	7.4	17.8	4.8	5.7	5.3	4.6	5.4
1998	6.7	17.2	4.4	4.9	4.7	4.5	5.2
Minority: 1997	20.1	35.6	13.1	16.3	15.0	13.4	16.7
1998	18.0	34.8	12.2	14.0	13.2	13.1	15.3
Neighborhood Characteristics							
Low-Income Tract: 1997	13.6 %	18.9 %	8.6 %	9.6 %	9.2 %	11.9 %	12.7 %
1998	11.5	17.4	8.1	8.4	8.2	10.9	10.7
High-Minority Tract: 1997	17.8	27.5	11.8	15.1	13.8	12.2	15.9
1998	16.2	27.2	11.5	13.2	12.5	12.2	14.5
High African-American Tract: 1997	7.1	9.7	3.5	4.6	4.2	5.1	6.6
1998	5.8	9.1	3.6	3.5	3.5	4.7	5.3
Underserved Areas: 1997	30.0	41.1	21.6	23.9	22.9	26.5	27.8
1998	26.8	39.9	21.0	21.5	21.3	25.0	24.8

Notes: All the data are for home purchase and refinance mortgages. The FHA, depositories, and the two market percentages are derived from 1997 and 1998 HMDA data. The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include all loans purchased during 1997 and 1998; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998) as well as their purchases of mortgages originated during 1997 and 1998. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the 1997 (1998) conforming loan limit of \$214,600 (\$227,150). The "Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-1998 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six.

¹ Each percentage represents the share of a sector's portfolio accounted for by the borrower or neighborhood characteristic. For example, 47.1 percent of FHA-insured home loans were loans for low-income borrowers. It should be noted that due to FHA's streamline refinance program, borrower income data were not available for almost 70 percent of FHA's refinance loans.

Table A.2

**FHA-Insured Loans and GSE Purchases As Shares of
Home Purchase Mortgages Originated
in Metropolitan Areas During 1997**

	<u>FHA-Insured</u>	<u>GSE Purchases</u>
Low-Income Borrowers	33% ¹	28-30%
African-American and Hispanic Borrowers	44%	24-27%
Low-Income Tracts	35%	31%
High Minority Tracts	37%	35%
Underserved Areas ²	33%	33%
All Loans	23%	44%

Source: 1997 HMDA data and 1997 GSE data.

Notes: The FHA figures (first column) refer to percentages of all newly-mortgaged home purchase mortgage loans (except jumbo loans above the conforming loan limit of \$214,600) in metropolitan areas that were FHA insured during 1997. The GSE figures (second column) are defined differently-- they include GSE purchases in metropolitan areas during 1997 of both 1997 and prior-year conventional mortgage originations. (About one-fourth of the GSEs' 1997 purchases were mortgages originated prior to 1997.) See Table A.7 for an analysis that focuses only on the GSEs' purchases of 1997 mortgage originations. The second GSE figure for the borrower income and race variables is calculated by reallocating missing GSE data for the variables. As with the FHA data, the GSE purchases are expressed as a percentage of the total market in metropolitan areas. In this table, the "total market" includes all (government and conventional) home purchase mortgages originated in metropolitan areas during 1997 that were below the conforming loan limit of \$214,600. The market data reported in HMDA are adjusted upward by 10 percent, which assumes that HMDA covers 90 percent of the metropolitan mortgage market. A lower coverage assumption would increase the market totals and thus reduce the GSE and FHA market shares. Assumptions about HMDA's coverage of FHA loans were based on a comparison of FHA loans as reported by 1996 HMDA data with FHA loans as reported by FHA for 1996. Thus, an updating of this FHA coverage analysis could change the FHA market shares reported here.

¹ That is, it is estimated that FHA insured for 33 percent of all home purchase loans that were originated during 1997 and were for low-income borrowers in metropolitan areas.

² Metropolitan census tracts with (1) median income less than or equal to 90 percent of AMI or (2) minority concentration greater than or equal to 30 percent and tract median income less than or equal to 120 percent of AMI.

Four main conclusions may be drawn from the data presented in Tables A.1a and A.2. First, FHA places much more emphasis on affordable lending than the other market sectors. Low-income borrowers accounted for 47.5 percent of FHA-insured loans during 1997, compared with 21.6 percent of the home loans purchased by the GSEs, 29.4 percent of home loans retained by depositories, and 27.3 percent of conventional conforming loans.⁷⁰ Likewise, 41.3 percent of FHA-insured loans were originated in underserved census tracts, while only 22.3 percent of the GSE-purchased loans and 25.2 percent of conventional conforming loans were originated in these tracts.⁷¹ As shown in Table A.2, while FHA insured only 23 percent of all home purchase mortgages originated in metropolitan areas during 1997, it insured 33 percent of all mortgages originated in underserved areas.⁷²

Second, the affordable lending shares for the conventional conforming sector are particularly low for minority borrowers and their neighborhoods. For example, African-American and Hispanic borrowers accounted for only 11.0 percent of all conventional conforming loans originated during 1997, compared with 32.2 percent of FHA-insured loans and 16.5 percent of all loans originated in the market. Within the conventional conforming sector, about 10 percent of both GSE-purchased loans and loans retained by depositories were originated for African Americans and Hispanics. Only 8.3 percent of Freddie Mac's purchases were loans for these borrowers, compared with 10.9 percent of Fannie Mae's purchases. As shown in Table A.1a, Fannie Mae purchased mortgages for minority borrowers and their neighborhoods at higher rates than these loans were originated by primary lenders in the conventional conforming market. During 1997, 17.8 percent of Fannie Mae's purchases were mortgages for minority borrowers, compared with 16.5 percent of conventional conforming loans. During 1998, 14.5 percent of Fannie Mae's purchases financed homes in high-minority census tracts, compared with 14.1 percent of conventional conforming loans. However, the minority lending performance of conventional lenders has been subject to much criticism in recent studies. These studies contend that primary lenders in the conventional market are not doing their fair share of minority lending which forces minorities, particularly African-

American and Hispanic borrowers, to the more costly FHA and subprime markets.⁷³

Third, the GSEs, but particularly Freddie Mac, tend to lag the conventional conforming market in funding affordable loans for low-income families and their neighborhoods. During 1997 and 1998, low-income census tracts accounted for 8.0 percent of Freddie Mac's purchases, 9.7 percent of Fannie Mae's purchases, 12.1 percent of loans retained by depositories, and 10.8 percent of all home loans originated by conventional conforming lenders. This pattern of Freddie Mac lagging all market participants holds up for all of the borrower and neighborhood categories examined in Table A.1a. One encouraging trend is the significant increase in both GSEs' purchases of low-income-borrower loans between 1997 and 1998; on the other hand, the GSE percentages for the other borrower and neighborhood categories examined in Table A.1a declined between 1997 and 1998. A more complete analysis of the GSEs' purchases of mortgages qualifying for the housing goals will be provided below in Section E.

Finally, within the conventional conforming market, depository institutions stand out as important providers of affordable lending for lower-income families and their neighborhoods (see Table A.1a).⁷⁴ Depository lenders have extensive knowledge of their communities and direct interactions with their borrowers, which may enable them to introduce flexibility into their underwriting standards without unduly increasing their credit risk. Another important factor influencing the types of loans held by depository lenders is the Community Reinvestment Act, which is discussed next.

Seasoned CRA Loans. The Community Reinvestment Act (CRA) requires depository institutions to help meet the credit needs of their communities. CRA provides an incentive for lenders to initiate affordable lending programs with underwriting flexibility.⁷⁵ CRA loans are typically made to low- and moderate-income borrowers earning less than 80 percent of median income for their area, and in moderate-income neighborhoods. They are usually smaller than typical conventional mortgages and also are likely to have a high LTV, high debt-to-income ratios, no payment reserves, and may not be carrying private mortgage insurance (PMI). Generally, at the time CRA loans are originated, many do not meet the underwriting guidelines required in order for them to be purchased by one of the GSEs. Therefore, many of the CRA loans are held

in portfolio by lenders, rather than sold to Fannie Mae or Freddie Mac. On average, CRA loans in a pool have three to four years seasoning.⁷⁶

However, because of the size, LTV and PMI characteristics of CRA loans, they have slower prepayment rates than traditional mortgages, making them attractive for securitization. CRA loan delinquencies also have very high cure rates.⁷⁷ For banks, selling CRA pools will free up capital to make new CRA loans. As a result, the CRA market segment may provide an opportunity for Fannie Mae and Freddie Mac to expand their affordable lending programs. In mid-1997, Fannie Mae launched its Community Reinvestment Act Portfolio Initiative. Under this pilot program Fannie Mae purchases seasoned CRA loans in bulk transactions taking into account track record as opposed to relying just on underwriting guidelines. By the end of 1997, Fannie Mae had financed \$1 billion in CRA loans through this pilot.⁷⁸ With billions of dollars worth of CRA loans in bank portfolios the market for securitization should improve. Section D, below, presents data showing that Fannie Mae's purchases of CRA-type seasoned mortgages have increased recently. Fannie Mae also started another pilot program in 1998 where they purchase CRA loans on a flow basis, as they are originated. Results from this four-year \$2 billion nationwide pilot should begin to be reflected in the 1999 production data.

c. Potential Homebuyers

While the growth in affordable lending and homeownership has been strong in recent years, attaining this Nation's housing goals will not be possible without tapping into the vast pool of potential homebuyers. The National Homeownership Strategy has set a goal of achieving a homeownership rate of 67.5 percent by the end of the year 2000. Due to the aging of the baby boomers, this rate reached an annual record of 66.3 percent in 1998, and should rise to 67 percent by 2000. Thus the Strategy's target will require an increase in homeownership above and beyond that resulting from current demographic trends.

The Urban Institute estimated in 1995 that there was a large group of potential homebuyers among the renter population who were creditworthy enough to qualify for homeownership.⁷⁹ Of 20.3 million renter households having low- or moderate-incomes, roughly 16 percent were better qualified for homeownership than half of the renter households who actually did become homeowners over the sample period. When one also considered their likelihood of

⁷⁰ The percentages reported in Table A.1a for the year 1998 are similar; in that year, low-income borrowers accounted for 49.1 percent of FHA-insured loans, 24.3 percent of GSE purchases, and 27.8 percent of mortgages originated in the conventional conforming market.

⁷¹ FHA, which focuses on first-time homebuyers and low down payment loans, experiences higher mortgage defaults than conventional lenders and the GSEs. Still, the FHA system is actuarially sound because it charges an insurance premium that covers the higher default costs.

⁷² FHA's role in the market is particularly important for African-American and Hispanic borrowers. As shown in Table A.2, FHA insured 44 percent of all 1997 home loan originations for these borrowers.

⁷³ See Green and Associates. *Fair Lending in Montgomery County: A Home Mortgage Lending Study*, a report prepared for the Montgomery County Human Relations Commission, (March 1998).

⁷⁴ However, as shown in Table A.1a, depository institutions resemble other conventional lenders in their relatively low level of originating loans for African-American, Hispanic and minority borrowers.

⁷⁵ For an analysis of the impact of CRA agreements signed by lending institutions, see Alex Schwartz, "From Confrontation to Collaboration? Banks, Community Groups, and the Implementation of Community Reinvestment Agreements", *Housing Policy Debate*, 9(3), (1998), pp. 631-662.

⁷⁶ "With Securities Market Back on Track, Analysts Expect Surge in CRA Loan Securitization in 1999," *Inside MBS & ABS*, (February 19, 1999), pp. 11-12.

⁷⁷ *Inside MBS & ABS*, (February 19, 1999), p. 12.

⁷⁸ Fannie Mae. *1997 Annual Housing Activities Report*, (1998), p. 28.

⁷⁹ George Galster, Laudan Y. Aron, Peter Tatain and Keith Watson. *Estimating the Size, Characteristics, and Risk Profile of Potential Homebuyers*. Washington: The Urban Institute, (1995). Report Prepared for the Department of Housing and Urban Development.

defaulting relative to the average expected for those who actually moved into homeownership, 10.6 percent, or 2.15 million, low- and moderate-income renters were better qualified for homeownership, assuming the purchase of a home priced at or below median area home price. These results indicate the existence of a significant lower-income population of low-risk potential homebuyer households that might become homeowners with continuing outreach efforts by the mortgage industry.

Other surveys conducted by Fannie Mae indicate that renters desire to become homeowners, with 60 percent of all renters indicating in the July 1998 National Housing Survey that buying a home ranks from being a "very important priority" to their "number-one priority," the highest level found in any of the seven National Housing Surveys dating back to 1992. Immigration is expected to be a major source of future homebuyers—Fannie Mae's 1995 National Housing Survey reported that immigrant renter household were 3 times as likely as renter households in general to list home purchase as their "number-one priority."

The achievement of the National Homeownership Strategy goal for homeownership in 2000 also depends on whether or not recent gains in the homeownership share of specific groups are maintained. The Joint Center for Housing Studies has pointed out that minorities account for only 17 percent of all homeowners, but were responsible for 42 percent of the 4 million increase in the number of homeowners between 1994 and 1997. Minority demand for homeownership continues to be high, as reported by the Fannie Mae Foundation's April 1998 Survey of African Americans and Hispanics. For example, 38 percent of African Americans surveyed said it is fairly to very likely that they will buy a home in the next 3 years, compared with 25 percent in 1997.⁸⁰ The survey also reports that 67 percent of African Americans and 65 percent of Hispanics cite homeownership as being a "very important priority" or "number-one priority."⁸¹

The Joint Center for Housing Studies has stated that if favorable economic and housing market trends continue, and if additional efforts to target mortgage lending to low-income and minority households are made, the homeownership rate could reach 70 percent by 2010.

d. Automated Mortgage Scoring

This, and the following two sections, discuss special topics that have, in recent years, impacted the primary and secondary mortgage markets. They are automated mortgage scoring, subprime loans and manufactured housing.

Automated mortgage scoring was developed as a high-tech tool with the purpose of identifying credit risks in a more efficient manner. As time and cost are reduced by the automated system, more time can be devoted by underwriters to qualifying marginal loan applicants that are referred by

the automated system for more intensive review. Fannie Mae and Freddie Mac are in the forefront of new developments in automated mortgage scoring technology. Both enterprises released automated underwriting systems in 1995-Freddie Mac's Loan Prospector and Fannie Mae's Desktop Underwriter. Each system uses numerical credit scores, such as those developed by Fair, Isaac, and Company, and additional data submitted by the borrower, such as loan-to-value ratios and available assets, to calculate a mortgage score that evaluates the likelihood of a borrower defaulting on the loan. The mortgage score is in essence a recommendation to the lender to accept the application, or to refer it for further review through manual underwriting. Accepted loans benefit from reduced document requirements and expedited processing.

Along with the promise of benefits, however, automated mortgage scoring has raised concerns. These concerns are related to the possibility of disparate impact and the proprietary nature of the mortgage score inputs. The first concern is that low-income and minority homebuyers will not score well enough to be accepted by the automated underwriting system resulting in fewer getting loans. The second concern relates to the "black box" nature of the scoring algorithm. The scoring algorithm is proprietary and therefore it is difficult, if not impossible, for applicants to know the reasons for their scores.

Federal Reserve Study. Four economists at the Board of Governors of the Federal Reserve System have recently released a conceptual and empirical study on the use of credit scoring systems in mortgage lending.⁸² Their broad assessment of the models is that [C]redit scoring is a technological innovation which has increased the speed and consistency of risk assessment while reducing costs. Research has uniformly found that credit history scores are powerful predictors of future loan performance. All of these features suggest that credit scoring is likely to benefit both lenders and consumers.⁸³

The authors evaluate the current state-of-the-art of development of credit scoring models, focusing particularly on the comprehensiveness of statistical information used to develop the scoring equations. They present a conceptual framework in which statistical predictors of default include regional and local market conditions, individual credit history, and applicants' characteristics other than credit history. The authors observe that the developers of credit scoring models have tended to disregard regional and local market conditions in model construction, and such neglect may tend to reduce the predictive accuracy of scoring equations. To determine the extent of the problem, they analyzed Equifax credit scores together with mortgage payment history data for households living in each of 994 randomly selected counties from across

the country. The authors use these data to assess the variability of credit scores relative to county demographic and economic characteristics.

The authors find a variety of pieces of evidence which confirm their suspicions: Credit scores tended to be relatively lower in areas with relatively high county unemployment rates, areas that have experienced recent rises in unemployment rates, areas with high minority population, areas with lower median educational attainment, areas with high percentages of individuals living in poverty, areas with low median incomes and low house values, and areas with relatively high proportions of younger populations and lower proportions of older residents.

This analysis suggests the need for a two-step process of improvement of the equations and their application, in which (a) new statistical analyses would be performed to incorporate the omitted environmental variables, and (b) additional variables bearing on individuals' prospective and prior circumstances will be taken into account in determining their credit scores.

These authors also discuss the relationship between credit scoring and discrimination. They find a significant statistical relationship between credit history scores and minority composition of an area, after controlling for other locational characteristics. From this, they conclude that concerns about potential disparate impact merit future study. However, a disparate impact study must include a business justification analysis to demonstrate the ability of the score card to predict defaults and an analysis of whether any alternative, but equally-predictive, score card has a less disproportionate effect.

Urban Institute Study. The Urban Institute recently submitted a report to HUD on a four-city reconnaissance study of issues related to the single-family underwriting guidelines and practices of Fannie Mae and Freddie Mac.⁸⁴ The study included interviews with informants knowledgeable about mortgage markets and GSE business practices on the national level and in the four cities.

The study observes, as did the Fed study summarized above, that minorities are more likely than whites to fail underwriting guidelines. Therefore, as a general matter the GSEs' underwriting guidelines—as well as the underwriting guidelines of others in the industry—do have disproportionate adverse effects on minority loan applicants.⁸⁵

Based on the field reconnaissance in four metropolitan housing markets, the study makes several observations about the operation of credit scoring systems in practice, as follows:⁸⁶

(i) Credit scores are used in mortgage underwriting to separate loans that must be

⁸⁰ Fannie Mae Foundation. *African American and Hispanic Attitudes on Homeownership: A Guide for Mortgage Industry Leaders*, (1998), p. 3.

⁸¹ Fannie Mae Foundation. (1998), p. 14.

⁸² Robert B. Avery, Raphael W. Bostic, Paul S. Calem, and Glenn B. Canner, *Credit Scoring: Issues and Evidence from Credit Bureau Files*, mimeo., (1998).

⁸³ Avery et al. (1998), p. 24.

⁸⁴ Kenneth Temkin, Roberto Quercia, George Galster, and Sheila O'Leary, *A Study of the GSEs' Single Family Underwriting Guidelines: Final Report*. Washington DC: U.S. Department of Housing and Urban Development, (April 1999). This study involves an analysis of the GSEs' underwriting guidelines in general. This section reviews only the aspects of the study related to mortgage scoring. A broader review of this paper is provided below in section E.4.

⁸⁵ Temkin, et al. (1999), p. 2.

⁸⁶ Temkin, et al. (1999), p. 5; pp. 26–27.

referred to loan underwriters from loans that may be forwarded directly to loan officers; for example, a 620 score was mentioned by some respondents as the line below which the loan officer must refer the loan for manual underwriting. It is very difficult for applicants with low credit scores to be approved for a mortgage, according to the lenders interviewed by the Urban Institute.

(ii) Some respondents believe the GSEs are applying cutoffs inflexibly, while others believe that lenders are not taking advantage of flexibility allowed by the GSEs.

(iii) Some respondents believe that credit scores may not be accurate predictors of loan performance, despite the claims of users of these scores. Respondents who voiced this opinion tended to base these observations on their personal knowledge of low-income borrowers who are able to keep current on payments, rather than on an understanding of statistical validation studies of the models.

(iv) Respondents indicate that the "black box" nature of the credit scoring process creates uncertainty among loan applicants and enhances the intimidating nature of the process for them.

Based on these findings, the authors conclude that "the use of automated underwriting systems and credit scores may place lower-income borrowers at a disadvantage when applying for a loan, even though they are acceptable credit risks."

The report includes several recommendations for ongoing HUD monitoring of the GSEs' underwriting including their use of credit scoring models. One suggestion is to develop a data base on the GSEs' lending activities relevant for analysis of fair lending issues. The data would include credit scores to reveal the GSEs' patterns of loan purchase by credit score. A second suggestion is to conduct analyses of the effects of credit scoring systems using a set of "fictitious borrower profiles" that would reveal how the systems reflect borrower differences in income, work history, credit history, and other relevant factors. HUD has begun following up on the Urban Institute's recommendations. For instance, in February 1999, HUD requested the information and data needed to analyze the GSEs' automated underwriting systems.

Concluding Observation. It is important to note that both of the studies reviewed above comment on the problem of correlation of valid predictors of default (income, etc.) with protected factors (race, etc.). Both studies suggest that, ultimately, the question whether mortgage credit scoring models raise any problems of legal discrimination based on disparate effects would hinge on a business necessity analysis and analysis of whether any alternative underwriting procedures with less adverse disproportionate effect exist.

e. Subprime Loans

Another major development in housing finance has been the recent growth in subprime loans. In the past borrowers traditionally obtained an "A" quality (or "investment grade") mortgage or no mortgage. However, an increasing share of recent borrowers have obtained "subprime" mortgages, with their quality denoted as "A-minus," "B," "C," or even "D." The subprime borrower typically is someone who

has experienced credit problems in the past or has a high debt-to-income ratio.⁸⁷ Through the first nine months of 1998, "A-minus" loans accounted for 63 percent of the subprime market, with "B" loans representing 24 percent and "C" and "D" loans making up the remaining 13 percent.⁸⁸

Because of the perceived higher risk of default, subprime loans typically carry mortgage rates that in some cases are substantially higher than the rates on prime mortgages. While in many cases these perceptions about risk are accurate, some housing advocates have expressed concern that there are a number of cases in which the perceptions are actually not accurate. The Community Reinvestment Association of North Carolina (CRA*NC), conducted a study based on HMDA data, records of deeds, and personal contacts with effected borrowers in Durham County, NC. They found that subprime lenders make proportionally more loans to minority borrowers and in minority neighborhoods than to whites and white neighborhoods at the same income level. African-American borrowers represent 20 percent of subprime mortgages in Durham County, but only 10 percent of prime market.⁸⁹ As a result, these borrowers can end up paying very high mortgage rates that more than compensate for their additional risks to lenders. High subprime mortgage rates make homeownership more expensive or force subprime borrowers to buy less desirable homes than they would be able to purchase if they paid lower prime rates on their mortgages.

The HMDA database does not provide information on interest rates, points, or other loan terms that would enable researchers to separate more expensive subprime loans from other loans. However, the Department has identified 200 lenders that specialize in such loans, providing some information on the growth of this market.⁹⁰ This data shows that mortgages originated by subprime lenders, and reported to HMDA, has increased from 104,000 subprime loans in 1993 to 210,000 in 1995 and 997,000 in 1998. Most of the subprime loans reported to HMDA are refinance loans; for example,

⁸⁷ Standard & Poor's B and C mortgage guidelines can be used to illustrate that underwriting criteria in the subprime market becomes more flexible as the grade of borrower moves from the most creditworthy A-borrowers to the riskier D borrowers. For example, the A-grade borrower is allowed to be delinquent 30 days on his mortgage twice in the last year whereas the D grade borrower is allowed to be delinquent 30 days on his mortgage credit five times in the last year. Moreover, the A-borrower is permitted to have a 45 percent debt-to-income ratio compared to the D grade borrower's 60 percent.

⁸⁸ "Subprime Product Mix, Strategies Changed During a Turbulent 1998," *Inside B&C Lending*. (December 21, 1998), p. 2.

⁸⁹ "Renewed Attack on 'Predatory' Subprime Lenders," *Fair Lending/CRA Compass*, (June 1999) and <http://cra-cn.home.mindspring.com>.

⁹⁰ See Randall M. Scheesele. 1998 *HMDA Highlights*, Housing Finance Working Paper HF-009, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (October 1999). Nonspecialized lenders such as banks and thrifts also make subprime loans, but no data is available to estimate the number of these loans.

refinance loans accounted for 80 percent of the subprime loans reported by the specialized subprime lenders in 1997.

An important question is whether borrowers in the subprime market are sufficiently creditworthy to qualify for more traditional loans. Freddie Mac has said that one of the promises of automated underwriting is that it might be better able to identify borrowers who are unnecessarily assigned to the high-cost subprime market. It has estimated that 10-30 percent of borrowers who obtain mortgages in the subprime market could qualify for a conventional prime loan through Loan Prospector, its automated underwriting system.⁹¹

Most of the subprime loans that were purchased by the GSEs in past years were purchased through structured transactions. Under this form of transaction, whole groups of loans are purchased, and not all loans necessarily meet the GSEs' traditional underwriting guidelines. The GSEs typically guarantee the so-called "A" tranche, which is supported by a "B" tranche that covers default costs.

An expanded GSE presence in the subprime market could be of significant benefit to lower-income families, minorities, and families living in underserved areas. HUD's research shows that in 1998: African-Americans comprised 5.0 percent of market borrowers, but 19.4 percent of subprime borrowers; Hispanics made up 5.2 percent of market borrowers, but 7.8 percent of subprime borrowers; very low-income borrowers accounted for 12.1 percent of market borrowers, but 23.3 percent of subprime borrowers; and borrowers in underserved areas amounted to 24.8 percent of market borrowers, but 44.7 percent of subprime borrowers.⁹²

Most subprime borrowers are classified as "A-minus," which means that they are slightly below investment grade due to the borrower's past credit problems. Freddie Mac has developed initiatives to allow its Seller/Servicers using Loan Prospector to sell them "A-minus" loans. In April 1999 Freddie Mac began a purchasing "A-minus" loans with prepayment penalties on a flow basis and has provided guarantees for the senior portions of mortgage securitizations backed in part by B and C loans.⁹³ Freddie Mac hopes that the information gleaned from these initiatives will enable it to study the performance of subprime loans and enhance its ability to provide financing in this market. One concern Freddie Mac has is that as the GSEs get deeply involved in the subprime market,

⁹¹ Freddie Mac, *We Open Doors for America's Families*, Freddie Mac's Annual Housing Activities Report for 1997, (March 16, 1998), p. 23.

⁹² The statistics cited for the "market" refer to all conforming conventional mortgages (both home purchase and refinance). The data for the subprime market are for 200 lenders that specialize in such loans; see Scheesele, op. cit.

⁹³ "Freddie Mac Begins Buying A-Loans With Prepay Penalties," *Inside Mortgage Finance*. (May 21, 1999), p. 9; and "Democratic Senator Suggests Fannie and Freddie Could Improve Subprime Mortgage Market," *Inside Mortgage Finance*. (June 25, 1999), pp. 5-6.

and if they take on a first-loss position, servicing quality might erode.⁹⁴

Fannie Mae has not been as involved in the subprime market as Freddie Mac to date, but it has expressed its intent to fully enter the "A-minus" market over the next several years.⁹⁵ During 1998, Fannie Mae approximates that it purchased \$10 billion in "Alt-A" loans, about a quarter of that market. In September 1999, Fannie Mae announced the availability of the "Timely Payment Rewards" mortgage. Under this product, borrowers who qualify but have slightly impaired credit are eligible for a mortgage with a higher rate than the standard conventional mortgage. After 24 months of paying the mortgage on time, the borrower is guaranteed a one percent interest rate reduction.⁹⁶ Fannie Mae sees its Desktop Underwriter automated underwriting system and other technology initiatives as the keys which will enable it to manage credit risk of such loans in a manner that allows a greatly expanded presence in the subprime market.

Increased involvement by the GSEs in the subprime market will result in more standardized underwriting guidelines. As the subprime market becomes more standardized, market efficiencies will reduce borrowing costs. Lending to credit-impaired borrowers will, in turn, increasingly make good business sense for the mortgage market.

f. Loans on Manufactured Housing

Manufactured housing provides low-cost, basic-quality housing for millions of American households, especially younger, lower-income families in the South, West, and rural areas of the nation. Many households living in manufactured housing because they simply cannot afford site-built homes, for which the construction cost per square foot is much higher. Because of its affordability to lower-income families, manufactured housing is one of the fastest-growing parts of the American housing market.⁹⁷

The American Housing Survey found that 15.5 million people lived in 7 million manufactured homes in the United States in 1995, and that such units accounted for 6.3 percent of the housing stock, an increase from 5.4 percent in 1985. Shipments of manufactured homes rose steadily from 171,000 units in 1991 to 373,000 units in 1998. The industry grew much faster over

this period in sales volume, from \$4.7 billion in 1991 to \$16.4 billion in 1998, reflecting both higher sales prices and a major shift from single-section homes to multisection homes, which contain two or three units which are joined together on site.⁹⁸

Despite their eligibility for mortgage financing, only about 10–20 percent of manufactured homes⁹⁹ are financed with mortgages secured by the property, even though half of owners hold title to the land on which the home is sited. Most purchasers of manufactured homes take out a personal property loan on the home and, if they buy the land, a separate loan to finance the purchase of the land.

In 1995 the average loan size for a manufactured home was \$24,500, with a 15 percent down payment and term of 13 years. Rates averaged about 3 percentage points higher than those paid on 15-year fixed rate mortgages, but borrowers benefit from very rapid loan-processing and underwriting standards that allow high debt payment-to-income ("back-end") ratios.

Traditionally loans on manufactured homes have been held in portfolio, but a secondary market has emerged since trading of asset-backed securities collateralized by manufactured home loans was initiated in 1987. Investor interest has been reported as strong due to reduced loan losses, low prepayments, and eligibility for packaging of such loans into real estate mortgage investment conduits (REMICs). The GSEs' underwriting standards allow them to buy loans on manufactured homes that meet the HUD construction code, if they are owned, titled, and taxed as real estate.

The GSEs are beginning to expand their roles in the manufactured home loan market.¹⁰⁰ A representative of the

Manufactured Housing Institute has stated that "Clearly, manufactured housing loans would fit nicely into Fannie Mae's and Freddie Mac's affordable housing goals."¹⁰¹ Given that manufactured housing loans often carry relatively high interest rates, an enhanced GSE role could also improve the affordability of such loans to lower-income families.

D. Factor 2: Economic, Housing, and Demographic Conditions: Multifamily Mortgage Market

Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, although not to the same degree as the single-family mortgage market. In 1997, 34 percent of multifamily mortgage originations were securitized, compared with 50 percent of single-family originations.¹⁰²

Loans on multifamily properties are typically viewed as riskier than their single-family counterparts. Property values, vacancy rates, and market rents in multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced in the single-family market.

Within much of the single-family mortgage market, the GSEs occupy an undisputed position of industrywide dominance, holding loans or guarantees with an unpaid principal balance (UPB) of \$1.5 trillion, comprising 36 percent of \$4.0 trillion in outstanding single-family mortgage debt as of the end of 1997. In multifamily, the overall market presence of the GSEs is more modest. At the end of 1997, the GSEs direct holdings and guarantees were \$41.4 billion, representing 13.8 percent of \$301 billion in outstanding multifamily mortgage debt.¹⁰³ Based on market origination volume estimated at \$40.7 billion, GSE acquisitions during 1997 represented 24 percent of the conventional multifamily market.¹⁰⁴

1. Special Issues and Unmet Needs

Recent studies have documented a pressing unmet need for affordable housing. For

formed an alliance to utilize manufactured housing along with permanent financing and secondary market involvement to bring affordable, attractive housing to underserved, low- and moderate-income urban neighborhoods. *Origination News*. (December 1998), p. 18.

¹⁰¹ *Mortgage-Backed Securities Letter*. (September 7, 1998), p. 3.

¹⁰² *The Mortgage Market Statistical Annual for 1998* (Washington, DC: Inside Mortgage Finance Publications), 203, 425; *U.S. Housing Market Conditions* (November 1998), Table 17.

¹⁰³ *Federal Reserve Bulletin*, June 1998, A 35. The comparable figure for year-end 1992, before the interim housing goals took effect, was 10.5 percent. (*Federal Reserve Bulletin*, (December 1993), A 38.)

¹⁰⁴ Mortgages acquired by the GSEs during 1997 include some seasoned loans originated before 1997, but, recognizing that it is likely that the GSE will purchase some 1997 acquisitions in later years, the 24 percent figure provides a fairly good indicator of the magnitude of the GSEs' multifamily presence that year. GSE multifamily market share appears to have risen significantly, to approximately 38 percent, in 1998. The size of the conventional multifamily market is discussed in Appendix D.

⁹⁴ "Subprime Mortgage Market Nervously Makes Room for Government-Sponsored Enterprises," *Inside Mortgage Finance*. (February 19, 1999), p. 5–6.

⁹⁵ Fannie Mae's plans regarding its entry into the A-minus and "Alternative-A" (Alt-A) markets are discussed in "Fannie Mae to Fully Enter Alt-A Market in Two Years," *Origination News*, November 1998, p. 33. The Alt-A market generally involves conforming size mortgages made to A quality borrowers that fall outside Fannie Mae's or Freddie Mac's purchase requirements due to lack of documentation, the property type, loan-to-value ratio, or a combination of the three.

⁹⁶ Fannie Mae press release, (September 30, 1999).

⁹⁷ A detailed discussion of manufactured housing is contained in Kimberly Vermeer and Josephine Louie, *The Future of Manufactured Housing*, Joint Center for Housing Studies, Harvard University, (January 1997).

⁹⁸ Data on industry shipments and sales has been obtained from "U.S. Housing Market Conditions," U.S. Department of Housing and Urban Development (May, 1999), p. 51.

⁹⁹ Although the terms are sometimes used interchangeably, manufactured housing and mobile homes differ in significant ways relative to construction standards, mobility, permanence, and financing (These distinctions are spelled out in detail in Donald S. Bradley, "Will Manufactured Housing Become Home of First Choice?" *Secondary Mortgage Markets*, (July 1997)). Mobile homes are not covered by national construction standards, though they may be subject to State or local siting requirements. Manufactured homes must be built according to the National Manufactured Housing Construction Safety and Standards Act of 1974. In accordance with this act, HUD developed minimum building standards in 1976 and upgraded them in 1994. Manufactured homes, like mobile homes, are constructed on a permanent chassis and include both axles and wheels. However, with manufactured housing, the axles and wheels are intended to be removed at the time the unit is permanently affixed to a foundation. Manufactured homes, unlike mobile homes, are seldom, if ever, moved. Mobile homes are financed with personal property loans, but manufactured homes are eligible for conventional-mortgage financing if they are located on land owned by or under long-term lease to the borrower. Other types of factory-built housing, such as modular and panelized homes, are not included in this definition of "manufactured housing." These housing types are often treated as "site built" for purposes of eligibility for mortgage financing.

¹⁰⁰ Freddie Mac, the Manufactured Housing Institute and the Low Income Housing Fund have

example, the Harvard University Joint Center for Housing Studies, in its report *State of the Nation's Housing 1997*, points out that:

(i) Despite the recent growth in homeownership rates, the absolute number of households without access to affordable housing is growing because the rental stock is not keeping up with the growth in household formation. "Homeownership is more affordable today than during much of the 1980s and early 1990s," but renter households "have received no comparable relief from high housing costs."

(ii) The affordable stock continues to shrink as losses due to abandonment and demolition have outpaced the rate at which units filter down into the low cost stock. Reductions in federal subsidies may contribute to further losses in the affordable stock.

(iii) The problems of extremely low-income households remains the largest and most urgent priority. The number of families receiving rental subsidies has actually decreased.¹⁰⁵

The affordable housing issues go beyond the need for greater efficiency in delivering capital to the rental housing market. In many cases, subsidies are needed in order for low-income families to afford housing that meets adequate occupancy and quality standards. Nevertheless, greater access to reasonably priced capital can reduce the rate of losses to the stock, and can help finance the development of new or rehabilitated affordable housing when combined with locally funded subsidies. Development of a secondary market for affordable housing is one of many tools needed to address these issues.

Recent scholarly research suggests that more needs to be done to develop the secondary market for affordable multifamily housing.¹⁰⁶ Cummings and DiPasquale (1998) point to the numerous underwriting, pricing, and capacity building issues that impede the development of this market. They suggest the impediments can be addressed through the establishment of affordable lending standards, better information, and industry leadership.

(i) More consistent standards are especially needed for properties with multiple layers of subordinated financing (as is often the case with affordable properties allocated Low Income Housing Tax Credits and/or local subsidies).

(ii) More comprehensive and accurate information, particularly with regard to the determinants of default, can help in setting standards for affordable lending.

(iii) Leadership from the government or from a GSE is needed to develop consensus standards; it would be unprofitable for any single purely private lender to provide

because costs would be borne privately but competitors would benefit.

2. Underserved Market Segments

There is evidence that segments of the multifamily housing stock have been affected by costly, difficult, or inconsistent availability of mortgage financing. Small properties with 5–50 units represent an example. The fixed-rate financing that is available is typically structured with a 5–10 year term, with interest rates as much as 150 basis points higher than those on standard multifamily loans, which may have adverse implications for affordability.¹⁰⁷ This market segment appears to be dominated by thrifts and other depositories who keep these loans in portfolio. In part to hedge interest rate risk, loans on small properties are often structured as adjustable-rate mortgages.

Multifamily properties with significant rehabilitation needs have experienced difficulty in obtaining mortgage financing. Properties that are more than 10 years old are typically classified as "C" or "D" properties, and are considered less attractive than newer properties by many lenders and investors.¹⁰⁸ Fannie Mae's underwriting guidelines for negotiated transactions state that "the Lender is required to use a more conservative underwriting approach" for transactions involving properties 10 or more years old.¹⁰⁹ Fannie Mae funding for rehabilitation projects is generally limited to \$6,000 per unit.¹¹⁰ Multifamily rehabilitation loans account for 1.9 percent of units backing Freddie Mac 1998 purchases. Rehabilitation loans accounted for only 0.5 percent of units backing Fannie Mae's purchases that year.

Historically, the flow of capital into housing for seniors has been characterized by

¹⁰⁷ Drew Schneider and James Follain assert that interest rates on small property mortgages are as high as 300 basis points over comparable maturity Treasuries in "A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing," *Cityscape: A Journal of Policy Development and Research* 4(1): 43–58, 1998. Berkshire Realty, a Fannie Mae Delegated Underwriting and Servicing (DUS) lender based in Boston, was quoting spreads of 135 to 150 basis points in "Loans Smorgasbord," *Multi-Housing News*, August–September 1996. Additional information on the interest rate differential between large and small multifamily properties is contained in William Segal and Christopher Herbert, *Segmentation of the Multifamily Mortgage Market: The Case of Small Properties*, paper presented to annual meetings of the American Real Estate and Urban Economics Association, (January 2000).

¹⁰⁸ On the relation between age of property and quality classification see Jack Goodman and Brook Scott, "Rating the Quality of Multifamily Housing," *Real Estate Finance*, (Summer, 1997).

¹⁰⁹ *Fannie Mae Multifamily Negotiated Transactions Guide*, Section 305.03, "Properties More than Ten Years Old."

¹¹⁰ *Fannie Mae Multifamily Delegated Underwriting and Servicing Guide*, Section 306.01, "Definition—Moderate Rehabilitation Property." Loans involving rehabilitation costs exceeding \$6,000 per unit may be approved on an exception basis, but in no event may rehabilitation costs exceed \$10,000 per unit or 25 percent of the loan amount, whichever is lower. In October, 1998 Fannie Mae announced a rehabilitation lending initiative providing up to \$15,000 per on the condition that all units financed are affordable to low- and moderate income tenants.

a great deal of volatility. A continuing lack of long-term, fixed-rate financing jeopardizes the viability of a number of some properties. There is evidence that financing for new construction remains scarce.¹¹¹ Both Fannie Mae and Freddie Mac offer Senior Housing pilot programs.

Under circumstances where mortgage financing is difficult, costly, or inconsistent, GSE intervention may be desirable. Follain and Szymanoski (1995) say that "a [market] failure occurs when the market does not provide the quantity of a particular good or service at which the marginal social benefits of another unit equal the marginal social costs of producing that unit. In such a situation, the benefits to society of having one more unit exceeds the costs of producing one more unit; thus, a rationale exists for some level of government to intervene in the market and expand the output of this good."¹¹² It can be argued that the GSEs have the potential to contribute to the mitigation of difficult, costly, or inconsistent availability of mortgage financing to segments of the multifamily market because of their funding cost advantage, and even a responsibility to do so as a consequence of their public missions, especially in light of the limitations on direct government resources available to multifamily housing in today's budgetary environment.

3. Recent History and Future Prospects in Multifamily

The expansion phase of the real estate cycle been well underway for several years now, at least insofar as it pertains to multifamily. Rental rates have been rising, and vacancy rates have been relatively stable, contributing to a favorable environment for multifamily construction and lending activity.¹¹³ Delinquencies on commercial mortgages reached an 18-year low in 1997.¹¹⁴ Some analysts have warned that recent prosperity may have contributed to overbuilding in some markets and deterioration in underwriting standards.¹¹⁵ A

¹¹¹ W. Donald Campbell, *Seniors Housing Finance*, prepared for American Association of Retired Persons White House Conference on Aging Mini-Conference on Expanding Housing Choices for Older People, (January 26–27, 1995).

¹¹² James R. Follain and Edward J. Szymanoski, "A Framework for Evaluating Government's Evolving Role in Multifamily Mortgage Markets," *Cityscape: A Journal of Policy Development and Research* 1(2), (1995), p. 154.

¹¹³ Despite sustained economic expansion, however, the rise in homeownership, has not fallen below 9 percent in recent years. (Regis J. Sheehan, "Steady Growth," *Units*, (November/December 1998), pp. 40–43). Regarding rents and vacancy rates see also Ted Cornwell, "Multifamily Lending Approaches Record Level," *National Mortgage News*, (September 23, 1996); and David Berson, *Monthly Economic and Mortgage Market Report*, Fannie Mae, (November 1998).

¹¹⁴ American Council of Life Insurance data reported in *Inside MBS & ABS*, (March 20, 1998).

¹¹⁵ A November, 1998 "Review of the Short-Term Supply/Demand Conditions for Apartments" by Peter P. Kozel of Standard and Poor's concludes that "in some markets, the supply of units exceeds the likely level of demand, and in only a few MSAs should the pace of development accelerate." See also "Apartment Projects Find Lenders Are Ready with Financing," Lew Sichelman, *National*

¹⁰⁵ See also *Rental Housing Assistance—The Crisis Continues: The 1997 Report to Congress on Worst Case Housing Needs*, U.S. Department of Housing and Urban Development, Office of Policy Development and Research (April 1998).

¹⁰⁶ Jean L. Cummings and Denise DiPasquale, "Developing a Secondary Market for Affordable Rental Housing: Lessons From the LIMAC/Freddie Mac and EMI/Fannie Mae Programs," *Cityscape: A Journal of Policy Development and Research*, 4(1), (1998), pp. 19–41.

September, 1998 report by the Office of the Comptroller of the Currency anticipates continued decline in credit standards at the 77 largest national banks as a consequence of heightened competition between lenders, and the Federal Deposit Insurance Corporation has expressed similar concerns regarding 1,212 banks it examined.¹¹⁶

Growth in the multifamily mortgage market has been fueled by investor appetites for Commercial Mortgage Backed Securities (CMBS). Nonagency securitization of multifamily and commercial mortgages received an initial impetus from the sale of nearly \$20 billion in mortgages acquired by the Resolution Trust Corporation (RTC) from insolvent depositories in 1992–1993. Nonagency issuers typically enhance the credit-worthiness of their offerings through the use of senior-subordinated structures, combining investment-grade senior tranches with high-yield, below investment-grade junior tranches designed to absorb any credit losses.¹¹⁷

Because of their relatively low default risk in comparison with loans on other types of income property, multifamily mortgages are often included in mixed-collateral financing structures including other commercial property such as office buildings, shopping centers, and storage warehouses. CMBS volume reached \$30 billion in 1996, \$44 billion in 1997, and \$78 billion in the 1998, approximately 25 percent of which was multifamily.¹¹⁸

During the financial markets turmoil in the fall of 1998, investors expressed reluctance to purchase the subordinated tranches in CMBS transactions, jeopardizing the ability of issuers to provide a cost-effective means of credit-enhancing the senior tranches as well.¹¹⁹ When investor perceptions regarding

credit risk on subordinated debt escalated rapidly in August and September, the GSEs, which do not typically use subordination as a credit enhancement, benefited from a “flight to quality.”¹²⁰ As spreads on AAA-rated CMBS widened from 85 basis points to 200 basis points over to comparable-maturity Treasury securities, some conduits found it advantageous to sell whole loans to the life insurance companies, the GSEs, and other traditional investors rather than securitize them directly as they had originally planned.¹²¹ The withdrawal from the market of a number of the three largest CMBS originators, Nomura/Capital America, Conti-Trade Services and Daiwa Securities will contribute to higher levels of GSE multifamily market share on a continuing basis.¹²² Ultimately, the relation between GSE and CMBS yield spreads will be a major determinant of GSE multifamily market share.¹²³ Continuing uncertainty in the CMBS sector adds a note of uncertainty to projections regarding GSE multifamily acquisition volume in Appendix D.

Depository institutions and life insurance companies, formerly among the largest holders of multifamily debt, have experienced a decline in their share of the market at the expense of CMBS conduits.¹²⁴ Increasingly, depositories and life insurance companies are participating in multifamily markets by holding CMBS rather than whole loans, which are often less liquid, more expensive, and subject to more stringent risk-based capital standards.¹²⁵ In recent years a

rising proportion of multifamily mortgages have been originated to secondary market standards, a consequence of a combination of factors including the establishment of a smoothly functioning securitization “infrastructure;” the greater liquidity of mortgage-related securities as compared with whole loans; and the desire for an “exit strategy” on the part of investors.¹²⁶

Because of their limited use of mortgage debt, increased equity ownership of multifamily properties by REITs may have contributed to increased competition among mortgage originators, servicers and investors for a smaller mortgage market than would otherwise exist. During the first quarter of 1997, REITs accounted for 45 percent of all commercial real estate transactions, and the market capitalization of REITs at the end of January 1998 exceeded that of outstanding CMBS.¹²⁷

Demographic factors will contribute to continued steady growth in the new construction segment of the multifamily mortgage market. The number of apartment households is expected to grow approximately 1.1 percent per year over 2000–2005. Taking into consideration losses from the housing stock, it has been projected that approximately 250,000–275,000 additional multifamily units will be needed in order to meet anticipated demand.¹²⁸ This flow is approximately half that of the mid-1980s, but twice that of the depressed early 1990s. In 1998, 273,900 apartment units were completed.¹²⁹

The high degree of volatility of multifamily new construction experienced historically is consistent with a view that this sector of the housing market is driven more by fluctuations in the availability of financing than by demographic fundamentals. The stability and liquidity of the housing finance system is therefore a significant determinant of whether the volume of new construction remains consistent with demand.

Past experience suggests that the availability of financing for all forms of commercial real estate is highly sensitive to the state of the economy. In periods of economic uncertainty, lenders and investors sometimes raise underwriting and credit standards to a degree that properties that would be deemed creditworthy under normal circumstances are suddenly unable to obtain financing. Ironically, difficulty in obtaining financing may contribute to a fall in property values that can exacerbate a credit crunch.¹³⁰

Mortgage News, (April 14, 1997); *Commercial Lenders Wished That They Could Spur Overbuilding*, *National Mortgage News*, (March 30, 1998); “Multifamily, Commercial Markets Grow Up,” Neil Morse, *Secondary Marketing Executive*, (February 1998); “Recipe for Disaster,” *National Mortgage News* editorial, (July 6, 1998).

¹¹⁶ 1998 Survey of Credit Underwriting Practices, Comptroller of the Currency, National Credit Committee. “For the fourth consecutive year, underwriting standards for commercial loans have eased,” states the OCC report. “Examiners again cite competitive pressure as the primary reason for easing underwriting standards.” The weakening of underwriting practices is especially concentrated in commercial real estate lending according to the Federal Deposit Insurance Corporation’s Report on *Underwriting Practices*, (October 1997–March 1998). See also Donna Tanoue, “Underwriting Concerns Grow,” *National Mortgage News*, (September 21, 1998), and “Making the Risk-Takers Pay,” *National Mortgage News*, (October 12, 1998).

¹¹⁷ On the effects of multifamily mortgage securitization see “Financing Multifamily Properties: A Play With New Actors and New Lines,” Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Cityscape: A Journal of Policy Development and Research*, vol. 4, No. 1 (1998); and “Financing Multifamily Properties,” Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Urban Land* (November 1998).

¹¹⁸ “New-Issue CMBS Volume,” *Commercial Mortgage Alert*, (October 5, 1998); Inside MBS & ABS, (February 12, 1999).

¹¹⁹ “New CMBS Headache: B-Piece Market Softens,” *Commercial Mortgage Alert*, (September 21, 1998); “Criimi Bankruptcy Accelerates CMBS

Freefall,” *Commercial Mortgage Alert*, (October 12, 1998); “Capital America Halts Lending Amid Woes,” *Commercial Mortgage Alert*, (October 12, 1998).

¹²⁰ On CMBS spreads see “Turmoil Hikes Loan Rates” in *Wall Street Mortgage Report*, (September 14, 1998). Regarding implications for the GSEs of the conduit pullback see “No Credit Crunch for First Mortgages” in *Commercial Mortgage Alert*, (October 12, 1998).

¹²¹ Sally Gordon, “A Lesson From the Capital Markets,” *Mortgage Banking Special Issue—Commercial*, (February 1999), pp. 12–18.

¹²² See “’99 CMBS Outlook: Fast Start, Then Lull,” *Commercial Mortgage Alert*, (December 7, 1998); “Chastened Conduits Get Back to Business,” *Commercial Mortgage Alert*, (February 15, 1999). Nomura/Capital America’s monthly CMBS volume had been at a level of approximately \$1 billion. See also “ContiFinancial Halts Originations, Plans Portfolio Selloff,” *Real Estate Finance & Investment*, (November 9, 1998); and “Nomura in US Quits CRE Lending,” *National Mortgage News*, (December 21, 1998).

¹²³ CMBS yield spreads in early 1999 were approximately 75–100 basis points wider than those in the summer of 1998, but approximately 75–100 basis points narrower than the peak reached in the fall of 1998. “Chastened Conduits Get Back to Business,” *Commercial Mortgage Alert*, (February 15, 1999).

¹²⁴ “Financing Multifamily Properties: A Play With New Actors and New Lines,” Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Cityscape: A Journal of Policy Development and Research*, 4(1), (1998).

¹²⁵ *The Impact of Public Capital Markets on Urban Real Estate*, Clement Dinsmore, discussion paper, Brookings Institution Center on Urban and Metropolitan Policy, July 1998; “Capital Availability Fuels Commercial Market Growth,” Marshall Taylor, *Real Estate Finance Today*, (February 17, 1997).

¹²⁶ Board of Governors of the Federal Reserve System and U.S. Securities and Exchange Commission, *Report to the Congress on Markets for Small-Business- and Commercial-Mortgage-Backed Securities*, (September 1998).

¹²⁷ “REITs Tally Nearly Half of All Big CRE Deals in First Quarter,” *National Mortgage News*, (July 7, 1997); “Will REITs, Mortgage-Backed Make Difference in Downturn,” Jennifer Goldblatt, *American Banker*, (February 18, 1998).

¹²⁸ “Apartment Demographics: Good for the Long Haul?” Jack Goodman, *Real Estate Finance*, (Winter 1997); “The Multifamily Outlook,” Jack Goodman, *Urban Land*, (November 1998).

¹²⁹ *U.S. Housing Market Conditions 2nd Quarter 1999*, U.S. Department of Housing and Urban Development (August 1999), Table 4.

¹³⁰ Howard Esaki, a principal in CMBS Research at Morgan Stanley Dean Witter stated recently that

Continued

The consensus viewpoint among most economists is that an economic recession in 2000 is unlikely.¹³¹ However, the possibility of a global economic downturn cannot be dismissed.¹³² The sensitivity of commercial real estate markets to investor perceptions regarding global volatility was demonstrated by the rise in CMBS spreads in September, 1998.¹³³ Thus, market disruptions could have adverse implications on U.S. commercial and residential mortgage markets.

4. Recent Performance and Effort of the GSEs Toward Achieving the Low- and Moderate-Income Housing Goal: Role of Multifamily Mortgages

The GSEs have rapidly expanded their presence in the multifamily mortgage market in the period since the housing goals were established in 1993. Fannie Mae has played a much larger role in the multifamily market, with purchases of \$6.9 billion in 1997 compared with \$2.7 billion by Freddie Mac. If Fannie Mae multifamily acquisitions maintain their recent growth rate, it appears likely that they will be successful in reaching its publicly announced goal of conducting \$50 billion in multifamily transactions between 1994 and the end of the decade.¹³⁴ Fannie Mae's multifamily underwriting standards are highly influential and have been widely emulated throughout the industry. Freddie Mac has successfully rebuilt its multifamily program after a three-year hiatus during 1991–1993 precipitated by widespread defaults.

Multifamily loans represent a relatively small portion of the GSEs' business activities. For example, multifamily loans held in portfolio or guaranteed by the GSEs at the end of 1997 totaled \$41.4 billion, less than 3 percent of their single-family combined portfolio and guaranteed holdings. In comparison, multifamily mortgages held or

volatility in global markets contributed to a 10-20 percent decline in commercial real estate values in late 1998. John Hackett, "CRE Seen Down 10% to 20%," *National Mortgage News*, (November 23, 1998), p. 1.

¹³¹ The Congressional Budget Office, *The Economic and Budget Outlook: An Update*, (July 1999) predicts that GDP growth will slow from an annual rate exceeding 3.5 percent in recent years to 2.4 percent over 2000–2003 (p. 11). Standard & Poor's DRI, *The U.S. Economy*, (September 1999), estimates the probability of a recession in 2000, triggered by a collapse of the stock market, at 10 percent. Under this scenario, GDP growth would drop to 0.2 percent in 2000, but rebound to over 3 percent during the 2001–2003 period.

¹³² The World Bank Group, *Global Economic Prospects and the Developing Countries 1998/99: Beyond Financial Crisis*, 1998. Implications of the economic crisis in developing countries for lenders in developed countries is discussed in Martin Wolf, "Borrowing: Let Lenders Beware," *Financial Times*, (December 9, 1998). DRI/McGraw Hill's *U.S. Financial Notes* says there is about a 30 percent chance of a "hard landing" in 1999 because of Brazil's decision to float the real and Japan's ongoing severe financial problems. Alternatively, if there is no recession in 1999, the result could be a later, but more severe, recession (February 18, 1999, p. 3).

¹³³ John Holusha, "As Financing Pool Dries Up, Some See Opportunity," *New York Times*, November 1, 1998.

¹³⁴ See Fannie Mae's World Wide Web site at <http://www.fanniemae.com>.

guaranteed by the GSEs represent approximately 8 percent of the overall stock of mortgage debt.¹³⁵

However, the multifamily market contributes disproportionately to GSE purchases meeting both the Low- and Moderate-Income and Special Affordable Housing goals. In 1997, Fannie Mae's multifamily purchases represented 13.4 percent of their total acquisition volume, measured in terms of dwelling units. Yet these multifamily purchases comprised 26.7 percent of units qualifying for the Low- and Moderate Income Housing Goal, and 44.4 percent of units meeting the Special Affordable goal. Multifamily purchases were 8.2 percent of units backing Freddie Mac's 1997 acquisitions, 18.8 percent of units meeting the Low- and Moderate Income Housing Goal, and 31.4 percent of units qualifying for the Special Affordable Housing Goal.¹³⁶ The multifamily market therefore comprises a significant share of units meeting the Low- and Moderate-Income and Special Affordable Housing Goals for both GSEs, and the goals may have contributed to increased emphasis by both GSEs on multifamily in the period since the Final Rule took effect in 1995.¹³⁷

The majority of units backing GSE multifamily transactions meet the Low- and Moderate Income Housing Goal because the great majority of rental units are affordable to families at 100 percent of median income, the standard upon which the Low- and Moderate Income Housing Goal is defined. For example, 33.3 percent of units securing Freddie Mac's 1997 one-family owner-occupied mortgage purchases met the Low- and Moderate Income Housing Goal, compared with 95.9 percent of its multifamily transactions. Corresponding figures for Fannie Mae were 33.8 percent and 85.2 percent.¹³⁸ For this reason, multifamily purchases represent a crucial component of the GSEs' efforts in meeting the Low- and Moderate Income Housing Goal.

Because such a large proportion of multifamily units qualify for the Low- and Moderate-Income Housing Goal and for the Special Affordable Housing Goal, Freddie Mac's weaker multifamily performance adversely affects its overall performance on these two housing goals relative to Fannie Mae. Units in multifamily properties accounted for 7.9 percent of Freddie Mac's mortgage purchases during 1996–1998, compared with 12.2 percent for Fannie Mae. Fannie Mae's greater emphasis on multifamily is a major factor contributing to

the strength of its housing goals performance relative to Freddie Mac.

5. A Role for the GSEs in Multifamily Housing

By sustaining a secondary market for multifamily mortgages, the GSEs can extend the benefits that come from increased mortgage liquidity to many more lower-income families while helping private owners to maintain the quality of the existing affordable housing stock. In addition, standardization of underwriting terms and loan documents by the GSEs has the potential to reduce transactions costs. As the GSEs gain experience in areas of the multifamily mortgage market affected by costly, difficult, or inconsistent access to secondary markets, they gain experience that enables them to better measure and price default risk, yielding greater efficiency and further cost savings.

Ultimately, greater liquidity, stability, and efficiency in the secondary market due to a significant presence by the GSEs will benefit lower-income renters by enhancing the availability of mortgage financing for affordable rental units—in a manner analogous to the benefits the GSEs provide homebuyers. Providing liquidity and stability is the main role for the GSEs in the multifamily market, just as in the single-family market.

Current volatility in the CMBS market underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by virtue of the fact that an increasing proportion of multifamily mortgages are originated to secondary market standards, as noted previously. While the GSEs have also been affected by the widening of yield spreads affecting CMBS, historical experience suggests that agency spreads will converge to historical magnitudes as a consequence of the perceived benefits of federal sponsorship.¹³⁹ When this occurs, the capability of the GSEs to serve and compete in the multifamily secondary market will be enhanced.¹⁴⁰

6. Multifamily Mortgage Market: GSEs' Ability To Lead the Industry

Holding 9.8 percent of the outstanding stock of multifamily mortgage debt and guarantees as of the end of 1997, Fannie Mae is regarded as an influential force within the multifamily market. Its Delegated Underwriting and Servicing (DUS) program, in which Fannie Mae delegates underwriting responsibilities to originators in return for a commitment to share in any default risk, now accounts for more than half its multifamily acquisitions, and has been regarded as highly successful.

¹³⁹ *Fundingnotes*, Vol. 3, Issue 9; (September 1998), Eric Avidon, "PaineWebber Lauds Fannie DUS Paper," *National Mortgage News*, (September 14, 1998), p. 21.

¹⁴⁰ There is evidence that the GSEs have benefited from recent widening in CMBS spreads because of their funding cost advantage. See "No Credit Crunch for First Mortgages," *Commercial Mortgage Alert*, (October 12, 1998); and "Turmoil a Bonanza for Freddie," *Commercial Mortgage Alert*, (November 2, 1998).

¹ *Federal Reserve Bulletin*, (June 1998), A 35.

¹³⁶ 1997 Annual Housing Activity Reports, Table 1.

¹³⁷ William Segal and Edward J. Szymanoski. *The Multifamily Secondary Mortgage Market: The Role of Government-Sponsored Enterprises*. Housing Finance Working Paper No. HF-002, Office of Policy Development and Research, Department of Housing and Urban Development, (March 1997).

¹³⁸ HUD analysis of GSE loan-level data. Affordability data are missing on 11.1 percent of units backing Fannie Mae's 1997 multifamily acquisitions, which may contribute to the disparity between Fannie Mae and Freddie Mac regarding percentage of multifamily acquisitions contributing to the low-mod goal.

Freddie Mac's presence in the multifamily market is not as large as that of Fannie Mae, with year-end 1997 holdings of multifamily debt and guarantees representing 2.5 percent of the total. However, Freddie Mac is credited with rapidly rebuilding its multifamily operations since 1993. The GSEs' ability to lead the multifamily industry is discussed further below.

7. GSEs' Performance in the Multifamily Mortgage Market

GSE activity in the multifamily mortgage market has expanded rapidly since 1993, as noted previously. However, it is not clear that the potential of the GSEs to lead the multifamily mortgage industry has been fully exploited. In particular, the GSEs' multifamily purchases do not appear to be consistently contributing to mitigation of excessive cost of mortgage financing facing small properties with 5–50 units. GSE purchases of small loans with unpaid principal balance (UPB) less than or equal to \$1 million have exhibited considerable volatility over 1993–1997, ranging from as little as 15 percent of the number of mortgage loans purchased (1996) to as high as 64 percent (1995).¹⁴¹

Based on data from the Survey of Residential Finance showing that 37 percent of units in mortgaged multifamily properties were in properties with 5–49 units, it appears reasonable to assume that loans backed by small properties account for 37 percent of multifamily units financed each year. Applying estimates of the dollar-size of the conventional multifamily market derived in Appendix D, and combining these with figures on loan amount per unit from GSE data in conjunction with data on loans securitized by private conduits to derive estimates of the annual volume of multifamily lending as measured in number of units financed, it appears that, during 1996–1998, the GSEs acquired loans representing only 5 percent of units in small multifamily properties with 5–50 units.

GSE multifamily acquisitions tend to involve larger properties than are typical for the market as a whole.¹⁴² For example, the average number of units in Fannie Mae's 1997 multifamily transactions was 163, with a corresponding figure of 158 for Freddie Mac. Both of these averages are significantly higher than the overall market average of 33.4 units per property on 1995 originations estimated from the HUD Property Owners and Managers (POMS) survey.¹⁴³ A factor possibly contributing to the GSEs' emphasis on larger properties is the relatively high

fixed multifamily origination costs, including appraisal, environmental review, and legal fees typically required under GSE underwriting guidelines.¹⁴⁴

After evaluating the results of a \$500 million Small Loan Experiment, Fannie Mae announced in October, 1998 that it had established a permanent Small Loan product through selected DUS lenders. Features include streamlined underwriting and due diligence procedures and documentation requirements. Unlike the standard DUS product, which has a \$1 million minimum loan amount, there is no minimum loan amount for the Small Loan product.¹⁴⁵

Another area affected by credit gaps, in which the GSEs have not demonstrated market leadership is rehabilitation loans. Fannie Mae applies more conservative underwriting standards to such properties, as discussed above. Both GSEs' relatively weak performance in the multifamily rehabilitation market segment is related to the fact that, since the inception of the interim housing goals in 1993, the great majority of units backing GSE multifamily mortgage purchases have been in properties securing refinancing loans with an established payment history, in a proportion exceeding 80 percent in some years.¹⁴⁶

In October, 1998 Fannie Mae announced a rehabilitation lending initiative providing up to \$15,000 per unit on the condition that all units financed are affordable to low- and moderate income tenants. This product is intended to assist property owners in enhancing property quality and retaining tenants, strengthening competitiveness in relation to other similar properties.¹⁴⁷

The GSEs have been conservative in their approach to multifamily credit risk.¹⁴⁸ HUD's analysis of prospectus data indicates that the average loan-to-value (LTV) ratio on pools of seasoned multifamily mortgages securitized by Freddie Mac during 1995 through 1996 was 55 percent. In comparison, the average LTV on private-label multifamily conduit transactions over 1995–1996 was 73 percent. Fannie Mae utilizes a variety of credit enhancements to further mitigate default risk on multifamily acquisitions, including loss

sharing, recourse agreements, and the use of senior/subordinated debt structures.¹⁴⁹ Freddie Mac is less reliant on credit enhancements than is Fannie Mae, possibly because of a more conservative underwriting approach.¹⁵⁰

GSE ambivalence regarding the perception of credit risk in lending on affordable multifamily properties is evident with regard to pilot programs established in 1991 between Freddie Mac and the Local Initiatives Managed Assets Corporation (LIMAC), a subsidiary of the Local Initiatives Support Corporation (LISC), and in 1994 between Fannie Mae and Enterprise Mortgage Investments (EMI), a subsidiary of the Enterprise Foundation. Cummings and DiPasquale (1998) conclude that both initiatives had mixed results, although the Fannie Mae/EMI pilot was more successful in a number of regards. The Freddie Mac/LIMAC initiative was suspended after two years with only one completed transaction, involving eight loans with an aggregate loan amount of \$4.6 million. As of June, 1997, 15 transactions comprising \$20.5 million had been completed under the Fannie Mae/EMI pilot, which is ongoing.

Both programs suffered initially from documentation requirements that borrowers perceived as burdensome. Cummings and DiPasquale observe that "The smaller, nonprofit, and CDC developers that these programs intended to bring to the market were unprepared, and perhaps unwilling or unable, to meet the high costs of Freddie Mac's and Fannie Mae's due diligence requirements."

E. Factor 3: Performance and Effort of the GSEs Toward Achieving the Low- and Moderate-Income Housing Goal in Previous Years

This section first discusses each GSE's performance under the Low- and Moderate-Income Housing Goal over the 1993–98 period. The data presented are "official results"—i.e., they are based on HUD's in-depth analysis of the loan-level data submitted to the Department and the counting provisions contained in HUD's regulations in 24 CFR part 81, subpart B. As explained below, in some cases these "official results" differ from goal performance reported to the Department by the GSEs in their Annual Housing Activities Reports.

Following this analysis, the GSEs' past performance in funding low- and moderate-income borrowers in the single-family mortgage market is provided. Performance indicators for the Geographically-Targeted and Special Affordable Housing Goals are also included in order to present a complete picture in Appendix A of the GSEs' funding of single-family mortgages that qualify for the

¹⁴¹ HUD analysis of GSE loan-level data.

¹⁴² Larger properties may be perceived as less subject to income volatility caused by vacancy losses. Scale economies in securitization may also favor purchase of larger multifamily mortgages by the GSEs. Scale economies refer to the fixed costs in creating a mortgage backed security, and the smaller reduction in yield (higher security price) if these costs can be spread over larger unpaid principal balances.

¹⁴³ 1995 POMS data are used because 1995 represents the year with the most complete mortgage origination information in the Survey. 1996 GSE data are used because of number of units or property exhibited atypical behavior during 1995.

¹⁴⁴ These costs have been estimated at \$30,000 for a typical transaction. Presentation by Jeff Stern, Vice President, Enterprise Mortgage Investments, HUD GSE Working Group, (July 23, 1998).

¹⁴⁵ "Fannie Mae Offers Mortgage Financing for the Rehabilitation of Affordable Apartments; Also Expands Availability, Streamlines Procedures for Financing of Small Apartment Properties," Fannie Mae News Release, October 20, 1998. Freddie Mac's Conventional Cash Multifamily Mortgage Purchase Program includes a Small Loan Program for mortgages of \$300,000—\$1 million.

¹⁴⁶ Data from the HUD Property Owners and Managers Survey (POMS) suggests that, in and of itself, the GSEs' emphasis on refinancing loans may roughly track that of the overall market.

¹⁴⁷ "Fannie Mae Offers Mortgage Financing for the Rehabilitation of Affordable Apartments; Also Expands Availability, Streamlines Procedures for Financing of Small Apartment Properties," Fannie Mae News Release, October 20, 1998.

¹⁴⁸ Standard & Poor's described Fannie Mae's multifamily lending as "extremely conservative" in "Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight (OFHEO)," (February 3, 1997), p. 10.

¹⁴⁹ See William Segal and Edward J. Szymanoski. "Fannie Mae, Freddie Mac, and the Multifamily Mortgage Market," *Cityscape: A Journal of Policy Development and Research*, vol. 4, no. 1 (1998), pp. 59–91.

¹⁵⁰ Freddie Mac's policy of re-underwriting each multifamily acquisition is a response to widespread defaults affecting its multifamily portfolio during the late 1980s according to Follain and Szymanoski (1995).

three housing goals. In addition, the findings from a wide range of studies—employing both quantitative and qualitative techniques to analyze several performance indicators and conducted by HUD, academics, and major research organizations—are summarized below.

Organization and Main Findings. Section E.1 reports the performance of Fannie Mae and Freddie Mac on the Low- and Moderate-Income Housing Goal. Section E.2 uses HMDA data and the loan-level data that the GSEs provide to HUD on their mortgage purchases to compare the characteristics of GSE purchases of single-family loans with the characteristics of all loans in the primary mortgage market and of newly-originated loans held in portfolio by depositories. Section E.3 summarizes the findings from several studies that have examined the role of the GSEs in supporting affordable lending. Section E.4 discusses the findings from a recent HUD-sponsored study of the GSEs' underwriting guidelines.¹⁵¹ Finally, Section E.5 reviews the GSEs' support of the single-family rental market.

The Section's main findings with respect to the GSEs' single-family mortgage purchases are as follows:

- (i) Both Fannie Mae and Freddie Mac surpassed the Low- and Moderate-Income Housing Goals of 40 percent in 1996 and 42 percent in 1997 and 1998.
- (ii) Both Fannie Mae and Freddie Mac have improved their affordable lending¹⁵² performance over the past six years but, on average, they have lagged the primary market in providing mortgage funds for lower-

income borrowers and underserved neighborhoods. This finding is based both on HUD's analysis of GSE and HMDA data as well as on numerous studies by academics and research organizations.

(iii) The GSEs show very different patterns of home loan lending.¹⁵³ Through 1998, Freddie Mac has been less likely than Fannie Mae to fund single-family home mortgages for low-income families and their communities. The percentages of Freddie Mac's purchases benefiting historically underserved families and their neighborhoods have also been substantially less than the corresponding shares of total market originations. Freddie Mac has not made much progress closing the gap between its performance and that of the overall home loan market.

(iv) Fannie Mae's purchases more nearly match the patterns of originations in the primary market than do Freddie Mac's. However, during the 1993–98 period as a whole and the 1996–98 period during which the new goals were in effect, Fannie Mae has lagged depositories and others in the conforming market in providing funding for the lower-income borrowers and neighborhoods covered by the three housing goals.

(v) A large percentage of the lower-income loans purchased by the GSEs have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of lower-income families who have little cash for making large down payments.

(vi) A study by The Urban Institute of lender experience with the GSEs' underwriting standards finds that the enterprises have stepped up their outreach efforts and have increased the flexibility in their underwriting standards, to better accommodate the special circumstances of lower-income borrowers. However, this study concludes that the GSEs' guidelines remain somewhat inflexible and that they are often hesitant to purchase affordable loans. Lenders also tell the Urban Institute that Fannie Mae has been more aggressive than Freddie Mac in market outreach to underserved groups, in offering new affordable products, and in adjusting their underwriting standards.

(vii) While single-family rental properties are an important source of low-income rental housing, they represent only a small portion of the GSEs' business. In addition, many of the single-family rental properties funded by the GSEs are one-unit detached units in suburban areas rather than the older, 2–4 units commonly located in urban areas.

1. Past Performance on the Low- and Moderate-Income Housing Goal

HUD's goals specified that in 1996 at least 40 percent of the number of units eligible to count toward the Low- and Moderate-Income Goal should qualify as low-or moderate-income, and at least 42 percent should qualify in 1997 and 1998. Actual performance, based on HUD's analysis, was as follows:

	1996	1997	1998
Fannie Mae:			
Units Eligible to Count Toward Goal	1,831,690	1,710,530	3,468,428
Low- and Moderate-Income Units	834,393	782,265	1,530,308
Percent Low- and Moderate-Income	45.6	45.7	44.1
Freddie Mac:			
Units Eligible to Count Toward Goal	1,293,424	1,173,915	2,654,850
Low- and Moderate-Income Units	532,219	499,590	1,137,660
Percent Low- and Moderate-Income	41.1	42.6	42.9

Thus, Fannie Mae surpassed the goals by 5.6 percentage points and 3.7 percentage points in 1996 in 1997, respectively, while Freddie Mac surpassed the goals by 1.1 and 0.6 percentage points. In 1998 Fannie Mae's performance fell by 1.6 percentage points, while Freddie Mac's reported performance continued to rise, by 0.3 percentage point.

The figures for goal performance presented above for 1993–97 differ from the corresponding figures presented by Fannie Mae and Freddie Mac in their Annual Housing Activity Reports to HUD by 0.2–0.3 percentage points in both 1996 and 1997, reflecting minor differences in application of counting rules.

Fannie Mae's performance on the Low- and Moderate-Income Goal jumped sharply in just one year, from 34.1 percent in 1993 to 45.1 percent in 1994, before tailing off to 42.8

percent in 1995. As indicated, it then stabilized at the 1994 level, just over 45 percent, in 1996 and 1997, before tailing off to 44.1 percent last year. Freddie Mac has shown more steady gains in performance on the Low- and Moderate-Income Goal, from 30.0 percent in 1993 to 38.0 percent in 1994 and 39.6 percent in 1995, before surpassing 41 percent in 1996 and 42 percent 1997, and rising to nearly 43 percent last year.

Fannie Mae's performance on the Low- and Moderate-Income Goal has surpassed Freddie Mac's in every year. However, Freddie Mac's 1998 performance represented a 44 percent increase over the 1993 level, exceeding the 29 percent increase for Fannie Mae. And Freddie Mac's performance was 97 percent of Fannie Mae's low- and moderate-income share in 1998, the highest ratio since the goals took effect in 1993. This improved

performance of Freddie Mac is due mainly to its increased purchases of multifamily loans as it re-entered that market.

2. Comparisons With the Primary Mortgage Market

This section summarizes several analyses conducted by HUD on the extent to which the GSEs' loan purchases through 1998 mirror or depart from the patterns found in the primary mortgage market. The GSEs' affordable lending performance is also compared with the performance of major portfolio lenders such as commercial banks and thrift institutions. Dimensions of lending considered include the borrower income and underserved area dimensions covered by the three housing goals. Subsection *a* defines the primary mortgage market, subsection *b* addresses some questions that have recently

¹⁵¹ A more detailed discussion of underwriting guidelines is contained in the analysis below regarding Factor 5, "The GSEs' Ability to Lead the Industry."

¹⁵² The term "affordable lending" is used generically here to refer to lending for lower-income families and neighborhoods that have historically been underserved by the mortgage market.

¹⁵³ Throughout these appendices, the terms "home loan" or "home mortgage" will refer to a "home purchase loan," as opposed to a "refinance loan."

arisen about HMDA's measurement of GSE activity, and subsections c–e present the findings.¹⁵⁴

The market analysis in this section is based mainly on HMDA data for home purchase loans originated in metropolitan areas during the years 1992 to 1998. The HMDA data for 1998 was not released until August 1999 which gave HUD little time to incorporate that data fully into the analyses reported in these appendices; thus, the discussion below will often focus on the year 1997, with any differences from 1998 briefly noted. However, it should be emphasized that 1997 represents more typical mortgage market activity than the heavy refinancing year of 1998. Still, important shifts in mortgage funding that occurred during 1998 will be highlighted in order to offer as complete and updated analysis as possible.

a. Definition of Primary Market

First it is necessary to define what is meant by “primary market” in making these comparisons. In this section this term includes all mortgages on single-family owner-occupied properties that are originated in the conventional conforming market.¹⁵⁵ The source of this market information is the data provided by loan originators to the Federal Financial Institutions Examination Council (FFIEC) in accordance with the Home Mortgage Disclosure Act (HMDA).

There is a consensus that the following loans should be excluded from the HMDA data in defining the “primary market” for the sake of comparison with the GSEs’ purchases of goal-qualifying mortgages:

- (i) Loans with a principal balance in excess of the loan limit for purchases by the GSEs—\$240,000 for a 1-unit property in most parts of the United States in 1999.¹⁵⁶ Loans not in excess of this limit are referred to as “conforming mortgages” and larger loans are referred to as “jumbo mortgages.”¹⁵⁷
- (ii) Loans which are backed by the Federal government, including those insured by the Federal Housing Administration and those guaranteed by the Department of Veterans Affairs, which are generally securitized by the Government National Mortgage Association (“Ginnie Mae”), as well as Rural Housing Loans, guaranteed by the Farmers

Home Administration.¹⁵⁸ Generally, the GSEs do not receive credit on the housing goals for purchasing loans with Federal government backing. Loans without Federal government backing are referred to as “conventional mortgages.”

Questions have arisen about whether loans on manufactured housing should be excluded when comparing the primary market with the GSEs. As discussed elsewhere in this Appendix, the GSEs have not played a significant role in the manufactured housing mortgage market in the past. However, the manufactured home mortgage market is changing in ways that make a higher percentage of such loans eligible for purchase by the GSEs, and the GSEs are looking for ways to increase their purchases of these loans. But more importantly, the manufactured housing sector is one of the most important providers of affordable housing, which makes it appropriate to include this sector in the market definition. For comparison purposes, data are presented for the primary market defined both to include and exclude mortgages originated by manufactured housing lenders. This issue is discussed further in Appendix D, which calculates the market shares for each housing goal.

Questions have also arisen about whether subprime loans should be excluded when comparing the primary market with the GSEs. Appendix D, which examines this issue in some detail, reports the effects of excluding the B&C portion of the subprime market from HUD's estimates of the goal-qualifying shares of the overall (combined owner and rental) mortgage market. As explained Section C.3.e of this appendix, the low-income and minority borrowers in the A-minus portion of the subprime market could benefit from the standardization and lower interest rates that typically accompany an active secondary market effort by the GSEs. A-minus loans are not nearly as risky as B&C loans and Freddie Mac has already starting purchasing A-minus loans, both on a flow basis and through negotiated transactions. Fannie Mae recently introduced a new program targeted at A-minus borrowers. Thus, HUD does not believe that A-minus loans should be excluded from the market definition.

Unfortunately, HMDA does not identify subprime loans, much less separating them into their A-minus and B&C components. There is evidence that many subprime loans are not reported to HMDA but there is no conclusive evidence on this issue.¹⁵⁹ Thus, it is not possible to exclude B&C loans from the comparisons reported below. However, HUD staff has identified HMDA reporters that primarily originate subprime loans.¹⁶⁰ The

text below will report the effects of excluding data for these lenders from the primary market. The effects are minor mostly because the analysis below focuses on home purchase loans, which accounted for only twenty percent of the mortgages originated by the subprime lenders. During 1997 and 1998, the subprime market was primarily a refinance market.

b. Methods and Data for Measuring GSE Performance

Several issues have arisen about the methods and the data used to measure the GSEs' performance relative to the characteristics of the mortgages being originated in the primary market. While most of these issues will be discussed throughout the appendices, one issue, the reliability of HMDA data in measuring GSE performance, needs to be addressed before presenting the market comparisons, which utilize the HMDA data. Fannie Mae has raised questions about HUD's reliance on HMDA data for measuring its performance.

There are two sources of loan-level information on the characteristics of mortgages purchased by the GSEs—the GSEs themselves and HMDA data. The GSEs provide detailed data on their mortgage purchases to HUD on an annual basis. As part of their annual HMDA reporting responsibilities, lenders are required to indicate whether their new mortgage originations or purchased loans are sold to Fannie Mae, Freddie Mac or some other entity. As discussed later, there have been numerous studies by HUD staff and other researchers that use the HMDA data to compare the borrower and neighborhood characteristics of loans sold to the GSEs with the characteristics of all loans originated in the market. The question is whether the HMDA data, which is widely available to the public, provides an accurate measure of GSE performance, as compared with the GSEs' own data.¹⁶¹ Fannie Mae has argued that HMDA data have understated its past performance, where performance is defined as the percentage of Fannie Mae's mortgage purchases accounted for by one of the goal-qualifying categories such as underserved areas. As explained below, HMDA provided reliable national-level information through 1997 on the GSEs' purchases of newly-originated loans but not on their purchases of prior-year loans. In 1998, HMDA data differed from data that the GSEs reported to HUD on their purchases of newly-originated loans.

In any given calendar year, the GSEs can purchase mortgages originated in that calendar year or mortgages originated in a

¹⁵⁴ Subsections b–d of this section focus on the single-family mortgage market for home purchase loans, which is the relevant market for analysis of homeownership opportunities. Subsection e extends the analysis to include single-family refinance loans. For a discussion of past performance in the multifamily mortgage market, see Section D of this Appendix.

¹⁵⁵ Thus, the market definition in this section is narrower than the data presented earlier in Section C and Tables A.1a and A.1b, which covered all loans (both government and conventional) less than or equal to the conforming loan limit. In this section, only the GSEs' purchases of conventional conforming loans are considered.

¹⁵⁶ Higher limits apply for loans on 2-, 3-, and 4-unit properties and for properties in Alaska, Hawaii, Guam, and the Virgin Islands.

¹⁵⁷ “Jumbo mortgages” in any given year might become eligible for purchase by the GSEs in later years as the loan limits rise and the outstanding principal balance is reduced.

¹⁵⁸ However, in analyzing the provision of mortgage finance more generally, it is often appropriate to include government loans; see Tables A.1a, A.1b and A.2 in Section C.3.b.

¹⁵⁹ *Fair Lending/CRA Compass*, (June 1999), p. 3.

¹⁶⁰ Randall M. Scheessele developed a list of 42 subprime lenders that was used by HUD and others in analyzing HMDA data through 1997. In 1998, Scheessele updated the list to 200 subprime lenders. For analysis comparing various lists of subprime lenders, see Appendix D of Scheessele (1999), op. cit. That paper also discusses Scheessele's lists of manufactured housing lenders.

¹⁶¹ See Randall M. Scheessele, *HMDA Coverage of the Mortgage Market*, Housing Finance Working Paper HF-007, Office of Policy Development and Research, Department of Housing and Urban Development, July 1998. Scheessele reports that HMDA data covered 81.6 percent of the loans acquired by Fannie Mae and Freddie Mac in 1996. The main reason for the under-reporting of GSE acquisitions is a few large lenders failed to report the sale of a significant portion of their loan originations to the GSEs. Also see Jim Berkovec and Peter Zorn, “Measuring the Market: Easier Said than Done,” *Secondary Mortgage Markets*. McLean VA: Freddie Mac (Winter 1996), pp. 18–21.

prior calendar year. In 1997, purchases of prior-year mortgages accounted for 30 percent of the single-family units financed by Fannie Mae's mortgage purchases and 20 percent of the single-family units financed by Freddie Mac's mortgage purchases.¹⁶² HMDA data provides information mainly on newly-originated mortgages that are sold to the GSEs—that is, HMDA data on loans sold to the GSEs will not include many of their

¹⁶² Since 1993, the GSEs have increased their purchases of seasoned loans. See Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996–1997 Update*, Housing Finance Working Paper HF–006, Office of Policy Development and Research, Department of Housing and Urban Development, (August 1998), p.17.

purchases of prior-year loans.¹⁶³ The implications of this for measuring GSE performance can be seen in Tables A.3 and A.4a.¹⁶⁴

Table A.3 summarizes affordable lending by the GSEs, depositories and the conforming market for the six-year period between 1993 and 1998 and for the borrower and census tract characteristics covered by the housing goals. The GSE percentages presented in Table A.3 are derived from the GSEs' own

¹⁶³ For a discussion of the impact of the GSEs' seasoned mortgage purchases on HMDA data coverage, see Scheessele (1998), op. cit.

¹⁶⁴ Table A.4b, which reports similar GSE information as Table A.4a, provides several alternative estimates of the conventional conforming market depending on the treatment of small loans, manufactured housing loans, and subprime loans. The data in Table A.4b will be referenced throughout the discussion.

data that they provide to HUD, while the depository and market percentages are taken from HMDA data. Annual data on the borrower and census tract characteristics of GSE purchases are provided in Table A.4a. According to Fannie Mae's own data, 9.9 percent of its purchases during 1997 were loans for very low-income borrowers (see Table A.4a). According to HMDA data (also reported in Table A.4a), only 8.8 percent of Fannie Mae's purchases were loans for very low-income borrowers.¹⁶⁵ Thus, in this case the HMDA data underestimate the share of Fannie Mae's mortgage purchases for very low-income borrowers.

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¹⁶⁵ Any HMDA data reported in the appendices on borrower incomes excludes loans where the loan-to-borrower-income ratio is greater than six.

Table A.3

**GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1993-1998**

Borrower and Tract Characteristics	Fannie Mae	Freddie Mac	Depository Portfolio	Conforming Market	
				Total	W/O Mfg Homes
<u>Very Low-Income</u>					
1993-1998	9.2 %	7.6 %	14.5 %	12.4 %	10.7 %
1993-1995	8.1	6.6	14.5	11.6	10.3
1996-1998	10.1	8.4	14.5	13.0	11.1
<u>Special Affordable</u>					
1993-1998	11.0	9.0	17.0	14.6	12.7
1993-1995	9.9	7.9	17.1	13.8	12.3
1996-1998	11.9	9.8	16.7	15.3	13.1
<u>Less than Area Median Income</u>					
1993-1998	37.4	33.8	43.6	41.8	39.4
1993-1995	36.3	32.4	44.1	40.8	39.0
1996-1998	38.4	34.9	43.1	42.6	39.6
<u>Underserved Area</u>					
1993-1998	22.9	19.7	26.3	24.5	23.4
1993-1995	22.9	19.4	26.8	24.0	23.2
1996-1998	22.9	19.9	25.8	24.9	23.5

Source: The Fannie Mae and Freddie Mac data include information on all their purchases of home loans and are from the loan-level data that they provide to HUD. All mortgages are conventional conforming mortgages. The Depository Portfolio and Conforming Market data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations. The "Conforming Market W/O Mfg Homes" data for borrower income exclude loans less than \$15,000 and loans from lenders that primarily originate manufactured housing loans. Special affordable includes very low-income borrowers and low-income borrowers in low-income census tracts. Data with missing values are excluded.

Table A.4a

**Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-1998**

	Fannie Mae Data			HMDA Data for		Freddie Mac Data			HMDA Data for		Conforming Market	
	Prior		Current	Fannie Mae	%	Prior	Current	%	Freddie Mac	%	All	Mfg Homes
	Yr	Yr				Yr	Yr					
Very Low-Income												
1992	6.5 %	6.7 %	6.7 %	7.4	5.2 %	4.2 %	6.2 %	6.0 %	5.3 %	8.7 %	8.7 %	7.6 %
1993	7.9	8.9	8.7	9.4		6.4	6.8	6.7	6.6	10.8	10.8	9.6
1994	11.2	8.9	9.3	8.5		7.7	6.8	7.0	7.8	11.9	11.9	10.7
1995	8.8	8.4	8.5	8.7		7.2	7.4	7.4	7.5	12.0	12.0	10.5
1996	13.4	8.7	9.9	8.8		7.5	7.6	7.6	8.0	12.7	12.7	10.8
1997	15.1	10.5	11.4	9.2		10.1	9.8	9.9	8.4	13.0	13.0	11.0
1998										13.3	13.3	11.4
Special Affordable												
1992				6.3					6.5	10.4	10.4	9.3
1993	8.2	8.1	8.1	8.8		5.1	7.4	7.2	7.8	12.6	12.6	11.3
1994	9.5	10.8	10.6	11.4		7.6	8.1	8.0	9.2	14.1	14.1	12.8
1995	13.2	10.8	11.2	10.5		9.1	8.2	8.3	8.9	14.4	14.4	12.7
1996	10.6	10.2	10.3	10.5		8.4	8.7	8.7	9.4	15.0	15.0	12.8
1997	16.0	10.2	11.7	10.5		9.2	9.0	9.0	9.4	15.3	15.3	13.0
1998	17.9	12.1	13.2	10.7		11.8	11.2	11.3	9.7	15.5	15.5	13.4
Less Than Area Median Income												
1992				29.2					28.7	34.4	34.4	33.0
1993	30.4	33.5	33.2	35.0		24.9	32.1	31.6	32.3	38.9	38.9	37.4
1994	35.6	38.9	38.3	40.1		31.5	33.6	33.2	35.6	41.8	41.8	40.3
1995	38.6	37.7	37.8	37.1		33.6	32.1	32.4	33.9	41.4	41.4	39.2
1996	35.5	36.8	36.5	37.7		31.8	33.5	33.2	35.3	42.2	42.2	39.4
1997	41.1	36.4	37.6	37.5		33.7	34.2	34.1	35.4	42.5	42.5	39.6
1998	45.3	39.2	40.4	38.1		36.1	37.0	36.9	36.2	43.0	43.0	40.4
Underserved Areas												
1992				18.3					18.6	22.2	22.2	21.5
1993	23.8	19.4	20.3	18.2		19.5	18.2	18.4	17.6	21.9	21.9	21.1
1994	26.6	23.6	24.3	22.5		21.0	19.4	19.7	19.2	24.4	24.4	23.5
1995	27.4	23.9	24.7	22.8		22.6	19.4	20.1	19.1	25.5	25.5	24.2
1996	23.4	21.9	22.3	21.6		22.3	19.1	19.7	19.0	25.0	25.0	23.1
1997	30.1	20.8	23.5	21.0		22.2	19.3	19.9	18.6	25.2	25.2	23.3
1998	28.4	21.0	22.9	19.6		22.0	19.5	20.0	17.4	24.6	24.6	22.8

Source: The Fannie Mae and Freddie Mac data for their purchases of "Prior Year" mortgages, "Current Year" mortgages, and "All" mortgages are from the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The "HMDA Data" are those mortgages that HMDA identifies as being sold to the GSEs. The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from the borrower income calculations. The "Conforming Market W/O Mfg Homes" data exclude loans less than \$15,000 and loans from lenders that primarily originate manufactured housing loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

Table A.4b

**Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-1998
Various Market Definitions**

		Conventional Conforming Market Originations							W/O Subprime and Less Than \$15K Loans
		Fannie Mae Purchases	Freddie Mac Purchases	Total Market	W/O Mfg Loans Only	W/O Loans Less Than \$15K	W/O Mfg and Less Than \$15K Loans	W/O Subprime Loans	
		5.2 %	5.3 %	8.7 %	8.3 %	7.9 %	7.6 %	8.7 %	7.9 %
Very Low-Income									
	1992	6.7	6.0	10.8	10.2	10.0	9.6	10.8%	10.0
	1993	8.7	6.7	11.9	11.2	11.2	10.7	11.9%	11.2
	1994	9.3	7.0	12.0	11.0	11.3	10.5	12.0%	11.2
	1995	8.5	7.4	12.7	11.2	12.0	10.8	12.7%	12.0
	1996	9.9	7.6	13.0	11.4	12.4	11.0	13.0%	12.3
	1997	11.4	9.9	13.3	11.7	12.8	11.4	13.1%	12.6
	1998								
Special Affordable									
	1992	6.3	6.5	10.4	10.0	9.5	9.3	10.4	9.5
	1993	8.1	7.2	12.6	12.0	11.8	11.3	12.6	11.8
	1994	10.6	8.0	14.1	13.4	13.4	12.8	14.1	13.3
	1995	11.2	8.3	14.4	13.3	13.6	12.7	14.4	13.6
	1996	10.3	8.7	15.0	13.3	14.2	12.8	15.0	14.2
	1997	11.7	9.0	15.3	13.5	14.6	13.0	15.2	14.5
	1998	13.2	11.3	15.5	13.7	15.0	13.4	15.2	14.7
Less Than Area Median Income									
	1992	29.2	28.7	34.4	33.8	33.4	33.0	34.4	33.4
	1993	33.2	31.6	38.9	38.0	38.1	37.4	38.9	38.0
	1994	38.3	33.2	41.8	40.8	41.1	40.3	41.8	41.1
	1995	37.8	32.4	41.4	39.8	40.5	39.2	41.3	40.3
	1996	36.5	33.2	42.2	39.9	41.1	39.4	42.2	41.4
	1997	37.6	34.1	42.5	40.1	41.8	39.6	42.4	41.6
	1998	40.4	36.9	43.0	40.7	42.5	40.4	42.6	42.1
Underserved Areas									
	1992	18.3	18.6	22.2	21.9	21.7	21.5	22.1	21.6
	1993	20.3	18.4	21.9	21.5	21.5	21.1	21.8	21.3
	1994	24.3	19.7	24.4	23.9	24.0	23.5	24.3	23.8
	1995	24.7	20.1	25.5	24.6	25.0	24.2	25.3	24.9
	1996	22.3	19.7	25.0	23.5	24.5	23.1	24.8	24.4
	1997	23.5	19.9	25.2	23.7	24.8	23.3	24.7	24.3
	1998	22.9	20.0	24.6	23.1	24.3	22.8	23.7	23.4

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from all borrower income calculations. See the text for an explanation of the adjustments for manufactured housing (mfg) and subprime loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

The reason that HMDA data underestimate those purchases can be seen by disaggregating Fannie Mae's purchases during 1997 into their "Prior Year" and "Current Year" components. Table A.4a shows that the overall figure of 9.9 percent for very low-income borrowers is a weighted average of 13.4 percent for Fannie Mae's purchases during 1997 of "Prior Year" mortgages and 8.7 percent for its purchases of "Current Year" purchases. HMDA data report that 8.8 percent of Fannie Mae's 1997 purchases consisted of loans to very low-income borrowers is based mainly on newly-mortgaged (current-year originations) loans that lenders report they sold to Fannie Mae. Therefore, the HMDA data figure is similar in concept to the "Current Year" percentage from the GSEs' own data. As Table A.4a shows, HMDA data and "Current Year" figures are practically the same in this case (about nine percent). Thus, the relatively large share of very low-income mortgages in Fannie Mae's 1997 purchases of "Prior Year" mortgages is the primary reason why Fannie Mae's own data show an overall (both prior-year and current-year) percentage of very low-income loans that is higher than that reported in HMDA data.

A review of the data in Table A.4a yields the following insights about the reliability of HMDA data at the national level for metropolitan areas. First, comparing the HMDA data on GSE purchases with the GSE "Current Year" data suggests that HMDA data provided reasonable estimates of the GSEs' current year purchases through 1997.¹⁶⁶ Second, the HMDA data percentages through 1997 are actually rather close to Freddie Mac's overall percentages because Freddie Mac's prior-year purchases often resembled their current-year originations. Fannie Mae, on the other hand, was more apt to purchase seasoned loans with a relatively high percentage of low-income loans, which means that HMDA data was more likely to underestimate its overall performance. However, this underestimation of the share of Fannie Mae's goal-qualifying loans in the HMDA data first arose in 1997, when Fannie Mae's purchases of prior-year loans were particularly targeted to affordable lending groups. For the years 1993 to 1996, Fannie Mae's prior-year loan purchases more closely resembled their current-year originations.

Third, the 1998 data show that even the GSEs' "Current Year" data differ from the HMDA-reported data on GSE purchases. For example, special affordable loans accounted for 12.1 percent of Fannie Mae's current-year

purchases in 1998 compared with only 10.7 percent of Fannie Mae's special affordable purchases as reported by HMDA. Similarly, underserved areas accounted for 21.0 percent of Fannie Mae's current-year purchases compared with only 19.6 percent of Fannie Mae's underserved area purchases as reported by HMDA. The same patterns exist for Freddie Mac's 1998 data for the special affordable and underserved area categories. Thus, 1998 HMDA data do not provide a reliable estimate at the national level of the GSEs' purchases of current-year (newly-mortgaged) loans. More research on this issue is needed.

The next section compares the GSE performance with that of the overall market. The fact that the GSE data includes prior-year as well as current-year loans, while the market data includes only current-year originations, means that the GSE-versus-market comparisons are defined somewhat inconsistently for any particular calendar year. Each year, the GSEs have newly-originated affordable loans available for purchase, but they can also purchase loans from a large stock of seasoned loans currently being held in the portfolios of depository lenders. Depository lenders have originated a large number of CRA-type loans over the past six years and many of them remain on their books. In fact, HUD has encouraged the GSEs to purchase seasoned, CRA-type loans that have demonstrated their creditworthiness. One method for making the data more consistent is to aggregate the data over several years, instead of focusing on annual data. This provides a clearer picture of the types of loans that have been originated and are available for purchase by the GSEs. This approach is taken in Table A.3.

c. Affordable Lending by the GSEs and the Primary Market

Table A.3 summarizes goal-qualifying lending by the GSEs, depositories and the conforming market for the six-year period between 1993 and 1998 and for the more recent 1996–98 period, which covers the period since the most recent housing goals have been in effect. As noted above, the data are aggregated over time to provide a clearer picture of how the GSEs' purchases of both current-year and prior-year loans compare with the types of mortgages that have been originated during the past few years. All of the data are for home purchase mortgages in metropolitan areas. Several points stand out concerning the affordable lending performance of Freddie Mac and Fannie Mae.

Freddie Mac. The data in Table A.3 show that Freddie Mac has substantially lagged both Fannie Mae and the primary market in funding affordable home loans. Between 1993 and 1998, 7.6 percent of Freddie Mac's mortgage purchases were for very low-income borrowers, compared with 9.2 percent of Fannie Mae's purchases, 14.5 percent of loans originated and retained by depositories, and 12.4 percent of loans originated in the conforming market (or 10.7 percent if manufactured home loans are excluded from the conforming market definition).¹⁶⁷ As shown by the annual data

reported in Table A.4a, Freddie Mac did improve its funding of very low-income borrowers during this period, from 6.0 percent in 1993 to 7.6 percent in 1997, and then to 9.9 percent in 1998. However, Freddie Mac has not made as much progress as Fannie Mae (discussed below) in closing the gap between its performance and that of the overall market. During the 1996–98 period in which the new goals have been in effect, the ratio of Freddie Mac's average performance (8.4 percent) to that of the overall market (13.0 percent) was only 0.65; this "Freddie-Mac-to-market" ratio remains at only 0.76 even when manufactured homes are excluded from the market definition.

A similar conclusion about Freddie Mac's performance can be drawn for the other goal-qualifying categories presented in Tables A.3 and A.4a: Freddie Mac's performance has remained well below the market since 1993. For example, during the 1996–98 period when the new housing goals have been in effect, mortgages financing properties in underserved areas accounted for only 19.9 percent of Freddie Mac's purchases, compared with 22.9 percent of the loans purchased by Fannie Mae and 24.9 percent of the mortgages originated in the conforming market. Similarly, mortgages originated for low- and moderate-income borrowers represented 34.9 percent of Freddie Mac's purchases during this period, compared with 42.6 percent of all mortgages originated in the conforming market.

One encouraging sign for Freddie Mac is that the borrower-income categories showed a rather large increase between 1997 and 1998. Special affordable (low-mod) loans increased from 9.0 (34.1) percent in 1997 to 11.3 (36.9) percent in 1998. The reasons for this increase require further study, but certainly, an interesting question going forward is whether Freddie Mac can continue this 1997–98 pattern and thus further close its performance gap relative to the overall market. It is somewhat surprising that Freddie Mac's purchases of home loans in underserved areas did not increase (in percentage terms) between 1997 and 1998; as shown in Table A.4a, the underserved areas share of Freddie Mac's home loan purchases has remained constant at approximately 20 percent since 1994.

Fannie Mae. The data in Table A.3 show that Fannie Mae has also lagged depositories and the primary market in the funding of homes for lower-income borrowers and underserved neighborhoods. Between 1993 and 1998, 37.4 percent of Fannie Mae's purchases were for low- and moderate-income borrowers, compared with 43.6 percent of loans originated and retained by depositories and with 41.8 percent of loans originated in the primary market. Over the more recent 1996–98 period, 22.9 percent of Fannie Mae's purchases financed properties in underserved neighborhoods, compared with 25.8 percent of loans originated by depositories and 24.9 percent of loans

housing" exclude loans less than \$15,000 as well as all loans originated by lenders that primarily originate manufactured housing loans. See Table A.4b for market definitions that show the separate effects of excluding small loans and manufactured housing loans.

¹⁶⁶ For example, in 1997 Fannie Mae reported that 20.8 percent of the loans they purchased, that were originated during 1997, were for properties in underserved area. HMDA reports that 21.0 percent of the loans sold to Fannie Mae during 1997 were for properties in underserved areas. The corresponding numbers for Freddie Mac, in 1997, are 19.3 percent reported by them and 18.6 percent reported by HMDA. During 1997, both Fannie Mae and HMDA reported that approximately 37 percent of the "current year" loans purchased by Fannie Mae were for low- and moderate-income borrowers. Freddie Mac reported that 34.2 percent of the current year loans they purchased were for low- and moderate-income borrowers, compared to the 35.4 low-mod percent that HMDA reported as sold to Freddie Mac.

¹⁶⁷ The borrower income distributions in Tables A.3 and A.4a for the "market without manufactured

originated in the conventional conforming market.

However, Fannie Mae's affordable lending performance can be distinguished from Freddie Mac's. First, Fannie Mae has performed much better than Freddie Mac on every goal-category examined here. For example, home loans for special affordable loans accounted for 13.2 percent of Fannie Mae's purchases in 1998, compared with only 11.3 percent of Freddie Mac's purchases (see Table A.4a). In that same year, 22.9 percent of Fannie Mae's purchases were in underserved census tracts, compared with only 20.0 percent of Freddie Mac's purchases.

Second, Fannie Mae has improved its performance over the past six years and has made more progress than Freddie Mac in closing the gap between its performance and the market's performance on the goal-qualifying categories examined here. In fact, Fannie Mae's performance is now close to that of the primary market for some important components of affordable lending. For example, in 1992, very low-income loans accounted for 5.2 percent of Fannie Mae's purchases and 8.7 percent of all loans originated in the conforming market, giving a "Fannie Mae-to-market" ratio of 0.60. By 1998, this ratio had risen to 0.86, as very low-income loans had increased to 11.4 percent of Fannie Mae's purchases and to 13.3 percent of market originations.

A similar trend in market ratios can be observed for Fannie Mae on the underserved areas category. Fannie Mae has been improving its performance relative to the market; for example, the "Fannie-Mae-to-market" ratio for underserved areas increased from 0.82 in 1992 to 0.93 in 1998. This improved performance relative to the overall market by Fannie Mae is in sharp contrast to Freddie Mac's record—the "Freddie-Mac-to-market" ratio for underserved areas actually declined, from 0.84 in 1992 to 0.81 in 1998. As a result, Fannie Mae has been approaching the home loan market in underserved areas while Freddie Mac has been losing ground relative to overall primary market.

B&C Home Purchase Loans. As explained earlier, HMDA does not identify subprime loans, much less separate them into their A-minus and B&C components. Randall Scheessele at HUD has identified 200 HMDA reporters that primarily originate subprime loans and probably accounted for at least half of the subprime market during 1998.¹⁶⁸ As shown in Table A.4b, excluding the home purchase loans originated by these lenders from the primary market data has only minor effects on the goal-qualifying shares of the market. The average market percentages for 1998 are reduced as follows: low- and moderate-income (43.0 to 42.6 percent); special affordable (15.5 to 15.2 percent); and underserved areas (24.6 to 23.7 percent). As explained earlier, the effects are minor

mostly because this analysis focuses on home purchase loans, which accounted for only 20 percent of the mortgages originated by these 200 subprime lenders—the subprime market has been mainly a refinance market.

d. Prior-Year Loans

An important source of the differential in affordable lending between Fannie Mae and Freddie Mac concerns the purchase of prior-year loans. As shown in Table A.4a, the prior-year mortgages that Fannie Mae has been recently purchasing are much more likely to be loans for lower-income families and underserved areas than the newly-originated mortgages that they have been purchasing. For example, 30.1 percent of Fannie Mae's 1997 purchases of prior-year mortgages were loans financing properties in underserved areas, compared with 20.8 percent of its purchases of newly-originated mortgages. These purchases of prior-year mortgages are one reason that Fannie Mae improved its performance relative to the primary market, which includes only newly-originated mortgages, in 1997. Sixteen percent of its prior-year mortgages qualified for the Special Affordable Goal, compared with only 10.2 percent of its purchases of newly-originated loans. The same patterns are exhibited by the 1998 data. For example, 17.9 percent of Fannie Mae's prior-year purchases during 1998 qualified for the Special Affordable Goal, compared with only 12.1 percent of its 1998 purchases of newly-originated loans. Fannie Mae seems to be purchasing affordable loans that were originated by portfolio lenders in previous years.

Freddie Mac, on the other hand, does not seem to be pursuing such a strategy, or at least not to the same degree as Fannie Mae. In 1997 and 1998, Freddie Mac's purchases of prior-year mortgages and its purchases of newly-originated mortgages had similar percentages of special affordable and low- and moderate-income borrowers. As Table A.4a shows, there is a small differential between Freddie Mac's prior-year and newly-originated mortgages for the underserved areas category but it is much smaller than the differential for Fannie Mae. Thus, Freddie Mac's purchases of prior-year mortgages are less likely to qualify for the housing goals, and this is one reason Freddie Mac's overall affordable lending performance is below Fannie Mae's.

e. GSE Purchases of Total (Home Purchase and Refinance) Loans

The above sections have examined the GSEs' acquisitions of home purchase loans, which is appropriate given the importance of the GSEs for expanding homeownership opportunities. To provide a complete picture of the GSEs' mortgage purchases in metropolitan areas, this section briefly considers the GSEs' purchases of all single-family-owner mortgages, including both home purchase loans and refinance loans.¹⁶⁹

Shifting the analysis to consider all (home purchase and refinance) mortgages does not change the basic finding that both GSEs lag the primary market in serving low-income borrowers and underserved neighborhoods. For example, in 1998 underserved areas accounted for 21.2 (20.9) percent of Fannie Mae's (Freddie Mac's) purchases, compared to approximately 25.0 percent for both depository institutions and the overall primary market. Similarly, special affordable loans accounted for 11.1 (10.9) percent of Fannie Mae's (Freddie Mac's) purchases of single-family-owner loans, compared to 14.9 percent for depository institutions and 14.3 percent for the overall primary market.

There are two changes when one shifts the analysis from only home purchase loans to include all mortgages—one concerning the relative performance of Fannie Mae and Freddie Mac and one concerning the impact of subprime mortgages on the goal-qualifying percentages. These are discussed next.

Fannie Mae versus Freddie Mac Performance. As indicated by the above percentages, the borrower-income comparisons between Fannie Mae and Freddie Mac change when the analysis switches from their acquisitions of only home purchase loans to their acquisitions of both home purchase and refinance loans. Consider the special affordable income category for 1997 and 1998. As shown in Table A.4a, special affordable loans accounted for a much higher percentage of Fannie Mae's acquisitions of home purchase loans than of Freddie Mac's in each of these two years. Similarly, in 1997, special affordable loans accounted for 11.5 percent of Fannie Mae's total (both home purchase and refinance) purchases, compared with 9.9 percent of Freddie Mac's total purchases. However, between 1997 and 1998, the special affordable percentage of Freddie Mac's total purchases increased from 9.9 percent to 10.9 percent, while the corresponding percentage for Fannie Mae actually declined from 11.5 percent to 11.1 percent. Thus, in 1998, Freddie Mac's overall special affordable percentage (10.9 percent) was approximately the same as Fannie Mae's (11.1 percent).

Further analysis shows that this improvement of Freddie Mac relative to Fannie Mae was due to Freddie Mac's better performance on refinance loans during 1998. The special affordable percentage of Fannie Mae's refinance loans fell from 11.1 percent in 1997 to 9.7 percent in 1998, which is not surprising given that middle- and upper-income borrowers typically dominate heavy refinance markets such as 1998. But the special affordable percentage of Freddie Mac's refinance loans did not drop very much, falling from 11.3 percent in 1997 to 10.7 percent in 1998.¹⁷⁰ Thus, Freddie Mac's

¹⁶⁸ See Scheessele (1999), op. cit. As explained in Appendix D of Scheessele's paper, the number of subprime lenders varies by year; the 200 figure cited in the text applies to 1998. The number of loans identified as subprime in these appendices is the same as reported by Scheessele in Table D.2b of his paper.

¹⁶⁹ Table A.1b in Section C.3.b provides several comparisons of the GSE's total purchases with primary market originations. As shown there, many of the same patterns described above for home purchase loans can be seen in the data for the GSEs' total purchases.

¹⁷⁰ In general, the HMDA-reported affordability percentages for GSE purchases of refinance loans have matched the corresponding GSE-reported percentages. For example, in 1997, both GSEs reported to HUD that special affordable loans accounted for about 11 percent of their purchases of refinance loans in metropolitan areas; HMDA reported the same percentage for each GSE. Similarly, in 1998, both HMDA and Fannie Mae

higher special affordable percentage (10.7 percent versus 9.7 percent for Fannie Mae) on refinance loans in 1998 enabled Freddie Mac to close the gap between its overall single-family performance and that of Fannie Mae.

The GSEs' underserved areas percentages followed a somewhat similar pattern as their special affordable percentages between 1997 and 1998. In 1997, Freddie Mac's underserved area percentage (21.6 percent) for total purchases was significantly less than Fannie Mae's (23.6), but in 1998, Freddie Mac's underserved areas percentage (20.9) was about the same as Fannie Mae's (21.2 percent). This convergence was mainly due to a sharper decline in Fannie Mae's underserved area percentage for refinance loans between 1997 and 1998.

B&C Loans. Section E.2.c showed that the estimates for the home purchase market did not change much when loans for subprime lenders were excluded from the HMDA analysis; the reason was that these lenders operate primarily in the refinance market. In this section's analysis of the total market (including refinance loans), one would expect the treatment of subprime lenders to significantly affect the market estimates. For the year 1997, excluding subprime lenders reduced the goal-qualifying shares of the total market as follows: special affordable (from 16.3 to 14.8 percent); low-mod (from 43.6 to 41.9 percent); and underserved areas (from 27.8 to 25.5 percent). Similarly, for the year 1998, excluding 200 subprime lenders reduced the goal-qualifying shares of the total market as follows: special affordable (from 14.3 to 12.7 percent); low-mod (from 41.0 to 39.0 percent); and underserved areas (from 24.8 to 22.6 percent). As discussed earlier,

reported that special affordable loans accounted for 9.7 percent of Fannie Mae's refinance purchases. However, in 1998, the Freddie-Mac-reported special affordable percentage (10.7 percent) for its refinance loans was significantly higher than the corresponding percentage (9.5 percent) reported in the HMDA data. The reasons for this discrepancy require further study.

the GSEs have been entering the subprime market over the past two years, particularly the A-minus portion of that market. Industry observers estimate that A-minus loans account for at least half of all subprime loans while the more risky B&C loans account for the remaining half. Thus, one proxy for excluding B&C loans originated by the 200 specialized lenders from the overall market benchmark might be to reduce the goal-qualifying percentages from the HMDA data by half the above differentials; accounting for B&C loans in this manner would reduce the 1998 HMDA-reported goal-qualifying shares of the total conforming market as follows: special affordable (from 14.3 to 13.5 percent); low-mod (from 41.0 to 40.0 percent); and underserved areas (from 24.8 to 23.7 percent). However, as discussed in Appendix D, much uncertainty exists about the size of the subprime market and its different components. More data and research are obviously needed on this growing sector of the mortgage market.¹⁷¹

f. GSE Mortgage Purchases in Individual Metropolitan Areas

While the above analyses, as well as earlier studies,¹⁷² concentrate on national-level data, it is also instructive to compare the GSEs' purchases of mortgages in individual metropolitan areas (*e.g.* MSAs). In this section, the GSEs' purchases of single-family owner-occupied home purchase loans are compared to the market in individual MSAs.¹⁷³ To do so, total primary market mortgage originations from two years, 1995 and 1996, are summed up by year, by MSA,

¹⁷¹ The Mortgage Information Corporation (MIC) has recently started publishing origination and default performance data for the subprime market. For an explanation of their data and some early findings, see Dan Feshbach and Michael Simpson, "Tools for Boosting Portfolio Performance", *Mortgage Banking: The Magazine of Real Estate Finance*, (October 1999), pp. 137-150.

¹⁷² For example, see Bunce and Scheessele (1996 and 1998), *op. cit.*

¹⁷³ This analysis is limited to the conventional conforming market.

and for GSE purchases of these loans. The GSEs' purchases of 1995 originations include all 1995 originations purchased by each GSE between 1995 and 1998 from 324 MSAs. For their purchases of 1996 originations, all 1996 originations purchased between 1996 and 1998 from 326 MSAs are included. This should cover 90 to 95 percent of the 1995 and 1996 originated loans that will be purchased by the GSEs, thus making the GSE data comparable to HMDA market data. The loans are then grouped by the GSE housing goal categories for which they qualify and the ratio of the housing goal category originations to total originations in each MSA is calculated for each GSE and the market. The GSE-to-market ratio is then calculated by dividing each GSE ratio by the corresponding market ratio. For example, if it is calculated that one of the GSEs' purchases of Low- and Moderate-Income loans in a particular MSA is 47 percent of their overall purchases in that MSA, while 49 percent of all originations in that MSA are Low-Mod, then that GSE-to-market ratio is 47/49 (or 0.96).

Table A.5 shows the performance of the GSEs by MSA for 1995 and 1996 originations of home purchase loans. A GSE's performance is determined to be lagging the market if the ratio of the GSE housing goal loan purchases to their overall purchases is less than 99 percent of that same ratio for the market.¹⁷⁴ For the above example, that GSE is considered to be lagging the market. These results are then summarized in Table A.5, which reports the number of MSAs in which each GSE under-performs the market with respect to the housing goal categories.

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¹⁷⁴ This analysis was also conducted where the "lag" determination is made at 95 percent. The results are consistent with those shown in Table A.5. For example, at the 95 percent cutoff, Fannie Mae lagged the market in 275 MSAs (85 percent) in the purchase of 1995 originated Special Affordable category loans. Likewise, Freddie Mac lagged the market in 320 MSAs (99 percent).

Table A.5

**Analysis of GSEs' Purchases Across MSAs
by Housing Goal Category**

1995 Originations						
	Underserved Areas		Low-Mod Income		Special Affordable	
Number of MSAs Analyzed	324	100.0%	324	100.0%	324	100.0%
Fannie Mae lags the Market	239	73.8%	264	81.5%	287	88.6%
Freddie Mac lags the Market	300	92.6%	319	98.5%	321	99.1%
Fannie Mae lags Freddie Mac	65	20.1%	26	8.0%	37	11.4%
Freddie Mac lags Fannie Mae	245	75.6%	295	91.0%	281	86.7%
1996 Originations						
	Underserved Areas		Low-Mod Income		Special Affordable	
Number of MSAs Analyzed	326	100.0%	326	100.0%	326	100.0%
Fannie Mae lags the Market	266	81.6%	285	87.4%	295	90.5%
Freddie Mac lags the Market	297	91.1%	323	99.1%	323	99.1%
Fannie Mae lags Freddie Mac	95	29.1%	54	16.6%	57	17.5%
Freddie Mac lags Fannie Mae	220	67.5%	261	80.1%	259	79.4%

Source: Fannie Mae and Freddie Mac data include information on all of their purchases for the years 1995 through 1998 and are from the loan-level data they provide to HUD. The conforming market data are originations as reported by HMDA; loans with a loan-to-income ratio greater than six are excluded from Low-Mod Income and Special Affordable categories.

Notes: The GSE loans in this analysis include all single-family owner-occupied conventional conforming home purchase mortgages in metropolitan areas (as defined by OMB in 1995 or 1996) purchased by the GSE between 1995 (1996) and 1998 but were originated during 1995 (1996).

A GSE is determined to lag the market (other GSE) if the ratio of its category share to the market (other GSE) category share is less than 99%.

Exceptions to the "lag" determination:

When there are less than 5 reported category loans in the HMDA data and less than 5 category loans from only one of the GSEs, that GSE will count as approximating the market regardless of calculated ratio.

When there are more than 5 reported category loans in the HMDA data and less than 5 category loans from each of the GSEs, it will count as Fannie Mae approximating Freddie Mac regardless of calculated ratio.

For 1995 originations, Fannie Mae:
(i) Lagged the market in 239 (74 percent) of the MSAs in the purchase of Underserved Area loans,

(ii) Lagged the market in 264 (82 percent) of the MSAs in the purchase of Low- and Moderate-Income loans, and

(iii) Lagged the market in 287 (89 percent) of the MSAs in the purchase of Special Affordable loans.

Freddie Mac lagged the market to an even greater extent in 1995. Specifically, the market outperformed Freddie Mac in:

(i) 300 (93 percent) of the MSAs in the purchase of Underserved Area loans,

(ii) 319 (99 percent) of the MSAs in the purchase of Low- and Moderate-Income loans, and

(iii) 321 (99 percent) of the MSAs in the purchase of Special Affordable loans.

Thus Freddie Mac was behind Fannie Mae in at least three-quarters of the MSAs for all

three goal categories. As shown in Table A.5, the results for loans originated in 1996 are similar.

g. High Down Payments on GSEs' Lower-Income Loans

Recent studies have raised questions about whether the lower-income loans purchased by the GSEs are adequately meeting the needs of some lower-income families. In particular, the lack of funds for down payments is one of the main impediments to homeownership, particularly for many lower-income families who find it difficult to accumulate enough cash for a down payment. As this section explains, a noticeable pattern among lower-income loans purchased by the GSEs is the predominance of loans with high down payments.

HUD's 1996 report to Congress on the possible privatization of Fannie Mae and Freddie Mac¹⁷⁵ found, rather surprisingly, that the mortgages taken out by lower-income

borrowers and purchased by the GSEs were as likely to have high down payments as the mortgages taken out by higher-income borrowers and purchased by the GSEs. For example, considering the GSEs' purchases of home purchase loans in 1995, 58 percent of very low-income borrowers made a down payment of at least 20 percent, compared with less than 50 percent of borrowers from other groups. In addition, a surprisingly large percentage of the GSEs' first-time homebuyer loans had high down payments. In 1995, 35 percent of Fannie Mae's and 41 percent of Freddie Mac's first-time homebuyer loans had down payments of 20 percent or more.

Table A.6 presents similar data for the GSEs purchases total loans during 1997. Over three-fourths of the GSEs very low-income loans had a down payment more than 20 percent. Essentially, the GSEs have been purchasing lower-income loans with large down payments.¹⁷⁶

¹⁷⁵ *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility*. Office of Policy Development and Research, Department of Housing and Urban Development, (July 1996).

¹⁷⁶ The Treasury Department reached similar conclusions in its 1996 report on the privatization

of the GSEs, *Government Sponsorship of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation*, U.S. Department of the Treasury (July 11, 1996). Based on data such as the above, the Treasury Department questioned whether the GSEs were influencing the

availability of affordable mortgages and suggested that the lower-income loans purchased by the GSEs would have been funded by private market entities if the GSEs had not purchased them.

Table A.6
Down Payment Characteristics of GSE Purchases, 1997

<u>GSE Purchases</u>	<u>Size of Down Payment</u>				<u>Total ¹</u>
	<u>Less Than 5</u> <u>Percent Down</u>	<u>5 to 10</u> <u>Percent Down</u>	<u>10 to 20</u> <u>Percent Down</u>	<u>20 Percent or</u> <u>More Down</u>	
All Loans	36,703	328,467	365,981	1,638,798	2,369,949
Very- Low-Income Loans	7,841	19,945	20,129	158,584	206,499
Less- Than-Median Income Loans	28,383	105,245	114,604	599,257	847,489
<u>Percentage Distribution</u>					
All Loans	1.5%	13.9%	15.4%	69.1%	100.0%
Very- Low-Income Loans	3.8%	9.7%	9.7%	76.8%	100.0%
Less- Than-Median- Income Loans	3.3%	12.4%	13.5%	70.7%	100.0%

Source: Data include all owner-occupied one-unit mortgages (home purchase, refinance, and second loans) purchased by the GSEs in 1997.

¹ Loans with missing down payments are excluded.

The evidence is similar when the data are examined for each GSE separately. Between 1993 and 1997, 71 percent of all one-family owner-occupied loans bought by Fannie Mae, had an LTV less than or equal to 80 percent. Only 13 percent had an LTV greater than 90 percent (one percent with LTVs greater than 95 percent). For Freddie Mac, 75 percent of loans bought had an LTV less than or equal to 80 percent, while 10 percent had LTVs greater than 90 percent. Only one-eighth of one percent of Freddie Mac's loans had an LTV greater than 95 percent. For very low-income loans purchased by Fannie Mae, during the same period, 75 percent had a down payment greater than 20 percent. Large down payment loans accounted for 82 percent of Freddie Mac's purchases of very-low income borrower loans. Thus, these results are consistent with previous studies that show that the proportion of large down payment loans purchased by the GSEs from lower-income borrowers is greater than that for all loans purchases.¹⁷⁷

As discussed in Section C, Both Fannie Mae and Freddie Mac have introduced high-LTV products: "Flexible 97" and "Alt 97" respectively. By lowering the required down payment to three percent and adding flexibility to the source of the down payment, these loans should be more affordable. The down payment, as well as closing costs, can come from, gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets. However, in order to control default risk, these loans also have stricter credit history requirements.

Fed Study. An important study by three economists—Glenn Canner, Wayne Passmore and Brian Surette¹⁷⁸—at the Federal Reserve Board showed the implications of the GSEs' focus on high down payment loans. Canner, Passmore, and Surette examined the degree to which different mortgage market institutions—the GSEs, FHA, depositories and private mortgage insurers—are taking on the credit risk associated with funding affordable mortgages. The authors combined market share and down payment data with data on projected foreclosure losses to arrive at an estimate of the credit risk assumed by each institution for each borrower group. This study found that Fannie Mae and Freddie Mac together provided only 4 to 5 percent of the credit support for lower-income and minority borrowers and their neighborhoods. The relatively small role of the GSEs providing credit support is due to their low level of funding for these groups

and to the fact that they purchase mainly high down payment loans. FHA, on the other hand, provided about two-thirds of the credit support for lower-income and minority borrowers, reflecting FHA's large market shares for these groups and the fact that most FHA-insured loans have less-than-five-percent down payments.

3. Other Studies of the GSEs Performance Relative to the Market

This section summarizes briefly the main findings from other studies of the GSEs' affordable housing performance. These include studies by the HUD and the GSEs as well as studies by academics and research organizations.

a. Studies by Bunce and Scheessele

Harold Bunce and Randall Scheessele of the Department have published two studies of affordable lending. In December 1996, they published a study titled *The GSEs' Funding of Affordable Loans*.¹⁷⁹ This report analyzed HMDA data for 1992–95, including a detailed comparison of the GSEs' purchases with originations in the primary market. In July 1998, they updated their earlier study to analyze the mortgage market and the GSEs' activities in 1996.¹⁸⁰ The findings were largely similar in both studies:¹⁸¹

(i) Both GSEs lagged the primary conventional market, depositories, and (particularly) FHA in funding mortgages for lower-income and historically underserved borrowers. FHA stands out as the major funder of affordable loans. In 1996, approximately 30 percent of FHA-insured loans were for African-American and Hispanic borrowers, compared with only 10 percent of the loans purchased by the GSEs or originated in the conventional market.

(ii) The two GSEs show very different patterns of lending—Fannie Mae is much more likely than Freddie Mac to serve underserved borrowers and their neighborhoods. Since 1992, Fannie Mae has narrowed the gap between its affordable lending performance and that of the other lenders in the conforming market. Freddie Mac's improvement has been more mixed—in some cases it has improved slightly relative to the market but in other cases it has actually declined relative to the market. The findings with respect to Freddie Mac are similar to those discussed earlier in Section E.2.c.

¹⁷⁹ Harold L. Bunce and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans*, Housing Finance Working Paper HF-001, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (December 1996).

¹⁸⁰ Harold L. Bunce and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans: A 1996 Update*, Housing Finance Working Paper HF-005, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (July 1998), pp. 15–16.

¹⁸¹ Statistics cited are from Table B.1 of Bunce and Scheessele, (1998) and are based on sales to the GSEs as reported by lenders in accordance with the HMDA. "Lagging the market" means, for example, that the percentage of the GSEs' loans for very low- and low-income borrowers is less than the corresponding percentage for the primary market, depositories, and the FHA.

b. Studies by Freddie Mac

In 1995 Freddie Mac published *Financing Homes for A Diverse America*, which contained a wide variety of statistics and charts on the mortgage market. Several of the exhibits contained comparisons between the primary mortgage market and Freddie Mac's purchases in 1993 and 1994:

(i) While not asserting strict parity, this report presented comparable frequency distributions of primary market originations and Freddie Mac's purchases by borrower and census tract income, concluding that Freddie Mac "finances housing for Americans of all incomes" and it "buys mortgages from neighborhoods of all incomes."

(ii) With regard to minority share of census tracts, the report stated that Freddie Mac's "share of minority neighborhoods matches the primary market."

(iii) The report acknowledged that Freddie Mac's purchases did not match the primary market in terms of borrower race. It found that in 1994 African-Americans and Hispanics each accounted for 4.9 percent of the primary market but only 2.7 percent and 4.0 percent respectively of Freddie Mac's purchases. On the other hand, Whites and Asian Americans accounted for 83.7 percent and 3.2 percent of the primary market, but 86.3 percent and 3.9 percent respectively of Freddie Mac's acquisitions.

In its March 1998 Annual Housing Activities Report (AHAR) submitted to the Department and Congress, Freddie Mac presented data on this issue for 1996 and 1997. This report stated that its purchases "essentially mirror[ed] the overall distribution of mortgage originations in terms of borrower income." However, the data underlying Exhibit 4 of the AHAR indicated that the share of Freddie Mac's 1997 purchases for borrowers with income (in 1996 dollars) less than \$40,000 was more than 4 percentage points below the corresponding share for the primary market in 1996. A similar pattern prevailed in terms of census tract income—the data underlying Exhibit 5 of the AHAR indicated that the share of Freddie Mac's 1997 purchases in tracts with income in excess of 120 percent of area median income exceeded the corresponding share for the primary market in 1996 by about 4 percentage points.

In its March 1998 AHAR, Freddie Mac found a much closer match between the distributions of home purchase mortgages by down payment for Freddie Mac's 1997 acquisitions and the primary market in 1997, as the latter was reported by the Federal Housing Finance Board. Specifically, Exhibit 6 of the AHAR reported that 42 percent of borrowers in each category made down payments of less than 20 percent.¹⁸²

c. Studies by Fannie Mae

Fannie Mae has not published any studies on the comparability of its mortgage purchases with the primary market. However, in an October 1998 briefing for

¹⁸² Under their charter acts, loans purchased by the GSEs with down payments of less than 20 percent must carry private mortgage insurance or a comparable form of credit enhancement.

¹⁷⁷ See Glenn B. Canner, and Wayne Passmore, "Credit Risk and the Provision of Mortgages to Lower-Income and Minority Homebuyers," *Federal Reserve Bulletin*, 81 (November 1995), pp. 989–1016; Glenn B. Canner, Wayne Passmore and Brian J. Surette, "Distribution of Credit Risk among Providers of Mortgages to Lower-Income and Minority Homebuyers," *Federal Reserve Bulletin*, 82 (December 1996), pp. 1077–1102; Harold L. Bunce, and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans: A 1996 Update*, Housing Finance Working Paper HF-005, Office of Policy Development and Research, Department of Housing and Urban Development, (July 1998); and Manchester, (1998), p. 24.

¹⁷⁸ Canner, et al. (1996).

HUD staff, Fannie Mae presented the results of several comparisons of its purchases, based on the data supplied to the Department by Fannie Mae, with loans originated in the conventional conforming market, based on the HMDA data. In these analyses, Fannie Mae stated that:

(i) The percentage of Fannie Mae's home purchase loans serving minorities exceeded the corresponding percentage in the conventional conforming market by 2.6 percentage points in 1995, 2.0 percentage points in 1996, and 2.7 percentage points (18.6 percent vs. 15.9 percent) in 1997;

(ii) The percentage of Fannie Mae's home purchase loans for low- and moderate-income households exceeded the corresponding percentage in the conventional conforming market by 0.2 percentage point in 1995, fell 0.1 percentage point short of the market in 1996, but exceeded it again, by 1.2 percentage points (38.5 percent vs. 37.3 percent), in 1997;

(iii) The percentage of Fannie Mae's home purchase loans for households in underserved areas fell 0.04 percentage point short of the conventional conforming market in 1996, but exceeded the corresponding percentage in the conventional conforming market by 1.4 percentage points (25.5 percent vs. 24.1 percent) in 1997;

(iv) The percentage of Fannie Mae's home purchase loans for very low-income households and low-income households in low-income areas fell 1.0 percentage point short of the conventional conforming market in 1995 and 0.9 percentage point short in 1996, but exceeded the corresponding percentage in the conventional conforming market by 2.2 percentage points (12.7 percent vs. 10.5 percent) in 1997.

Some of these findings by Fannie Mae differ from those of other researchers. This is due in part to the fact that most other studies have utilized HMDA data for both the primary market and sales to the GSEs, but Fannie Mae compared the primary market, based on HMDA data, with the patterns in the GSE loan-level data submitted to the Department.^{183 184}

¹⁸³ It is generally agreed that HMDA does not capture all loans originated in the primary market—for example, small lenders need not report under HMDA. But Fannie Mae believes that the undercount is not spread uniformly across all borrower classes—in particular, it argues that the HMDA data exclude relatively more loans made to minorities and lower-income families.

¹⁸⁴ Bunce and Scheessele (1998) contained a comparison (Table A.1) of HMDA-reported and GSE-reported data on the characteristics of GSE mortgage purchases in 1996. In most cases the differences between the results utilizing the two different data sources were minimal, but in some cases (such as lending in underserved areas) the evidence lent some support to Fannie Mae's assertion that the HMDA data underreports their level of activity. The discrepancies between HMDA data and GSE data at the national level are also due to the seasonal loan effect (see Section E.2.e above and Table A.4a).

¹⁸⁵ John E. Lind. *Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac from the 1994 HMDA Data*. San Francisco: Caniccor. Report, (February 1996).

d. Other Studies

Lind. John Lind examines HMDA data in order to compare the GSEs' loan purchase activity to mortgage originations in the primary conventional conforming market.¹⁸⁵ Like other studies, Lind presents an aggregate comparison of GSE/primary market correspondence for Black, Hispanic, low-income borrowers, and low- and moderate-income Census tracts. Unlike other studies, however, Lind also examines market correspondence at the individual metropolitan area and regional levels.

Lind finds that the GSEs are not leading the market, but that Fannie Mae, in particular, improved its performance between 1993 and 1994. In 1994, Lind finds that the shares of Fannie Mae's home purchase loans to minority and low-income borrowers were comparable to the industry's shares. But the share of its home purchase loans for low- and moderate-income census tracts and the shares of Freddie Mac's home purchase loans for all categories examined trailed those for the industry as a whole. For refinance mortgages, on the other hand, both GSEs trailed the industry in terms of the shares of their loans for the groups analyzed. In a subsequent study, Lind found that the difference between the affordable lending performance of Fannie Mae and Freddie Mac was caused by differences in policy and operating procedures of the GSEs, and not differences in the make-up of their suppliers of loans.¹⁸⁶

Ambrose and Pennington-Cross. There exists a wide variation in the market shares of the GSEs, FHA and portfolio lenders across geographic mortgage markets. Brent Ambrose and Anthony Pennington-Cross analyze FHA, GSE and portfolio lender market shares to find insights into what factors affect the market shares for FHA eligible (under the FHA loan limit) loans.¹⁸⁷ They hypothesize that the GSEs try to mitigate higher perceived risks at the MSA level by tightening lending standards, generating a prediction of higher FHA market share in locations with characteristically higher or dynamically worsening risk. A second hypothesis is that market share of portfolio lenders increases in areas with higher risk due to "reputation effects" and GSE repurchase requirements. In their model, they account for cyclical risk, permanent risk, demographic, lender and regional differences.

Ambrose and Pennington-Cross found that the GSEs exhibit risk averse behavior as evidenced by lower GSE market presence in MSAs experiencing increasing risk and in MSAs that historically exhibit high-risk

¹⁸⁵ John E. Lind. *Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac from the 1994 HMDA Data*. San Francisco: Caniccor. Report, (February 1996).

¹⁸⁶ John E. Lind. *A Comparison of the Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac Portfolios by Supplier from the 1994 HMDA Data*. San Francisco: Caniccor. Report, (April 1996).

¹⁸⁷ Brent W. Ambrose and Anthony Pennington-Cross, *Spatial Variation in Lender Market Shares*, Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

tendencies. FHA market shares, in contrast, are associated with high or deteriorating risk conditions. Portfolio lenders increase their mortgage portfolios during periods of economic distress, but increase the sale of originations out of portfolio during periods of increasing house prices. Lenders in MSAs with historically high delinquency hold more loans in portfolio. MSA risk is therefore concentrated among portfolio lenders and in FHA, with the GSEs bearing relatively little credit risk of this kind. The study does find that, other things being equal, the GSEs do have a higher presence in underserved areas and in areas where the minority population is highly segregated.

MacDonald (1998). Heather MacDonald¹⁸⁸ examined the impact of the central city housing goal from HUD's 1993–1995 interim housing goals. Census tracts were clustered according to five variables (median house value, median house age, proportion of renters, percent minority and proportion of 2 to 4 units) argued to impede secondary market purchases of homes in some neighborhoods. Borrower characteristics and lending patterns were compared across the clusters of tracts, and across central city and suburban tracts. Clustered tracts were found to be more strongly related to a set of key lending variables than are tracts divided according to central city/suburban boundaries. MacDonald concludes that targeting affirmative lending requirements on the basis of neighborhood characteristics rather than political or statistical divisions may provide a more appropriate framework for efforts to expand access to credit.

MacDonald (1999). In a 1999 study, Heather MacDonald investigated variations in GSE market share among a sample of 426 nonmetropolitan counties in eight census divisions.¹⁸⁹ Conventional conforming mortgage originations were estimated using residential sales data, adjusted to exclude government-insured and nonconforming loans. Multivariate analysis was used to investigate whether GSE market shares differed significantly by location, after controlling for the economic, demographic, housing stock and credit market differences among counties that could affect use of the secondary markets. The study also investigated whether there were significant differences between the nonmetropolitan borrowers served by Fannie Mae and those served by Freddie Mac.

MacDonald found that space contributes significantly to explaining variations in GSE market shares among nonmetropolitan counties, but its effects are quite specific. One region—non-adjacent West North Central counties—had significantly lower GSE market shares than all others. The disparity persisted when analysis was restricted to underserved counties only. The

¹⁸⁸ Heather MacDonald. "Expanding Access to the Secondary Mortgage Markets: The Role of Central City Lending Goals," *Growth and Change*. (27), (1998), pp. 298–312.

¹⁸⁹ Heather MacDonald, *Fannie Mae and Freddie Mac in Non-metropolitan Housing Markets: Does Space Matter*, Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

study also suggested significant disparities between the income levels of the borrowers served by each agency, with Freddie Mac buying loans from borrowers with higher incomes than the incomes of borrowers served by Fannie Mae. An important limitation on any study of nonmetropolitan mortgages was found to be the lack of Home Mortgage Disclosure Act data. This meant that more precise conclusions about the extent to which the GSEs mirror primary mortgage originations in nonmetropolitan areas could not be reached.

McClure. Kirk McClure examined the twin mandates of FHEFSA: To direct mortgage credit to neighborhoods that have been underserved by mortgage lenders; and to direct mortgage credit to low-income and minority households.¹⁹⁰ Using the Kansas City metropolitan area as a case study, mortgages purchased by the GSEs in 1993–96 were compared with mortgages held by portfolio lenders in order to determine the performance of the GSEs in serving these two objectives. Kansas City provides a useful case study area for this analysis, because it includes a range of weak and strong housing market areas where homebuyers have been able to move easily to serve their housing, employment, and neighborhood needs.

McClure found that borrowers are better served if credit is directed to them independent of location. Very low-income and minority borrowers fared better, in terms of the demographic, housing, and employment opportunities of the neighborhoods into which they located, than borrowers in underserved neighborhoods, suggesting that directing credit to low-income and minority households has had the desired effect of helping these households purchase homes in areas where they would find good homes and good employment prospects. According to McClure, HUD's 1996–99 housing goals defined underserved tracts very broadly, such that nearly one-half of the tracts in the Kansas City area are categorized as underserved. Because the definition of underserved is so broad, directing credit to these tracts means only increasing the flow of mortgage credit to the lesser one-half of all tracts, which includes many areas with stable housing stocks and viable job markets. The alternative approach of directing credit to underserved areas was found to be helpful only insofar as it has helped direct credit to neighborhoods with slightly lower household income levels and higher incidence of minorities than found elsewhere in the metropolitan area. McClure concluded that neighborhoods that receive very low levels of mortgage credit seemed to provide insufficient housing or employment opportunities to justify the effort that would be required to direct additional mortgage credit to them.

McClure concluded that whatever the approach, the GSEs have not been performing as well as the primary credit lenders in the

Kansas City metropolitan area. In terms of helping underserved areas, the GSEs lagged behind the industry in the proportion of loans found in these areas. In terms of helping low-income and minority borrowers, the GSEs also lagged behind the industry. However, to the extent that the GSEs served these targeted populations, these households used this credit to move to neighborhoods with better housing and employment opportunities than were generally present in the underserved areas.

Williams.¹⁹¹ This study looks at mortgage lending in underserved markets in the primary and secondary mortgage markets for the MSAs in Indiana. A more extensive analysis is provided for South Bend/St. Joseph County, Indiana that looks at the GSE purchases in underserved markets by type of primary market lender in both 1992 and 1996. It shows the percentage of loans bought by the GSEs and the loan they did not buy. This study found that the GSEs were more aggressive in closing the gap in St. Joseph County than in other MSAs in Indiana. It also found that Fannie Mae's underserved market performance was slightly better than Freddie Mac's performance.

Williams compared the GSEs performance in underserved markets and CRA institutions between 1992 and 1995. It shows that the GSEs have narrowed the gap between themselves and lenders while CRA institutions have lost ground relative to non-CRA lenders. A pattern observed across all Indiana MSAs is that the GSEs do not appear to lead the market but rather almost perfectly mirrored the performance of mortgage companies.

Williams looked at the impact of size and location of lenders on the home mortgage market. Large lenders were more likely to finance mortgages for very low-income and African American borrowers than smaller lenders. Lenders headquartered in Indiana were more likely to purchase mortgages in underserved areas than lenders who only had branches or no apparent physical presence in Indiana. This suggests that served markets might benefit more than underserved areas from increased competition from non-local lenders.

Gyourko and Hu. This study focuses on the GSEs' housing goals looking at the intra-metropolitan distribution of mortgage acquisitions by Fannie Mae and Freddie Mac and the spatial distribution of households within 22 MSAs.¹⁹² The data on the GSEs' mortgage purchases is provided by the Census Tract File of Public Use Data Base and data on households is provided by the 1990 census. The study found that the distribution of goal-qualifying loan purchases by the GSEs does not match the distribution

of goal-qualifying households. On average 44 percent of Low- and Moderate-Income Goal and 46 percent of Special Affordable Goal qualifying households are located in central cities. This compares to the GSEs' mortgage purchases where 26 percent of Low- and Moderate-Income Goal and 36 percent of Special Affordable Goal were located in central cities.

This study develops criteria for evaluating the GSEs' mortgage purchasing performance in census tracts. The first measure is a ratio. The numerator of the ratio is the share of the GSEs' mortgage purchases that qualify for the Special Affordable Housing Goal in the census tract. The denominator is the share of households that are targeted by the Special Affordable Housing Goal in the census tract. A ratio is also computed for the Low- and Moderate-Income Housing Goal. If the ratio is less than 0.80 then the census tract is called under-represented, meaning that the share of the GSEs' mortgage purchases which qualify for the housing goal is less than 80 percent of the share of the households that the goal targets. The analysis of these ratios shows that: (1) Central cities are more likely to be under-represented in terms of the share of affordable loans purchased by the GSEs, (2) in suburbs, the larger the census tracts' percent minority the greater the probability that affordable loan purchases are under-represented, and (3) the higher the tract's median income, the greater the likelihood that census tract is over-represented.

Gyourko and Hu's results are broadly consistent across the 22 MSAs analyzed; however, some noteworthy exceptions are made. In a few MSAs, particularly Miami and New York, the mismatch of affordable GSE purchases to affordable households is much less severe. In Boston, Los Angeles and New York, census tracts with higher relative median incomes are more likely to be under-represented.

4. GSEs' Underwriting Guidelines

Most studies on affordability of mortgage loans are quantitative using HMDA data, HUD's GSE Public Use Database or some other related database. To complement these studies, HUD commissioned a study by the Urban Institute (UI) to examine recent trends in the GSEs' underwriting criteria and to seek attitudes and opinions of informed players in four local mortgage market markets (Boston, Detroit, Miami and Seattle).¹⁹³ Interviews were conducted with mortgage lenders, community advocates and local government officials—all local actors who would be knowledgeable about the impact of the GSEs' underwriting policies on their ability to fund affordable loans for lower-income borrowers.

The UI report reveals three major trends in the GSEs' underwriting that affects affordable lending. These include increased flexibility in standard¹⁹⁴ underwriting and appraisal guidelines, the introduction of affordable lending products, and the introduction of

¹⁹¹ Richard Williams, "The Effect of GSEs, CRA, and Institutional Characteristics on Home Mortgage Lending to Underserved Markets," Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, 1999).

¹⁹² Joseph Gyourko and Dapeng Hu. *The Spatial Distribution of Secondary Market Purchases in Support of Affordable Lending*, Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, 1999).

¹⁹³ Kenneth Temkin, Roberto Quercia, George Galster and Sheila O'Leary. *A Study of the GSE's Single Family Underwriting Guidelines: Final Report*. Washington DC: U.S. Department of Housing and Urban Development, (April 1999).

¹⁹⁴ Standard guidelines refer to guidelines not associated with affordable lending programs.

¹⁹⁰ Kirk McClure, *The Twin Mandates Given to the GSEs: Which Works Best, Helping Low-Income Homebuyers or Helping Underserved Areas in the Kansas City Metropolitan Area?* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, 1999).

automated underwriting and credit scores in the loan application process. Through these trends, Fannie Mae and Freddie Mac have attempted to increase their capacity to serve low- and moderate-income homebuyers. They are also eliminating practices that could potentially have had disparate impacts on minority homebuyers. While both GSEs have made progress, "most [of those interviewed] thought Fannie Mae has been more aggressive than Freddie Mac in outreach efforts, implementing underwriting changes and developing new products."¹⁹⁵

While the GSEs improved their ability to serve low- and moderate-income borrowers, it does not appear that they have gone as far as some primary lenders to serve these borrowers and to minimize the disproportionate effects on minority borrowers. From previous published analyses of the GSEs' mortgage purchases, differences between the income characteristics and racial composition of borrowers served by the primary mortgage market and the purchase activity of the GSEs were found. "This means that the GSEs are not serving lower-income and minority borrowers to the extent these families receive mortgages from primary lenders."¹⁹⁶ From UI's discussions with lenders, it was revealed that primary lenders are originating mortgages to lower-income borrowers using underwriting guidelines that allow lower down payments, higher debt-to-income ratios and poorer credit histories than allowed by the GSEs' guidelines. These mortgages are originated to a greater extent to minority borrowers who have lower incomes and wealth. From this evidence, UI concludes that the GSEs appear to be lagging the market in servicing low- and moderate-income and minority borrowers.

Furthermore, UI found "that the GSEs' efforts to increase underwriting flexibility and outreach has been noticed and is applauded by lenders and community advocates. Despite the GSEs' efforts in recent years to review and revise their underwriting criteria, however, they could do more to serve low- and moderate-income borrowers and to minimize disproportionate effects on minorities. Moreover, the use of automated underwriting systems and credit scores may place lower-income borrowers at a disadvantage when applying for a loan, even though they are acceptable credit risks."¹⁹⁷

5. The GSEs' Support of the Mortgage Market for Single-family Rental Properties

Single-family rental housing is an important part of the housing stock because it is an important source of housing for lower-income households. Based on the 1995 American Housing Survey, 62 percent of all rental units are in structures with fewer than five units and approximately 57 percent of the stock of single-family rental units are affordable to very-low income families (*i.e.*, families earning 60 percent or less of the area median income). Of the GSEs' mortgage purchases in 1997, around 34 percent of the single-family rental units financed were affordable to very-low income households.

While single-family rental properties are a large segment of the rental stock for low-income families, they make up a small portion of the GSEs' overall business. In 1997, Fannie Mae and Freddie Mac purchased more than \$11 billion in mortgages for these properties. These purchases represented 4 percent of the total dollar amount of their overall 1997 business.

It follows that since single-family rentals make up such a small part of the GSEs business, they have not penetrated the single-family rental market to the same degree that they have penetrated the owner-occupant market. Table A.7 in Section G shows that in 1997 the GSEs financed 49 percent of owner-occupied dwelling units but only 13 percent of single-family rental units.

There are a number of factors that have limited the development of the secondary market for single-family rental property mortgages thus explaining the lack of penetration by the GSEs. Little is collectively known about these properties as a result of the wide spatial dispersion of properties and owners, as well as a wide diversity of characteristics across properties and individuality of owners. This makes it difficult for lenders to properly evaluate the probability of default and severity of loss for these properties.

Single-family rental properties are important for the GSEs housing goals, especially for meeting the needs of lower-income families. In 1997 around 70 percent of single-family rental units qualified for the Low- and Moderate-Income Goals, compared with 35 percent of one-family owner-occupied properties. This heavy focus on lower-income families meant that single-family rental properties accounted for 10 percent of the units qualifying for the Low- and Moderate-Income Goal, even though they accounted for only 7 percent of the total units (single-family and multifamily) financed by the GSEs. Single-family rental properties account for 12 percent of the geographically-targeted and 13 percent of the special affordable housing goals.

A comparison of the GSEs' single-family rental and one-family owner-occupied mortgage purchases reveals the following broad patterns of borrower and neighborhood characteristics. Borrowers for single-family rental properties are more likely to be minorities than borrowers for one-family owner-occupied properties. Mortgages purchased by the GSEs for single-family rental properties compared with one-family owner-occupied properties are more likely to be located in lower-income and higher minority neighborhoods. More single-family rental than one-family owner-occupied mortgages were refinance or prior-year loans.

A closer look at borrower characteristics for single-family rental properties shows the following. First, based on ethnic/racial characteristics, borrowers for investor-owned properties are similar to borrowers for one-family owner-occupied properties. Second, borrowers for single-family rental properties, especially owner-occupied 2- to 4-unit properties, are more likely to be nonwhite than are borrowers for one-family owner-occupied and investor-owned properties. About 37 percent of the borrowers for owner-

occupied 2- to 4-unit properties are non-white compared with around 16 percent for both one-family and investor-owned properties. For one-family owner-occupied and investor-owned properties about 5 percent of borrowers are African American, compared with 9 percent for owner-occupied 2- to 4-unit properties. A similar comparison applies for Hispanic borrowers, 6 percent and 16 percent respectively.

With regard to neighborhood characteristics, a comparison of units in different types of rental properties purchased by the GSEs shows that investor 1-unit properties were more likely to be located in higher-income and lower-minority neighborhoods than were units in 2- to 4-unit rental properties. For units in investor 1-unit properties, about 19 percent were in low-income neighborhoods, compared with 34 percent from units in 2- to 4-unit rental properties. About 25 percent of investor 1-unit properties were in high-minority neighborhoods, compared with 36 percent for units in 2- to 4-unit rental properties. Units in 2- to 4-unit rental properties were commonly located in older cities where many low-income and high-minority neighborhoods are located. Investor 1-unit properties were more characteristic of suburban neighborhoods where smaller populations of minorities and higher income households reside.

The GSEs can mitigate risk by purchasing mortgages which are seasoned or refinanced. The data show that mortgages on properties with additional risk components such as being investor-owned, in low-income neighborhoods, and /or in high-minority neighborhoods are more likely to be seasoned or refinanced. For the GSEs' mortgage purchases, in general, mortgages on investor-owned properties are more likely to be prior-year than mortgages on owner-occupied 2- to 4-unit properties (based on unit counts). These patterns are consistent with the notion that investor properties are more risky than owner-occupied 2- to 4-unit properties.

F. Factor 4: Size of the Conventional Conforming Mortgage Market Serving Low- and Moderate-Income Families Relative to the Overall Conventional Conforming Market

The Department estimates that dwelling units serving low- and moderate-income families will account for 50–55 percent of total units financed in the overall conventional conforming mortgage market during 2000–2003, the period for which the Low- and Moderate-Income Housing Goals are hereby established. Due to uncertainty about future market conditions, HUD has provided a plausible range, rather than a point estimate, for the market. The detailed analyses underlying these estimates are presented in Appendix D.

G. Factor 5: GSEs' Ability To Lead the Industry

FHEFSSA requires the Secretary, in determining the Low- and Moderate-Income Housing Goal, to consider the GSEs' ability to "lead the industry in making mortgage credit available for low- and moderate-income families." Congress indicated that this goal should "steer the enterprises toward the

¹⁹⁵ Temkin, *et al.* (1999), p. 4.

¹⁹⁶ Temkin, *et al.* (1999), p. 5.

¹⁹⁷ Temkin, *et al.* (1999), p. 28.

development of an increased capacity and commitment to serve this segment of the housing market” and that it “fully expect[ed] [that] the enterprises will need to stretch their efforts to achieve [these goals].”¹⁹⁸

The Department and independent researchers have published numerous studies examining whether or not the GSEs have been leading the single-family market in terms of their affordable lending performance. This research, which is summarized in Section E, concludes that the GSEs have generally lagged behind other lenders in funding lower-income borrowers and their communities. As required by FHEFSSA, the Department has produced estimates of the portion of the total (single-family and multifamily) mortgage market that qualifies for each of the three housing goals (see Appendix D). Congress intended that the Department use these market estimates as one factor in setting the percentage target for each of the housing goals. The Department’s estimate for the size of the Low-and-Moderate-Income market is 50–55 percent, which is substantially higher than the GSEs’ performance on that goal.

¹⁹⁸ Senate Report 102–282, (May 15, 1992), p. 35.

This section provides another perspective on the GSEs’ performance by examining the share of the total mortgage market and the share of the goal-qualifying markets (low-mod, special affordable, and underserved areas) accounted for by the GSEs’ purchases. This analysis, which is conducted by product type (single-family owner, single-family rental, and multifamily), shows the relative importance of the GSEs in each of the goal-qualifying markets.

1. GSEs’ Role in Major Sectors of the Mortgage Market

Table A.7 compares GSE mortgage purchases with HUD’s estimates of the numbers of units financed in the conventional conforming market during 1997.¹⁹⁹ HUD estimates that there were 7,443,736 owner and rental units financed by new mortgages in 1997. Fannie Mae’s and Freddie Mac’s mortgage purchases financed

¹⁹⁹ Table A.7 considers GSE purchases during 1997 and 1998 of conventional mortgages that were originated in 1997. HUD’s methodology for deriving the 1997 market estimations is explained in Appendix D. B&C loans have been excluded from the market estimates in Table A.7.

2,893,046 dwelling units, or 39 percent of all dwelling units financed. As shown in Table A.7, the GSEs play a much smaller role in the goals-qualifying markets than they do in the overall market. During 1997, new mortgages were originated for 4,290,860 dwelling units that qualified for the low-and moderate-income goal; the GSEs low-mod purchases financed 1,305,505 dwelling units, or only 30 percent of the low-mod market. Similarly, the GSEs’ purchases accounted for only 24 percent of the special affordable market and 33 percent of the underserved areas market.²⁰⁰ Obviously, the GSEs are not leading the industry in financing units that qualify for the three housing goals.

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²⁰⁰ Two caveats about the data in Table A.7 should be mentioned here. First, the various market totals for underserved areas are probably understated due to the model’s underestimation of mortgage activity in non-metropolitan underserved counties and of manufactured housing originations in non-metropolitan areas. Second, as discussed in Appendix D, some uncertainty exists around the adjustment for B&C single-family owner loans.

Table A.7

**Number of Units by Type in the 1997 Conventional Conforming Market Compared
To Fannie Mae and Freddie Mac Purchases**

	Single-Family Owner	Single-Family Rental	Multifamily	Total Rental	Total
<u>Total Units</u>					
Market	4,936,208	1,015,538	1,491,990	2,507,528	7,443,736
Fannie Mae	1,355,693	81,152	227,531	308,683	1,664,376
Freddie Mac	1,071,065	49,813	107,792	157,605	1,228,670
GSE Total	2,426,758	130,965	335,323	466,288	2,893,046
GSE % of Market	49%	13%	22%	19%	39%
<u>Low-Mod Units</u>					
Market	2,034,085	913,984	1,342,791	2,256,775	4,290,860
Fannie Mae	493,489	72,514	217,134	289,648	783,137
Freddie Mac	375,952	43,711	102,704	146,415	522,367
GSE Total	869,441	116,225	319,838	436,063	1,305,505
GSE % of Market	43%	13%	24%	19%	30%
<u>Underserved Area Units*</u>					
Market	1,230,808	461,930	716,155	1,178,085	2,408,893
Fannie Mae	328,143	38,975	95,774	134,749	462,892
Freddie Mac	257,546	23,056	52,488	75,544	333,090
GSE Total	585,688	62,031	148,262	210,293	795,981
GSE % of Market	48%	13%	21%	18%	33%
<u>Special Affordable Units</u>					
Market	704,384	589,012	865,354	1,454,366	2,158,750
Fannie Mae	143,081	36,661	134,990	171,651	314,732
Freddie Mac	105,850	21,875	65,920	87,795	193,645
GSE Total	248,931	58,537	200,909	259,446	508,377
GSE % of Market	35%	10%	23%	18%	24%

Source: The market data are the estimated number of newly mortgaged units during 1997. The Single-Family Owner market data exclude B&C loans; including the B&C loans in the owner market would have reduced the GSE market share from 49 percent to 42 percent. See Appendix D for an explanation of the market methodology and various caveats (such as excluding manufactured housing in non-metropolitan areas). The GSE data include units from conventional mortgages originated during 1997 and purchased by one of the GSEs during 1997 or 1998. GSE data with missing affordability or geocode fields are reallocated based the distribution of existing data.

*The Single-Family Owner market data for underserved areas should be considered a minimal estimate. The goal-qualifying percentages that were used to derive the Single-Family Owner market estimates were based on HMDA data for metropolitan areas; as discussed in Appendix D, this underestimates the underserved area market in non-metropolitan areas.

While the GSEs are free to meet the Department's goals in any manner that they deem appropriate, it is useful to consider their performance relative to the industry by property type. As shown in Table A.7, the GSEs accounted for 49 percent of the single-family owner market in 1997 but only 22 percent of the multifamily market and 13 percent of the single-family rental market (or a combined share of 19 percent of the rental market).

Single Family Owner Market. This market is the bread-and-butter of the GSEs' business, and based on the financial and other factors discussed below, they clearly have the ability to lead the primary market in providing credit for low- and moderate-income owners of single-family properties. However, the GSEs have been lagging behind the market in their funding of single-family owner loans that qualify for the housing goals, as discussed in Section E.2.c. Between 1996 and 1998, low- and moderate-income borrowers accounted for 34.9 percent of Freddie Mac's mortgage purchases and 38.4 percent of Fannie Mae's mortgage purchases, but 42.6 percent of primary market originations in metropolitan areas. The market share data reported in Table A.7 for the single-family owner market tell the same story. The GSEs' purchases of single-family owner loans represented 49 percent of all newly-originated owner loans in 1997, but only 43 percent of the low-mod loans that were originated, 35 percent of the special affordable loans, and 48 percent of the underserved area loans. Thus, the GSEs need to improve their performance and it appears that there is ample room in the non-GSE portions of the goals-qualifying markets for them to do so. For instance, the GSEs are not involved in almost two-thirds of special affordable owner market.

Single Family Rental Market. Single-family rental housing is a major source of low- and moderate-income housing. As discussed in Appendix D, data on the size of the primary market for mortgages on these properties is limited, but information from the American Housing Survey on the stock of such units and plausible rates of refinancing indicate that the GSEs are much less active in this market than in the single-family owner market. As shown in Table A.7, HUD estimates that the GSEs' purchases have totaled only 13 percent of newly-mortgaged single-family rental units that were affordable to low- and moderate-income families.

Many of these properties are "mom-and-pop" operations, which may not follow financing procedures consistent with the GSEs' guidelines. Much of the financing needed in this area is for rehabilitation loans

on 2-4 unit properties in older areas, a market in which the GSEs' have not played a major role. However, this sector could certainly benefit from an enhanced role by the GSEs, and the Department believes that there is room for such an enhanced role.

Multifamily Market. Fannie Mae is the largest single source of multifamily finance in the United States, and Freddie Mac has made a solid reentry into this market over the last five years. However, there are a number of measures by which the GSEs lag the multifamily market. For example, the share of GSE resources committed to the multifamily purchases falls short of the multifamily proportion prevailing in the overall mortgage market. HUD estimates that newly-mortgaged units in multifamily properties represented 18 percent all (single-family and multifamily) dwelling units financed during 1997.²⁰¹ By comparison, multifamily acquisitions represented 13 percent all units backing Fannie Mae's 1997 mortgage purchases, with a corresponding figure of only 8 percent for Freddie Mac.^{202 203} In other words, the GSEs place more emphasis on single-family mortgages than they do on multifamily mortgages.

The GSEs' focus on the single-family market means that they play a relatively small role in the multifamily market. As shown in Table A.7, the GSEs' purchases have accounted for only 22 percent of newly-financed multifamily units during 1997—a

²⁰¹ Table A.7 shows that multifamily represented 20 percent of total units financed during 1997 (obtained by dividing 1,491,990 multifamily units by 7,443,736 "Total Market" units). Increasing the single-family-owner number in Table A.7 by 776,193 to account for excluded B&C mortgages increases the "Total Market" number to 8,219,929, which is consistent with the 18 percent multifamily share reported in the text. See Appendix D for discussion of the B&C market.

²⁰² A similar imbalance is evident with regard to figures on the stock of mortgage debt published by the Federal Reserve Board. Within the single-family mortgage market the GSEs held loans or guarantees with an unpaid principal balance (UPB) of \$1.5 trillion, comprising 36 percent of \$4.0 trillion in outstanding single-family mortgage debt as of the end of 1997. At the end of 1997, the GSEs direct holdings and guarantees of \$41.4 billion represented 13.7 percent of \$301 billion in multifamily mortgage debt outstanding. (*Federal Reserve Bulletin*, June 1998, A 35.)

²⁰³ For the most part, GSE multifamily purchases are similar to those in the overall market. For example, 56 percent of units backing Fannie Mae's 1997 multifamily acquisitions met the Special Affordable Goal, with a corresponding proportion of 57 percent for Freddie Mac, compared with a market estimate of approximately 60 percent, based on HUD's analysis of POMS data.

market share much lower than their 49 percent share of the single-family owner market. Thus, these data suggest that a further enlargement of the GSEs' role in the multifamily market seems feasible and appropriate in the future.

There are a number of submarkets, such as the market for mortgages on 5-50 unit multifamily properties, where the GSEs' role have particularly lag the market. As mentioned above, the GSEs represented 22 percent of the overall conventional multifamily mortgage market in 1997, but their acquisitions of loans on small multifamily properties represented only about 2 percent of such properties financed that year.²⁰⁴ Certainly the GSEs face a number of challenges in better meeting the needs of the multifamily secondary market. For example, thrifts and other depository institutions may sometimes retain their best loans in portfolio, and the resulting information asymmetries may act as an impediment to expanded secondary market transaction volume.²⁰⁵ However, the GSEs have demonstrated that they have the depth of expertise and the financial resources to devise innovative solutions to problems in the multifamily market.

2. Qualitative Dimensions of the GSEs' Ability To Lead the Industry

This section discusses several qualitative factors that are indicators of the GSEs' ability to lead the industry in affordable lending. It discusses the GSEs' role in the mortgage market; their ability, through their underwriting standards, new programs, and innovative products, to influence the types of loans made by private lenders; their development and utilization of state-of-the-art technology; the competence, expertise and training of their staffs; and their financial resources.

²⁰⁴ This finding is based on the assumption that units in small multifamily properties represented approximately 37 percent of multifamily units financed in 1997, per the 1991 Residential Finance Survey, as discussed above. Additionally, it is assumed that 1997 multifamily conventional origination volume was \$40.7 billion, as discussed in Appendix D. An average loan amount per unit of \$25,167 is assumed, using a combination of loan-level GSE data and loan-level data from securitized multifamily mortgages in prospectus disclosures.

²⁰⁵ The problem of secondary market "adverse selection" is described in James R. Follain and Edward J. Szymanoski, "A Framework for Evaluating Government's Evolving Role in Multifamily Mortgage Markets," *Cityscape: A Journal of Policy Development and Research* 1(2), (1995).

a. Role in the Mortgage Market

As discussed in Section C of this Appendix, the GSEs' single-family mortgage acquisitions have generally followed the volume of originations in the primary market for conventional mortgages. However, in 1997, single-family originations rose by nearly 10 percent, while the GSEs' acquisitions declined by 7 percent. As a result, the Office of Federal Housing Enterprise Oversight (OFHEO) estimates that the GSEs' share of conventional single-family mortgage originations declined from 42 percent in 1996 to 37 percent in 1997. The GSEs' conventional single-family mortgage share rose to an estimated 48 percent in 1998, but that is still well below the peak of 58 percent attained in 1993.²⁰⁶

The GSEs' high shares of originations during the 1990s led to a rise in their share of total conventional single-family mortgages outstanding, including both conforming mortgages and jumbo mortgages.²⁰⁷ OFHEO estimates that the GSEs' share of such mortgages outstanding jumped from 34 percent at the end of 1991 to 40 percent at the end of 1994 and an estimated 45 percent at the end of 1998.²⁰⁸ All of the increase in the GSEs' relative role between 1991 and 1998 was due to the growth in their portfolio holdings as a share of mortgages outstanding, from 5 percent at the end of 1991 to 17 percent at the end of 1998; relative holdings of the GSEs' mortgage-backed securities by others actually declined as a share of mortgages outstanding, from 29 percent at the end of 1991 to 28 percent at the end of 1998.

The dominant position of the GSEs in the mortgage market is reinforced by their relationships with other market institutions. Commercial banks, mutual savings banks, and savings and loans are their competitors as well as their customers—they compete to the extent they hold mortgages in portfolio, but at the same time they sell mortgages to the GSEs. They also buy mortgage-backed securities, as well as the debt securities used to finance the GSEs' portfolios. Mortgage bankers, who accounted for 58 percent of all single-family loans in 1997, sell virtually all of their conventional conforming loans to the GSEs.²⁰⁹ Private mortgage insurers are closely linked to the GSEs, because mortgages purchased by the enterprises that have loan-to-value ratios in excess of 80 percent are normally required to be covered

by private mortgage insurance, in accordance with the GSEs' charter acts.

b. Underwriting Standards for the Primary Mortgage Market

The GSEs' underwriting guidelines are followed by virtually all originators of prime mortgages, including lenders who do not sell many of their mortgages to Fannie Mae or Freddie Mac.²¹⁰ The guidelines are also commonly followed in underwriting "jumbo" mortgages, which exceed the maximum principal amount which can be purchased by the GSEs (the conforming loan limit)—such mortgages eventually might be sold to the GSEs, as the principal balance is amortized or when the conforming loan limit is otherwise increased. The GSEs, through their automated underwriting systems, have started adapting their underwriting for subprime loans and other loans that have not met their traditional underwriting standards.

Because the GSEs' guidelines set the credit standards against which the mortgage applications of lower-income families are judged, the enterprises have a profound influence on the rate at which mortgage funds flow to low- and moderate-income borrowers and underserved neighborhoods. Congress realized the crucial role played by the GSEs' underwriting guidelines when it required each enterprise to submit a study on its guidelines to the Secretary and to Congress in 1993, and when it called for the Secretary to "periodically review and comment on the underwriting and appraisal guidelines of each enterprise." Some of the conclusions from a study of the GSEs' single-family underwriting guidelines prepared for the Department by the Urban Institute have been discussed in Section E.

c. State-of-the-Art Technology

Both GSEs are in the forefront of new developments in mortgage industry technology. Each enterprise released an automated underwriting system in 1995—Freddie Mac's "Loan Prospector" and Fannie Mae's "Desktop Underwriter." Both systems rely on numerical credit scores, such as those developed by Fair, Isaac, and Company, and additional data submitted by the borrower, to obtain a mortgage score. The mortgage score indicates to the lender either that the GSE will accept the mortgage, based on the application submitted, or that more detailed manual underwriting is required to make the loan eligible for GSE purchase.

It is estimated that 25–40 percent of the GSEs' purchases are now based on automated underwriting. These systems have also been adapted for FHA and jumbo loans. They have the potential to reduce the cost of loan origination, particularly for low-risk loans, but the systems are so new that no comprehensive studies of their effects have been conducted. As discussed earlier, concerns about the use of automated

underwriting include the impact on minorities and the "black box" nature of the score algorithm.

The GSEs are using their state-of-the-art technology in certain ways to help expand homeownership opportunities. For example, Fannie Mae has developed FannieMaps, a computerized mapping service offered to lenders, nonprofit organizations, and state and local governments to help them implement community lending programs.

d. Staff Resources

Both Fannie Mae and Freddie Mac are well-known throughout the mortgage industry for the expertise of their staffs in carrying out their current programs, conducting basic and applied research regarding mortgage markets, developing innovative new programs, and undertaking sophisticated analyses that may lead to new programs in the future. The leaders of these corporations frequently testify before Congressional committees on a wide range of housing issues, and both GSEs have developed extensive working relationships with a broad spectrum of mortgage market participants, including various nonprofit groups, academics, and government housing authorities. They also contract with outside leaders in the finance industry for technical expertise not available in-house and for advice on a wide variety of issues.

e. Financial Strength

Fannie Mae. The benefits that accrue to the GSEs because of their GSE status, as well as their solid management, have made them two of the nation's most profitable businesses. Fannie Mae's net income has increased from \$376 million in 1987 to \$1.6 billion in 1992, \$3.1 billion in 1997, and \$3.4 billion in 1998—an average annual rate of increase of 22 percent. Through the fourth quarter of 1998, Fannie Mae has recorded 48 consecutive quarters of increased net income per share of common equity. Fannie Mae's return on equity averaged 23.8 percent over the 1993–97 period—far above the rates achieved by most financial corporations.

Investors in Fannie Mae's common stock have seen their annual dividends per share nearly double over the last five years, rising from \$1.84 in 1993 to \$3.36 in 1997. If dividends were fully reinvested, an investment of \$1000 in Fannie Mae common stock on December 31, 1987 would have appreciated to \$27,983.98 by December 31, 1997. This annualized total rate of return of 39.5 percent over the decade exceeded that of many leading U. S. corporations, including Intel (35.9 percent), Coca-Cola (32.4 percent), and General Electric (24.3 percent).

Freddie Mac. Freddie Mac has shown similar trends. Freddie

Mac's net income has increased from \$301 million in 1987 to \$622 million in 1992, \$1.4 billion in 1997, and \$1.7 billion in 1998—an average annual rate of increase of 17 percent. Freddie Mac's return on equity averaged 22.7 percent over the 1993–97 period—also well above the rates achieved by most financial corporations.

Investors in Freddie Mac's common stock have also seen their annual dividends per share nearly double over the last five years, rising from \$0.88 in 1993 to \$1.60 in 1997.

²⁰⁶ Office of Federal Housing Enterprise Oversight, *1998 Report to Congress*, Figure 9, page 32.

²⁰⁷ A jumbo mortgage is one for which the loan amount exceeds the maximum principal amount for mortgages purchased by the enterprises—\$240,000 for mortgages on 1-unit properties in 1999, with limits that are 50 percent higher in Alaska, Hawaii, Guam, and the Virgin Islands.

²⁰⁸ Office of Federal Housing Enterprise Oversight, *1998 Report to Congress*, (June 15, 1998), Figure 9, p. 32; and unpublished OFHEO estimates for 1998.

²⁰⁹ Mortgage originations for 1997 were reported in the Department of Housing and Urban Development, *HUD Survey of Mortgage Lending Activity: Fourth Quarter/Annual 1997*, (September 24, 1998).

²¹⁰ The underwriting guidelines published by the two GSEs are similar in most aspects. And since November 30, 1992, Fannie Mae and Freddie Mac have provided lenders the same *Uniform Underwriting and Transmittal Summary* (Fannie Mae Form 1008/Freddie Mac Form 1077), which is used by originators to collect certain mortgage information that they need for data entry when mortgages are sold to either GSE.

If dividends were fully reinvested, an investment of \$1000 in Freddie Mac common stock on December 29, 1989 would have appreciated to \$8,670.20 by December 31, 1997, for an annualized total rate of return of 31.0 percent over this period. This was slightly higher than the annual return on Fannie Mae common stock (29.9 percent) and substantially higher than the average gain in the S&P Financial-Miscellaneous index (24.1 percent) over the 1990–97 period.²¹¹

Other indicators. Additional indicators of the strength of the GSEs are provided by various rankings of American corporations. One survey found that at the end of 1997 Fannie Mae was first of all companies in total assets and Freddie Mac ranked 13th.²¹² Business Week has reported that among Standard & Poor's 500 companies in 1997 Fannie Mae and Freddie Mac respectively ranked 25th and 61st in market value, and 28th and 57th in total profits.²¹³

f. Conclusion About Leading the Industry

In light of these considerations, the Secretary has determined that the GSEs have the ability to lead the industry in making mortgage credit available for low- and moderate-income families.

H. Factor 6: The Need To Maintain the Sound Financial Condition of the GSEs

HUD has undertaken a separate, detailed economic analysis of this proposed rule, which includes consideration of (a) the financial returns that the GSEs earn on low- and moderate-income loans and (b) the financial safety and soundness implications of the housing goals. Based on this economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the proposed goals raise minimal, if any, safety and soundness concerns.

I. Determination of the Low- and Moderate-Income Housing Goals

The annual goal for each GSE's purchases of mortgages financing housing for low- and moderate-income families is established at 48 percent of eligible units financed in calendar year 2000, and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003. This goal will remain in effect for 2004 and thereafter, unless changed by the Secretary prior to that time. The goal represents an increase over the 1996 goal of 40 percent and the 1997–99 goal of 42 percent. The goals for 2001–2003 are in the lower portion of the range of market share estimates of 50–55 percent, presented in Appendix D. The Secretary's consideration of the six statutory factors that led to the choice of these goals is summarized in this section.

1. Housing Needs and Demographic Conditions

Data from the 1990 Census and the American Housing Surveys demonstrate that

there are substantial housing needs among low- and moderate-income families, especially among lower-income and minority families in this group. Many of these households are burdened by high homeownership costs or rent payments and will likely continue to face serious housing problems, given the dim prospects for earnings growth in entry-level occupations. According to HUD's "Worst Case Housing Needs" report, 21 percent of owner households faced a moderate or severe cost burden in 1995. Affordability problems were even more common among renters, with 40 percent paying more than 30 percent of their income for rent in 1995.²¹⁴

Single Family Mortgage Market. Many younger, minority and lower-income families did not become homeowners during the 1980s due to the slow growth of earnings, high real interest rates, and continued house price increases. Over the past six years, economic expansion, accompanied by low interest rates and increased outreach on the part of the mortgage industry, has improved affordability conditions for these families. Between 1993 and 1998, record numbers of lower-income and minority families purchased homes. First-time homeowners have become a major driving force in the home purchase market over the past five years. Thus, the 1990s have seen the development of a strong affordable lending market. Despite this growth in affordable lending to minorities, disparities in the mortgage market remain. For example, African-American applicants are still twice as likely to be denied a loan as white applicants, even after controlling for income.

Several demographic changes will affect the housing finance system over the next few years. First, the U.S. population is expected to grow by an average of 2.4 million per year over the next 20 years, resulting in 1.1 to 1.2 million new households per year. The aging of the baby-boom generation and the entry of the baby-bust generation into prime home buying age will have a dampening effect on housing demand. However, the continued influx of immigrants will increase the demand for rental housing, while those who immigrated during the 1980's will be in the market for owner-occupied housing. Non-traditional households have become more important, as overall household formation rates have slowed. With later marriages, divorce, and non-traditional living arrangements, the fastest growing household groups have been single-parent and single-person households. With continued house price appreciation and favorable mortgage terms, "trade-up buyers" will increase their role in the housing market. These demographic trends will lead to greater diversity in the homebuying market, which will require adaptation by the primary and secondary mortgage markets.

As a result of the above demographic forces, housing starts are expected to average 1.5 million units between 2000 and 2003,

essentially the same as in 1996–99.²¹⁵ Refinancing of existing mortgages, which accounted for 50 percent of originations in 1998, will continue to play a major role in 1999, returning to more normal levels during 2000. Thus the mortgage market should remain strong in 1999, while easing somewhat during 2000.

Multifamily Mortgage Market. Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, although not to the same degree as the single-family mortgage market. Loans on multifamily properties remain viewed as riskier than their single-family counterparts. Property values, vacancy rates, and market rents in multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced for single-family mortgages.

Recent volatility in the market for Commercial Mortgage Backed Securities (CMBS), an important source of financing for multifamily properties, underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by virtue of the fact that an increasing proportion of multifamily mortgages is now originated in accordance with secondary market standards.

The GSEs have the capability to increase the availability of long-term, fixed rate financing, thereby contributing greater liquidity in market segments where increased GSE presence can provide lenders with a more viable "exit strategy" than what is presently available. It appears that the cost of mortgage financing on properties with 5–50 units, where much of the nation's affordable housing stock is concentrated, may be higher than warranted by the degree of inherent credit risk.²¹⁶ Presently, however, the GSEs purchase only about 5 percent of units in 5–50 unit properties financed annually. Borrowers have also experienced difficulty obtaining mortgage financing for multifamily properties with significant rehabilitation needs. Historically the flow of capital into multifamily housing for seniors has, moreover, been characterized by a great deal of volatility.

2. Past Performance and Ability To Lead the Industry

The GSEs have played a major role in the conventional single-family mortgage market in the 1990s. The GSEs' purchases of single-family-owner mortgages have accounted for 49 percent of mortgages originated in the conventional conforming market during 1997. Many industry observers believe that the role of the GSEs in the late-1980s and 1990s is a major reason why the decline of the thrift industry had only minor effects on the nation's housing finance system.

²¹⁵ Standard & Poor's DRI, *The U.S. Economy*. (September 1999), p. 54.

²¹⁶ See Drew Schneider and James Follain, "A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing," *Cityscape: A Journal of Policy Development and Research* 4(1), (1998), pp. 43–58.

²¹¹ Freddie Mac stock was not publicly traded until after the passage of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), thus it is not possible to calculate a 10-year annualized rate of return.

²¹² *Forbes*, (April 20, 1998), p. 315.

²¹³ *Business Week*, (March 30, 1998), p. 154.

²¹⁴ *Rental Housing Assistance—The Crisis Continues: The 1997 Report to Congress on Worst Case Housing Needs*, Department of Housing and Urban Development, Office of Policy Development and Research, (April 1998).

Additionally, the American mortgage market was not impacted adversely in any way by the recent volatility in world financial markets.

The enterprises' role in the mortgage market is also reflected in their use of cutting edge technology, such as the development of Loan Prospector and Desktop Underwriter, the automated underwriting systems developed by Freddie Mac and Fannie Mae, respectively. Both GSEs are also entering new and challenging fields of mortgage finance, including activities involving subprime

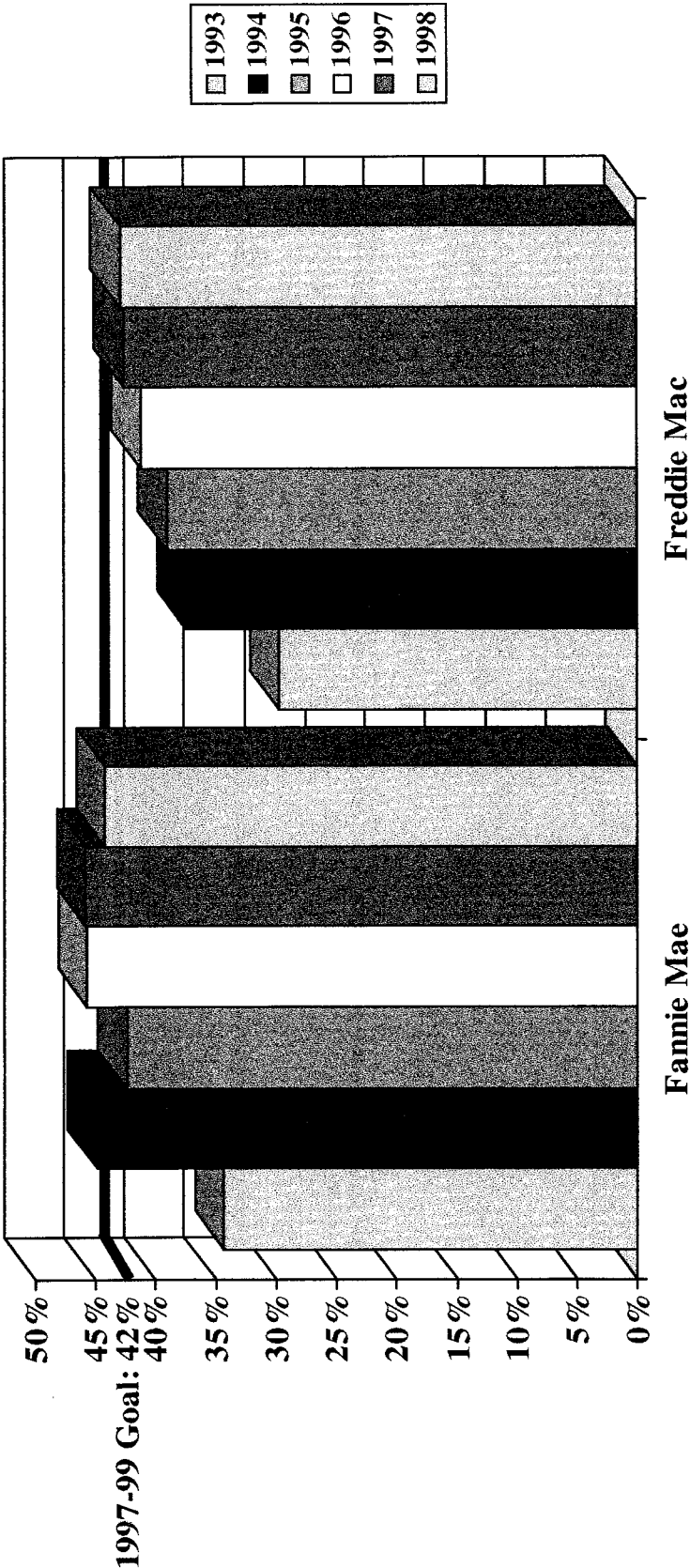
mortgages and mortgages on manufactured housing.

The GSEs' performance on the Low- and Moderate-Income Housing Goal has also improved significantly in recent years, as shown in Figure A.1. Fannie Mae's performance increased from 34.2 percent in 1993 to 42.3 percent in 1995, 45.6 percent in 1996, and 45.7 percent in 1997, then falling slightly to 44.1 percent in 1998. Freddie Mac's performance also increased, from 29.7 percent in 1993 to 38.9 percent in 1995, 41.1 percent in 1996, 42.6 percent in 1997, and

42.9 percent in 1998. Although Freddie Mac's low- and moderate-income shares were below Fannie Mae's shares in every year, its goal performance was 97 percent of Fannie Mae's performance in 1998, the highest performance ratio for Freddie Mac since goals were instituted in 1993. This increase in Freddie Mac's relative performance on the Low- and Moderate-Income Housing Goal resulted primarily from its increased role in the multifamily mortgage market.

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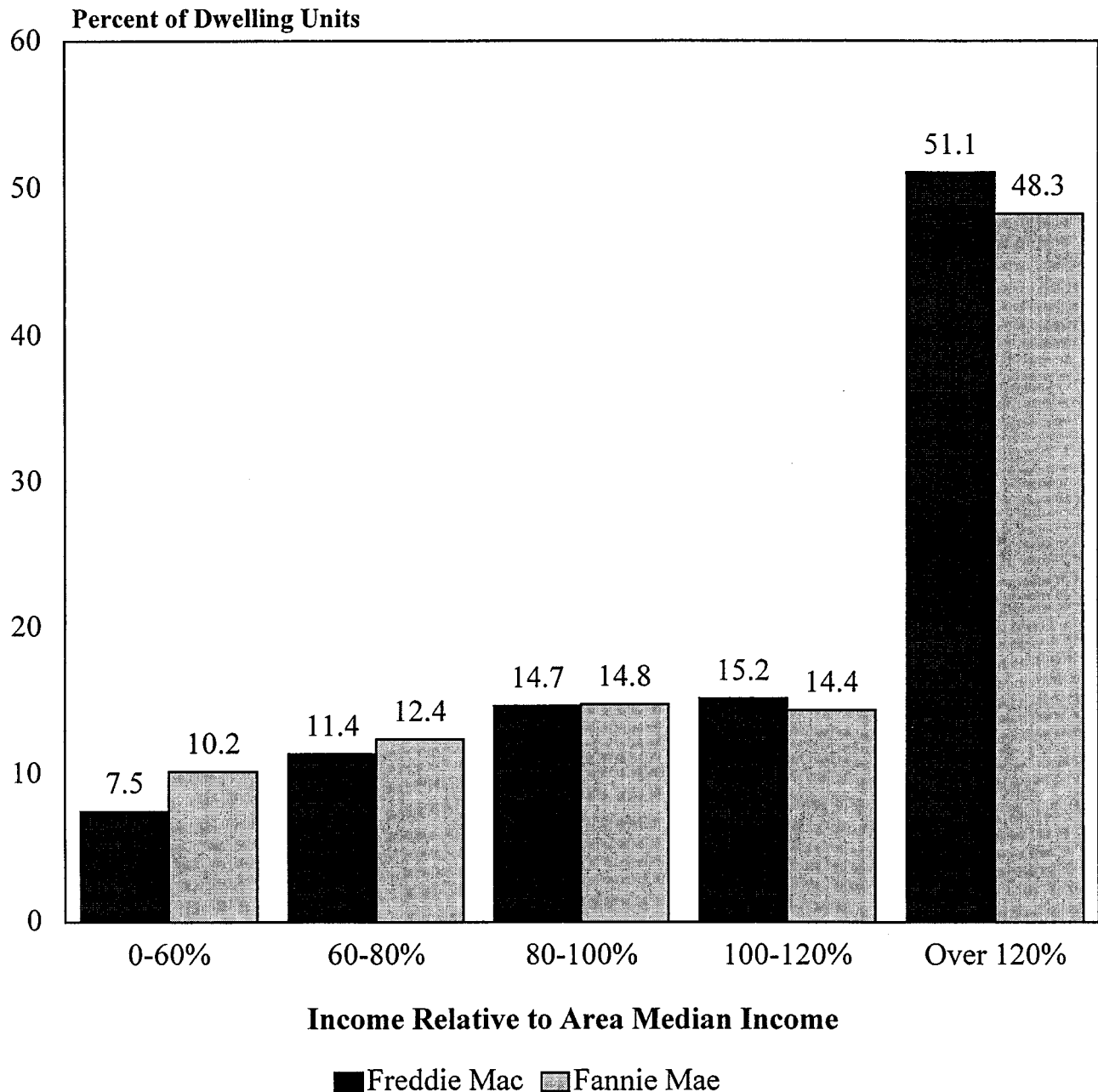
Figure A.1
Low- and Moderate-Income Mortgage Purchases



Low- and Moderate-Income Goal is 42% of units financed for 1997-99 (40% for 1996).

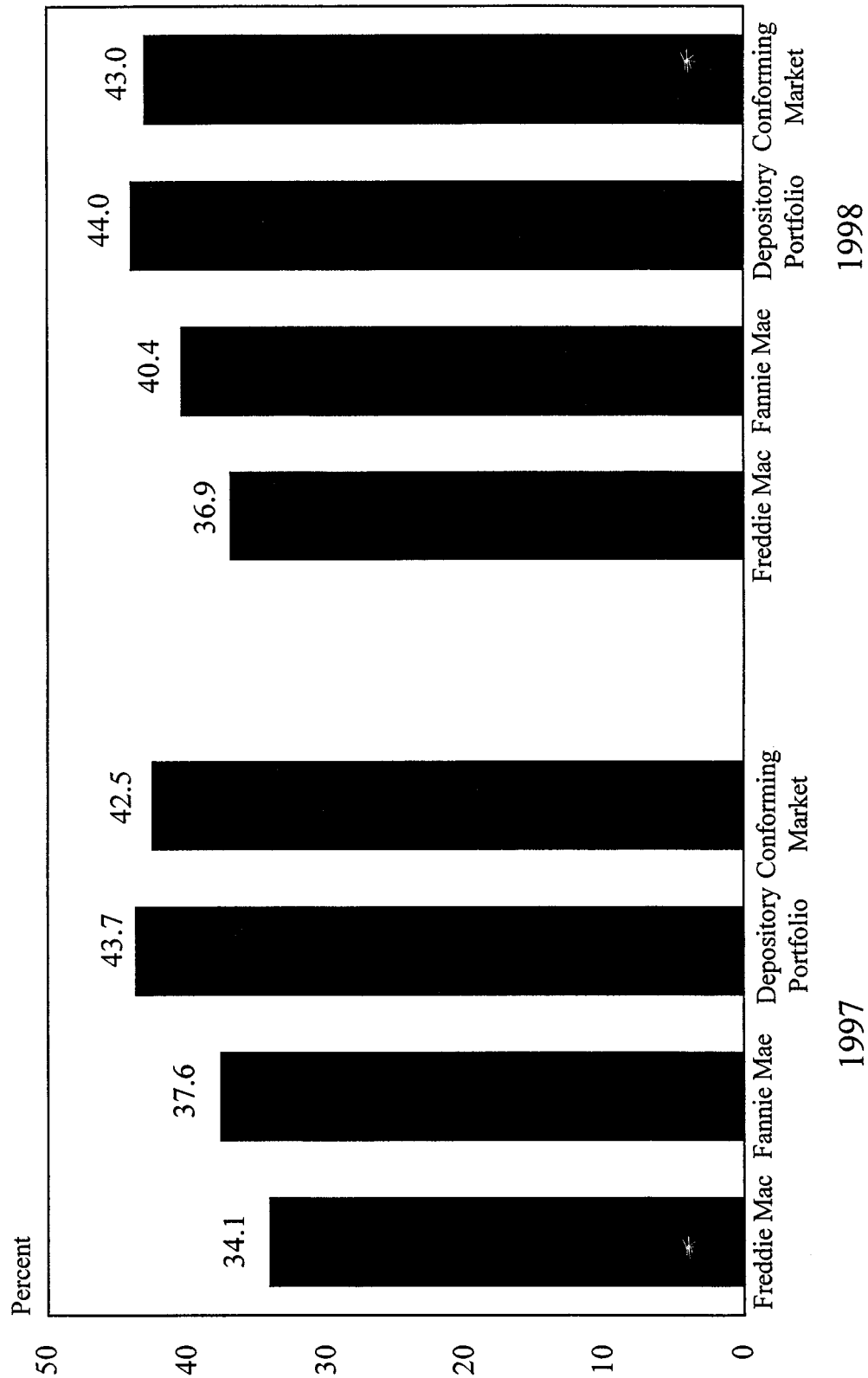
Source: HUD analysis of GSEs' loan-level data.

Figure A.2
Distribution of GSE Purchases of
Single-Family Owner-Occupied Home Loans
by Income Class of Mortgagor for 1997



Source: GSE loan-level data on purchases of home loans in both metropolitan and non-metropolitan areas.

Figure A.3
The Share Of GSE And Conventional Conforming
Mortgages for Low- and Moderate-Income Borrowers,
1997 and 1998



Source: Conforming market and depository data are from 1997 and 1998 HMDA; GSE data are from loan-level data reported to HUD. Data are for single-family home purchase loans in metropolitan areas. See Table A.4a for further explanation.

Single Family Affordable Lending Market. Despite these gains in goal performance, the Department remains concerned about the GSEs' support of lending for the lower-income end of the market. As shown in Figures A.2 and A.3, the lower-income shares of the GSEs' purchases are too low, particularly when compared with the corresponding shares for portfolio lenders and the primary market.

This appendix has reached the following findings with respect to the GSEs' purchases of affordable loans for low- and moderate-income families and their communities.

(i) While Fannie Mae and Freddie Mac have both improved their support for the single-family affordable lending market over the past six years, they have generally lagged the overall single-family market in providing affordable loans to lower-income borrowers. This finding is based on HUD's analysis of GSE and HMDA data and on numerous studies by academics and research organizations.

(ii) The GSEs show somewhat different patterns of mortgage purchases—for example, Freddie Mac is less likely than Fannie Mae to fund mortgages for lower-income families. As a result, the percentage of Freddie Mac's purchases benefiting historically underserved families and their neighborhoods is less than the corresponding shares of total market originations, while Fannie Mae's purchases are closer to the patterns of originations in the primary market (see Figure A.3).

(iii) A study by The Urban Institute of lender experience with the GSEs' underwriting guidelines finds that the enterprises have stepped up their outreach efforts and increased the flexibility in their standards to better accommodate the special circumstances of lower-income borrowers. However, this study concludes that the GSEs' guidelines remain somewhat inflexible and that the enterprises are often hesitant to purchase affordable loans. Lenders also tell The Urban Institute that Fannie Mae has been more aggressive than Freddie Mac in market outreach to underserved groups, in offering new affordable products, and in adjusting its underwriting standards.

(iv) A large percentage of the lower-income loans purchased by the enterprises have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of lower-income families have difficulty raising enough cash for a large down payment.

(v) There are important parts of the single-family market where the GSEs have played a minimal role. For example, single-family rental properties are an important source of low-income housing, but they represent only a small portion of the GSEs' business. GSE purchases have accounted for only 13 percent of the single-family rental units that received financing in 1997. An increased presence by Fannie Mae and Freddie Mac would bring lower interest rates and liquidity to this market, as well as improve their goals performance.

(vi) The above points can be summarized by examining the GSEs' share of the single-family mortgage market. The GSEs' total purchases have accounted for 43 percent of all single-family (both owner and rental)

units financed during 1997; however, their low-mod purchases have accounted for only one-third of the low- and moderate-income single-family units that were financed during that year.

In conclusion, the Department's analysis suggests that the GSEs are not leading the single-family market in purchasing loans that qualify for the Low- and Moderate-Income Goal. There is room for Fannie Mae and, particularly, Freddie Mac to improve their performance in purchasing affordable loans at the lower-income end of the market. Moreover, evidence suggests that there is a significant population of potential homebuyers who might respond well to aggressive outreach by the GSEs. Specifically, both Fannie Mae and the Joint Center for Housing Studies expect immigration to be a major source of future homebuyers. Furthermore, studies indicate the existence of a large untapped pool of potential homeowners among the rental population. Indeed, the GSEs' recent experience with new outreach and affordable housing initiatives is important confirmation of this potential.

Multifamily Market. Fannie Mae and, especially, Freddie Mac have rapidly expanded their presence in the multifamily mortgage market in the period since the passage of FHEFSSA. The Senate report on this legislation in 1992 referred to the GSEs' activities in the multifamily arena as "troubling," citing Freddie Mac's September 1990 suspension of its purchases of new multifamily mortgages and criticism of Fannie Mae for "creaming" the market.²¹⁷

Freddie Mac has successfully rebuilt its multifamily acquisition program, as shown by the increase in its purchases of multifamily mortgages from \$27 million in 1992 to \$847 million in 1994 and \$6.6 billion in 1998. As a result, concerns regarding Freddie Mac's multifamily capabilities no longer constrain their performance with regard to low- and moderate-income families in the manner that prevailed at the time of the December 1995 rule.

Fannie Mae never withdrew from the multifamily market, but it has also stepped up its activities in this area substantially, with multifamily purchases rising from \$3.0 billion in 1992 to \$3.8 billion in 1994 and \$12.5 billion in 1998. Fannie Mae publicly announced in 1994 an aggressive goal of conducting \$50 billion in multifamily transactions between 1994 and the end of the decade, and it appears likely that it will be successful in reaching this goal.²¹⁸ Also, Fannie Mae's multifamily underwriting standards are highly influential and have been widely emulated throughout the multifamily mortgage market.

The increased role of Fannie Mae and Freddie Mac in the multifamily market has major implications for the Low- and Moderate-Income Housing Goal, since a very high percentage of multifamily units have rents which are affordable to low- and moderate-income families. However, the potential of the GSEs to lead the multifamily

mortgage industry has not been fully developed. As reported earlier in Table A.7, the GSEs' purchases (through 1998) have accounted for only 22 percent of the multifamily units that received financing during 1997. Standard & Poor's recently described both GSEs' multifamily lending as "extremely conservative."²¹⁹ In particular, their multifamily purchases do not appear to be contributing to mitigation of the excessive cost of mortgage financing for small multifamily properties, nor have the GSEs demonstrated market leadership with regard to rehabilitation loans, a segment where financing has sometimes been difficult to obtain. In conclusion, it appears that both GSEs can make improvements in their underwriting policies and procedures and introduce new products that will enable them to more effectively serve segments of the multifamily market that can benefit from greater liquidity.

3. Size of the Mortgage Market for Low- and Moderate-Income Families

As detailed in Appendix D, the low- and moderate-income mortgage market accounts for 50 to 55 percent of dwelling units financed by conventional conforming mortgages. In estimating the size of the market, HUD excluded the effects of the B&C market. HUD also used alternative assumptions about future economic and market conditions that were less favorable than those that existed over the last five years. HUD is well aware of the volatility of mortgage markets and the possible impacts of changes in economic conditions on the GSEs' ability to meet the housing goals. Should conditions change such that the goals are no longer reasonable or feasible, the Department has the authority to revise the goals.

4. The Low- and Moderate-Income Housing Goals for 2000–03

There are several reasons why the Secretary is increasing the Low- and Moderate-Income Housing Goal from 42 percent in 1997–99 to 48 percent of eligible units financed in calendar year 2000 and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003.

First, when the 1996–99 goals were established in December 1995, Freddie Mac had only recently reentered the multifamily mortgage market, after its absence in the early 1990s. Freddie Mac has rebuilt its multifamily acquisition program over the past several years, with its 1998 purchases at a level nearly five times what they were in 1994. The limited role of Freddie Mac in the multifamily market was a significant constraint in setting the Low- and Moderate-Income Housing Goals for 1996–99. Freddie Mac's return as a major participant in the multifamily market was an important factor in the improvement in its performance on the Low- and Moderate-Income Housing Goal, as shown in Figure A.1, and it removes an impediment to higher goals for both GSEs. These goals will create new opportunities for the GSEs to further step up their support of mortgages on properties with rents affordable

²¹⁷ Senate Report 102–282, (May 15, 1992), p. 36.

²¹⁸ See Fannie Mae's World Wide Web site at <http://www.fanniemae.com>.

²¹⁹ "Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight (OFHEO)," (February 3, 1997), p. 10.

to low- and moderate-income families. However, as discussed in the Preamble, to encourage Freddie Mac to further step up its role in the multifamily market, the Secretary is proposing a "temporary adjustment factor" for its purchases of loans on properties with more than 50 units. Specifically, each unit in such properties would be weighted as 1.2 units in the numerator of the housing goal percentage for both the Low and Moderate Income Goal and the Special Affordable Housing Goal for the years 2000–2003.

Second, the single-family affordable market had only recently begun to grow in 1993 and 1994, the latest period for which data was available when the 1996–99 goals were established in December 1995. But the historically high low- and moderate-income share of the primary mortgage market attained in 1994 has been maintained over the 1995–98 period. The three-year average estimate of the low- and moderate-income share of the single-family owner mortgage market was 38 percent for 1992–94, but 42 percent for 1995–98 and 41 percent for the 1992–98 period as a whole. The continued high affordability of housing suggests that a strong low-income market continued for a sixth straight year in 1999. Current economic forecasts suggest that the strong housing affordability of the past several years will be maintained in the post-1999 period, leading to additional opportunities for the GSEs to support mortgage lending benefiting low- and moderate-income families.²²⁰ And various surveys indicate that the demand for homeownership by minorities, immigrants, and younger households will remain strong for the foreseeable future.

Although single-family owner 1-unit properties comprise the "bread-and-butter" of the GSEs' business, evidence presented

above demonstrates that the shares of their loans for low- and moderate-income families taking out loans on such properties lag the corresponding shares for the primary market. For example, in 1997 the Department finds that these shares amounted to 34.1 percent for Freddie Mac, 37.6 percent for Fannie Mae, and 42.5 percent for the primary market; as shown in Figure A.3, a similar pattern holds for 1998. Thus the Secretary believes that the GSEs can do more to raise the low- and moderate-income shares of their mortgages on these properties. This can be accomplished by building on various programs that the enterprises have already started, including (1) their outreach efforts, (2) their incorporation of greater flexibility into their underwriting guidelines, (3) their purchases of seasoned CRA loans, (4) their entry into new single-family mortgage markets such as loans on manufactured housing, (5) their increased purchases of loans on small multifamily properties, and (6) their increased presence in other rental markets where they have had only a limited presence in the past.

Third, one particular area where the GSEs could play a greater role is in the mortgage market for single-family rental dwellings. These properties, containing 1–4 rental units, are an important source of housing for low- and moderate-income families, but the GSEs have not played a major role in this mortgage market—they accounted for only 6.5 percent of units financed by Fannie Mae and 6.4 percent of units financed by Freddie Mac in 1997. The Department believes that the GSEs' role in financing loans on such properties, which are generally owned by "mom and pop" businesses, can and should be enhanced, though it recognizes that single-family rental properties are very heterogeneous, making it more difficult to develop standardized underwriting standards for the secondary market. But the Secretary believes that the GSEs can do more to play

a leadership role in providing financing for such properties.²²¹

Finally, a wide variety of quantitative and qualitative indicators indicate that the GSEs' have the financial strength to improve their affordable lending performance. For example, combined net income has risen steadily over the last decade, from \$888 million in 1988 to \$5.12 billion in 1998, an average annual growth rate of 19 percent per year. This financial strength provides the GSEs with the resources to lead the industry in supporting mortgage lending for units affordable to low- and moderate-income families.

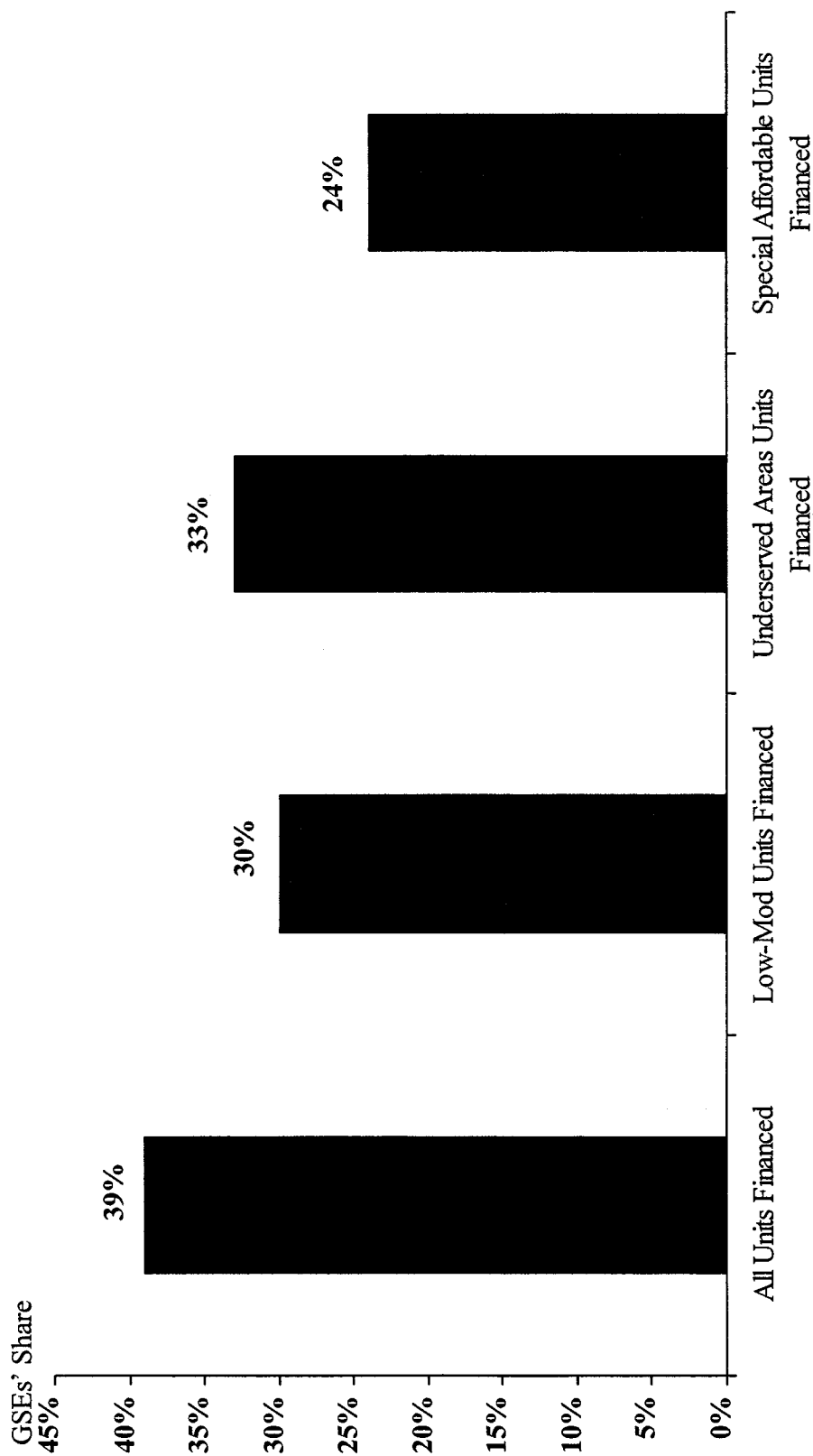
Summary. Figure A.4 summarizes many of the points made in this section regarding opportunities for Fannie Mae and Freddie Mac to improve their overall performance on the Low- and Moderate-Income Goal. The GSEs' purchases have provided financing for 2,893,046 (or 39 percent) of the 7,443,736 single-family and multifamily units that were financed in the conventional conforming market during 1997. However, in the low- and moderate-income part of the market, the 1,305,505 units that were financed by GSE purchases represented only 30 percent of the 4,290,860 dwelling units that were financed in the market. Thus, there appears to ample room for the GSEs to increase their purchases of loans that qualify for the Low- and Moderate-Income Goal. Examples of specific market segments that would particularly benefit from a more active secondary market have been provided throughout this appendix.

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²²⁰ However, the Department's goals for the GSEs have been set so that they will be feasible even under less favorable conditions in the housing market.

²²¹ Another area where stepped-up GSE involvement could benefit low- and moderate-income families is lending for the rehabilitation of properties, which is especially needed in our urban areas. The GSEs have made some efforts in this complex area, but the benefits of stepped-up roles by the GSE could be sizable.

Figure A.4
GSEs' Share of the 1997 Conventional Conforming Market
by Housing Goal Category



Note: The conventional conforming market, as estimated by HUD, includes single-family owner, single-family rental, and multifamily units financed during 1997. See notes for Table A.7.

5. Conclusions

Having considered the projected mortgage market serving low- and moderate-income families, economic, housing and demographic conditions for 2000–03, and the GSEs' recent performance in purchasing mortgages for low- and moderate-income families, the Secretary has determined that the annual goal of 48 percent of eligible units financed in calendar year 2000 and 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003 is feasible. Moreover, the Secretary has considered the GSEs' ability to lead the industry as well as the GSEs' financial condition. The Secretary has determined that the goal is necessary and appropriate.

Appendix B.—Departmental Considerations To Establish the Central Cities, Rural Areas, and Other Underserved Areas Goal

A. Introduction

1. Establishment of Goal

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA) requires the Secretary to establish an annual goal for the purchase of mortgages on housing located in central cities, rural areas, and other underserved areas (the "Geographically Targeted Goal").

In establishing this annual housing goal, Section 1334 of FHEFSSA requires the Secretary to consider:

1. Urban and rural housing needs and the housing needs of underserved areas;
2. Economic, housing, and demographic conditions;
3. The performance and effort of the enterprises toward achieving the Geographically Targeted Goal in previous years;
4. The size of the conventional mortgage market for central cities, rural areas, and other underserved areas relative to the size of the overall conventional mortgage market;
5. The ability of the enterprises to lead the industry in making mortgage credit available throughout the United States, including central cities, rural areas, and other underserved areas; and
6. The need to maintain the sound financial condition of the enterprises.

Organization of Appendix. The remainder of Section A defines the Geographically Targeted Goal for both metropolitan areas and nonmetropolitan areas. Sections B and C address the first two factors listed above, focusing on findings from the literature on access to mortgage credit in metropolitan areas (Section B) and in nonmetropolitan areas (Section C). Separate discussions are provided for metropolitan and nonmetropolitan (rural) areas because of differences in the underlying markets and the data available to measure them. Section D discusses the past performance of the GSEs on the Geographically Targeted Goal (the third factor) and Sections E–G report the Secretary's findings for the remaining factors. Section H summarizes the Secretary's rationale for setting the level for the Geographically Targeted Goal.

2. HUD's Geographically Targeted Goal

HUD's proposed definition of the geographic areas targeted by this goal is

basically the same as that used during 1996–99. It is divided into a metropolitan component and a nonmetropolitan component.

Metropolitan Areas. This proposed rule provides that within metropolitan areas, mortgage purchases will count toward the goal when those mortgages finance properties that are located in census tracts where (1) median income of families in the tract does not exceed 90 percent of area (MSA) median income or (2) minorities comprise 30 percent or more of the residents and median income of families in the tract does not exceed 120 percent of area median income.

The definition includes 20,326 of the 43,232 census tracts (47 percent) in metropolitan areas, which include 44 percent of the metropolitan population.¹ The tracts included in this definition suffer from poor mortgage access and distressed socioeconomic conditions. The average mortgage denial rate in these tracts is 23.4 percent, almost twice the denial rate in excluded tracts. The tracts include 73 percent of the number of poor persons in metropolitan areas.

This definition is based on studies of mortgage lending and mortgage credit flows conducted by academic researchers, community groups, the GSEs, HUD and other government agencies. While more research must be done before mortgage access for different types of people and neighborhoods is fully understood, one finding from the existing research literature stands out—high-minority and low-income neighborhoods continue to have higher mortgage denial rates and lower mortgage origination rates than other neighborhoods. A neighborhood's minority composition and its level of income are highly correlated with measuring access to mortgage credit.

Nonmetropolitan Areas. This proposed rule provides that in nonmetropolitan areas mortgage purchases that finance properties that are located in counties will count toward the Geographically Targeted Goal where (1) median income of families in the county does not exceed 95 percent of the greater of (a) state nonmetropolitan median income and (b) nationwide nonmetropolitan median income or (2) minorities comprise 30 percent or more of the residents and median income of families in the county does not exceed 120 percent of state nonmetropolitan median income.

Two important factors influenced HUD's definition of nonmetropolitan underserved areas—lack of available data for measuring

¹ Tracts are excluded from the analysis if median income is suppressed or there are no owner-occupied 1–4 unit properties. There are 2,033 such tracts. When reporting denial, origination, and application rates, tracts are excluded from the analysis if there are no purchase or refinancing applications. Tracts are also excluded from the analysis if: (1) Group quarters constitute more than 50 percent of housing units or (2) there are less than 15 home purchase applications in the tract and the tract denial rates equal 0 or 100 percent. Excluded tracts account for a small percentage of mortgage applications (1.4 percent). These tracts are not excluded from HUD's underserved areas if they meet the income and minority thresholds. Rather, the tracts are excluded to remove the effects of outliers from the analysis.

mortgage availability in rural areas and lenders' difficulty in operating mortgage programs at the census tract level in rural areas. Because of these factors, this proposed rule uses a more inclusive, county-based definition of underservedness in rural areas. HUD's definition includes 1,511 of the 2,305 counties (66 percent) in nonmetropolitan areas and accounts for 54 percent of the nonmetropolitan population and 67 percent of the nonmetropolitan poverty population.

Goal Levels. The proposed Geographically Targeted Goal is 29 percent of eligible units financed in calendar year 2000 and 31 percent of eligible units financed in calendar year 2001 and thereafter. HUD estimates that the mortgage market in areas included in the Geographically Targeted Goal accounts for 29–32 percent of the total number of newly-mortgaged dwelling units. HUD's analysis indicates that 28.8 percent of Fannie Mae's 1997 purchases and 27.0 percent of 1998 purchases financed dwelling units located in these areas. The corresponding performance for Freddie Mac was 26.3 percent in 1997 and 26.1 percent in 1998.

B. Consideration of Factors 1 and 2 in Metropolitan Areas: The Housing Needs of Underserved Urban Areas and Housing, Economic, and Demographic Conditions in Underserved Urban Areas

This section discusses differential access to mortgage funding in urban areas and summarizes available evidence on identifying those neighborhoods that have historically experienced problems gaining access to mortgage funding. Section B.1 provides an overview of the problem of unequal access to mortgage funding in the nation's housing finance system, focusing on discrimination and other housing problems faced by minority families and the communities where they live. Section B.2 examines mortgage access at the neighborhood level and discusses in some detail the rationale for the Geographically Targeted Goal in metropolitan areas. The most thorough studies available provide strong evidence that in metropolitan areas low income and minority composition identify neighborhoods that are underserved by the mortgage market.

Three main points are made in this section:

There is evidence of racial disparities in both the housing and mortgage markets. Partly as a result of this, the homeownership rate for minorities is substantially below that for whites.

The existence of substantial neighborhood disparities in mortgage credit is well documented for metropolitan areas. Research has demonstrated that census tracts with lower incomes and higher shares of minority population consistently have poorer access to mortgage credit, with higher mortgage denial rates and lower origination rates for mortgages. Thus, the income and minority composition of an area is a good measure of whether that area is being underserved by the mortgage market.

• Research supports a targeted definition. Studies conclude that characteristics of the applicant and the neighborhood where the property is located are the major determinants of mortgage denials and

origination rates. Once these characteristics are accounted for, other influences, such as location in an OMB-designated central city, play only a minor role in explaining disparities in mortgage lending.²

1. Discrimination in the Mortgage and Housing Markets—An Overview

The nation's housing and mortgage finance markets are highly efficient systems where most homebuyers can put down relatively small amounts of cash and obtain long-term funding at relatively small spreads above the lender's borrowing costs. Unfortunately, this highly efficient financing system does not work everywhere or for everyone. Studies have shown that access to credit often depends on improper evaluation of characteristics of the mortgage applicant and the neighborhood in which the applicant wishes to buy. In addition, though racial discrimination has become less blatant in the home purchase market, studies have shown that it is still widespread in more subtle forms. Partly as a result of these factors, the homeownership rate for minorities is substantially below that of whites.

Appendix A provided an overview of the homeownership gaps and lending disparities faced by minorities. A quick look at mortgage denial rates reported by the 1997 HMDA data reveals that minority denial rates were higher than those for white loan applicants. For lower-income borrowers, the conventional denial rate for African Americans was 1.7 times the denial rate for white borrowers, while for higher-income borrowers, the denial rate for African Americans was 2.5 times the rate for white borrowers. Similarly, the FHA denial rate for lower-income African Americans was 1.8 times the denial rates for lower-income white borrowers and twice as high for higher-income African Americans as for whites with similar incomes.

Several analytical studies, some of which are reviewed later in this section, show that these differentials in denial rates are not fully accounted for by differences in credit risk. Perhaps the most publicized example is a study by the Federal Reserve Bank of Boston, described in more detail below, which found that differential denial rates were most prevalent among marginal applicants.³ Highly qualified borrowers of all races seemed to be treated equally, but in cases where there was some flaw in the application, white applicants seemed to be given the benefit of the doubt more frequently than minority applicants.

In addition to discrimination in the lending market, substantial evidence exists of discrimination in the housing market. The 1991 Housing Discrimination Study sponsored by HUD found that minority home buyers encounter some form of discrimination about half the time when they visit a rental or sales agent to ask about

advertised housing.⁴ The incidence of discrimination was higher for African Americans than for Hispanics and for homebuyers than for renters. For renters, the incidence of discrimination was 46 percent for Hispanics and 53 percent for African Americans. The incidence among buyers was 56 percent for Hispanics and 59 percent for African Americans.

While discrimination is rarely overt, minorities are more often told the unit of interest is unavailable, shown fewer properties, offered less attractive terms, offered less financing assistance, or provided less information than similarly situated non-minority homeseekers. Some evidence indicates that properties in minority and racially-diverse neighborhoods are marketed differently from those in White neighborhoods. Houses for sale in non-White neighborhoods are rarely advertised in metropolitan newspapers, open houses are rarely held, and listing real estate agents are less often associated with a multiple listing service.⁵

Discrimination, while not the only cause, contributes to the pervasive level of segregation that persists between African Americans and Whites in our urban areas. Because minorities tend to live in segregated neighborhoods, their difficulty in obtaining mortgage credit has a concentrated effect on the viability of their neighborhoods. In addition, there is evidence that denial rates are higher in minority neighborhoods regardless of the race of the applicant. The next section explores the issue of credit availability in neighborhoods in more detail.

2. Evidence About Access to Credit in Urban Neighborhoods

The viability of neighborhoods—whether urban, rural, or suburban—depends on the access of their residents to mortgage capital to purchase and improve their homes. While neighborhood problems are caused by a wide range of factors, including substantial inequalities in the distribution of the nation's income and wealth, there is increasing agreement that imperfections in the nation's housing and mortgage markets are hastening the decline of distressed neighborhoods. Disparate denial of credit based on geographic criteria can lead to disinvestment and neighborhood decline. Discrimination and other factors, such as inflexible and restrictive underwriting guidelines, limit access to mortgage credit and leave potential borrowers in certain areas underserved.

Data on mortgage credit flows are far from perfect, and issues regarding the identification of areas with inadequate access to credit are both complex and controversial. For this reason, it is essential to define "underserved areas" as accurately as possible from existing data. To provide the reasoning

behind the Department's definition of underserved areas, this section first uses 1997 HMDA data to examine geographic variation in mortgage denial rates, and then it reviews three sets of studies that support HUD's definition. These include (1) studies examining racial discrimination against individual mortgage applicants, (2) studies that test whether mortgage redlining exists at the neighborhood level, and (3) studies that support HUD's targeted approach to measuring areas that are underserved by the mortgage market. In combination, these studies provide strong support for the definition of underserved areas chosen by HUD. The review of the economics literature draws heavily from Appendix B of the 1995 GSE Rule; readers are referred there for a more detailed treatment of issues discussed below.

a. HMDA Data on Mortgage Originations and Denial Rates

Home Mortgage Disclosure Act (HMDA) data provide information on the disposition of mortgage loan applications (originated, approved but not accepted by the borrower, denied, withdrawn, or not completed) in metropolitan areas. HMDA data include the census tract location of the property being financed and the race and income of the individual loan applicant. Therefore, it is a rich data base for analyzing mortgage activity in urban neighborhoods. HUD's analysis using HMDA data for 1997 shows that high-minority and low-income census tracts have both relatively high loan application denial rates and relatively low loan origination rates.

Table B.1 presents mortgage denial and origination rates by the minority composition and median income of census tracts for metropolitan areas. Two patterns are clear: Census tracts with higher percentages of minority residents have higher mortgage denial rates and lower mortgage origination rates than all-white or substantially-white tracts. For example, the denial rate for census tracts that are over 90 percent minority (28.8 percent) was more than twice that for census tracts with less than 10 percent minority (12.4 percent).

- Census tracts with lower incomes have higher denial rates and lower origination rates than higher income tracts. For example, mortgage denial rates declined from 26.8 to 8.4 percent as tract income increased from less than 60 percent of area median to over 150 percent of area median.⁶ Similar patterns arose in HUD's analysis of 1993 and 1994 HMDA data (see Appendix B of the 1995 GSE Rule).

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⁶ The denial rates in Table B.1 are for home purchase mortgages. Denial rates are several percentage points lower for refinance loans than for purchase loans, but denial rates follow the same pattern for both types of loans: rising with minority concentration and falling with increasing income.

² For the sake of brevity, in the remainder of this appendix, the term "central city" is used to mean "OMB-designated central city."

³ Alicia H. Munnell, Lynn Browne, James McEneaney, and Geoffrey Tootell. 1996. "Mortgage Lending in Boston: Interpreting HMDA Data," *American Economic Review*, 86(1) March:25-54.

⁴ Margery A. Turner, Raymond J. Struyk, and John Yinger. *Housing Discrimination Study: Synthesis*, Washington, D.C., U.S. Department of Housing and Urban Development: 1991.

⁵ Margery A. Turner, "Discrimination in Urban Housing Markets: Lessons from Fair Housing Audits," *Housing Policy Debate*, Vol. 3, Issue 2, 1992, pp. 185-215.

Table B.1

Origination and Denial Rates for Conventional Mortgages

Minority Percentage	Originations Per 100 Owner-Occupied Units (Purchases and Refinances)		Denial Rates (Home Purchases)	
	1996	1997	1996	1997
Less than 10%	8.8 %	8.8 %	11.5 %	12.4 %
10-20	8.1	8.5	14.1	15.0
20-30	7.3	7.8	17.1	18.3
30-40	6.5	7.0	19.7	20.3
40-50	6.1	6.6	21.5	22.9
50-60	6.0	6.4	22.5	22.8
60-70	5.9	6.3	23.7	24.1
70-80	5.8	6.4	24.6	24.1
80-90	5.4	5.8	25.9	25.8
90-100	4.3	5.0	29.7	28.8
All Tracts	7.9	8.2	14.4	15.3

Tract Income Relative to MSA Median	Originations Per 100 Owner-Occupied Units (Purchases and Refinances)		Denial Rates (Home Purchases)	
	1996	1997	1996	1997
Less than 20%	7.0 %	8.4 %	32.4 %	26.3 %
20-30	5.0	6.0	33.3	26.7
30-40	4.4	5.2	29.8	29.0
40-50	5.0	5.8	27.6	27.4
50-60	4.9	5.6	27.8	26.8
60-70	5.3	6.0	25.4	26.7
70-80	5.9	6.5	23.3	24.3
80-90	6.7	7.1	20.1	21.8
90-100	7.3	7.6	17.1	18.4
100-110	8.1	8.3	14.2	15.5
110-120	9.0	9.0	11.9	12.8
120-150	9.7	9.8	9.8	10.2
150+	9.1	9.1	8.2	8.4
All Tracts	7.9	8.2	14.4	15.3

Source: HUD analysis of 1996 and 1997 HMDA Data. Denial rate data exclude loans from nine lenders that primarily originate manufactured housing loans.

Table B.2
Mortgage Denial and Origination Rates
By Minority and Income Characteristics
of the Census Tract

Denial Rates (Purchase Mortgages Only)				
Minority Composition				
Tract Income	< 30%	30-50%	50-100%	Total
Less Than 90%	21.9%	25.8%	27.7%	24.0%
90-120%	14.9%	20.3%	21.3%	15.6%
120+	9.1%	13.8%	16.8%	9.5%
Total	13.7%	21.3%	25.1%	15.3%
Origination Rates per 100 Owner Occupants (Purchase and Refinance Mortgages)				
Minority Composition				
Tract Income	< 30%	30-50%	50-100%	Total
Less Than 90%	7.0	6.6	5.5	6.5
90-120%	8.5	6.7	6.2	8.3
120+	9.7	7.8	7.3	9.5
Total	8.7	6.8	5.8	8.2

Source: HUD analysis of 1997 HMDA Data. Data on denial rates exclude loans for nine lenders that primarily originate manufactured housing loans.

Table B.2 illustrates the interaction between percent minority and tract income by aggregating the data in Table B.1 into six minority and income combinations. The low-minority (less than 30 percent minority), high-income (over 120 percent of area median) group has a denial rate of 9.1 percent and an origination rate of 9.7 loans per 100 owner occupants. The high-minority (over 50 percent), low-income (under 90 percent of area median) group has a denial rate of 27.7 percent and an origination rate of only 5.5 loans per 100 owner occupants. The other groupings fall between these two extremes.

The advantages of HUD's underserved area definition can be seen by examining the minority-income combinations highlighted in Table B.2. The sharp differences in denial rates and origination rates between the underserved and remaining served categories illustrate that HUD's definition delineates areas that have significantly less success in receiving mortgage credit. Underserved areas have almost twice the average denial rate of served areas (23.4 percent versus 12.2 percent) and two-thirds the average origination rate per 100 owner occupants (6.6 versus 9.1). HUD's definition does not include high-income (over 120 percent of area median) census tracts even if they meet the minority threshold. The mortgage denial rate (14.9) for high-income tracts with a minority share of population over 30 percent is much less than the denial rate (23.4) in underserved areas as defined by HUD, and only slightly above the average (12.2 percent) for all served areas.

b. Federal Reserve Bank Studies

The analysis of denial rates in the above section suggests that HUD's definition is a good proxy for identifying areas experiencing credit problems. However, an important question is the degree to which variations in denial rates reflect lender bias against certain kinds of neighborhoods and borrowers versus the degree to which they reflect the credit quality of the potential borrower (as indicated by the applicant's available assets, credit rating, employment history, etc.). Some studies of credit disparities have attempted to control for credit risk factors that might influence a lender's decision to approve a loan. Without fully accounting for the creditworthiness of the borrower, racial differences in denial rates cannot be attributed to lender bias.

The best example of accounting for credit risk is the study by researchers at the Federal Reserve Bank of Boston, which analyzed mortgage denial rates.⁷ To control for credit risk, the Boston Fed researchers included 38 borrower and loan variables indicated by lenders to be critical to loan decisions. For example, the Boston Fed study included a measure of the borrower's credit history, which is a variable not included in other studies. The Boston Fed study found that minorities' higher denial rates could not be explained fully by income and credit risk factors. African Americans and Hispanics

were about 60 percent more likely to be denied credit than Whites, even after controlling for credit risk characteristics such as credit history, employment stability, liquid assets, self-employment, age, and family status and composition. Although almost all highly-qualified applicants of all races were approved, differential treatment was observed among borrowers with more marginal qualifications.⁸

A subsequent reassessment and refinement of the data used by the Federal Reserve Bank of Boston confirmed the findings of that study.⁹ William C. Hunter of the Federal Reserve Bank of Chicago confirmed that race was a factor in denial rates of marginal applicants. While denial rates were comparable for borrowers of all races with "good" credit ratings, among those with "bad" credit ratings or high debt ratios, minorities were significantly more likely to be denied than similarly-situated whites. The study concluded that the racial differences in denial rates were consistent with a cultural gap between white loan officers and minority applicants, and conversely, a cultural affinity with white applicants.

The two Fed studies concluded that the effect of borrower race on mortgage rejections persists even after controlling for legitimate determinants of lenders' credit decisions. Thus, they imply that variations in mortgage denial rates, such as given in Table B.2 are not determined entirely by borrower risk but reflect discrimination in the housing finance system. However, the independent race effect identified in these studies is still difficult to interpret. In addition to lender bias, access to credit can be limited by loan characteristics that reduce profitability¹⁰ and by underwriting standards that have disparate effects on minority and lower-income borrowers and their neighborhoods.¹¹

⁸ A HUD study also found mortgage denial rates for minorities to be higher in ten metropolitan areas, even after controlling for credit risk. In addition, the higher denial rates observed in minority neighborhoods were not purely a reflection of the higher denial rates experienced by minorities. Whites experienced higher denial rates in some minority neighborhoods than in some predominantly white neighborhoods. Ann B. Schnare and Stuart A. Gabriel, "The Role of FHA in the Provision of Credit to Minorities," ICF Incorporated, prepared for the U.S. Department of Housing and Urban Development, April 25, 1994.

⁹ William C. Hunter, "The Cultural Affinity Hypothesis and Mortgage Lending Decisions," WP-95-8, Federal Reserve Bank of Chicago, 1995.

¹⁰ Since upfront loan fees are frequently determined as a percentage of the loan amount, lenders are discouraged from making smaller loans in older neighborhoods, because such loans generate lower revenue and are less profitable to lenders.

¹¹ Traditional underwriting practices may have excluded some lower income families that are, in fact, creditworthy. Such families tend to pay cash, leaving them without a credit history. In addition, the usual front-end and back-end ratios applied to applicants' housing expenditures and other ongoing costs may be too stringent for lower income households, who typically pay larger shares of their income for housing (including rent and utilities) than higher income households.

c. Controlling for Neighborhood Risk and Tests of the Redlining Hypothesis

In its deliberations leading up to FHEFSSA, Congress was concerned about geographic redlining—the refusal of lenders to make loans in certain neighborhoods regardless of the creditworthiness of individual applicants. During the 1980's and early 1990's, a number of studies using HMDA data (such as that reported in Tables B.1 and B.2) attempted to test for the existence of mortgage redlining. Consistent with the redlining hypothesis, these studies found lower volumes of loans going to low-income and high-minority neighborhoods.¹² However, such analyses were criticized because they did not distinguish between demand, risk, and supply effects¹³—that is, they didn't determine whether loan volume was low because families in high-minority and low-income areas were unable to afford home ownership and therefore were not applying for mortgage loans, or because borrowers in these areas were more likely to default on their mortgage obligations, or because lenders refused to make loans to creditworthy borrowers in these areas.^{14 15}

Recent statistical studies have sought to test the redlining hypothesis by more

¹² These studies, which were conducted at the census tract level, typically involved regressing the number of mortgage originations (relative to the number of properties in the census tract) on characteristics of the census tract including its minority composition. A negative coefficient estimate for the minority composition variable was often interpreted as suggesting redlining. For a discussion of these models, see Eugene Perle, Kathryn Lynch, and Jeffrey Horner, "Model Specification and Local Mortgage Market Behavior," *Journal of Housing Research*, Volume 4, Issue 2, 1993, pp. 225-243.

¹³ For critiques of the early HMDA studies, see Andrew Holmes and Paul Horvitz, "Mortgage Redlining: Race, Risk, and Demand," *The Journal of Finance*, Volume 49, No. 1, March 1994, pp. 81-99; and Michael H. Schill and Susan M. Watcher, "A Tale of Two Cities: Racial and Ethnic Geographic Disparities in Home Mortgage Lending in Boston and Philadelphia," *Journal of Housing Research*, Volume 4, Issue 2, 1993, pp. 245-276.

¹⁴ Likely early HMDA studies, an analysis of deed transfer data in Boston found lower rates of mortgage activity in minority neighborhoods. The discrepancies held even after controlling for income, house values and other economic and non-racial factors that might explain differences in demand and housing market activity. The study concluded that "the housing market and the credit market together are functioning in a way that has hurt African American neighborhoods in the city of Boston." Katherine L. Bradbury, Karl E. Case, and Constance R. Dunham, "Geographic Patterns of Mortgage Lending in Boston, 1982-1987," *New England Economic Review*, September/October 1989, pp. 3-30.

¹⁵ Using an analytical approach similar to that of Bradbury, Case, and Dunham, Anne Shlay found evidence of fewer mortgage loans originated in black census tracts in Chicago and Baltimore. See Anne Shlay, "Not in That Neighborhood: The Effects of Population and Housing on the Distribution of Mortgage Finance within the Chicago SMSA," *Social Science Research*, Volume 17, No. 2, 1988, pp. 137-163; and "Financing Community: Methods for Assessing Residential Credit Disparities, Market Barriers, and Institutional Reinvestment Performance in the Metropolis," *Journal of Urban Affairs*, Volume 11, No. 3, 1989, pp. 201-223.

⁷ Alicia H. Munnell, Lynn E. Browne, James McEneaney, and Geoffrey M. B. Tootell, "Mortgage Lending in Boston: Interpreting HMDA Data," *American Economic Review*, March 1996.

completely controlling for differences in neighborhood risk and demand. The first two studies reviewed below are good examples of the more recent literature. In these studies, the explanatory power of neighborhood race is reduced to the extent that the effects of neighborhood risk and demand are accounted for; thus, they do not support claims of racially induced mortgage redlining. However, as explained below, these studies cannot reach definitive conclusions about redlining because segregation in our inner cities makes it difficult to distinguish the impacts of geographic redlining from the effects of individual discrimination.

Additional studies related to redlining and the credit problems facing low-income and minority neighborhoods are also summarized. Particularly important are studies that focus on the "thin" mortgage markets in these neighborhoods and the implications of lenders not having enough information about the collateral and other characteristics of these neighborhoods. The low numbers of house sales and mortgages originated in low-income and minority neighborhoods result in individual lenders perceiving these neighborhoods to be more risky. It is argued that lenders do not have enough historical information to project the expected default performance of loans in low-income and minority neighborhoods, which increases their uncertainty about investing in these areas.

Holmes and Horvitz Study. First, Andrew Holmes and Paul Horvitz used 1988–1991 HMDA data to examine variations of conventional mortgage originations across census tracts in Houston. Their single-equation regression model included as explanatory variables the economic viability of the loan, characteristics of properties in and residents of the tract (e.g., house value, income, age distribution and education level), measures of demand (e.g., recent movers into the tract and change in owner-occupied units between 1980 and 1990), and measures of credit risk (defaults on government-insured loans and change in tract house values between 1980 and 1990). To test the existence of racial redlining, the model also included as explanatory variables the percentages of African American and Hispanic residents in the tract and the increase in the tract's minority percentage between 1980 and 1990. Most of the neighborhood risk and demand variables were significant determinants of the flow of conventional loans in Houston. The coefficients of the racial composition variables were insignificant, which led Holmes and Horvitz to conclude that allegations of redlining in the Houston market could not be supported.

Schill and Wachter Study. Michael Schill and Susan Wachter posit that the probability that a lender will accept a specific mortgage application depends on characteristics of the individual loan application¹⁶ and characteristics of the neighborhood where the

property collateralizing the loan is located. Schill and Wachter include neighborhood risk proxies that are likely to affect the future value of the properties,¹⁷ and they include the percentage of the tract population comprised by African Americans and Hispanics in order to test for the existence of racial discrepancies in lending patterns across census tracts.

Testing their model for conventional mortgages in Philadelphia and Boston, Schill and Wachter found that the applicant race variables—whether the applicant was African American or Hispanic—showed significant negative effects on the probability that a loan would be accepted. Schill and Wachter stated that this finding does not provide evidence of individual race discrimination because applicant race is most likely serving as a proxy for credit risk variables omitted from their model (e.g., credit history, wealth and liquid assets). In an initial analysis that excluded the neighborhood risk variables from the model, the percentage of the census tract that was African American also showed a significant and negative coefficient, a result that is consistent with redlining. However, when the neighborhood risk proxies were included in the model along with the individual loan variables, the percentage of the census tract that was African American becomes insignificant. Thus, similar to Holmes and Horvitz, Schill and Wachter stated that "once the set of independent variables is expanded to include measures that act as proxies for neighborhood risk, the results do not reveal a pattern of redlining."¹⁸

Other Redlining Studies. To highlight the methodological problems of single-equation studies of mortgage redlining, Fred Phillips-Patrick and Clifford Rossi develop a simultaneous equation model of the demand and supply of mortgages, which they estimate for the Washington, DC metropolitan area.¹⁹ Phillips-Patrick and Rossi find that the supply of mortgages is negatively associated with the racial composition of the neighborhood, which leads them to conclude that the results of single-equation models (such as the one estimated by Holmes and Horvitz) are not reliable indicators of redlining or its absence. However, Phillips-Patrick and Rossi note that even their simultaneous equations model does not provide definitive evidence of redlining because important underwriting variables (such as credit history), which are

¹⁷ Their neighborhood risk proxies include median income and house value (inverse indicators of risk), percent of households receiving welfare, median age of houses, homeownership rate (an inverse indicator), vacancy rate, and the rent-to-value ratio (an inverse indicator). A high rent-to-value ratio suggests lower expectations of capital gains on properties in the neighborhood.

¹⁸ Schill and Wachter, page 271. Munnell, *et al.* reached similar conclusions in their study of Boston. The found that the race of the individual mattered, but that once individual characteristics were controlled, racial composition of the neighborhood was insignificant.

¹⁹ Fred J. Phillips-Patrick and Clifford V. Rossi, "Statistical Evidence of Mortgage Redlining? A Cautionary Tale", *The Journal of Real Estate Research*, Volume 11, Number 1 (1996), pp.13–23.

omitted from their model, may be correlated with neighborhood race.

A few studies of neighborhood redlining have attempted to control for the credit history of the borrower, which is the main omitted variable in the redlining studies reviewed so far. Samuel Myers, Jr. and Tsze Chan, who study mortgage rejections in the state of New Jersey in 1990, develop a proxy for bad credit based on the reasons that lenders give in their HMDA reports for denying a loan.²⁰ They find that 70 percent of the gap in rejection rates cannot be explained by differences in Black and white borrower characteristics, loan characteristics, neighborhoods or bad credit. Myers and Chan conclude that the unexplained Black-white gap in rejection rates is a result of discrimination. With respect to the racial composition of the census tract, they find that Blacks are more likely to be denied loans in racially integrated or predominately-white neighborhoods than in predominately-Black neighborhoods. They conclude that middle-class Blacks seeking to move out of the inner city would face problems of discrimination in the suburbs.²¹

Geoffrey Tootell has authored two papers on neighborhood redlining based on the mortgage rejection data from the Boston Fed study.²² Tootell's studies are important because they include a direct measure of borrower credit history, as well as the other underwriting, borrower, and neighborhood characteristics that are included in the Boston Fed data base; thus, his work does not have the problem of omitted variables, at least to the same extent as previous redlining studies.²³ Tootell finds that lenders in the Boston area do not appear to be redlining neighborhoods based on the racial composition of the census tract or the average income in the tract. Consistent with the Boston Fed and Schill and Wachter studies,

²⁰ Samuel L. Myers, Jr. and Tsze Chan, "Racial Discrimination in Housing Markets: Accounting for Credit Risk", *Social Science Quarterly*, Volume 76, Number 3 (September 1995), pp. 543–561.

²¹ For another study that uses HMDA data on reasons for denial to construct a proxy for bad credit, see Steven R. Holloway, "Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio", *Annals of the Association of American Geographers*, 88(2), 1998, pp. 252–276. Holloway finds that mortgage denial rates are higher for black applicants (particularly those who are making large loan requests) in all-white neighborhoods than in minority neighborhoods, while the reverse is true for white applicants making small loan requests.

²² See Geoffrey M. B. Tootell, "Redlining in Boston: Do Mortgage Lenders Discriminate Against Neighborhoods?", *Quarterly Journal of Economics*, 111, November, 1996, pp. 1049–1079; and "Discrimination, Redlining, and Private Mortgage Insurance", unpublished manuscript, October, 1995.

²³ Tootell notes that both omitted variables and the strong correlation between borrower race and neighborhood racial composition in segregated cities have made it difficult for previous studies to distinguish the impacts of geographic redlining from the effects of individual borrower discrimination. He can unravel these effects because he includes a direct measure of credit history and because over half of minority applicants in the Boston Fed data base applied for mortgages in predominately white areas.

¹⁶ Individual loan characteristics include loan size (economies of scale cause lenders to prefer large loans to small loans) and all individual borrower variables included in the HMDA data (the applicant's income, sex, and race).

Tootell finds that it is the race of the applicant that mostly affects the mortgage lending decision; the location of the applicant's property appears to be far less relevant. However, he does find that the decision to require private mortgage insurance depends on the racial composition of the neighborhood. Tootell suggests that, rather than redline themselves, mortgage lenders may rely on private mortgage insurers to screen applications from minority neighborhoods. Tootell also notes that this indirect form of redlining would increase the price paid by applicants from minority areas that are approved by private mortgage insurers.

In a 1999 paper, Stephen Ross and Geoffrey Tootell use the Boston Fed data base to take a closer at both lender redlining and the role of private mortgage insurance (PMI) in neighborhood lending.²⁴ They have two main findings. First, mortgage applications for properties in low-income neighborhoods are more likely to be denied if the applicant does not apply for PMI. Ross and Tootell conclude that their study provides the first direct evidence based on complete underwriting data that some mortgage applications may have been denied based on neighborhood characteristics that legally should not be considered in the underwriting process. Second, mortgage applicants are often forced to apply for PMI when the housing units are in low-income neighborhoods. Ross and Tootell conclude that lenders appear to be responding to CRA by favoring low-income tracts once PMI has been received, and this effect counteracts the high denial rates for applications without PMI in low-income tracts.

Studies of Information Externalities. A recent group of studies that focus on economies of scale in the collection of information about neighborhood characteristics has implications for the identification of underserved areas and understanding the problems of mortgage access in low-income and minority neighborhoods. William Lang and Leonard Nakamura argue that individual home sale transactions generate information which reduce lenders' uncertainty about property values, resulting in greater availability of mortgage financing.²⁵ Conversely, appraisals

in neighborhoods where transactions occur infrequently will tend to be more imprecise, resulting in greater uncertainty to lenders regarding collateral quality, and more reluctance by them in approving mortgage loans in neighborhoods with thin markets. As a consequence, "prejudicial practices of the past may lead to continued differentials in lending behavior."

If low-income or minority tracts have experienced relatively few recent transactions, the resulting lack of information available to lenders will result in higher denial rates and more difficulty in obtaining mortgage financing, independently of the level of credit risk in these neighborhoods.

A number of empirical studies have found evidence consistent with the notion that mortgage credit is more difficult to obtain in areas with relatively few recent sales transactions. Some of these studies have also found that low transactions volume may contribute to disparities in the availability of mortgage credit by neighborhood income and minority composition.

Paul Calem found that, in low-minority tracts, higher mortgage loan approval rates were associated with recent sales transactions volume, consistent with the Lang and Nakamura hypothesis.²⁶ While this effect was not found in high-minority tracts, he concludes that "informational returns to scale" contribute to disparities in the availability of mortgage credit between low-minority and high-minority areas. Empirical research by David Ling and Susan Wachter finds that recent tract-level sales transaction volume does significantly contribute to mortgage loan acceptance rates in Dade County, Florida, also consistent with the Lang and Nakamura hypothesis.²⁷

Robert Avery, Patricia Beeson, and Mark Sniderman find significant evidence of economies associated with the scale of operation of individual lenders in a neighborhood.²⁸ They conclude that "The inability to exploit these economies of scale is found to explain a substantial portion of

the higher denial rates observed in low-income and minority neighborhoods, where the markets are generally thin." Low-income and minority neighborhoods often suffer from low transactions volume, and low transactions volume represents a barrier to the availability of mortgage credit by making mortgage lenders more reluctant to approve and originate mortgage loans in these areas.

d. Geographic Dimensions of Underserved Areas—Targeted Versus Broad Approaches

HUD's definition of underserved areas is a targeted neighborhood definition, rather than a broad definition that would encompass entire cities. It also focuses on these neighborhoods experiencing the most severe credit problems rather than neighborhoods experiencing only moderate difficulty obtaining credit. During the regulatory process leading to the 1995 Rule, some argued that underserved areas under this goal should be defined to include the entire central city. HUD concluded that such broad definitions were not a good proxy for mortgage credit problems; to use them would allow the GSEs to focus on wealthier parts of cities rather than on neighborhoods experiencing credit problems. This section reports findings from several analyses by HUD and academic researchers that support defining underserved areas in terms of the minority and/or income characteristics of census tracts, rather than in terms of a broad definition such as all areas of all central cities.

Socioeconomic Characteristics. The targeted nature of HUD's definition can be seen from the data presented in Table B.3, which show that families living in underserved areas experience much more economic and social distress than families living in served areas. For example, the poverty rate in underserved census tracts is 20.1 percent, or almost four times the poverty rate (5.8 percent) in served census tracts. The unemployment rate and the high-school drop out rate are also higher in underserved areas. In addition, there are nearly three times more female-headed households in underserved areas (11.5 percent) than in served areas (4.3 percent).

The majority of units in served areas are owner-occupied while the majority of units in underserved areas are renter-occupied.

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²⁴ Stephen L. Ross and Geoffrey M. B. Tootell, "Redlining, the Community Reinvestment Act, and Private Mortgage Insurance", unpublished manuscript, March, 1999.

²⁵ Lang, William W. and Leonard I. Nakamura, "A Model of Redlining," *Journal of Urban Economics*, Volume 33, 1993, pp. 223-234.

²⁶ Calem, Paul S. "Mortgage Credit Availability in Low- and Moderate-Income Minority Neighborhoods: Are Information Externalities Critical?" *Journal of Real Estate Finance and Economics*, Volume 13, 1996, pp. 71-89.

²⁷ Ling, David C. and Susan M. Wachter, "Information Externalities and Home Mortgage Underwriting," *Journal of Urban Economics*, Volume 44, 1998, pp. 317-332.

²⁸ Robert B. Avery, Patricia E. Beeson, and Mark S. Sniderman, "Neighborhood Information and Home Mortgage Lending," *Journal of Urban Economics*, Volume 45, 1999, pp. 287-310.

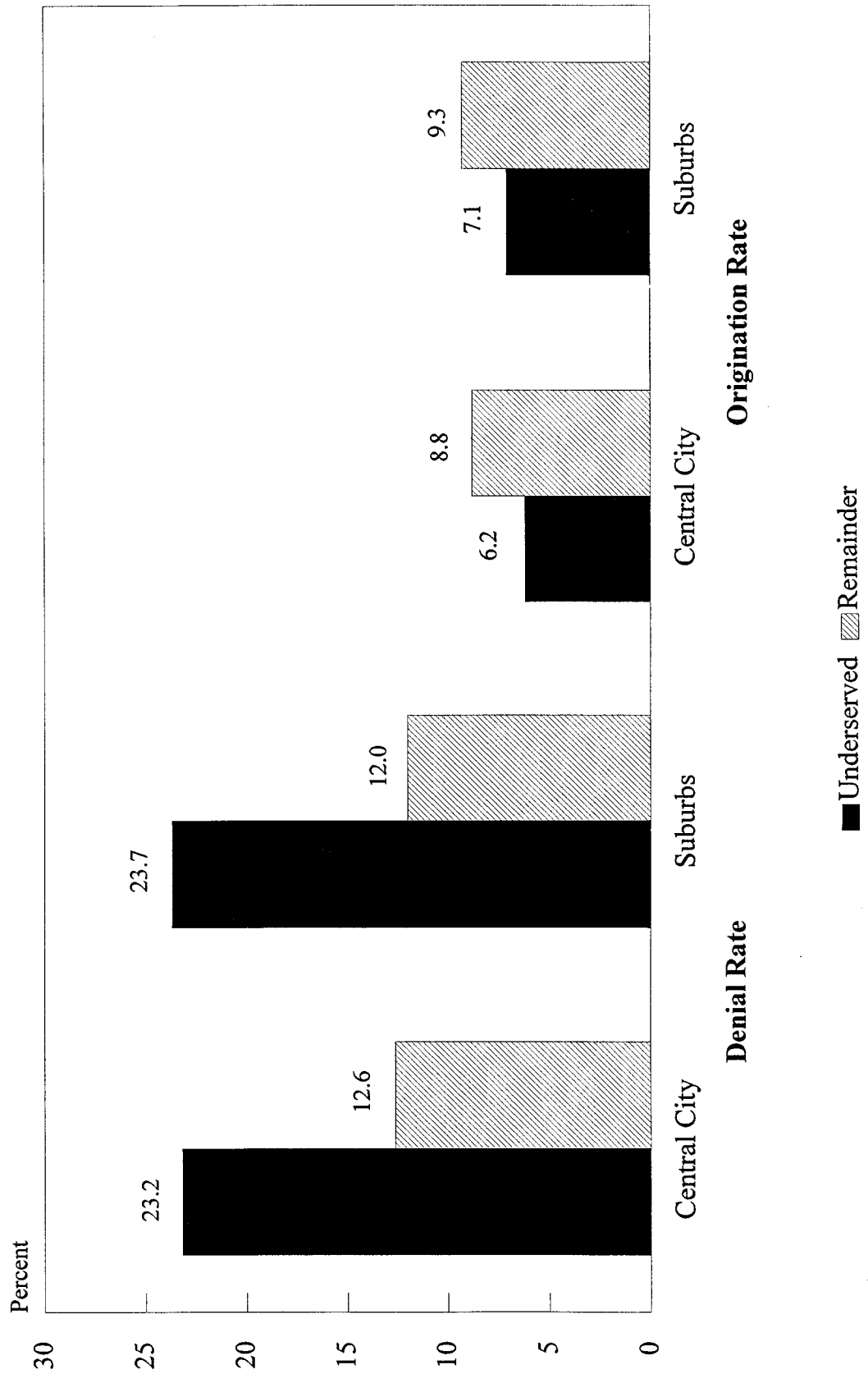
Table B.3

**Socioeconomic Characteristics of Underserved Areas
in Metropolitan Areas**

	Served Tracts	Underserved Tracts	Total
Census Tracts	23,819	21,587	45,406
Households	41,379,104	31,839,636	73,218,740
Population	110,037,735	87,578,825	197,616,560
Unemployment Rate	4.2%	9.0%	6.2%
Poverty Rate	5.8%	20.1%	12.1%
Dropout Rate	10.3%	20.4%	14.8%
Percent Female Household With Children	12.1%	28.3%	19.7%
Percent African-American	3.8%	23.6%	12.6%
Percent Minority	11.1%	46.6%	26.8%
Percent Owner-Occupied	71.3%	47.6%	61.0%
Percent Renter	28.6%	52.4%	38.9%

Source: 1990 Census.

Figure B.1
1997 Denial And Origination Rates
Underserved Areas And Remainder
By Central Cities And Suburbs



Credit Characteristics. Tables B.1 and B.2 documented the relatively high denial rates and low mortgage origination rates in underserved areas as defined by HUD. This section extends that analysis by comparing underserved and served areas within central cities and suburbs. Figure B.1 shows that HUD's definition targets central city neighborhoods that are experiencing problems obtaining mortgage credit. The 23.2 percent denial rate in these neighborhoods in 1997 is twice the 12.6 percent denial rate in the remaining areas of central cities. A broad, inclusive definition of "central city" that includes all areas of all OMB-designated central cities would include these "remaining" portions of cities. Figure B.1 shows that these areas, which account for approximately 43 percent of the population in OMB-designated central cities, appear to be well served by the mortgage market. As a whole, they are not experiencing problems obtaining mortgage credit.²⁹

HUD's definition also targets underserved census tracts in the suburbs as well as in central cities—for example, the average denial rate in underserved suburban areas (23.7 percent) is more than twice that in the remaining served areas of the suburbs (12.0 percent). Low-income and high-minority suburban tracts appear to have credit problems similar to their central city counterparts. These suburban tracts, which account for 40 percent of the suburban population, are encompassed by the definition of other underserved areas.

Another alternative definition proposed by some in 1995 would have relaxed HUD's definition by increasing the income threshold from 90 percent to 100 percent of area median income and by reducing the minority threshold from 30 percent to 20 percent of tract population. This definition would include all areas covered by HUD's definition as well as 5,367 additional census tracts where median income is between 90 and 100 percent of area median or minorities comprise 20–30 percent of tract population. As HUD argued in the 1995 GSE Rule, these tracts do not appear to be experiencing problems obtaining mortgage credit. Their 17.8 percent mortgage denial rate is not much above the average of 15.3 percent and significantly below the 23.4 percent denial rate in tracts covered by HUD's Geographically Targeted Goal.

As explained in the Preamble, HUD is asking for public comment on two options that would tighten the targeting of the underserved definition reducing the number of qualifying census tract. The first option would enhance the definition of the tract income ratio and reduce the ceiling of the qualifying tract income ratio from 90 percent to 80 percent of area median income. The definition of tract income ratio would be enhanced as follows: the definition would change from tract median income as a percent of MSA median income to tract median income as a percent of the greater of either the national metropolitan median income or the MSA median income.

²⁹ The Preamble to the 1995 Rule provides additional reasons why central city location should not be used as a proxy for underserved areas.

Applying the definition changes the current definition in two ways: (1) 994 tracts, with an average denial rate of 26.8, would be added, and (2) 2,500 tracts, with an average denial rate of 17.8 percent, would be dropped due to reducing the income threshold to 80 percent. Of the tracts that would be dropped, the denial rate is not much higher than the average denial rate for all metropolitan areas, which is 15.3 percent. This suggests that these areas are not experiencing severe problems in obtaining mortgage credit and should not be targeted.

The second option would change the definition of underserved areas to qualify census tracts with minority population of 50 percent, an increase from the current definition of 30 percent. An increase in the tract minority population would focus GSE purchases in high-minority neighborhoods that have been traditionally underserved by the mortgage market. One shortcoming of this option is that it would exclude 1,045 tracts with minority population between 30 and 50 percent which have high denial rates (20.2 percent).

Shear, Berkovec, Dougherty, and Nothaft Study. William Shear, James Berkovec, Ann Dougherty, and Frank Nothaft conducted an analysis of mortgage flows and application acceptance rates in 32 metropolitan areas that supports a targeted definition of underserved areas.³⁰ They found: (a) Low-income census tracts and tracts with high concentrations of African American and Hispanic families had lower rates of mortgage applications, originations, and acceptance rates;³¹ and (b) once census tract influences were accounted for, central city location had only a minimal effect on credit flows.

Shear, Berkovec, Dougherty, and Nothaft recognized that it is difficult to interpret their estimated minority effects—the effects may indicate lender discrimination, supply and demand effects not included in their model but correlated with minority status, or some combination of these factors. They explain the implications of their results for measuring underserved areas as follows:

While it is not at all clear how we might rigorously define, let alone measure, what it

³⁰ William Shear, James Berkovec, Ann Dougherty, and Frank Nothaft, "Unmet Housing Needs: The Role of Mortgage Markets," *Journal of Housing Economics*, Volume 4, 1996, pp. 291–306. These researchers regressed the number of mortgage originations per 100 properties in the census tract on several independent variables that were intended to account for some of the demand and supply (i.e., credit risk) influences at the census tract level. The tract's minority composition and central city location were included to test if these characteristics were associated with underserved neighborhoods after controlling for the demand and supply variables. Examples of the demand and supply variables at the census tract level include: tract income relative to the area median income, the increase in house values between 1980 and 1990, the percentage of units boarded up, and the age distributions of households and housing units. See also Susan Wharton Gates, "Defining the Underserved," *Secondary Mortgage Markets*, 1994 Mortgage Market Review Issue, 1995, pp. 34–48.

³¹ For example, census tracts at 80 percent of area median income were estimated to have 8.6 originations per 100 owners as compared with 10.8 originations for tracts over 120 percent of area median income.

means to be underserved, it is clear that there are important housing-related problems associated with certain location characteristics, and it is possible that, in the second or third best world in which we live, mortgage markets might be useful in helping to solve some of these problems. We then might use these data to help single out important areas or at least eliminate some bad choices. * * * The regression results indicate that income and minority status are better indicators of areas with special needs than central city location.³²

Avery, Beeson, and Sniderman Study. Robert Avery, Patricia Beeson, and Mark Sniderman of the Federal Reserve Bank of Cleveland presented a paper specifically addressing the issue of underserved areas in the context of the GSE legislation.³³ Their study examines variations in application rates and denial rates for all individuals and census tracts included in the 1990 and 1991 HMDA data base. They seek to isolate the differences that stem from the characteristics of the neighborhood itself rather than the characteristics of the individuals that apply for loans in the neighborhood or lenders that happen to serve them. Similar to the studies of redlining reviewed in the previous section, Avery, Beeson and Sniderman hypothesize that variations in mortgage application and denial rates will be a function of several risk variables such as the income of the applicant and changes in neighborhood house values; they test for independent racial effects by adding to their model the applicant's race and the racial composition of the census tract. Econometric techniques are used to separate individual applicant effects from neighborhood effects.

Based on their empirical work, Avery, Beeson and Sniderman reach the following conclusions:

The individual applicant's race exerts a strong influence on mortgage application and denial rates. African American applicants, in particular, have unexplainably high denial rates.

- Once individual applicant and other neighborhood characteristics are controlled for, overall denial rates for purchase and refinance loans were only slightly higher in minority census tracts than non-minority census tracts.³⁴ For white applicants, on the other hand, denial rates were significantly higher in minority tracts.³⁵ That is,

³² Shear *et al.*, p. 18.

³³ See Avery, *et al.*

³⁴ Avery *et al.* find very large unadjusted differences in denial rates between white and minority neighborhoods, and although the gap is greatly reduced by controlling for applicant characteristics (such as race and income) and other census tract characteristics (such as house price and income level), a significant difference between white and minority tracts remains (for purchase loans, the denial rate difference falls from an unadjusted level of 16.7 percent to 4.4 percent after controlling for applicant and other census tract characteristics, and for refinance loans, the denial rate difference falls from 21.3 percent to 6.4 percent). However, when between-MSA differences are removed, the gap drops to 1.5 percent and 1.6 percent for purchase and refinance loans, respectively. See Avery, *et al.*, p. 16.

³⁵ Avery, *et al.*, page 19, note that, other things equal, a black applicant for a home purchase loan

minorities have higher denial rates wherever they attempt to borrow but whites face higher denials when they attempt to borrow in minority neighborhoods. In addition, Avery *et al.* found that home improvement loans had significantly higher denial rates in minority neighborhoods. Given the very strong effect of the individual applicant's race on denial rates, Avery *et al.* note that since minorities tend to live in segregated communities, a policy of targeting minority neighborhoods may be warranted.

Other findings are:

The median income of the census tract had strong effects on both application and denial rates for purchase and refinance loans, even after other variables were accounted for.

- There is little difference in overall denial rates between central cities and suburbs, once individual applicant and census tract characteristics are controlled for. Avery, Beeson and Sniderman conclude that a tract-level definition is a more effective way to define underserved areas than using the list of OMB-designated central cities as a proxy.

e. Conclusions From HUD's Analysis and the Economics Literature About Urban Underserved Areas

The implications of studies by HUD and others for defining underserved areas can be summarized briefly. First, the existence of large geographic disparities in mortgage credit is well documented. HUD's analysis of HMDA data shows that low-income and high-minority neighborhoods receive substantially less credit than other neighborhoods and fit the definition of being underserved by the nation's credit markets.

Second, researchers are testing models that more fully account for the various risk, demand, and supply factors that determine the flow of credit to urban neighborhoods. The studies by Holmes and Horvitz, Schill and Wachter, and Tootell are examples of this research. Their attempts to test the redlining hypothesis show the analytical insights that can be gained by more rigorous modeling of this issue. However, the fact that our urban areas are highly segregated means that the various loan, applicant, and neighborhood characteristics currently being used to explain credit flows are often highly correlated with each other which makes it difficult to reach definitive conclusions about the relative importance of any single variable such as neighborhood racial composition. Thus, their results are inclusive and, thus, the need continues for further research on the

underlying determinants of geographic disparities in mortgage lending.³⁶

Finally, much research strongly supports a targeted definition of underserved areas. Studies by Shear, *et al.* and Avery, Beeson, and Sniderman conclude that characteristics of both the applicant and the neighborhood where the property is located are the major determinants of mortgage denials and origination rates—once these characteristics are controlled for, other influences such as central city location play only a minor role in explaining disparities in mortgage lending. HUD's analysis shows that both credit and socioeconomic problems are highly concentrated in underserved areas within central cities and suburbs. The remaining, high-income portions of central cities and suburbs appear to be well served by the mortgage market.

HUD recognizes that the mortgage origination and denial rates forming the basis for the research mentioned in the preceding paragraph, as well as for HUD's definition of underserved areas, are the result of the interaction of individual risk, demand and supply factors that analysts have yet to fully disentangle and interpret. The need continues for further research addressing this problem. HUD believes, however, that the economics literature is consistent with a targeted rather than a broad approach for defining underserved areas.

C. Consideration of Factors 1 and 2 in Nonmetropolitan Areas: The Housing Needs of Underserved Rural Areas and the Housing, Economic, and Demographic Conditions in Underserved Rural Areas

Because of the absence of HMDA data for rural areas, the analysis for metropolitan underserved areas cannot be carried over to non-metropolitan areas. Based on discussions with rural lenders in 1995, the definition of underserved rural areas was established at the county level, since such lenders usually do not make distinctions on a census tract basis. But this definition parallels that used in metropolitan areas—specifically, a nonmetro county is classified as an underserved area if median income of families in the county does not exceed 95 percent of the greater of state nonmetro or national nonmetro median income, or minorities comprise 30 percent or more of the residents and the median income of families in the county does not exceed 120 percent of state nonmetro median income. For nonmetro areas the median income

component of the underserved definition is broader than that used for metropolitan areas. While tract income is compared with area income for metropolitan areas, in rural counties income is compared with “enhanced income”—the greater of state nonmetro income and national nonmetro income. This is based on HUD's analysis of 1990 census data, which indicated that comparing county nonmetro income only to state nonmetro income would lead to the exclusion of many lower-income low-minority counties from the definition, especially in Appalachia. Underserved counties account for 57 percent (8,091 of 14,419) of the census tracts and 54 percent of the population in rural areas. By comparison, the definition of metropolitan underserved areas encompassed 47 percent of metropolitan census tracts and 44 percent of metropolitan residents.

The county-wide definition of rural underserved areas could give the GSEs an incentive to purchase mortgages in the “better served” portions of underserved counties which may face few, if any, barriers to accessing mortgage credit in rural areas. This issue is discussed in more detail in the analysis of the GSEs' purchases below.

The demographic characteristics of served and underserved counties are first presented in this section. Next, a literature review of recent studies provides an overview of rural mortgage markets, GSE activity, and the growing demand for manufactured housing in rural housing markets. It also discusses characteristics of rural housing markets that lead to higher interest rates and mortgage access problems and makes some policy recommendations for addressing market inefficiencies.

1. Demographics

As discussed, majorities of rural households and rural counties fall under the definition of underserved areas. As shown in Table B.4, rural underserved counties have higher unemployment, poverty rates, minority shares of households and homeownership rates than rural served counties. The poverty rate in underserved rural counties (21.2 percent) is nearly twice that in served rural counties (12.2 percent). Joblessness is more common, with average unemployment rates of 8.3 percent in underserved counties and 5.9 percent in served counties. Minorities make up 20.8 percent of the residents in underserved counties and 7.4 percent in served counties. Homeownership is slightly higher in underserved counties (72.4 percent) than in served counties (70.8 percent).

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is 3.7 percent more likely to have his/her application denied in an all-minority tract than in an all-white tract, while a white applicant from an all-minority tract would be 11.5 percent more likely to be denied.

³⁶ Methodological and econometric challenges that researchers will have to deal with are discussed in Mitchell Rachlis and Anthony Yezer, “Serious Flaws in Statistical Tests for Discrimination in Mortgage Markets,” *Journal of Housing Research*, Volume 4, 1993, pp. 315–336.

Table B.4

**Socioeconomic Characteristics of Underserved Counties
in Non-Metropolitan Areas**

	Served Counties	Underserved Counties	Total
Counties	786	1,511	2,297
Households	8,618,519	10,097,825	18,716,344
Population	23,075,383	27,467,972	50,543,355
Unemployment Rate	5.9%	8.3%	7.1%
Poverty Rate	12.2%	21.2%	17.1%
Dropout Rate	16.3%	22.7%	19.8%
Percent Female Household With Children	14.3%	17.5%	16.1%
Percent African-American	3.9%	12.4%	8.5%
Percent Minority	7.4%	20.8%	14.7%
Percent Owner-Occupied	70.8%	72.4%	71.6%
Percent Renter	29.2%	27.6%	28.4%

Source: 1990 Census.

Some differences exist between metro and nonmetro underserved areas. The definition is somewhat more inclusive in nonmetro areas—the majority of the nonmetro population lives in underserved counties, while the majority of the metropolitan population lives in served areas. The majority of units in underserved metropolitan areas are occupied by renters, while the majority of units in underserved rural counties are occupied by owners. But poverty and unemployment rates are higher in underserved areas than in served areas in both nonmetropolitan and metropolitan areas.

2. Literature Review

Research related to housing and mortgage finance issues in rural areas is reviewed in this section. It finds that lack of competition between rural lenders and lack of participation in secondary mortgage markets may contribute to higher interest rates and lower mortgage availability in rural areas. The mortgages purchased by the GSEs on properties in underserved counties are not particularly focused on lower-income borrowers and first-time homebuyers, which suggests that additional research needs to be conducted to target areas in nonmetropolitan areas which experience difficulty accessing mortgage credit. The role of manufactured housing in providing affordable housing in rural areas is also discussed.

*Mikesell Study (1998).*³⁷ A study by Jim Mikesell provides an overview of mortgage lending in rural areas. It finds that home loans in rural areas have higher costs, which can be attributed to at least three factors that characterize rural mortgage markets. First, the fixed cost associated with rural lending may be higher as a result of the smaller loan size and remoteness of many rural areas. Second, there are fewer mortgage lenders in rural areas competing for business, which may account for higher interest rates. Third, the secondary mortgage market is not as well developed as in metropolitan areas.

Higher interest rates for rural mortgages are documented by the Federal Housing Finance Board's monthly survey of conventional home purchase mortgages. On average, relative to rates on mortgages in urban areas, rates on mortgages in rural areas in 1997 were 8 basis points (bp) higher on 30-year fixed rate mortgages (FRMs), 18 bp higher for 15-year FRMs, 38 bp higher for adjustable-rate mortgages (ARMs), and 52 bp higher for nonstandard loans.³⁸ The higher rates in rural areas translate into differences in monthly payments of \$3 to \$16 for a \$100,000 mortgage.

Mikesell finds that property location and small loan size are two factors that make

lending more costly in rural areas. Borrower characteristics, such as income, assets, and credit history, and lender characteristics, such as ownership, size, and location, might influence loan pricing, but the influence of these factors could not be tested due to lack of data.

Rural-based lenders are fewer and originate a smaller volume of loans than their urban counterparts. These factors contribute to less competition between rural lenders and a less efficient housing finance market, which result in higher costs for rural borrowers.

Rural lenders are less likely than urban lenders to participate in the secondary mortgage market. As a result, rural borrowers do not receive the benefits associated with the secondary market—the increased competition between lenders, the greater potential supply of mortgage financing, and the alignment of financing costs more closely with those in urban markets.

Some obstacles for rural lenders participating in the secondary market are that borrower characteristics and remote properties may not conform to the secondary market's underwriting standards. Rural households may have their borrowing capacity reduced by loan qualification standards which discount income that varies widely from year to year and income from self-employment held for less than several years. Rural properties' may have one or more of the following characteristics which preclude a mortgage from being purchased by the GSEs: Excessive distance to a firehouse, unacceptable water or sewer facilities, location on a less-than-all-weather road, and dated plumbing or electrical systems.

Mikesell concludes that increased participation by rural lenders in the secondary mortgage market would bring down lending costs and offset some of the higher costs characteristic of rural lending, and that HUD's goals for the GSEs could encourage such increased participation.

*MacDonald Study.*³⁹ This study investigates variations in GSE market shares among a sample of 426 non-metropolitan counties in eight census divisions. Conventional conforming mortgage originations are estimated using residential sales data, adjusted to exclude non-conforming mortgages. Multivariate analysis is used to investigate whether the GSE market share differs significantly by location, after controlling for the economic, demographic, housing stock, and credit market differences among counties that could affect use of the secondary markets by lenders.⁴⁰

³⁹ MacDonald, Heather. Fannie Mae and Freddie Mac in Rural Housing Markets: Does Space Matter? Study funded as part of the 1997 GSE Small Grants by HUD's Office of Policy Development and Research.

⁴⁰ MacDonald constructs a county-level mortgage market data in rural areas using information collected by the Department of Revenue for counties and states. Annual Sales Ratio Studies conducted by many states' Department of Revenue provide the number of sales for different property types. This is done by using residential sales recorded for property tax purposes. Other county-level variables used to compare rural counties are obtained from the 1990 Census of Population and Housing and Bureaus of labor Statistics. Data

MacDonald has four main findings regarding mortgage financing and the GSEs' purchases in rural mortgage markets. First, smaller, poorer and less rapidly growing non-metro areas have less access to mortgage credit than larger, wealthier and more rapidly growing areas. Second, the mortgages that are originated in the former areas are seldom purchased by the GSEs. Third, higher-income borrowers are more likely, and first-time homebuyers are less likely, to be served by the GSEs in underserved than in served areas. This suggests that the GSEs are not reaching out to marginal borrowers in underserved nonmetropolitan areas. Finally, the GSEs serve a smaller proportion of the low-income market in rural areas than do depository institutions. This finding is consistent with studies of the GSEs' affordable lending performance in metropolitan areas.

With regard to the GSEs' underwriting guidelines MacDonald makes two points. First, the GSEs' purchase guidelines may adversely affect non-metro areas where many borrowers are seasonally- or self-employed and where houses pose appraisal problems. Second, MacDonald speculates that mortgage originators in nonmetropolitan areas may interpret guidelines too conservatively, or may not try to qualify non-traditional borrowers for mortgages.

MacDonald also echoes the findings of Mikesell that the existence and extent of mortgage lending problems are difficult to identify in many rural areas because of the lack of comprehensive mortgage lending data. Problems that have been identified include the lack of market competition among small, conservative lending institutions typical in rural and non-metropolitan areas; consolidation and other changes in the financial services industry, which may have different consequences in rural areas than in urban areas; lack of access to government housing finance programs in more rural locations; and weak development of secondary market sources of funds in rural areas, exacerbating liquidity problems.

MacDonald discusses briefly the importance of low-cost homeownership alternatives in rural areas. One alternative is manufactured (mobile) housing. In general, manufactured housing is less costly to construct than site-built housing. Manufactured housing makes up more than 25 percent of the housing stock in rural counties in the South and Mountain states.

MacDonald concludes that the lower participation of the GSEs in underserved areas compared with served areas may result from additional risk components for some borrowers and from lack of sophistication by the lenders that serve

obtained from Census included county populations, racial composition, a variety of housing stock characteristics like home ownership rates, vacancy rates, proportion of owner-occupied mobile homes, median housing value in 1990, median age of the housing stock, proportion of units with complete plumbing, and access to infrastructure, e.g., public roads and sewage systems. Data collected from the Bureau of Labor Statistics included unemployment rates and residential building permits.

³⁷ Mikesell, Jim. Can Federal Policy Changes Improve the Performance of Rural Mortgage Markets, Economic Research Service, U.S. Department of Agriculture, Issues in Agricultural and Rural Finance. Agriculture Information Bulletin No. 724-12, August 1998.

³⁸ Standard mortgage types are 30-year fixed-rate mortgages, 15-year FRMs and 30-year adjustable rate mortgages (ARMs). These are the ones most often traded in the secondary markets. Nonstandard mortgages generally have shorter terms than the standard mortgages.

small non-metro markets. In smaller and poorer counties, low volumes of loan sales to the GSEs may be a result of lower incomes and smaller populations. These counties may not have sufficient loan-generating activity to justify mortgage originators pursuing secondary market outlets.

*The Role of Manufactured Housing.*⁴¹ The Joint Center for Housing Studies at Harvard University conducted a comprehensive study of the importance of manufactured housing as an affordable housing choice in rural communities. In all segments of the housing market, but especially in rural areas and among low-income households, manufactured housing is growing. Based on the American Housing Survey, in 1985, 61 percent of manufactured housing stock was located in rural areas compared with 70 percent in 1993. Between 1985 and 1993, manufactured housing increased over 2.2 percent annually while all other housing increased 0.7 percent per year. In 1993, 6.0 percent (or 6 million) of households lived in manufactured housing.

Since the 1970's, the face of manufactured housing has changed. Once a highly mobile form of recreational housing in this country, today manufactured housing provides basic quality, year-round housing for millions of American households. Most earlier units were placed in mobile home parks or on leased parcels of land. Today an increasing number of units are owned by households that also own the land on which the manufactured home is located.

Manufactured housing's appeal lies in its affordability. The low purchase price,

downpayments, and monthly cash costs of manufactured housing provide households who are priced out of the conventional housing market a means of becoming homeowners. The occupants of manufactured housing on average are younger, have less income, have less education and are more often white than occupants of single-family detached homes. This type of housing is often found in areas with persistent poverty, retirement destinations, areas for recreation and vacations, and commuting counties.

The manufactured housing industry is well positioned for continued growth. The affordability of manufacturing housing is increasingly attractive to the growing ranks of low-income households. Manufactured housing is becoming more popular among first-time homebuyers and the elderly, both of which are growing segments of the housing market. The migration of people to the South, where manufactured housing is already highly accepted, and to metropolitan fringes will further increase the demand for this type of housing.⁴²

D. Factor 3: Previous Performance and Effort of the GSEs in Connection With the Central Cities, Rural Areas and Other Underserved Areas Goal

As discussed in Sections B and C, HUD has structured the Geographically Targeted Goal to increase mortgage credit to areas underserved by the mortgage markets. This

section looks at the GSEs' past performance to determine the impact the Geographically Targeted Goal is having on borrowers and neighborhoods with particular emphasis on underserved areas. Section D.1 reports the past performance of each GSE with regard to the Geographically Targeted Goal. Section D.2 then examines the role that the GSEs are playing in funding single-family mortgages in underserved urban neighborhoods based on HUD's analysis of GSE and HMDA data. Section D.3 concludes this section with an analysis of the GSEs' purchases in rural (nonmetropolitan) areas.

1. GSE Performance on the Geographically Targeted Goal

This section discusses each GSE's performance under the Geographically Targeted Goal over the 1993–98 period. The data presented here are “official results”—i.e., they are based on HUD's in-depth analysis of the loan-level data submitted annually to the Department, subject and the counting provisions contained in Subpart B of HUD's December 1, 1995 Regulation of Fannie Mae and Freddie Mac. As explained below, in some cases these “official results” differ to some degree from goal performance reported by the GSEs in their Annual Housing Activities Reports to the Department.

HUD's goals specified that in 1996 at least 21 percent of the number of units eligible to count toward the Geographically Targeted Goal should qualify as geographically targeted, and at least 24 percent should qualify in 1997 and 1998. Actual performance, based on HUD analysis of GSE loan-level data, was as follows:

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⁴¹ The Future of Manufactured Housing, Harvard University Joint Center for Housing Studies, February 1997.

⁴² Though future demand for manufactured housing is promising, the Joint Center notes some continued obstacles to growth. Challenges for the industry to overcome include a lack of standardization of installation procedures and product guarantees, exclusionary zoning laws, and certain provisions of the national building code.

	1996	1997	1998
Fannie Mae:			
Units Eligible to Count Toward Goal...	1,891,896	1,765,347	3,546,302
Geographically Targeted Units.....	532,434	508,746	958,233
Percent Geographically Targeted.....	28.1%	28.8%	27.0%
Freddie Mac:			
Units Eligible to Count Toward Goal...	1,325,900	1,180,517	2,658,556
Geographically Targeted Units.....	331,495	310,572	693,748
Percent Geographically Targeted.....	25.0%	26.3%	26.1%

Thus, Fannie Mae surpassed the goals by 7.1 percentage points and 4.8 percentage points in 1996 and 1997, respectively, and Freddie Mac surpassed the goals by 4.0 and 2.3 percentage points. In 1998 Fannie Mae's performance fell by 1.8 percentage points, while Freddie Mac's performance fell slightly, by 0.2 percentage point.⁴³

Fannie Mae's performance on the Geographically Targeted Goal jumped sharply in just two years, from 23.6 percent in 1993 to 31.9 percent in 1995, before tailing

off to 28.1 percent in 1996. As indicated, it then rose slightly to 28.8 percent in 1997, before tailing off to 27.0 percent last year. Freddie Mac has shown more steady gains in performance on the Geographically Targeted Goal, from 21.3 percent in 1993 to 24.2 percent in 1994, 25 percent in 1995–96, and just over 26 percent last year.

Fannie Mae's performance on the Geographically Targeted Goal has surpassed Freddie Mac's in every year. However, Freddie Mac's 1998 performance represented a 23 percent increase over the 1993 level, exceeding the 14 percent increase for Fannie Mae. And Freddie Mac's performance was 97 percent of Fannie Mae's geographically targeted share in 1998, the highest ratio since the interim goals took effect in 1993.

2. GSEs' Mortgage Purchases in Metropolitan Neighborhoods

As shown in Table B.5, metropolitan areas accounted for about 85 percent of total GSE purchases under the Geographically Targeted Goal. This section uses HMDA and GSE data for metropolitan areas to examine the neighborhood characteristics of the GSEs' mortgage purchases. In subsection 2.a, the GSEs' performance in underserved neighborhoods is compared with that of portfolio lenders and the overall market. This section therefore expands on the discussion in Appendix A, which compared the GSEs' funding of affordable loans with the overall conventional conforming market. In subsection 2.b., the characteristics of the GSEs' purchases within underserved areas are compared with those for their purchases in served areas.

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⁴³ The Fannie Mae figures for 1997 differ from corresponding figures presented by Fannie Mae in its Annual Housing Activity Report to HUD by 0.2 percentage points, reflecting minor differences in application of counting rules. The percentages shown above for Fannie Mae in 1996 and 1998 and for Freddie Mac in 1996–1998 are identical to the corresponding percentages in the GSEs' Annual Housing Activity Reports.

Table B.5

**Fannie Mae and Freddie Mac Acquisitions of
Single-Family and Multifamily Units in
Underserved Metro and Nonmetro Areas in 1996 and 1997**

	Fannie Mae		Freddie Mac	
	1996	1997	1996	1997
Metropolitan				
Number of Underserved Units	458,925	435,900	266,677	255,729
Percent of Total Units	27.2%	27.8%	23.4%	25.3%
Total	1,686,975	1,570,117	1,138,243	1,012,584
Nonmetropolitan				
Number of Underserved Units	73,509	72,846	64,818	54,842
Percent of Total Units	36.6%	38.2%	34.6%	32.7%
Total	200,961	190,461	187,560	167,932
Overall				
Number of Underserved Units	532,434	508,746	331,495	310,571
Percent of Total Units	28.1%	28.8%	25.0%	26.3%
Total Eligible*	1,891,896	1,765,346	1,325,899	1,180,516

* Overall totals may exceed the metro/nonmetro sum due to units in unidentified census tracts.

Comparisons With the Primary Market

Overview and Main Conclusions. Tables A.3 and A.4a in Appendix A provided information on the GSEs' funding of home purchase loans for properties located in underserved neighborhoods for the years 1993 to 1998. The findings with respect to the GSEs' funding of underserved neighborhoods are similar to those reported in Appendix A regarding the GSEs' overall affordable lending performance. Both GSEs have improved their performance over the past six years but, on average, they continue to lag the conventional conforming market in providing affordable loans to underserved neighborhoods. As discussed in Appendix A, the two GSEs show very different patterns of lending—Freddie Mac has been much less likely than Fannie Mae to fund home loans in underserved neighborhoods. The percentage of Freddie Mac's purchases financing properties in underserved census tracts is substantially less than the percentage of total market originations in these tracts; furthermore, since 1992 Freddie Mac has not made any progress closing the gap with the primary market. Fannie Mae, on the other hand, is much closer to market levels in its funding of underserved areas. The same issue discussed in Appendix A about the down payment characteristics of the GSEs' purchases can also be raised about their purchases in underserved areas—the GSEs' typically purchase high down payment mortgages in these areas, which reduces their ability to help lower-income, cash-constrained borrowers seeking to purchase properties in these neighborhoods. The remainder of this section presents data to support these conclusions.

Freddie Mac. During the 1993–1998 period, Freddie Mac has lagged Fannie Mae, portfolio lenders, and the overall conforming market in providing home loans to underserved neighborhoods. Underserved census tracts (as defined by HUD) accounted for 19.7 percent of Freddie Mac's single-family home mortgages, compared with 22.9 percent of Fannie Mae's purchases, 26.3

percent of loans originated and held in portfolio by depository lenders, and 24.5 percent of the overall conforming primary market. If the analysis is restricted to the 1996–98 period during which the current housing goals have been in effect, the data continue to show that Freddie Mac has lagged the market in funding underserved neighborhoods (see Table A.3 in Appendix A). In 1998, underserved census tracts accounted for 20.0 percent of Freddie Mac's purchases and 24.6 percent of loans originated in the conforming home purchase market, yielding a "Freddie Mac-to-market" ratio of only 0.81 (i.e. 20.0 divided by 24.6).

Fannie Mae. Over the longer 1993–98 period and the more

recent 1996–98 period, Fannie Mae has lagged the market and portfolio lenders in funding properties in underserved areas, but to a much smaller degree than Freddie Mac. During the 1996–98 period, underserved tracts accounted for 22.9 percent of Fannie Mae's purchases, compared with 25.8 percent of loans retained in portfolio by depositories and with 24.9 percent of home loans originated in the conventional conforming market. Fannie Mae's performance is much closer to the market than Freddie Mac's performance, as can be seen by the "Fannie Mae-to-market" ratio of 0.92 for the 1996–98 period (i.e. 22.9 divided by 24.9).

Fannie Mae's performance improved during 1997, due mainly to Fannie Mae's increased purchases during 1997 of prior-year mortgages in underserved neighborhoods. Overall, Fannie Mae's purchases of home loans in underserved areas increased from 22.3 percent in 1996 to 23.5 percent in 1997. The underserved area percentage for Fannie Mae's purchases of newly-originated mortgages was actually lower in 1997 (20.8 percent) than in 1996 (21.9 percent). This decline was offset by the fact that a particularly high percentage (30.1 percent) of Fannie Mae's 1997 purchases of prior-year mortgages was for properties in underserved areas. Thus, Fannie Mae improved its overall performance in 1997 by

supplementing its purchases of newly-originated mortgages with purchases of prior-year mortgages targeted to underserved neighborhoods. As shown in Table A.4a in Appendix A, Fannie Mae continued this strategy in 1998.

The annual data in Table A.4a show the progress that Fannie Mae has made closing the gap between its performance and that of the overall market. In 1992, underserved areas accounted for 18.3 percent of Fannie Mae's purchases and 22.2 percent of market originations, for a "Fannie Mae-to-market" ratio of 0.82. By 1998, underserved areas accounted for 22.9 percent of Fannie Mae's purchases and 24.6 percent of market originations, for a higher "Fannie Mae-to-market" ratio of 0.93. Freddie Mac, on the other hand, fell further behind the market during this period. In 1992, Freddie Mac had a slightly higher underserved area percentage (18.6 percent) than Fannie Mae (18.3 percent). However, Freddie Mac's underserved area percentage had only increased to 20.0 percent by 1998 (versus 22.9 percent for Fannie Mae). Thus, the "Freddie Mac-to-market" ratio fell from 0.84 in 1992 to 0.81 in 1998.

Down Payment Characteristics. Table B.6 reports the down payment and borrower income characteristics of mortgages that the GSEs purchased in underserved areas during 1997. Two points stand out. First, loans on properties in underserved areas were more likely to have a high loan-to-value ratio than loans on properties in served areas. Specifically, about 18 percent of loans in underserved areas had a down payment less than ten percent, compared with 15 percent of all loans purchased by the GSEs. Second, loans to low-income borrowers in underserved areas were typically high down payment loans. Approximately 70 percent of the GSE-purchased loans to very low-income borrowers living in underserved areas had a down payment more than 20 percent.

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Table B.6

Down Payment Characteristics of GSE Purchases in Underserved Areas, 1997

GSE Purchases	Size of Down Payment				Total ¹
	Less Than 5	5 to 10	10 to 20	20 Percent or	
	Percent Down	Percent Down	Percent Down	More Down	
All Loans	36,703	328,467	365,981	1,638,798	2,369,949
Loans in Underserved Areas	16,265	87,092	91,537	374,087	568,981
Very- Low-Income Loans	4,764	10,463	9,282	57,762	82,271
Less- Than-Median Income Loans	13,617	38,995	37,831	173,687	264,130
<u>Percentage Distribution</u>					
All Loans	1.5%	13.9%	15.4%	69.1%	100.0%
Loans in Underserved Areas	2.9%	15.3%	16.1%	65.7%	100.0%
Very- Low-Income Loans	5.8%	12.7%	11.3%	70.2%	100.0%
Less- Than-Median Income Loans	5.2%	14.8%	14.3%	65.8%	100.0%

Source: National File A of the GSE Public Use Data Base. Data include all owner-occupied one-unit mortgages (home purchase, refinance, and second loans) purchased by the GSEs in underserved areas (both metropolitan and non-metropolitan) in 1997.

¹ Loans with missing down payments are excluded.

Table B.7

**Loan and Borrower Characteristics of Single-Family
Mortgages Purchased by the GSEs In Metropolitan Areas, 1997**

Loan and Borrower Characteristics	Fannie Mae		Freddie Mac		Total	
	Served	Underserved	Served	Underserved	Served	Underserved
Number of Loans	944,391	276,434	667,269	174,981	1,611,660	451,415
Loan Purpose						
Home Purchase	63.7 %	62.9 %	60.8 %	54.6 %	63.2 %	61.3 %
Refinancing	36.3	37.1	39.2	45.4	36.8	38.7
Seasoning						
Seasoned	13.7 %	20.9 %	6.2 %	7.4 %	10.6 %	19.2 %
Not Seasoned	86.3	70.1	93.8	92.6	89.4	80.8
Loan-to-Value Ratio						
Over 95%	1.6 %	4.9 %	0.4 %	1.1 %	1.1 %	3.4 %
91-95%	13.2	15.9	14.4	17.2	13.7	16.4
81-90%	15.8	16.4	14.9	15.2	15.4	16.0
61-80%	50.0	47.0	52.1	51.7	50.9	48.8
60% or Less	19.4	15.8	18.3	14.8	18.9	15.4
Income of Borrower(s)						
60% of Area Median or Below	7.3 %	18.2 %	6.6 %	15.8 %	7.0 %	17.2 %
61-100% of Median	25.9	36.2	25.6	35.3	25.8	35.8
Below Area Median	33.2	54.4	32.2	51.0	32.8	53.1
Over 100% of Median	66.8	45.6	67.8	49.0	67.2	46.9
First-time Home Buyer	18.1 %	23.2 %	15.5 %	18.3 %	17.0 %	21.3 %
Race/National Origin of Borrower						
White	88.7 %	68.5 %	90.8 %	74.3 %	89.6 %	70.8 %
African American	2.4	9.3	2.1	7.1	2.3	8.4
Hispanic	3.5	13.1	2.8	11.4	3.2	12.4
Asian or Pacific Islander	3.7	7.2	2.9	5.6	3.4	6.6
American Indian or Alaskan Native	0.4	0.4	0.3	0.4	0.3	0.4
Other	1.3	1.5	1.2	1.3	1.3	1.4
Age of Borrower						
Under 30	13.0 %	15.1 %	12.8 %	14.0 %	12.9 %	14.6 %
30-39	35.8	33.0	36.6	33.3	36.1	33.1
40 and Over	51.2	52.0	50.5	52.7	50.9	52.3
Gender of Borrower(s)						
All Male	16.7 %	22.3 %	16.2 %	21.4 %	16.5 %	21.9 %
All Female	15.9	21.3	15.5	20.1	15.7	20.8
Male and Female	67.4	56.4	68.3	58.6	67.7	57.2

Source: HUD analysis of GSEs' loan-level data on mortgages on owner-occupied one-unit properties. In computing the percentages, missing data are excluded.

b. Characteristics of GSEs' Purchases of Mortgages on Properties in Metropolitan Underserved Areas

Several characteristics of loans purchased by the GSEs in metropolitan underserved areas are presented in Table B.7. As shown, borrowers in underserved areas are more likely than borrowers in served areas to be first-time homebuyers, females, and older than 40 or younger than 30. And, as expected, they are more likely to have below-median income and to be members of minority groups. For example, first-time homebuyers make up 21 percent of the GSEs' mortgage purchases in underserved areas and 17 percent of their business in served areas. In underserved areas, 53 percent of borrowers have incomes below the area median, compared with 33 percent of borrowers in served areas.

Minorities' share of the GSEs' mortgage purchases in underserved areas (29.2 percent) was nearly three times their share in served areas (10.5 percent). And the pattern was even more pronounced for African Americans and Hispanics, who accounted for 20.8 percent of the GSEs' business in underserved areas, but only 5.5 percent of their purchases in served areas.

Other differences between the GSEs' purchases in underserved and served areas include the fact that prior-year mortgages comprised a higher percentage of Fannie Mae's loans in underserved areas (32.8 percent) than in served areas (25.3 percent)

in 1997, which suggests that Fannie Mae may be purchasing prior-year loans in underserved areas to raise its performance on the Geographically Targeted Goal. Also, refinance mortgages comprised a higher percentage of Freddie Mac's loans in underserved areas (44.6 percent) than in served areas (38.8 percent) in 1997, possibly due to the fact that refinance mortgages, which typically have lower loan-to-value ratios than home purchase mortgages, have lower probabilities of default or severity of loss.

3. *GSE Mortgage Purchases in Nonmetropolitan Areas*

Nonmetropolitan mortgage purchases made up 14 percent of the GSEs' total mortgage purchases in 1997. Mortgages in underserved counties made up 38 percent of the GSEs' business in rural areas.⁴⁴

Unlike the underserved definition for metropolitan areas which was based on census tracts, the rural underserved definition was based on counties. Rural lenders argued that they identified mortgages by the counties in which they were located rather than the census tracts; and therefore, census tracts were not an operational concept

⁴⁴ Underserved areas make up about 56 percent of the census tracts in nonmetropolitan areas and 47 percent of the census tracts in metropolitan areas. This is one reason why underserved areas comprise a larger portion of the GSEs' single-family mortgages in nonmetropolitan areas (38 percent) than in metropolitan areas (22 percent).

in rural areas. Market data on trends in mortgage lending for metropolitan areas is provided by the Home Mortgage Disclosure Act (HMDA); however, no comparable data source exists for rural mortgage markets. The absence of rural market data is a constraint for evaluating credit gaps in rural mortgage lending and for defining underserved areas.

The broad nature of the underserved definition for nonmetropolitan areas raises at least two concerns. The first concern is whether the broad definition overlooks differences in borrower characteristics in served and underserved counties that should be included in the definition. Table B.8 compares borrower and loan characteristics for the GSEs' mortgage purchases in served and underserved areas. The GSEs are less likely to purchase loans for first-time homebuyers and more likely to purchase mortgages for high-income borrowers in underserved than in served counties. Mortgages to first-time homebuyers account for 13.9 percent of the GSEs' mortgage purchases in served counties compared with 12.3 percent in underserved counties. Surprisingly, borrowers in served counties are more likely to have incomes below the median than in underserved counties (34.5 percent compared to 28.8 percent). These findings support the claim that, in rural underserved counties, the GSEs purchase mortgages for borrowers that probably encounter few obstacles to obtaining mortgage credit.

Table B.8
Loan and Borrower Characteristics of Single-Family
Mortgages Purchased by the GSEs in Non-Metropolitan Counties, 1997

Loan and Borrower Characteristics	Fannie Mae		Freddie Mac		Total	
	Served	Underserved	Served	Underserved	Served	Underserved
Number of Loans	108,236	69,275	94,810	52,578	203,046	121,853
Loan Purpose						
Home Purchase	57.5 %	58.3 %	50.3 %	48.3 %	54.2 %	54.1
Refinancing	425.0	41.7	49.7	51.7	45.8	45.9
Seasoning						
Seasoned	25.9 %	30.9 %	16.3 %	16.2 %	21.5 %	24.8
Not Seasoned	74.1	69.1	83.7	83.8	78.5	75.2
Loan-to-Value Ratio						
Over 95%	1.6 %	1.1 %	0.3 %	0.2 %	1.0 %	0.7
91-95%	12.6	13.6	12.7	13.9	12.7	13.7
81-90%	13.7	15.0	12.7	13.1	13.2	14.1
61-80%	51.5	50.4	54.5	54.2	52.9	52.1
60% or Less	20.6	20.0	19.8	18.6	20.2	19.4
Income of Borrower(s)						
60% of Area Median or Below	7.8 %	6.6 %	7.2 %	6.1 %	7.5 %	6.4
61-100% of Median	27.2	22.3	26.7	22.7	27.0	22.5
Below Area Median	35.0	28.9	33.9	28.7	34.5	28.8
Over 100% of Median	65.0	71.1	66.1	71.3	65.5	71.2
First-time Home Buyer	15.2 %	13.0 %	12.4 %	11.4 %	13.9 %	12.3
Race/National Origin of Borrower						
White	95.8 %	90.2 %	96.6 %	93.4 %	96.2 %	91.6
African American	1.1	3.5	0.8	2.0	1.0	2.8
Hispanic	1.3	3.4	1.1	2.4	1.2	2.9
Asian or Pacific Islander	0.6	1.3	0.6	1.0	0.6	1.2
American Indian or Alaskan Native	0.4	0.7	0.3	0.6	0.3	0.6
Other	0.8	1.0	0.6	0.7	0.7	0.8
Age of Borrower						
Under 30	14.5	13.8	14.2	13.7	14.4	13.7
30-39	33.9	32.3	34.1	31.9	34.0	32.1
40 and Over	51.6	53.9	51.7	54.4	51.6	54.2
Gender of Borrower(s)						
All Male	15.7	15.6	15.0	14.9	15.4	15.3
All Female	12.4	12.5	11.9	12.0	12.2	12.3
Male and Female	71.9	71.8	73.1	73.2	72.4	72.4

Source: HUD analysis of GSEs' loan-level data on mortgages on owner-occupied one-unit properties. In computing the percentages, missing data are excluded.

The second concern is whether defining underserved areas in terms of an entire county gives the GSEs an incentive to purchase mortgages in the "better off" tracts. Based on an analysis of the GSEs' mortgage purchases by tract median income, it is unclear if the broad nature of the county definition has an impact on the GSEs' purchasing behavior at the tract level. For example, even though the GSEs purchase a larger percentage of mortgages in high-minority and low-income tracts in underserved than in served counties, they purchase nearly the same percentage of mortgages in both underserved and served counties in high-income tracts.

In underserved areas, the GSEs are more likely to purchase mortgages in low-income and high-minority census tracts than in served counties. The GSEs are more than twice as likely to purchase mortgages in tracts with median incomes at or below 80

percent of AMI in underserved counties than in served counties (15.7 percent vs. 5.1 percent). For census tracts with percent minority above 30 percent, 3.3 percent of the GSEs' purchases in served counties are in these high-minority tracts compared to 23.9 percent in underserved counties. These results are expected since underserved counties are made up of a greater number of low-income and high-minority census tracts than are served counties.

While the GSEs purchase nearly the same percentages of mortgages in the "better off" tracts in underserved counties and served counties, when compared to the percentage of owner-occupied units in these areas, two points stand out. First, as the ratio of tract income to area median income increases, so does the volume of GSE home mortgage purchases relative to the number of owner-occupied units in the tract. Second, this

tendency is more pronounced in underserved than in served counties.

Tables B.9 and B.10 provide distributions of owner-occupied units across tracts by tract income ratio, as reported in the 1990 Census, and distributions of 1997 GSE home mortgage purchases by tract income ratio. The two tables provide data for underserved and for served counties, respectively. In underserved counties, 1.1 percent of GSE 1997 purchases and 2.7 percent of owner-occupied units were in tracts with median income at or below 60 percent of area median income. The ratio of these two shares is 0.41 (1.1 divided by 2.7). As the ratio of tract income to area median income increases, the ratio between the two shares increases (see Table B.9). This same result is found for served counties, but the ratios are both larger for low tract income ratios and smaller for high tract income ratios (Compare Table B.10 with Table B.9).

Table B.9

**Distributions of GSE Purchases and Housing Units
By Tract Income Ratio
For Non-Metropolitan Underserved Counties**

Tract Income Ratio ¹	1997 Distribution of GSE Home Mortgage Purchases	1990 Distribution of All Owner-Occupied Units	Ratio of Shares
0 ≤ 60%	1.1 %	2.7 %	0.41
60 ≤ 80%	14.6	18.4	0.79
80 ≤ 95%	35.6	39.0	0.91
95 ≤ 100%	12.0	12.6	0.95
100 ≤ 120%	24.5	21.2	1.16
> 120%	12.2	6.0	2.03
Total	100.0 %	100.0 %	

¹ Tract median income relative to area median income (i.e., the median income for the county or the nonmetropolitan portion of the State, whichever is greater.)

Table B.10

**Distributions of GSE Purchases and Housing Units
By Tract Income Ratio
For Non-Metropolitan Served Counties**

Tract Income Ratio ¹	1997 Distribution of GSE Home Mortgage Purchases	1990 Distribution of All Owner-Occupied Units	Ratio of Shares
0 ≤ 60%	0.4 %	0.6 %	0.67
60 ≤ 80%	4.7	6.0	0.78
80 ≤ 95%	22.4	26.4	0.85
95 ≤ 100%	14.4	15.8	0.91
100 ≤ 120%	43.6	41.4	1.05
> 120%	14.5	9.8	1.48
Total	100.0 %	100.0 %	

¹ Tract median income relative to area median income (i.e., the median income for the county or the nonmetropolitan portion of the State, whichever is greater.)

The fact that the ratio of shares for higher-income tracts is larger in underserved counties than in served counties suggests that the GSEs are purchasing a greater percentage of mortgages in "better off" tracts as a result of the county-based geographically targeted goal. For example, in tracts where the median income is above 120 percent of the area median, the ratio of the GSEs' mortgage purchase share to the owner-occupied units share is 2.03 for underserved counties, compared to 1.48 for served counties. Conversely, in tracts where the median income is at or below 60 percent of the area median, the ratio of the GSEs' mortgage purchase share to the owner-occupied units share is 0.41, compared to 0.67 for served counties.

There are similarities and differences between the types of loans that Fannie Mae and Freddie Mac purchase in served and underserved counties. The GSEs are similar in that their mortgage purchases in underserved counties do not have lower downpayments than in served counties. In both served and underserved counties, approximately 28 percent of the GSEs' 1997 mortgage purchases have loan-to-value ratios above 80 percent. The GSEs differ in their mortgage purchases of refinanced and seasoned loans. Fannie Mae is more likely to purchase more seasoned mortgages in underserved than in served counties; Freddie Mac is more likely to purchase more refinanced mortgages in underserved than in served counties.

E. Factor 4: Size of the Conventional Conforming Mortgage Market for Underserved Areas

HUD estimates that underserved areas account for 29–32 percent of the conventional conforming mortgage market. The analysis underlying this estimate is detailed in Appendix D.

F. Factor 5: Ability to Lead the Industry

This factor is the same as the fifth factor considered under the goal for mortgage purchases on housing for low- and moderate-income families. Accordingly, see Section G of Appendix A for a discussion of this factor.

G. Factor 6: Need to Maintain the Sound Financial Condition of the Enterprises.

HUD has undertaken a separate, detailed economic analysis of this proposed rule, which includes consideration of (a) the financial returns that the GSEs earn on loans in underserved areas and (b) the financial safety and soundness implications of the housing goals. Based on this economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the proposed goals raise minimal, if any, safety and soundness concerns.

H. Determination of the Geographically-Targeted Areas Housing Goals

The annual goal for each GSE's purchases of mortgages financing housing for properties located in geographically-targeted areas (central cities, rural areas, and other underserved areas) is established at 29 percent of eligible units financed in calendar year 2000 and 31 percent of eligible units financed in calendar year 2001. The year 2001 goal will remain in effect through 2003 and thereafter, unless changed by the Secretary prior to that time. The goal represents an increase over the 1996 goal of 21 percent and the 1997–99 goal of 24 percent. However, it is commensurate with the market share estimates of 29–32 percent, presented in Appendix D.

This section summarizes the Secretary's consideration of the six statutory factors that led to the choice of these goals. It discusses the Secretary's rationale for defining these geographically-targeted areas and it compares the characteristics of such areas and untargeted areas. The section draws heavily from earlier sections which have reported

findings from HUD's analyses of mortgage credit needs as well as findings from other research studies investigating access to mortgage credit.

1. Credit Needs in Metropolitan Areas

HUD's analysis of HMDA data shows that mortgage credit flows in metropolitan areas are substantially lower in high-minority and low-income neighborhoods and mortgage denial rates are much higher for residents of such neighborhoods. The economics literature discusses the underlying causes of these disparities in access to mortgage credit, particularly as related to the roles of discrimination, "redlining" of specific neighborhoods, and the barriers posed by underwriting guidelines to potential minority and low-income borrowers. Studies reviewed in Section B of this Appendix found that the racial and income composition of neighborhoods influence mortgage access even after accounting for demand and risk factors that may influence borrowers' decisions to apply for loans and lenders' decisions to make those loans. Therefore, the Secretary concludes that high-minority and low-income neighborhoods in metropolitan areas are underserved by the mortgage system.

2. Identifying Underserved Portions of Metropolitan Areas

To identify areas underserved by the mortgage market, HUD focused on two traditional measures used in a number of studies based on HMDA data:⁴⁵ application denial rates and mortgage origination rates per 100 owner-occupied units.⁴⁶ Tables B.1 and B.2 in Section B of this Appendix presented detailed data on denial and origination rates by the racial composition and median income of census tracts for metropolitan areas.⁴⁷ Aggregating this data is useful in order to examine denial and origination rates for broader groupings of census tracts:

Minority composition	Denial rate (percent)	Orig. rate	Tract income	Denial rate (percent)	Orig. rate
0–30%	13.7	8.7	Less than 90%	24.0%	6.5
30–50%	21.3%	6.8	90–120%	15.6	8.3
50–100%	25.1%	5.8	Greater than 20%	9.5	9.5

Two points stand out from these data. First, high-minority census tracts have higher denial rates and lower origination rates than low-minority tracts. Specifically, tracts that are over 50 percent minority have nearly twice the denial rate and two-thirds the origination rate of tracts that are under 30 percent minority.⁴⁸ Second, census tracts with lower incomes have higher denial rates and lower origination rates than higher

income tracts. Tracts with income less than or equal to 90 percent of area median income have 2.5 times the denial rate and barely two-thirds the origination rate for tracts with income over 120 percent of area median income.

In 1995, HUD's research determined that "underserved areas" could best be characterized in metropolitan areas as census tracts with minority population of at least 30

percent in 1990 and/or census tract median income no greater than 90 percent of area median income in 1990, excluding high-minority high-income tracts. These cutoffs produce sharp differentials in denial and origination rates between underserved areas and adequately served areas. For example, the mortgage denial rate in underserved areas (23.4 percent) was nearly twice that in

⁴⁵ HMDA provides little useful information on rural areas. Therefore, the HMDA data reported here apply only to metropolitan areas.

⁴⁶ Analysis of application rates are not reported here. Although application rates are sometimes used as a measure of mortgage demand, they provide no additional information beyond that provided by looking at both denial and origination rates. The patterns observed for application rates

are still very similar to those observed for origination rates.

⁴⁷ As shown in Table B.1, no sharp breaks occur in the denial and origination rates across the minority and income deciles—mostly, the increments are somewhat similar as one moves across the various deciles that account for the major portions of mortgage activity.

⁴⁸ The differentials in denial rates are due, in part, to differing risk characteristics of the prospective borrowers in different areas. However, use of denial rates is supported by the findings in the Boston Fed study which found that denial rate differentials persist, even after controlling for risk of the borrower. See Section B for a review of that study.

adequately served areas (12.2 percent) in 1997.

These minority population and income thresholds apply in the suburbs as well as in OMB-defined central cities. HUD's research has found that the average denial rate in underserved suburban areas is almost twice that in adequately served areas in the suburbs. (See Figure B.1 in Section B of this Appendix.) Thus HUD uses the same definition of underserved areas throughout metropolitan areas—there is no need to define such areas differently in central cities and in the suburbs. And HUD's definition, which covers 57 percent of the central city

population and 33 percent of the suburban population, is clearly preferable to a definition which would count 100 percent of central city residents and zero percent of suburban residents as living in underserved areas.

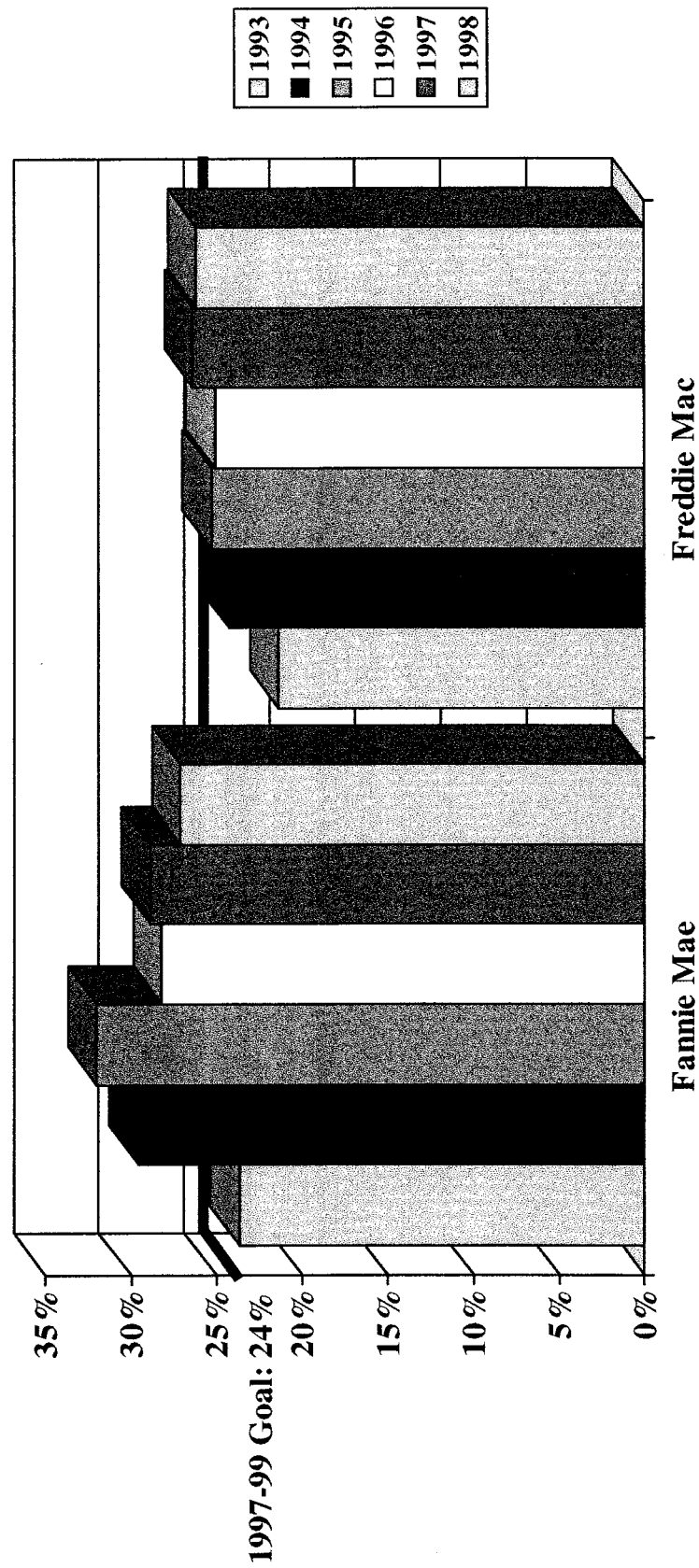
This definition of metropolitan underserved areas includes 21,586 of the 46,904 census tracts in metropolitan areas, covering 44 percent of the metropolitan population. It includes 73 percent of the population living in poverty in metropolitan areas. The unemployment rate in underserved areas is more than twice that in served areas, and rental units comprise 52.4

percent of total units in underserved tracts, versus 28.6 percent of total units in served tracts. As shown in Table B.11, this definition covers most of the population in the nation's most distressed central cities: Newark (99 percent), Detroit (96 percent), Hartford (97 percent), and Cleveland (90 percent). The nation's five largest cities also contain large concentrations of their population in underserved areas: New York (62 percent), Los Angeles (69 percent), Chicago (77 percent), Houston (67 percent), and Philadelphia (80 percent).

Table B.11
Needy Areas in Central Cities Would be Covered

Large Cities with High Concentrations of Tracts Included in the Geographically Targeted Goal (Percent of Population)		
Newark	99%	
Hartford	97%	
Gary	96%	
Detroit	96%	
Jersey City	92%	
Miami	91%	
Baltimore	90%	
Cleveland	90%	
St. Louis	85%	
Five Largest Cities		
New York	62%	
Los Angeles	69%	
Chicago	77%	
Houston	67%	
Philadelphia	80%	
Central Cities with Small Concentrations		
<u>Large Cities</u>	<u>Small Cities</u>	
Raleigh	33% Appleton, WI	6%
Tulsa	38% Cedar Falls, IA	8%
Nashville-Davidson	41% Scottsdale, AZ	11%
Oklahoma City	42% Naples, FL	13%
Wichita	43% Orem, UT	14%
Colorado Springs	44% Wheeling, WV	20%
Columbus	46% Salem, OR	19%
Phoenix	51% Elkhart, IN	20%

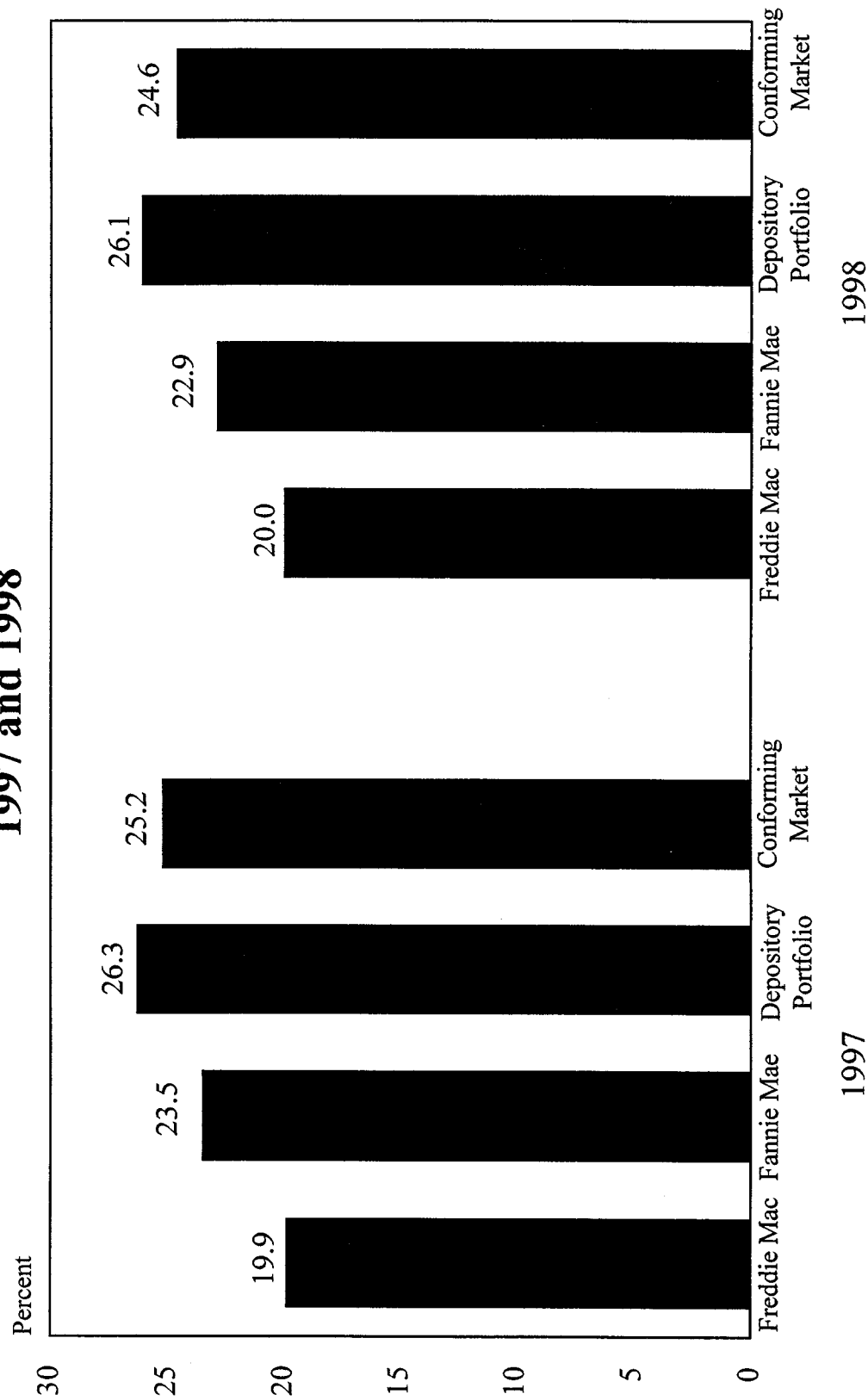
Figure B.2
Geographically Targeted Mortgage Purchases



Geographically Targeted Goal is 24% of units financed for 1997-99 (21% for 1996).

Source: HUD analysis of GSEs' loan-level data.

Figure B.3
The Share Of GSE And Conventional Conforming
Mortgages in Census Tracts Included in the
Geographically Targeted Goal,
1997 and 1998



Source: Conforming market and depository data are from 1997 and 1998 HMDA; GSE data are from loan-level data reported to HUD. Data are for single-family home purchase loans in metropolitan areas. See Table A.4a for further explanation.

Identifying Underserved Portions of Nonmetropolitan Areas

Recognizing the difficulty of defining rural underserved areas and the need to encourage GSE activity in such areas, HUD has chosen a rather broad, county-based definition of underservedness in rural areas. Specifically, a nonmetropolitan county is underserved if in 1990 (1) county median family income was less than or equal to 95 percent of the greater of state or national nonmetropolitan income or (2) county median family income was less than or equal to 120 percent of state nonmetropolitan income and county minority population was at least 30 percent of total county population. This definition includes 1,511 of the 2,305 counties in nonmetropolitan areas and covers 54 percent of the nonmetropolitan population. The definition does target the most disadvantaged rural counties—it includes in underserved areas 67 percent of the nonmetropolitan poor and 75 percent of nonmetropolitan minorities. The average poverty rate in underserved counties in 1990 was 21 percent, significantly greater than the 12 percent poverty rate in counties designated as adequately served. The definition also includes 84 percent of the population that resides in remote counties that are not adjacent to metropolitan areas and have fewer than 2,500 residents in towns.

4. Past Performance of the GSEs

The GSEs' performance on the geographically-targeted goal has improved significantly in recent years, as shown in Figure B.2. Fannie Mae's performance, as measured by HUD, increased sharply from 23.6 percent in 1993 to 31.9 percent in 1995, dropped to 28.1 percent in 1996, and rose to 28.8 percent in 1997, and then dropped to 27.0 percent in 1998. Freddie Mac's performance, as measured by HUD, rose from 21.8 percent in 1993 to 26.4 percent in 1995, followed by 25.0 percent in 1996, 26.3 percent in 1997, and 26.1 percent in 1998.

Both GSEs have improved their performance in underserved areas over the past six years but, on average, they continue to lag the conforming primary market in providing single-family home loans to distressed neighborhoods. As discussed in Section D, the GSEs show different patterns of lending—Freddie Mac is less likely than Fannie Mae to purchase mortgages on properties in low-income and high-minority neighborhoods. During the 1996–98 period, Freddie Mac lagged Fannie Mae, portfolio lenders, and the overall conforming market in providing funds to underserved neighborhoods. As shown in Figure B.3, underserved areas accounted for 20.0 percent of Freddie Mac's 1998 purchases of home loans, compared with 22.9 percent of Fannie Mae's purchases, 26.1 percent of home loans retained in depositories' portfolios, and 24.6 percent of the overall conforming market. Freddie Mac has not made any progress since 1992 in reducing the gap between its performance and that of the conventional conforming home purchase market. Fannie Mae, on the other hand, has improved its funding in underserved areas and has closed the gap between its performance and the

single-family primary market in funding low-income and high-minority neighborhoods.⁴⁹

HUD also conducted an analysis of the share of the overall (single-family and multifamily) conventional conforming mortgage market accounted for by the GSEs. The GSEs' purchases represented 39 percent of total dwelling units financed during 1997 but they represented only 33 percent of the dwelling units financed in underserved neighborhoods. In other words, the GSEs account for only one-third of the single-family and multifamily units financed in underserved areas. This suggests that there is room for the GSEs to increase their purchases in underserved neighborhoods.

5. Size of the Mortgage Market for Geographically-Targeted Areas

As detailed in Appendix D, the market for mortgages in geographically-targeted areas accounts for 29 to 32 percent of dwelling units financed by conventional conforming mortgages. In estimating the size of the market, HUD used alternative assumptions about future economic and market conditions that were less favorable than those that existed over the last five years. HUD is well aware of the volatility of mortgage markets and the possible impacts on the GSEs' ability to meet the housing goals. Should conditions change such that the goals are no longer reasonable or feasible, the Secretary has the authority to revise the goals.

6. The Geographically-Targeted Areas Housing Goal for 2000–03

There are several reasons that the Secretary is increasing the Geographically Targeted Areas Goal. *First*, the present 24 percent goal level for 1997–99 and the GSEs' recent performance are below the estimated 29–32 percent of the primary mortgage market accounted for by units in properties located in geographically-targeted areas. Raising the goal reflects the Secretary's concern that the GSEs close the remaining gap between their performance and that of the primary mortgage market.

Second, the single-family-owner mortgage market in underserved areas has demonstrated remarkable strength over the past few years relative to the preceding period. This market had only recently begun to grow in 1993 and 1994, the latest period for which data was available when the 1996–99 goals were established in December 1995. But the historically high undeserved areas share of the primary single-family mortgage market attained in 1994 has been maintained over the 1995–98 period. The three-year average of the underserved areas share of the single-family-owner mortgage market in metropolitan areas was 22.2 percent for 1992–94, but 25.1 percent for 1995–98 and 24.1 percent for the 1992–98 period as a whole.

Third, as discussed in detail in Appendix A, there are several market segments that

⁴⁹ Although this goal is targeted to lower-income and high minority areas, it does not mean that GSE purchase activity in underserved areas derives totally from lower income or minority families. In 1997, above-median income households accounted for 37 percent of the mortgages that the GSEs purchased in underserved areas. This suggests that these areas are quite diverse.

would benefit from a greater secondary market role by the GSEs; many of these market segments are concentrated in underserved areas. For example, one such area is single-family rental dwellings. These properties, containing 1–4 rental units, are an important source of housing for families in low-income and high-minority neighborhoods. However, the GSEs' purchases have accounted for only 13 percent of the single-family rental units financed in underserved areas during 1997. The Secretary believes that the GSEs can do more to play a leadership role in providing financing for such properties. Examples of other market segments in need of an enhanced GSE role include small multifamily properties, rehabilitation loans, seasoned CRA loans, and manufactured housing. Additional efforts by the GSEs in these markets would benefit families living in underserved areas.

Finally, a wide variety of quantitative and qualitative indicators indicate that the GSEs' have the financial strength to improve their affordable lending performance. For example, combined net income has risen steadily over the last decade, from \$677 million in 1987 to \$4.5 billion in 1997, an average annual growth rate of 21 percent per year. This financial strength provides the GSEs with the resources to lead the industry in supporting mortgage lending for properties located in geographically-targeted areas.

Summary. Figure A.4 of Appendix A summarizes many of the points made in this section regarding opportunities for Fannie Mae and Freddie Mac to improve their overall performance on the Geographically-Targeted Goal. The GSEs' purchases have provided financing for 2,893,046 dwelling units, which represented 39 percent of the 7,443,736 single-family and multifamily units that were financed in the conventional conforming market during 1997. However, in the underserved areas part of the market, the 795,981 units that were financed by GSE purchases represented only 33 percent of the 2,408,393 dwelling units that were financed in the market. Thus, there appears to ample room for the GSEs to increase their purchases in underserved areas. It is hoped that expression of concern in the current rulemaking will foster additional effort by both GSEs to increase their purchases in underserved areas.

7. Conclusions

Having considered the projected mortgage market serving geographically-targeted areas, economic, housing and demographic conditions for 2000–03, and the GSEs' recent performance in purchasing mortgages on properties in geographically-targeted areas, the Secretary has determined that the annual goal of 29 percent in calendar year 2000 and 31 percent in calendar year 2001 and the years following is feasible. Moreover, the Secretary has considered the GSEs' ability to lead the industry as well as the GSEs' financial condition. The Secretary has determined that these goal levels are necessary and appropriate.

Appendix C—Departmental Considerations To Establish the Special Affordable Housing Goal

A. Introduction

1. Establishment of the Goal

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA) requires the Secretary to establish a special annual goal designed to adjust the purchase by each GSE of mortgages on rental and owner-occupied housing to meet the unaddressed needs of, and affordable to, low-income families in low-income areas and very-low-income families (the Special Affordable Housing Goal).

In establishing the Special Affordable Housing Goal, FHEFSSA requires the Secretary to consider:

1. Data submitted to the Secretary in connection with the Special Affordable Housing Goal for previous years;
2. The performance and efforts of the GSEs toward achieving the Special Affordable Housing Goal in previous years;
3. National housing needs of targeted families;
4. The ability of the GSEs to lead the industry in making mortgage credit available for low-income and very-low-income families; and
5. The need to maintain the sound financial condition of the enterprises.

2. The Goal

The final rule provides that the Special Affordable Housing Goal is 18 percent of the total number of dwelling units financed by each GSE's mortgage purchases in 2000, and 20 percent in 2001–2003. Of the total Special Affordable Housing Goal for each year, in 2000 each GSE must purchase multifamily mortgages in an amount at least equal to 0.9 percent of the 1998 total dollar volume of

mortgages purchased by the GSE, rising to 1.0 percent in 2001–2003.¹

Approximately 23–26 percent of the conventional conforming mortgage market in 2000 would qualify under the Special Affordable Housing Goal as defined in the proposed rule, as projected by HUD.

Units that count toward the goal: Subject to further provisions specified below, units that count toward the Special Affordable Housing Goal include units occupied by low-income owners and renters in low-income areas, and very-low-income owners and renters. Other low-income rental units in multifamily properties count toward the goal where at least 20 percent of the units in the property are affordable to families whose incomes are 50 percent of area median income or less, or where at least 40 percent of the units are affordable to families whose incomes are 60 percent of area median income or less.

B. Underlying Data

In considering the factors under FHEFSSA to establish the Special Affordable Housing Goal, HUD relied upon data gathered from the American Housing Survey through 1995, the Census Bureau's 1991 Residential Finance Survey, the 1990 Census of Population and Housing, Home Mortgage Disclosure Act (HMDA) data for 1992 through 1997, and annual loan-level data from the GSEs on their mortgage purchases through 1997. Appendix D discusses in detail how these data resources were used and how the size of the conventional conforming market for this goal was estimated.

Section C discusses the factors listed above, and Section D provides the Secretary's

¹ While this proposed rule specifically proposes a dollar based subgoal, the Department is considering three alternative approaches to structuring the Special Affordable multifamily subgoal—a mortgage-based subgoal, a dollar-based subgoal, and a unit-based subgoal. These alternative approaches are described in the Preamble and in Section D of this Appendix.

rationale for establishing the special affordable goal.

Consideration of the Factors

1 and 2. Data submitted to the Secretary in connection with the Special Affordable Housing Goal for previous years, and the performance and efforts of the enterprises toward achieving the Special Affordable Housing Goal in previous years.

The discussions of these two factors have been combined because they overlap to a significant degree.

a. GSE Performance Relative to the 1996–98 Goals

This section discusses each GSE's performance under the Special Affordable Housing Goal over the 1993–98 period. The data presented here are “official results”—i.e., they are based on HUD's in-depth analysis of the loan-level data submitted annually to the Department and the counting provisions contained in HUD's regulations in 24 CFR part 81, subpart B. As explained below, in some cases these “official results” differ from goal performance reported to the Department by the GSEs in their Annual Housing Activities Reports.

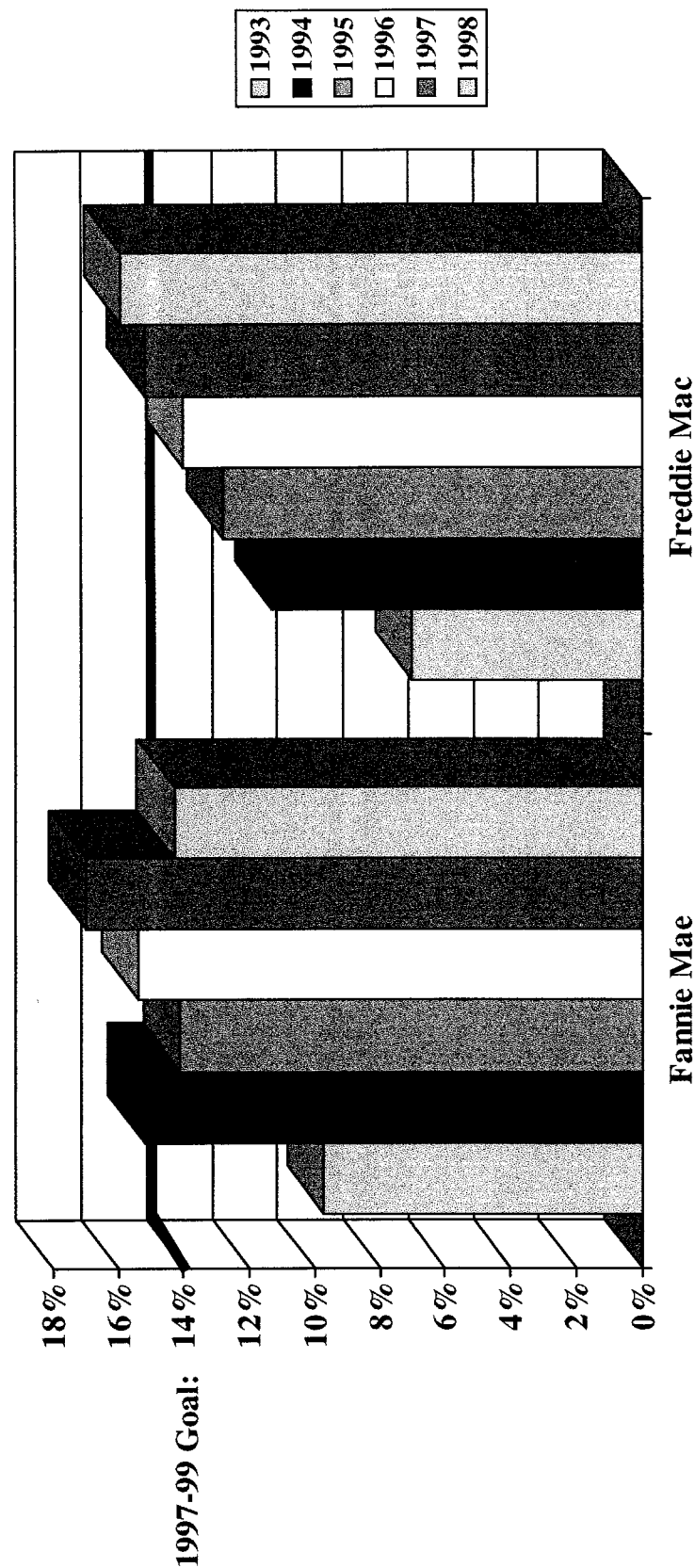
HUD's goals specified that in 1996 at least 12 percent of the number of units eligible to count toward the Special Affordable goal should qualify as Special Affordable, and at least 14 percent annually beginning in 1997. The actual performance in 1996 through 1998, based on HUD analysis of loan-level data submitted by the GSEs, is shown in Table C.1 and Figure C.1. Fannie Mae surpassed the goal by 3.4 percentage points and 3.0 percentage points, respectively, in 1996 and 1997, while Freddie Mac surpassed the goal by 2.0 and 1.2 percentage points. In 1998, Fannie Mae surpassed the goal by 0.3 percentage points while Freddie Mac surpassed the goal by 1.9 percentage points (Table C.1).

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Table C.1
GSEs' Special Affordable Purchases Based on
Final Rule Goal Definitions, 1993-1998

	1993	1994	1995	1996	1997	1998
Fannie Mae:						
Units Eligible to Count Toward Goal	2,909,941	1,832,257	1,417,542	1,852,233	1,748,044	3,486,040
Special Affordable Units	282,170	279,093	199,715	285,642	296,366	499,948
Percent Special Affordable	9.7%	15.2%	14.1%	15.4%	17.0%	14.3%
Special Affordable Multifamily Purchases (\$billions)	\$1.64	\$1.74	\$1.34	\$2.37	\$3.19	\$3.53
Freddie Mac:						
Units Eligible to Count Toward Goal	2,170,036	1,290,990	959,137	1,299,589	1,175,271	2,658,174
Special Affordable Units	152,628	146,224	122,954	181,505	178,736	422,900
Percent Special Affordable	7.0%	11.3%	12.8%	14.0%	15.2%	15.9%
Special Affordable Multifamily Purchases (\$billions)	\$0.14	\$0.46	\$0.69	\$1.06	\$1.21	\$2.69

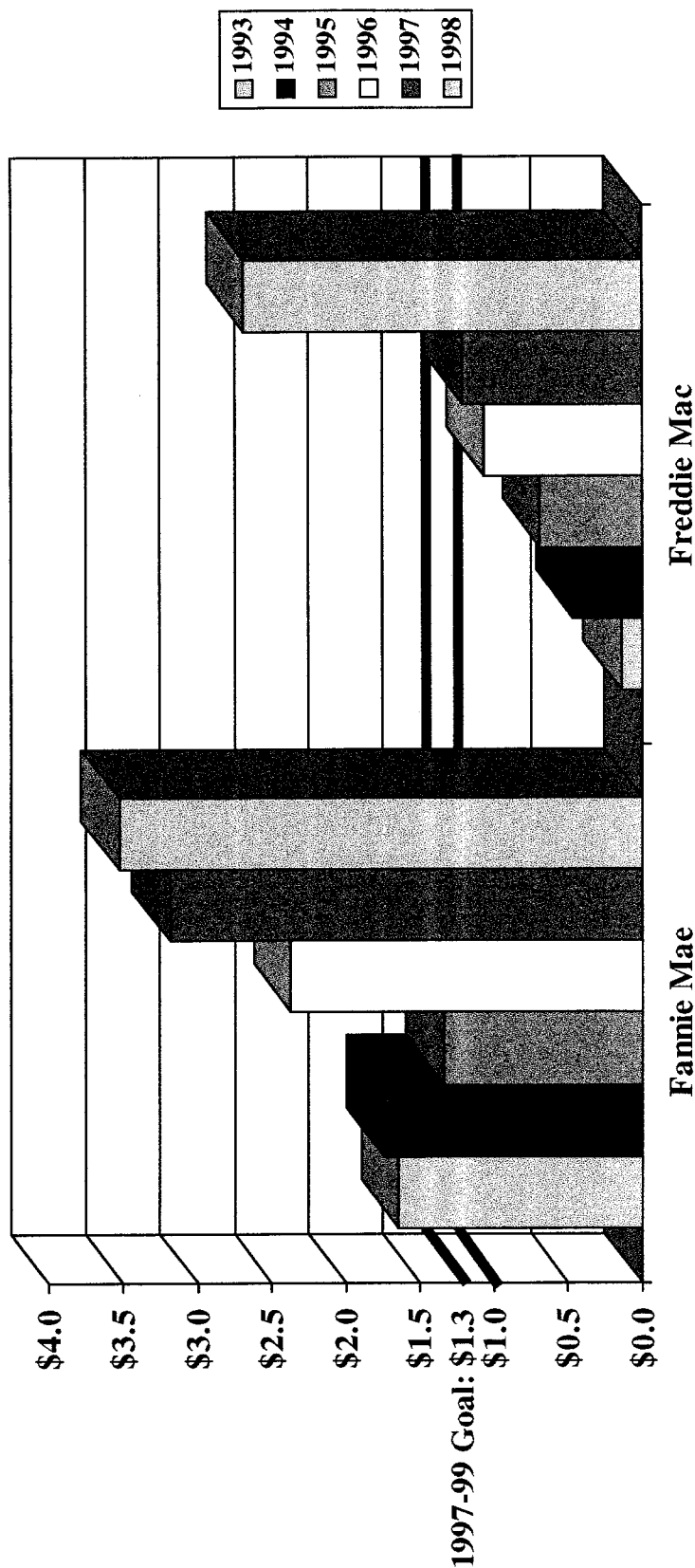
Figure C.1
Special Affordable Mortgage Purchases



Special Affordable Goal is 14% of units financed for 1997-99 (12% for 1996).

Source: HUD analysis of GSEs' loan-level data.

Figure C.2
Multifamily Special Affordable Mortgage Purchases
 (Billions of Dollars Per Year)



Multifamily Special Affordable Goals for 1996-99 are \$1.29 billion per year for Fannie Mae and \$988 million per year for Freddie Mac.

Source: HUD analysis of GSEs' loan-level data.

Table C.2

**Fannie Mae's Special Affordable Purchases
By Unit Affordability and Area Income, 1993-1997**

Year of purchase and Type of unit	Very-Low Income Units in Low- Income Areas	Very-Low Income Units Outside Low- Income Areas	Other Low-Income Units in Low- Income Areas	Other Units Qualifying For Goal*	Total Units Qualifying For Goal	Percent
1993						
Single-family owner	21,731	108,354	28,351		158,436	56.1%
Single-family rental	11,474	21,022	12,082		44,578	15.8%
Multifamily	19,831	43,754	10,480	5,092	79,157	28.1%
Total	53,036	173,130	50,913	5,092	282,171	100.0%
Percent	18.8%	61.4%	18.0%	1.8%	100.0%	
1994						
Single-family owner	22,599	88,407	23,310		134,316	48.1%
Single-family rental	14,392	21,637	11,545		47,574	17.0%
Multifamily	25,712	51,173	13,572	6,746	97,203	34.8%
Total	62,703	161,217	48,427	6,746	279,093	100.0%
Percent	22.5%	57.8%	17.4%	2.4%	100.0%	
1995						
Single-family owner	20,292	68,062	18,139		106,493	53.3%
Single-family rental	8,251	11,210	5,887		25,348	12.7%
Multifamily	16,334	33,988	12,801	4,750	67,873	34.0%
Total	44,877	113,260	36,827	4,750	199,714	100.0%
Percent	22.5%	56.7%	18.4%	2.4%	100.0%	
1996						
Single-family owner	25,103	93,029	23,328		141,460	49.5%
Single-family rental	11,242	18,207	6,938		36,387	12.7%
Multifamily	23,703	59,556	15,399	9,136	107,794	37.7%
Total	60,048	170,792	45,665	9,136	285,641	100.0%
Percent	21.0%	59.8%	16.0%	3.2%	100.0%	
1997						
Single-family owner	23,909	91,400	20,825		136,134	45.9%
Single-family rental	9,169	15,290	5,399		29,858	10.1%
Multifamily	27,522	80,069	13,294	9,488	130,373	44.0%
Total	60,600	186,759	39,518	9,488	296,365	100.0%
Percent	20.4%	63.0%	13.3%	3.2%	100.0%	

* Low-income rental units in multifamily properties where at least 20 percent of the units are affordable to families whose incomes are 50 percent of area median income or less or where at least 40 percent of the units are affordable to families whose incomes are 60 percent of area median income or less, which do not otherwise qualify under the goal.

Table C.3

**Freddie Mac's Special Affordable Purchases
By Unit Affordability and Area Income, 1993-1997**

Year of purchase and Type of unit	Very-Low Income Units in Low- Income Areas	Very-Low Income Units Outside Low- Income Areas	Other Low-Income Units in Low- Income Areas	Other Units Qualifying For Goal*	Total Units Qualifying For Goal	Percent
1993						
Single-family owner	14,689	79,181	20,935		114,805	75.2%
Single-family rental	7,426	13,612	8,365		29,403	19.3%
Multifamily	3,432	4,237	577	181	8,427	5.5%
Total	25,547	97,030	29,877	181	152,635	100.0%
Percent	16.7%	63.6%	19.6%	0.1%	100.0%	
1994						
Single-family owner	13,012	61,986	15,509		90,507	55.9%
Single-family rental	16,851	21,047	6,071		43,969	27.2%
Multifamily	12,550	11,546	2,124	1,216	27,436	16.9%
Total	42,413	94,579	23,704	1,216	161,912	100.0%
Percent	26.2%	58.4%	14.6%	0.8%	100.0%	
1995						
Single-family owner	10,801	45,782	11,138		67,721	55.1%
Single-family rental	6,018	10,705	4,697		21,420	17.4%
Multifamily	9,818	15,352	5,199	3,444	33,813	27.5%
Total	26,637	71,839	21,034	3,444	122,954	100.0%
Percent	21.7%	58.4%	17.1%	2.8%	100.0%	
1996						
Single-family owner	15,330	70,731	16,018		102,080	56.2%
Single-family rental	7,539	14,339	4,178		26,056	14.4%
Multifamily	12,634	28,301	8,760	3,675	53,370	29.4%
Total	35,503	113,371	28,956	3,675	181,506	100.0%
Percent	19.6%	62.5%	16.0%	2.0%	100.0%	
1997						
Single-family owner	15,742	66,656	15,449		97,847	54.7%
Single-family rental	7,469	11,612	5,552		24,633	13.8%
Multifamily	16,131	28,789	8,133	3,203	56,256	31.5%
Total	39,342	107,057	29,134	3,203	178,736	100.0%
Percent	22.0%	59.9%	16.3%	1.8%	100.0%	

* Low-income rental units in multifamily properties where at least 20 percent of the units are affordable to families whose incomes are 50 percent of area median income or less or where at least 40 percent of the units are affordable to families whose incomes are 60 percent of area median income or less, which do not otherwise qualify under the goal.

Table C.1 also includes, for comparison purposes, comparable figures for 1993, 1994, and 1995, calculated according to the counting conventions of the 1995 Final Rule that became applicable in 1996. Each GSEs' percentages in 1996, 1997, and 1998 exceeded their percentages in any of the three preceding years.

The Fannie Mae figures presented above are smaller than the corresponding figures presented by Fannie Mae in its Annual Housing Activity Reports to HUD by approximately 2 percentage points in both 1996 and 1997 and 1.3 percentage points in 1998. The difference largely reflects HUD-Fannie Mae differences in application of counting rules relating to counting of seasoned loans for purposes of this goal. In particular, the tabulations reflect inclusion of seasoned loan purchases in the denominator in calculating performance under the Special Affordable goal, as discussed in Preamble section II(B)(6)(c) on the Seasoned Mortgage Loan Purchases "Recycling" Requirement. Freddie Mac's Annual Housing Activity Report figures for this goal differ from the figures presented above by 0.1 percentage point, reflecting minor differences in application of counting rules.

Since 1996 each GSE has been subject to an annual subgoal for multifamily Special Affordable mortgage purchases, established as 0.8 percent of the dollar volume of single-family and multifamily mortgages purchased by the respective GSE in 1994. Fannie Mae's subgoal was \$1.29 billion and Freddie Mac's subgoal was \$988 million for each year. Fannie Mae surpassed the subgoal by \$1.08 billion, \$1.90 billion, and \$2.24 billion in 1996, 1997, and 1998, respectively, while Freddie Mac surpassed the subgoal by \$18 million, \$220 million, and \$1.70 billion. Table C.1 includes these figures, and they are depicted graphically in Figure C.2.

b. Characteristics of Special Affordable Purchases

The following analysis presents information on the composition of the GSEs' Special Affordable purchases according to area income, unit affordability, tenure of unit and property type (single- or multifamily).

Increased reliance on multifamily housing to meet goal. Tables C.2 and C.3 show that both GSEs have increasingly relied on multifamily housing units to meet the special affordable goal since 1993. Fannie Mae's multifamily purchases represented 44 percent of all purchases qualifying for the goal in 1997, compared with 28.1 percent in 1993. Freddie Mac's multifamily purchases represented 31.5 percent of all purchases qualifying for the goal in 1997, compared to 5.5 percent in 1993. The trends for both GSEs were steadily upward throughout the five-year period.

The other two housing categories—single-family owner and single-family rental—both exhibited downward trends for both GSEs. In 1997 Fannie Mae's single-family owner units

qualifying for the goal represented 45.9 percent of all qualifying units, and Fannie Mae's single-family rental units were 10.0 percent of all qualifying units. Freddie Mac's single-family owner units qualifying for the goal represented 54.7 percent of all qualifying units, and Freddie Mac's single-family rental units were 13.8 percent of all qualifying units.

Reliance on household relative to area characteristics to meet goal. Tables C.2 and C.3 also show the allocation of units qualifying for the goal as related to the family income and area median income criteria in the goal definition. Very-low-income families (shown in the two leftmost columns in the tables) accounted for 83.4 percent of Fannie Mae's units qualifying under the goal in 1997, compared to 80.2 percent in 1993. For Freddie Mac, very-low-income families accounted for 81.0 percent of units qualifying under the goal in 1997 and 80.3 percent in 1993. In contrast, mortgage purchases from low-income areas (shown in the first and third columns in the tables) accounted for 33.7 percent of Fannie Mae's units qualifying under the goal in 1997, compared to 36.8 percent in 1993. The corresponding percentages for Freddie Mac were 38.3 percent in 1997 and 36.3 percent in 1993. Thus given the definition of special affordable housing in terms of household and area income characteristics, both GSEs have consistently relied substantially more on low-income characteristics of households than low-income characteristics of census tracts to meet this goal.

c. GSEs' Performance Relative to Market

Section E in Appendix A uses HMDA data with GSE loan-level data for home purchase mortgages on single-family owner-occupied properties in metropolitan areas to compare the GSEs' performance in special affordable lending to the performance of depositories and other lenders in the conventional conforming market. The main findings are: (a) both GSEs lag depositories and the overall market in providing mortgage funds for very low-income and other special affordable borrowers; and (b) the performance of Freddie Mac was particularly weak compared to Fannie Mae, the depositories, and the overall market. For example, between 1996 and 1998, special affordable borrowers accounted for 9.8 percent of the home loans purchased by Freddie Mac, 11.9 percent of Fannie Mae's purchases, 16.7 percent of home loans originated and retained by depositories, and 15.3 percent of all home loans originated in the conventional conforming market (see Table A.3 in Appendix A). While Freddie Mac has improved its performance, it has not closed the gap between its performance and that of the overall market. In 1992, special affordable loans accounted for 6.5 percent of Freddie Mac's purchases and 10.4 percent of market originations, for a "Freddie-Mac-to-market" ratio of 0.63. By 1998, that ratio had

increased only to 0.73 (11.3 percent versus 15.5 percent). Thus, there is room for Freddie Mac to improve its purchases of home loans that qualify for the special affordable goals.

Section G in Appendix A discusses the role of the GSEs both in the overall special affordable market and in the different segments (single-family owner, single-family rental, and multifamily rental) of the special affordable market. The GSEs' special affordable purchases have accounted for 24 percent of all special affordable owner and rental units that were financed in the conventional conforming market during 1997. The GSEs' 24-percent share of the special affordable market was approximately three-fifths of their 39-percent share of the overall market. Even in the owner market, where the GSEs account for 50 percent of the market, their share of the special affordable market was only 35 percent. This analysis suggests that the GSEs are not leading the single-family market in purchasing loans that qualify for the Special Affordable Goal. There is room for the GSEs to improve their performance in purchasing affordable loans at the lower-income end of the market.

3. National Housing Needs of Low-Income Families in Low-Income Areas and Very-Low-Income Families

This discussion concentrates on very-low-income families with the greatest needs. It complements Section C of Appendix A, which presents detailed analyses of housing problems and demographic trends for lower-income families which are relevant to the issue addressed in this part of Appendix C.

Data from the 1995 American Housing Survey demonstrate that housing problems and needs for affordable housing continue to be more pressing in the lowest-income categories than among moderate-income families, as established in HUD's analysis for the 1995 Final Rule. Table C.4 displays figures on several types of housing problems—high housing costs relative to income, physical housing defects, and crowding—for both owners and renters. Figures are presented for households experiencing multiple (two or more) of these problems as well as households experiencing a severe degree of either cost burden or physical problems. Housing problems in 1995 were much more frequent for the lowest-income groups.² Incidence of problems is shown for households in the income range covered by the special affordable goal, as well as for higher income households.

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² Tabulations of the 1995 American Housing Survey by HUD's Office of Policy Development and Research. The results in the table categorize renters reporting housing assistance as having no housing problems.

Table C.4

**Incidence of Housing Problems by
Household Income, 1995**

	Household Income as Percent of Area Median Income			
	0-60%	61-80%	81-100%	> 100%
Renter Households (Thousands)				
Total	17,428	4,579	3,896	8,246
Rent Burden > 50% of Income	6,056	100	25	5
31-50%	5,385	1,299	482	219
Severely Inadequate Housing	587	60	68	134
Moderately Inadequate	1,415	290	197	376
Crowded	1,282	159	99	133
Multiple Problems*	2,022	75	42	34
Priority Problems**	5,492	160	94	139
As Percent of Total				
Rent Burden > 50% of Income	34.7%	2.2%	0.6%	0.1%
31-50%	30.9%	28.4%	12.4%	2.7%
Severely Inadequate Housing	3.4%	1.3%	1.7%	1.6%
Moderately Inadequate	8.1%	6.3%	5.1%	4.6%
Crowded	7.4%	3.5%	2.5%	1.6%
Multiple Problems*	11.6%	1.6%	1.1%	0.4%
Priority Problems**	31.5%	3.5%	2.4%	1.7%
Owner Households (Thousands)				
Total	19,366	7,758	6,492	29,927
Cost Burden > 50% of Income	4,177	437	147	152
31-50%	4,027	1,473	913	1,639
Severely Inadequate Housing	536	123	101	412
Moderately Inadequate	995	266	205	604
Crowded	299	157	95	329
Multiple Problems*	753	130	79	106
Priority Problems**	4,602	550	247	559
As Percent of Total				
Cost Burden > 50% of Income	21.6%	5.6%	2.3%	0.5%
31-50%	20.8%	19.0%	14.1%	5.5%
Severely Inadequate Housing	2.8%	1.6%	1.6%	1.4%
Moderately Inadequate	5.1%	3.4%	3.2%	2.0%
Crowded	1.5%	2.0%	1.5%	1.1%
Multiple Problems*	3.9%	1.7%	1.2%	0.4%
Priority Problems**	23.8%	7.1%	3.8%	1.9%

* Two or three of the following: housing costs >30%, severe or moderate physical problems, and overcrowding.

** Housing costs >50% of income or severely inadequate housing among unassisted households.

Note: Incomes of renter households are estimated based on rents, adjusted for number of bedrooms.

This analysis shows that priority problems of severe cost burden or severely inadequate housing are noticeably concentrated among renters and owners with incomes below 60 percent of area median income (31.5 percent of renter households and 23.8 percent of owner households). In contrast, 3.5 percent of renter households and 7.1 percent of owner households with incomes above 60 percent of area median income, up to 80 percent of area median income, had priority problems. For more than two-thirds of the very-low-income renter families with worst case problems, the only problem was affordability—they do not have problems with housing adequacy or crowding.

4. The Ability of the Enterprises to Lead The Industry in Making Mortgage Credit Available for Low-Income and Very-Low-Income Families

The discussion of the ability of Fannie Mae and Freddie Mac to lead the industry in Section C.5 of Appendix A is relevant to this factor—the GSEs' roles in the owner and rental markets, their role in establishing widely-applied underwriting standards, their role in the development of new technology for mortgage origination, their strong staff resources, and their financial strength. Additional analysis on the potential ability of the enterprises to lead the industry in the low- and very-low-income market appears below—in Section D.2 generally, and in Section D.3 with respect to multifamily housing.

5. The Need To Maintain the Sound Financial Condition of the GSEs

HUD has undertaken a separate, detailed economic analysis of this proposed rule, which includes consideration of (a) the financial returns that the GSEs earn on low- and moderate-income loans and (b) the

financial safety and soundness implications of the housing goals. Based on this economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the proposed goals raise minimal, if any, safety and soundness concerns.

D. Determination of the Goal

Several considerations, many of which are reviewed in Appendixes A and B and in previous sections of this Appendix, led to the determination of the Special Affordable Housing Goal.

1. Severe Housing Problems

The data presented in Section C.3 demonstrate that housing problems and needs for affordable housing are much more pressing in the lowest-income categories than among moderate-income families. The high incidence of severe problems among the lowest-income renters reflects severe shortages of units affordable to those renters. At incomes below 60 percent of area median, 34.7 percent of renters and 21.6 percent of owners pay more than 50 percent of their income for housing. In this same income range, 65.6 percent of renters and 42.4 percent of owners pay more than 30 percent of their income for housing. 31.5 percent of renters and 23.8 percent of owners exhibit "priority problems", meaning housing costs over 50 percent of income or severely inadequate housing.

2. GSE Performance and the Market

a. GSEs' Single-Family Performance

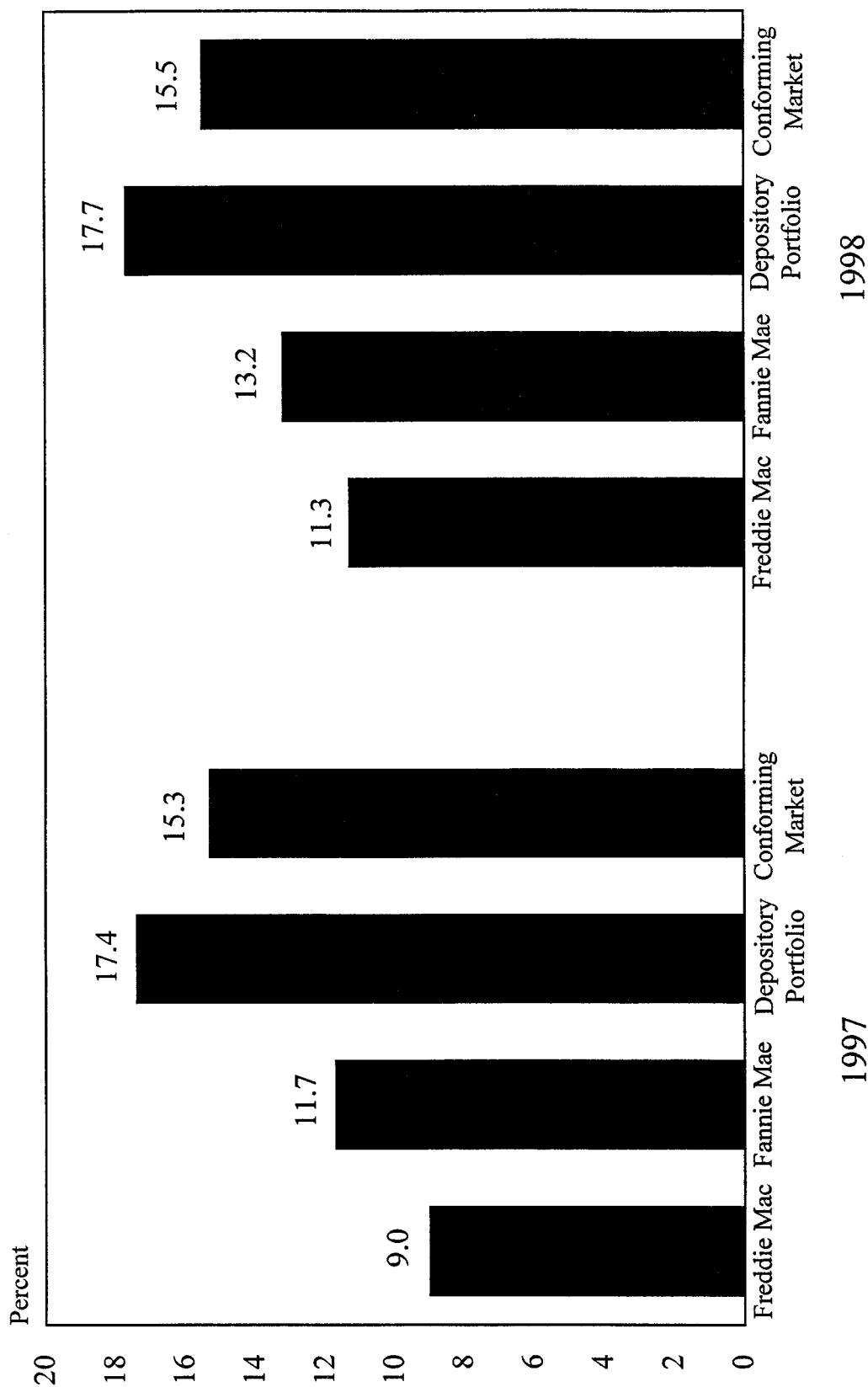
The Special Affordable Housing Goal is designed, in part, to ensure that the GSEs maintain a consistent focus on serving the very low-income portion of the housing market where housing needs are greatest. The bulk of the GSEs' low- and moderate-income

mortgage purchases are for the higher-income portion of this category. The lowest-income borrowers account for a relatively small percentage of each GSE's below-median income purchases—25.9 percent of Freddie Mac's 1998 single-family low-mod owner-occupied mortgage purchases financed homes for single-family homeowners with incomes below 60 percent of area median; the corresponding share was 25.6 percent for Fannie Mae in 1998.

b. Single-Family Market Comparisons in Metropolitan Areas

Section C compared the GSEs' performance in special affordable lending to the performance of depositories and other lenders in the conventional conforming market for single-family home loans. The analysis showed that both GSEs lag depositories and the overall market in providing mortgage funds for very low-income and other special affordable borrowers; and that the performance of Freddie Mac was particularly weak compared to Fannie Mae, the depositories, and the overall market. Figure C.3 illustrates these findings. In 1998, special affordable borrowers accounted for 11.3 percent of the home loans purchased by Freddie Mac, 13.2 percent of Fannie Mae's purchases, 17.7 percent of home loans originated and retained by depositories, and 15.5 percent of all home loans originated in the conventional conforming market. Section C also notes that Freddie Mac has improved its performance since 1992, but it has not made as much progress as Fannie Mae has in closing the gap between its performance and that of the overall market. Thus, there is room for both GSEs, but particularly Freddie Mac, to improve its purchases of home loans that qualify for the special affordable goals.

Figure C.3
The Share Of GSE And Conventional Conforming
Mortgages for Special Affordable Borrowers,
1997 and 1998



Source: Conforming market and depository data are from 1997 and 1998 HMDA; GSE data are from loan-level data reported to HUD. Data are for single-family home purchase loans in metropolitan areas. See Table A.4a for further explanation.

c. Overall Market Comparisons

Section C compared the GSEs' role in the overall market with their role in the special affordable market. The GSEs' purchases have provided financing for 2,893,046 dwelling units, which represented 39 percent of the 7,443,736 single-family and multifamily units that were financed in the conventional conforming market during 1997. However, in the special affordable part of the market, the 508,377 units that were financed by GSE purchases represented only 24 percent of the 2,158,750 dwelling units that were financed in the market. Thus, there appears to be ample room for the GSEs to improve their performance in the Special Affordable market.

3. Reasons for Increasing the Special Affordable Housing Goal

The reasons the Secretary is increasing the Special Affordable Goal are essentially the same as those given in Section H.4 of Appendix A for the Low- and Moderate-Income Goal. Although that discussion will not be repeated here, the main considerations are the following: Freddie Mac's re-entry into the multifamily market; the underlying strength of the primary mortgage market for lower-income families; the need for the GSEs, and particularly Freddie Mac, to improve their purchases of mortgages for lower-income families and their communities; the existence of several low-income market segments that would benefit from more active efforts by the GSEs; and the substantial profits and financial capacity of Fannie Mae and Freddie Mac. The Department's analysis shows that the GSEs are not leading the market in purchasing loans that qualify for the Special Affordable Goal. There are also plenty of opportunities for the GSEs to improve their performance in purchasing special affordable loans. The GSEs' accounted for only 24 percent of the special affordable market in 1997—a figure substantially below their 39-percent share of the overall market.

4. Multifamily Purchases—Further Analysis

The multifamily sector is especially important in the establishment of the special affordable housing goals for Fannie Mae and

Freddie Mac because of the relatively high percentage of multifamily units meeting the special affordable goal as compared with single-family. In 1997, 57 percent of units backing Freddie Mac's multifamily acquisitions met the special affordable goal, representing 31 percent of units counted toward its special affordable goal, at a time when multifamily units represented only 8 percent of total annual purchase volume. Corresponding percentages for Fannie Mae were as follows: 54 percent of units backing multifamily acquisitions met the special affordable goal; multifamily represented 44 percent of units meeting the special affordable goal but only 13 percent of total purchase volume.³

Significant new developments in the multifamily mortgage market have occurred since the publication of the current version of the GSE Final Rule in December 1995, most notably the increased rate of debt securitization via Commercial Mortgage Backed Securities (CMBS) and a higher level of equity securitization by Real Estate Investment Trusts (REITs). Fannie Mae has played a role in establishing underwriting standards that have been widely emulated in the growth of the CMBS market. Freddie Mac has contributed to the growth and stability of the CMBS sector by acting as an investor.

Increased securitization of debt and equity interests in multifamily property present the GSEs with new challenges as well as new opportunities. The GSEs are currently experiencing a higher degree of secondary market competition than they did in 1995. At the same time, recent volatility in the CMBS market underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by virtue of the fact that an increasing proportion of multifamily mortgages are originated to secondary market standards.

Despite the expanded presence of the GSEs in the multifamily mortgage market and the rapid growth in multifamily securitization by means of CMBS, increased secondary market liquidity does not appear to have benefited all segments of the market equally. Small properties with 5–50 units appear to have been adversely affected by excessive

borrowing costs as described in Appendix A. Another market segment that appears experiencing difficulty in obtaining mortgage credit consists of multifamily properties with significant rehabilitation needs. Properties that are more than 10 years old are typically classified as “C” or “D” properties, and are considered less attractive than newer properties by many lenders and investors.

Context. As discussed above, in the 1995 Final Rule, the multifamily subgoal for the 1996–1999 period was set at 0.8 percent of the dollar value of each GSEs' respective 1994 origination volume, or \$998 million for Freddie Mac and \$1.29 billion for Fannie Mae. Freddie Mac exceeded the goal by a narrow margin in 1996 and more comfortably in 1997–1998. Fannie Mae has exceeded the goal by a wide margin in all three years.

The experience of the past two years suggests the following preliminary findings regarding the multifamily special affordable subgoal:

The goal has contributed toward a significantly increased presence by Freddie Mac in the multifamily market.

Fannie Mae's performance has surpassed the goal by such a wide margin that it can be reasonably inferred that the goal has little effect on their behavior.

- The current goal is out of date, as it is based on market conditions in 1993–94.
- The goal has remained at a fixed level, despite significant growth in the multifamily market and in the GSEs' administrative capabilities with regard to multifamily.
- Given that the GSEs have relatively large fixed costs in purchasing multifamily loans, the minimum cost method of meeting the goal involves purchasing a relatively small number of mortgages, each with a relatively large UPB. Thus the goal may provide the GSEs with an additional incentive to purchase mortgages on large properties.

HUD's proposed rule establishes the multifamily subgoal at 0.9 percent of the dollar volume of combined (single family and multifamily) 1998 mortgage purchases in calendar year 2000, and 1.0 percent in each of calendar years 2001–2003. This implies the following thresholds for the two GSEs:⁴

	2001–2003 (in billions)	2000 (in billions)
Fannie Mae	\$3.31	\$3.68
Freddie Mac	2.46	2.73

The proposed subgoal can be compared with Fannie Mae's and Freddie Mac's 1998 multifamily special affordable multifamily acquisition volumes of \$3.5 billion and \$2.7 billion, respectively.⁵ A 1.0 percent dollar-based multifamily subgoal for 2001–2003 would sustain and likely increase the efforts of both GSEs in the multifamily mortgage

market, with particular emphasis upon the special affordable segment.

HUD has identified three alternative approaches for specifying multifamily subgoals for the GSEs, as follows:

(1) *Option One—Subgoal Based on Number of Units.* In this approach, the multifamily special affordable subgoal would be expressed as a minimum number of units

meeting the Special Affordable Housing Goal. A multifamily subgoal for 2001–2003 established at the level of the dollar-based subgoal defined above, divided by \$22,953, which is the average of Fannie Mae's and Freddie Mac's ratios of unpaid principal balance to number of units in multifamily properties counted toward the Special Affordable Housing Goal in 1997 (as

³ Source: HUD analysis of GSE loan-level data. Loans with missing data are excluded from the calculations of the special affordable proportions of multifamily and the multifamily proportion of special affordable.

⁴ HUD has determined that the total dollar volume of the GSEs' combined (single and multifamily) mortgage purchases in 1998, measured in unpaid principal balance at acquisition, was as

follows: Fannie Mae \$367.6 billion; Freddie Mac \$273.2 billion.

⁵ HUD analysis of GSE loan-level data.

determined by HUD) would generate annual multifamily special affordable subgoals of 160,328 units for Fannie Mae and 118,939 units for Freddie Mac. These compare with Fannie Mae's multifamily special affordable multifamily acquisition volumes of 130,374 units in 1997 and 138,822 units in 1998, and Freddie Mac's performance of 56,255 units in 1997 and 120,776 units in 1998.⁶ Such a multifamily subgoal for 2001–2003 would sustain and likely increase the efforts of both GSEs in the multifamily mortgage market, with particular emphasis upon the special affordable segment.⁷

(2) *Option Two—Subgoal As A Percent of GSEs' Current Multifamily Mortgage Purchases.* Another possible approach is to establish the special affordable multifamily subgoal as a minimum percentage of each GSE's current total dollar volume of multifamily mortgage purchases. For example, the subgoal level for 2001–2003 could be expressed as 58.0 percent of a GSE's multifamily dollar volume. The 58.0 percent threshold under this subgoal option compares with 1997 performance of 54.2 percent for Fannie Mae and 56.6 percent for Freddie Mac.⁸ A 58.0 percent multifamily subgoal for 2001–2003 would sustain and likely increase the efforts of both GSEs in the special affordable segment of the multifamily mortgage market.⁹

(3) *Option Three—Subgoal Based on Number of Mortgages Acquired.* Because the GSEs incur relatively large fixed costs in purchasing multifamily mortgage loans, another alternative to the Special Affordable Multifamily Housing Subgoal would be to establish a subgoal that would be based on the number of mortgages acquired. In this approach, the Special Affordable multifamily subgoal would be expressed as a minimum number of each GSEs' total mortgage purchases. If all the units in the property securing the mortgage are not eligible for the Special Affordable Housing Goal, then subgoal performance would be pro-rated based on the number of qualifying units. In other words, if one mortgage secured a 100-unit property and 50 of the units qualified for the Special Affordable Housing Goal, then subgoal credit would be counted as one-half of a mortgage.¹⁰

⁶ Source: HUD analysis of GSE loan-level data. Fannie Mae's 1998 performance figures may not fully reflect its multifamily special affordable acquisition capabilities because Fannie Mae did not obtain data necessary to qualify many of their multifamily seasoned loan purchases for the special affordable goal.

⁷ If this option were selected, appropriate subgoal thresholds for the year 2000 transition period could be developed.

⁸ Source: HUD analysis of GSE loan-level data. 1997 figures are used here because the share of Fannie Mae's multifamily acquisitions meeting the special affordable goal is unusually low in 1998 as noted above because Fannie Mae did not verify whether proceeds of seasoned multifamily loans it acquired were "recycled" into new lending per FHEFSA requirements.

⁹ If this option were selected, appropriate subgoal thresholds for the year 2000 transition period could be developed.

¹⁰ A similar pro-rating technique is specified in HUD's regulations at 24 CFR, Section 81.14(d)(2), for purposes of calculating credit toward the

A multifamily subgoal for 2001–2003 established at 0.035 percent of 1997 combined single-family and multifamily purchase dollar volume in number of mortgages acquired (as determined by HUD) would generate annual subgoals of 1,129 multifamily special affordable mortgages for Fannie Mae and 854 for Freddie Mac.¹¹ A 0.035 percent mortgage-based multifamily subgoal for 2001–2003 would sustain and likely increase the efforts of both GSEs in the multifamily mortgage market, with particular emphasis upon the special affordable segment.¹²

The preamble to this Proposed Rule includes a more complete analysis of these alternatives, with a request for public comments on the alternatives.

5. Conclusion

HUD has determined that the proposed Special Affordable Housing Goal addresses national housing needs within the income categories specified for this goal, while accounting for the GSEs' past performance in purchasing mortgages meeting the needs of very-low-income families and low-income families in low-income areas. HUD has also considered the size of the conventional mortgage market serving very-low-income families and low-income families in low-income areas. Moreover, HUD has considered the GSEs' ability to lead the industry as well as their financial condition. HUD has determined that a Special Affordable Housing Goal of 18 percent in 2000, and 20 percent in 2001–2003, is both necessary and achievable. HUD has also determined that a multifamily special affordable subgoal set at 0.9 percent of the dollar volume of combined (single family and multifamily) 1998 mortgage purchases in 2000, and 1.0 percent in 2001–2003, or one of the alternatives proposed here, is both necessary and achievable.

Appendix D—Estimating the Size of the Conventional Conforming Market for Each Housing Goal

A. Introduction

In establishing the three housing goals, the Secretary is required to assess, among a number of factors, the size of the conventional market for each goal. This Appendix explains HUD's methodology for estimating the size of the conventional market for each of the three housing goals. Following this introduction, Section B describes the main components of HUD's market-share model and identifies those parameters that have a large effect on the relative market shares. Sections C and D discuss two particularly important market parameters, the size of the multifamily market and the share of the single-family

multifamily special affordable subgoal. Specifically, the mortgage loan amount is multiplied by the proportion of units qualifying toward the special affordable goal.

¹¹ HUD has determined that the number of mortgage loans purchased by the GSEs in 1998 was as follows: Fannie Mae—3,226,786; Freddie Mac—2,439,194.

¹² If this option were selected, appropriate subgoal thresholds for the year 2000 transition period could be developed.

mortgage market accounted for by rental properties. With this as background, Section E provides a more systematic presentation of the model's equations and main assumptions. Sections F, G, and H report HUD's estimates for the Low- and Moderate-Income Goal, the Central Cities, Rural Areas, and other Underserved Areas Goal, and the Special Affordable Housing Goal, respectively. Finally, Section I examines the impact of higher FHA loan limits on the conventional market.

In developing this rule, HUD has carefully reviewed existing information on mortgage activity in order to understand the weakness of various data sources and has conducted sensitivity analyses to show the effects of alternative parameter assumptions. Data on the multifamily mortgage market from HUD's Property Owners and Managers' Survey (POMS), not available at the time published the 1995 GSE Final Rule, is utilized here. HUD is well aware of uncertainties with some of the data and much of this Appendix is spent discussing the effects of alternative assumptions about data parameters and presenting the results of an extensive set of sensitivity analyses.

In a critique of HUD's market share model, Blackley and Follain (1995, 1996) concluded that conceptually HUD had chosen a reasonable approach to determining the size of the mortgage market that qualifies for each of the three housing goals.¹ Blackley and Follain correctly note that the challenge lies in getting accurate estimates of the model's parameters.

This appendix reviews in some detail HUD's efforts to combine information from several mortgage market data bases to obtain reasonable values for the model's parameters. Numerous sensitivity analyses are performed in order to arrive at a set of reasonable market estimates.

The single-family market analysis in this appendix is based heavily on HMDA data for the years 1992 to 1998. The HMDA data for 1998 were not released until August 1999, which gave HUD little time to incorporate that data fully into the analyses reported in these Appendices; thus, the discussion below will often focus on the year 1997, with any differences from 1998 briefly noted. However, it should be noted that the year 1997 represents a more typical mortgage market than the heavy refinancing year of 1998. Still, important shifts in mortgage funding that occurred during 1998 will be highlighted in order to offer as complete and updated analysis as possible.

B. Overview of HUD's Market Share Methodology

1. Definition

The size of the market for each housing goal is one of the factors that the Secretary

¹ Dixie M. Blackley and James R. Follain, "A Critique of the Methodology Used to Determine Affordable Housing Goals for the Government Sponsored Housing Enterprises," unpublished report prepared for Office of Policy Development and Research, Department of Housing and Urban Development, October 1995; and "HUD's Market Share Methodology and its Housing Goals for the Government Sponsored Enterprises," unpublished paper, March 1996.

is required to consider when setting the level of each housing goal.² Using the Low- and Moderate-Income Housing Goal as an example, the market share in a particular year is defined as follows:

Low- and Moderate-Income Share of Market:

The number of dwelling units financed by the primary mortgage market in a particular calendar year that are occupied by (or affordable to, in the case of rental units) families with incomes equal to or less than the area median income *divided* by the total number of dwelling units financed in the conforming conventional primary mortgage market.

There are three important aspects to this definition. First, the market is defined in terms of "dwelling units" rather than, for example, "value of mortgages" or "number of properties." Second, the units are "financed" units rather than the entire stock of all mortgaged dwelling units; that is, the market-share concept is based on the mortgage flow in a particular year, which will be smaller than total outstanding mortgage debt. Third, the low- and moderate-income market is expressed relative to the overall conforming conventional market, which is the relevant

market for the GSEs.³ The low- and moderate-income market is defined as a percentage of the conforming market; this percentage approach maintains consistency with the method for computing each GSE's performance under the Low- and Moderate-Income Goal (that is, the number of low- and moderate-income dwelling units financed by GSE mortgage purchases relative to the overall number of dwelling units financed by GSE mortgage purchases).

2. Three-Step Procedure

Ideally, computing the low- and moderate-income market share would be straightforward, consisting of three steps:

(Step 1) Projecting the market shares of the four major property types included in the conventional conforming mortgage market:

- (a) Single-family owner-occupied dwelling units (SF-O units);
- (b) Rental units in 2-4 unit properties where the owner occupies one unit (SF 2-4 units);⁴
- (c) Rental units in one-to-four unit investor-owned properties (SF Investor units); and,

(d) Rental units in multifamily (5 or more units) properties (MF units).⁵

(Step 2) Projecting the "goal percentage" for each of the above four property types (for example, the "Low- and Moderate-Income Goal percentage for single-family owner-occupied properties" is the percentage of those dwelling units financed by mortgages in a particular year that are occupied by households with incomes below the area median).

(Step 3) Multiplying the four percentages in (2) by their corresponding market shares in (1), and summing the results to arrive at an estimate of the overall share of dwelling units financed by mortgages that are occupied by low- and moderate-income families.

The four property types are analyzed separately because of their differences in low- and moderate-income occupancy. Rental properties have substantially higher percentages of low- and moderate-income occupants than owner-occupied properties. This can be seen by the following illustration of Step 3's basic formula for calculating the size of the low- and moderate-income market:⁶

Property type	(Step 1) share of market (percent)	(Step 2) low-mod share (percent)	(Step 3) multiply (1) x (2) (percent)
(a) SF-0	71.1	40.0	28.4
(b) SF 2-4	2.0	90.0	1.8
(c) SF Investor	10.7	90.0	9.6
(d) MF	16.2	90.0	14.6
Total Market	100.0		54.4

In this example, low- and moderate-income dwelling units are estimated to account for 54 percent of the total number of dwelling units financed in the conforming mortgage market. To examine the other housing goals,

the "goal percentages" in Step 2 would be changed and the new "goal percentages" would be multiplied by Step 1's property distribution, which remains constant. For example, the Central Cities, Rural Areas, and

Other Underserved Areas Goal⁷ would be derived as follows under one set of assumptions:

Property Type	(Step 1) share of market (percent)	(Step 2) underserved area share (percent)	(Step 3) multiply (1) x (2) (percent)
(a) SF-0	71.1	25.0	17.8
(b) SF 2-4	2.0	42.5	0.9
(c) SF Investor	10.7	42.5	4.5
(d) MF	16.2	48.0	7.8
Total Market	100.0		31.0

In this example, units eligible under the Underserved Areas Goal are estimated to account for 31 percent of the total number of dwelling units financed in the conforming mortgage market.

3. Data Issues

Unfortunately, complete and consistent mortgage data are not readily available for carrying out the above three steps. A single data set for calculating either the property

shares or the housing goal percentages does not exist. However, there are several major data bases that provide a wealth of useful information on the mortgage market. HUD combined information from the following

² Sections 1332(b)(4), 1333(a)(2), and 1334(b)(4).

³ So-called "jumbo" mortgages, greater than \$227,150 in 1998 for 1-unit properties, are excluded in defining the conforming market. There is some overlap of loans eligible for purchase by the GSEs with loans insured by the FHA and guaranteed by the Veterans Administration.

⁴ The owner of the SF 2-4 property is counted in (a).

⁵ Property types (b), (c), and (d) consist of rental units. Property types (b) and (c) must sometimes be combined due to data limitations; in this case, they are referred to as "single-family rental units" (SF-R units).

⁶ The property shares and low-mod percentages reported here are based on one set of model assumptions; other sets of assumptions are discussed in Section E.

⁷ This goal will be referred to as the "Underserved Areas Goal".

sources: the Home Mortgage Disclosure Act (HMDA) reports, the American Housing Survey (AHS), HUD's Survey of Mortgage Lending Activity (SMLA), Property Owners and Managers Survey (POMS) and the Census Bureau's Residential Finance Survey (RFS). In addition, information on the mortgage market was obtained from the Mortgage Bankers Association, Fannie Mae, Freddie Mac and other organizations.

Property Shares. To derive the property shares, HUD started with forecasts of single-family mortgage originations (expressed in dollars). These forecasts, which are available from the GSEs and industry groups such as the Mortgage Bankers Association, are based on HUD's SMLA. The SMLA does not provide information on conforming mortgages, on owner versus renter mortgages, or on the number of units financed. Thus, to estimate the number of single-family units financed in the conforming conventional market, HUD had to project certain market parameters based on its judgment about the reliability of different data sources. Sections D and E report HUD's findings related to the single-family market.

Total market originations are obtained by adding multifamily originations to the single-family estimate. Because of the wide range of estimates available, the size of the multifamily mortgage market turned out to be one of the most controversial issues raised during the 1995 rule-making process. In 1997, HMDA reported about \$20.0 billion in multifamily originations while the SMLA reported more than double that amount (\$47.9 billion). Because most renters qualify under the Low- and Moderate-Income Goal, the chosen market size for multifamily can have a substantial effect on the overall estimate of the low- and moderate-income market (as well as on the estimate of the special affordable market). Thus, it is important to consider estimates of the size of the multifamily market in some detail, as Section C does. In addition, given the uncertainty surrounding estimates of the multifamily mortgage market, it is important to consider a range of market estimates, as Sections G–H do.

Goal Percentages. To derive the goal percentages for each property type, HUD relied heavily on HMDA, AHS, and POMS data. For single-family owner originations, HMDA provides comprehensive information on borrower incomes and census tract locations for metropolitan areas. Unfortunately, it provides no information on the incomes of renters living in mortgaged properties (either single-family or multifamily) or on the rents (and therefore the affordability) of rental units in mortgaged properties. The AHS, however, does provide a wealth of information on rents and the affordability of the outstanding stock of single-family and multifamily rental properties. An important issue here concerns whether rent data for the stock of rental properties can serve as a proxy for rents on newly-mortgaged rental properties. The POMS data, which were not available during the 1995 rule-making process, are used below to examine the rents of newly-mortgaged rental properties; thus, the POMS data supplements the AHS data. The data base

issues as well as other technical issues related to the goal percentages (such as the need to consider a range of mortgage market environments) are discussed in Sections F, G, and H, which present the market share estimates for the Low- and Moderate-Income Goal, the Underserved Areas Goal, and the Special Affordable Goal, respectively.

4. Conclusions

HUD is using the same basic methodology for estimating market shares that it used during 1995. As demonstrated in the remainder of this Appendix, HUD has attempted to reduce the range of uncertainty around its market estimates by carefully reviewing all known major mortgage data sources and by conducting numerous sensitivity analyses to show the effects of alternative assumptions. Sections C, D, and E report findings related to the property share distributions called for in Step 1, while Sections F, G, and H report findings related to the goal-specific market parameters called for in Step 2. These latter sections also report the overall market estimates for each housing goal calculated in Step 3.

During the 1995 rule-making process, HUD contracted with the Urban Institute to comment on the reasonableness of its market share approach and to conduct analyses related to specific comments received from the public about its market share methodology. HUD continues to rely on several findings from the Urban Institute reports and they are again discussed throughout this Appendix. Since 1995, HUD has continued to examine the reliability of data sources about mortgage activity. HUD's Office of Policy Development and Research has published several studies concerning the reliability of HMDA data.⁸ In addition, since 1995, HUD has gathered additional information regarding the mortgages for multifamily and single-family rental properties through the Property Owners and Managers Survey (POMS). Findings regarding the magnitude of multifamily originations, as well as the rent and affordability characteristics of mortgages backing both single-family and multifamily rental properties have been made by combining data from POMS with that from internal Census Bureau files from the 1995 American Housing Survey-National Sample. The results of these more recent analyses will be presented in the following sections.

C. Size of the Conventional Multifamily Mortgage Market

This section derives projections of conventional multifamily mortgage origination volume.⁹

⁸ See Randall M. Scheessele, *HMDA Coverage of the Mortgage Market*, Housing Finance Working Paper No. 7, Office of Policy Development and Research, Department of Housing and Urban Development, July 1998; and 1998 *HMDA Highlights*, Housing Finance Working Paper No. HF-009, Office of Policy Development and Research, Department of Housing and Urban Development, October 1999.

⁹ Because they are not counted toward the GSE housing goals (with the exception of a relatively small risk-sharing program), FHA mortgages are excluded from this analysis. Other categories of mortgages, considering the type of insurer, servicer,

The multifamily sector is especially important in the establishment of housing goals for Fannie Mae and Freddie Mac because multifamily properties are overwhelmingly occupied by low- and moderate-income families. For example, in 1997, 13 percent of units financed by Fannie Mae were multifamily, but 90 percent of those units met the Low- and Moderate-Income Goal, accounting for 27 percent of all of Fannie Mae's low- and moderate-income purchases for that year.¹⁰ Multifamily acquisitions are also of strategic significance with regard to the Special Affordable Goal. In 1997, 57 percent of units backing Freddie Mac's multifamily acquisitions met the Special Affordable Goal, representing 31 percent of units counted toward its Special Affordable Goal, at a time when multifamily units represented only 8 percent of total annual purchase volume.¹¹

This discussion is organized as follows: Section 1 identifies and evaluates available historical data resources. Section 2 undertakes an analysis of estimated conforming multifamily origination volume for 1995 through 1998. Section 3 establishes projections regarding conventional multifamily origination volume for the year 2000 and beyond.

1. Conventional multifamily origination volumes, 1987–1997

Two of the principal sources of evidence on conventional multifamily origination volumes are Home Mortgage Disclosure Act data base (HMDA) and the HUD Survey of Mortgage Lending Activity (SMLA).

a. Survey of Mortgage Lending Activity (SMLA)

The data that enter into SMLA are compiled by HUD from source materials generated in various ways from the different institutional types of mortgage lenders. Data on savings associations are collected for HUD by the Office of Thrift Supervision; these data cover all thrifts, not a sample. Mortgage company and life insurance company data are collected through sample surveys conducted by the Mortgage Bankers Association of America and the American Council of Life Insurance, respectively. Data on commercial banks and mutual savings banks are collected through sample surveys conducted by the American Bankers Association. The Federal credit agencies and State credit agencies report their data directly to HUD. Local credit agency data are collected by HUD staff from a publication that lists their mortgage financing activities.

b. Home Mortgage Disclosure Act (HMDA)

HMDA data are collected by lending institutions and reported to their respective regulators as required by law. HMDA was

or holder, do not tend to have mortgage characteristics that appear to differ substantially from the multifamily mortgages that are purchased by Fannie Mae and Freddie Mac. There is thus no particular basis for excluding them.

¹⁰ Corresponding percentages for Freddie Mac were 95 percent and 19 percent. Missing data are excluded from these calculations. Source: Annual Housing Activity Reports, 1997.

¹¹ Corresponding percentages for Fannie Mae were 54 percent and 44 percent.

enacted as a mechanism to permit the public to determine locations of properties on which local depository institutions make mortgage loans, "to enable them to determine whether depository institutions are filling their obligations to serve the housing needs of the communities and neighborhoods in which they are located. . ." (12 USC 2801). HMDA reporting requirements generally apply to all depository lenders with more than \$29 million in total assets and which have offices in Metropolitan Statistical Areas. Reporting is generally required of other mortgage lending institutions (e.g. mortgage bankers) originating at least 100 home purchase loans annually provided that home purchase loan originations exceed 10 percent of total loans. Reporting is required for all loans closed in the name of the lending institution and loans approved and later acquired by the lending institution, including multifamily loans. Thus, the HMDA data base concentrates on lending by depository institutions in metropolitan areas but, unlike SMLA and

RFS, it is not a sample survey; it is intended to include loan-level data on all loans made by the institutions that are required to file reports.

Table D.1 presents figures for 1987 through 1997 for SMLA and HMDA.¹² The main question raised by this comparison is why SMLA and HMDA report such different multifamily estimates. Part of the problem arises from double-counting of originations by mortgage banks in the American Bankers Association (ABA) and Mortgage Bankers Association (MBA) surveys conducted as part of SMLA. Originations by mortgage banks which are affiliated with commercial banks may be counted in both surveys.

There is also evidence that undercounting of multifamily originations in HMDA contributes to observed discrepancies

¹² The comparison between SMLA and HMDA is provided only through 1997 because 1998 SMLA data were not available as of the time of this writing.

between HMDA and SMLA. For example, less than half of Fannie Mae's 1997 acquisition volume of mortgages originated in 1997 are reported in HMDA. HMDA reports that Freddie Mac purchased 14 loans from mortgage banks in 1997, yet in loan-level data provided to HUD, Freddie Mac indicates that purchased 453 loans from mortgage bankers.¹³ Further evidence of the poor quality of the HMDA multifamily data is the fact that it reported that in 1997 a larger volume of multifamily loans were sold to Freddie Mac than to Fannie Mae, when in fact Freddie Mac's purchases were less than that of Fannie Mae's, based on loan-level data provided by the GSEs to HUD.

¹³ Some of loans in the GSE data may have been originated prior to 1997, and therefore not included in 1997 HMDA totals. However, because mortgage banks ordinarily do not hold mortgages in portfolio, it is implausible that a majority of Freddie Mac's purchases from mortgage banks were originated prior to 1997.

Table D.1

Conventional Multifamily Market Estimates
(billions of dollars)

Year	SMLA	HMDA
1987	38.3	
1988	35.2	
1989	30.2	
1990	30.1	
1991	24.6	
1992	25.2	10.2
1993	30.0	12.8
1994	31.7	14.8
1995	37.9	12.8
1996	43.7	16.0
1997	44.6	19.5

Table D.2

Comparison of SMLA and HMDA Figures, 1997
Conventional Multifamily Originations
(millions of dollars)

Type of Lender	SMLA	HMDA
Commercial Banks	\$ 24,570	\$ 10,766
Savings & Loans; Multifamily Savings Bank	\$ 7,164	\$ 7,009
Credit Unions	\$ -	\$ 27
Life Insurance Companies	\$ 1,407	\$ -
Pension Funds (incl. State & Local Gov't)	\$ 1,063	\$ -
Mortgage Companies	\$ 9,134	\$ 1,746
Federal Credit Agencies	\$ 408	\$ -
State and Local Gov't Credit Agencies	\$ 840	\$ -
TOTAL	\$ 44,586	\$ 19,548

(Totals may not add due to rounding.)

In addition, the HMDA data base does not cover a number of important categories of multifamily lenders such as life insurance companies and State housing finance agencies, providing another reason that the HMDA data understates the size of the multifamily market.

With this in mind, we proceed to an examination of origination volumes reported by these two data sources by type of lender. Table D.2 shows the basic figures. The columns headed "SMLA" and "HMDA" show aggregate dollar volumes of loan originations by category of originator in 1997.

In 1995, the Urban Institute conducted extensive analysis to address the issue of discrepancies between HMDA and SMLA. The researchers found that the 1993 SMLA multifamily figure (\$30 billion in conventional originations) was too high, chiefly because of upward bias in the commercial bank originations figure, and the HMDA estimate (\$12.8 billion) was too low for a variety of reasons including the omission of some categories of lenders.¹⁴

2. Alternative Measures

The inconsistencies between SMLA and HMDA underscore the importance of finding other ways to measure the size of the conventional multifamily market. The remainder of this discussion analyzes alternative measures based on (a) analysis of the HUD Property Owners and Managers Survey (POMS); (b) a statistical model developed by Urban Institute researchers; and (c) combining data from a variety of sources in a manner that avoids double-counting.

a. HUD Property Owners and Managers Survey (POMS)

HUD's analysis of data in the HUD Property Owners and Managers Survey (POMS) yields an estimated size of the 1995 multifamily origination market of approximately \$37 billion. Analysis of this survey data is complicated by virtue of the fact that data on mortgage loan amount are missing for a large number of properties, requiring the imputation of missing values, and also because the mortgage loan amount is "topcoded" on some observations in order to protect the privacy of respondents. Such topcoding complicates the use of multiple regression techniques for imputation of missing values. In order to more effectively utilize regression techniques, HUD staff and contractors were sworn in as special employees of the Census Bureau in order to gain access to the internal Census file. The regression specification with the greatest explanatory power imputed missing loan amounts on the basis of number of units, region of the country, and a dummy variable for large properties with more than 1,000 units.¹⁵ The use of this specification yielded

an estimated total multifamily market size of \$39.1 billion. After subtracting \$2.3 billion in FHA-insured originations, this yields \$36.7 billion as the estimated size of the conforming multifamily mortgage market in 1995, compared with the SMLA figure of \$37.9 billion and the HMDA figure of \$12.8 billion.¹⁶ These results suggest that SMLA figures more accurately represent the overall size of the conventional multifamily mortgage market than does HMDA.

b. Urban Institute Statistical Model

In 1995, Urban Institute researchers developed a model to project multifamily origination volumes from 1992 forward, based on data from the 1991 Survey of Residential Finance.¹⁷ They applied a statistical model of mortgage terminations based on Freddie Mac's experience from the mid-1970s to around 1990. While mortgage characteristics in 1990 are not wholly similar to the characteristics of these historical mortgages financed by Freddie Mac, nevertheless the prepayment propensities of contemporary mortgages may at least be approximated by the prepayment experience of these historical mortgages. The research methodology took account of the influence of interest rate fluctuations on prepayments of the historical mortgages; the projections assumed that prepayments are motivated mainly by property sales. Forecast total mortgage origination volume (including FHA) based on mortgages existing in 1991 were \$40.8 billion for 1995. After removing FHA-insured loans totaling \$2.3 billion, this method yields \$38.5 billion as the estimated size of the conforming multifamily mortgage market. The latter figure is closer to the \$36.7 billion POMS estimate and the \$37.9 billion SMLA figure than to the \$12.8 billion HMDA number.

Turning to 1997, the Urban Institute model generates a prediction of \$47.2 billion. After removing \$3.3 billion in FHA-insured originations, this generates an estimated conventional multifamily market figure of \$43.9 billion, indicating that actual 1997 conventional origination volume may be closer to the \$44.6 billion SMLA figure than to the \$19.5 billion HMDA number cited earlier.

c. Alternative Approach

The increased availability of data on mortgages originated for the securitization market suggests yet another alternative method of deriving a rough estimate of the size of the conventional multifamily market as a further check on the accuracy of estimates derived from SMLA, HMDA, POMS, and the Urban Institute model. Total conventional multifamily volume can be estimated as the sum of (i) conventional nonagency (non-FHA, non-GSE) securitization; (ii) commercial bank originations less securitizations and secondary market sales or current-year and

seasoned loans in portfolio; and (iii) GSE acquisitions. These data are from data published annually by *Inside MBS & ABS*, a trade newsletter; SMLA, and the loan-level data provided by the GSEs to the Department. Annual commercial bank securitization volume was calculated from a database published by *Commercial Mortgage Alert*, another trade newsletter.

Perhaps the most significant potential shortcoming of this approach is that nonagency securitization and GSE acquisitions include seasoned loans that are originated in years prior to those in which they are securitized or purchased on the secondary market. It is assumed here that seasoned loan transaction volume is relatively constant, in absolute volume, from year to year, which implies that the inclusion of seasoned loans will not bias the results. For example, some non-bank loans originated in 1996 will not be counted under the method proposed here until they are securitized, or purchased by a GSE, in 1997, but a similar volume of 1995 originations are not securitized or sold on the secondary market until 1996.¹⁸ Hence the above technique generates a useful approximation to actual 1996 origination volume. A similar argument applies to other years.

It can also be argued that the SMLA commercial bank figure includes some originations by mortgage banks because of the double-counting issue discussed previously. It is assumed that these are removed when securitizations and secondary market sales are subtracted. This problem aside, the SMLA commercial bank figure appears to be derived using a new, and relatively carefully designed stratified survey, and therefore may be considered fairly reliable when used in the manner proposed here.

This method does not consider unsecuritized acquisitions by thrifts, life insurance companies, and other smaller entities in the multifamily mortgage market. In this regard, this method provides a conservative estimate of the size of the conventional multifamily market.

This method generates the following results for multifamily conventional origination volume for 1995–1997:

1995—\$32.3 billion

1996—\$37.2 billion

1997—\$40.7 billion

The 1995 and 1997 estimates can be compared with the following estimates discussed previously.

¹⁸ Loans originated by banks in 1996 and then sold on the secondary market in 1997 would count only toward the 1996 total. Such loans would count toward the 1996 total because these loans would be counted in 1996 commercial bank originations less sales per the SMLA, since they are not sold in 1996. In 1997, when they are sold on the secondary market, such loans would be added to either the GSE acquisition or nonagency securitization totals, but would be subtracted from commercial bank originations less loan sales per the SMLA. The net effect of adding such loans to the GSE/nonagency categories and subtracting them from the commercial bank category is that they would not be counted toward the 1997 total.

¹⁴ Amy D. Crews, Robert M. Dunskey, and James R. Follain, "What We Know about Multifamily Mortgage Originations," report for the U.S. Department of Housing and Urban Development, October 1995.

¹⁵ R², a measure of the degree to which the regression specification explains the variation in mortgage loan amount for observations where this field was populated, was 0.69 for this specification.

¹⁶ FHA volume for 1995 is from *U.S. Housing Market Conditions*, 1998:4, Table 15.

¹⁷ Robert Dunskey, James R. Follain, and Jan Ondrich, "An Alternative Methodology to Estimate the Volume of Multifamily Mortgage Originations," report for the U.S. Department of Housing and Urban Development, October 1995.

	1995 (billions)	1997 (billions)
Urban Institute	\$38.5	\$47.2
POMS	36.7	
SMLA figure	37.9	44.6
HMDA	12.8	19.5
Alternative Approach	32.3	40.7

The market estimates based on securitization data are thus somewhat lower than those derived from the POMS and SMLA surveys and by the Urban Institute model, but are considerably higher than those derived from HMDA.

In discussions with HUD staff, Fannie Mae has put the estimated size of the 1997 conforming multifamily market at approximately \$35–\$40 billion, based upon a combination of various data sources. This range is slightly more conservative than the \$40.7 million figure derived here using securitization, GSE, and ABA data.

Preliminary indications suggest that multifamily origination volume in 1998 is unusually high. Unfortunately, 1998 SMLA data were not yet available as of the time of this writing. If 1997 SMLA data are used as a proxy for 1998 multifamily commercial bank originations, and added to nonagency securitization and GSE acquisitions (which were available), a figure of \$59.2 billion can be derived. In written comments provided to HUD in early 1999, in contrast, Fannie Mae asserted that 1998 multifamily volume was approximately \$38–\$43 billion. In a meeting with HUD staff, Freddie Mac staff provided an estimate of \$40–\$50 billion. Given the uncertainty regarding 1998 origination activity as of the time of this writing, an adjusted figure of \$50 billion may be used on an interim basis until further data becomes available.¹⁹

3. Projections for 2000 and Beyond

Considerations influencing future multifamily origination volume include interest rates, property values, and construction starts. Taking all of these factors into consideration, Fannie Mae forecasts of a 10 percent decrease in 1999 relative to 1998 followed by a 2 percent increase in 2000, included in comments provided to the Department, appear reasonable.²⁰

¹⁹ The Urban Institute model predicts \$50 billion for the entire 1998 multifamily market, including FHA.

²⁰ Multifamily interest rates increased in September, 1998 as part of a broader “flight to quality” precipitated by volatility in the world economy. While CMBS spreads were the most strongly affected, agency yield spreads also widened during this period. Further detail is provided in Appendix A. “Expectations may have begun to adjust downward even before the recent troubles in the financial markets” according to “The Multifamily Outlook,” Jack Goodman, *Urban Land*, November 1998, p. 92. The CMBS market, of which approximately 25 percent is multifamily, is expected by Morgan Stanley to fall from approximately \$80 billion in 1998 to \$50 billion in 1999 (“A Cloudy ‘99 for Subprime Lenders, HELs, CMBS,” *Mortgage Backed Securities Letter*, January

If these projections regarding 1999 and year 2000 origination volume are applied to the Department’s \$50 billion estimate of 1998 conventional multifamily origination volume, a projection of \$46 billion in year 2000 volume can be derived. Alternatively, if 1998 origination volume is in the \$38–\$43 billion range indicated by Fannie Mae, year 2000 conventional origination volume is expected to lie in the \$35–\$40 billion range. On the other hand, if 1998 origination volume reached \$59 billion, the high end of the estimates discussed previously, year 2000 volume could be as high as \$54 billion. Turning to the Urban Institute statistical model discussed earlier, total multifamily originations (including FHA) are projected to reach \$54 billion in 2000. After removing \$2.9 billion in anticipated FHA-insured originations, this leaves projected conventional volume of \$51.1 billion.²¹

Taking all of these estimates into consideration, year 2000 multifamily conventional origination volume is likely to lie in the \$40–\$52 billion range, with an expected “baseline” value of \$46 billion.

Average Loan Amounts. Another issue regarding the multifamily mortgage market concerns average loan amount per unit. This ratio is used in converting year-2000 estimates of conventional multifamily lending volume as measured in dollars into a number of units financed. For this purpose, the ratio of total UPB to total units financed, rather than UPB on a “typical” multifamily unit, is the appropriate measure.

HUD anticipates overall conventional multifamily loan amount per unit of \$30,000 in the year 2000 based on analysis of newly-originated GSE and non-GSE multifamily mortgage loans. GSE figures on loan amount per unit can be obtained from GSE loan-level data provided to HUD. Non-GSE loan amount per unit figures are from HUD’s analysis of recently-originated conventional non-GSE multifamily mortgages.²² Combining these

4, 1999, p. 1). Donaldson, Lufkin & Jenrette anticipates a decrease from \$76 billion to \$55 billion (March Hochstein, “Commercial Mortgage Bond Issuance Seen Falling,” *American Banker*, December 22, 1998, p. 2). To the extent that multifamily origination volume falls in late 1999 associated with concerns regarding Y2K, the contraction in lending volume from 1998 to 1999 could exceed 10 percent. This possibility is taken into consideration here by providing a range of estimates for year 2000 origination volume as discussed below.

²¹ Projected year 2000 FHA volume was calculated as the mean of 1997 and 1998 volume pursuant to discussions with staff in HUD’s Housing Finance Analysis Division.

²² Sample sizes on conventional non-GSE multifamily loans are 1,047 and 535 in 1997 and 1998, respectively.

sources, and calculating a weighted average based on relative market shares yields an estimated UPB per unit of \$25,167 in 1997 and \$29,506 in 1998. The increase from 1997–1998 appears to be largely due to a significant increase in appraised value per unit, which may be associated with the relatively low interest rates prevailing in 1998.²³ Because interest rates are not expected to fall significantly from 1998 levels at the time of this writing, it appears reasonable to project that year-2000 conventional multifamily average loan amount will continue at the 1998 level of \$30,000 under HUD’s baseline projection of \$46 billion for the year 2000. Under the lower projection of \$40 billion, an average loan amount of \$29,000 is assumed.

D. Single-Family Owner and Rental Mortgage Market Shares

1. Available Data

As explained later, HUD’s market model will also use projections of mortgage originations on single-family (1–4 unit) properties. Current data combine mortgage originations for the three different types of single-family properties: owner-occupied, one-unit properties (SF-O); 2–4 unit rental properties (SF 2–4); and 1–4 unit rental properties owned by investors (SF-Investor). The fact that the goal percentages are much higher for the two rental categories argues strongly for disaggregating single-family mortgage originations by property type. This section discusses available data for estimating the relative size of the single-family rental mortgage market.

The RFS and HMDA are the two data sources for estimating the relative size of the single-family rental market. The RFS, based on mortgages originated between 1987 and 1991, provides mortgage origination estimates for each of the three single-family property types. HMDA divides newly-originated single-family mortgages into two property types:²⁴

(1) Owner-occupied originations, which include both SF-O and SF 2–4.

(2) Non-owner-occupied mortgage originations, which include SF Investor.

The percentage distributions of mortgages from these data sources are as follows:

²³ Commercial property values are inversely related to interest rates because a reduction in interest rates reduces the rate at which income streams are discounted.

²⁴ This ignores the HMDA loans with “non-applicable” for owner type.

	1997 HMDA (percent)			1987-91 ¹ RFS	HUD's 1995 Rule
	Purchase	Refinance	All		
SF-O	90.6	92.6	91.5	80.4	88.0
SF 2-4	(included above)			2.3	2.0
SF Investor	9.4	7.4	8.5	17.3	10.0
Total	100.0	100.0	100.0	100.0	100.0

¹ The year-by-year distributions from the RFS were not too different from the average distribution given in the text.

Because HMDA combines the first two categories, the comparisons between the data bases must necessarily focus on the SF investor category. According to HMDA, investors account for 9.4 percent of home purchase loans and 7.4 percent of refinance loans.²⁵ The RFS estimate of 17.3 percent is over twice HMDA's overall estimate of 8.5 percent. In its 1995 rule, HUD projected a 10.0 percent share for the SF investor group, only 1.5 percentage points higher than the 1997 HMDA figure. As discussed below, HUD's projection was probably quite conservative; however, given the uncertainty around the data, it is difficult to draw firm conclusions about the size of the single-family rental market.

2. Analysis of Investor Market Share

Blackley and Follain. During the 1995 rule-making, HUD asked the Urban Institute to analyze the differences between the RFS and HMDA investor shares and determine which was the more reasonable. The Urban Institute's analysis of this issue is contained in reports by Dixie Blackley and James Follain.²⁶ Blackley and Follain provide reasons why HMDA should be adjusted upward as well as reasons why the RFS should be adjusted downward. One reason

for adjusting HMDA's investor share upward is that the investor share of mortgage originations as reported by HMDA is much lower than the investor share of the single-family rental stock as reported by the AHS.

Blackley and Follain also noted that the fact that investor loans prepay at a faster rate than other single-family loans suggests that the investor share of single-family mortgage originations should be higher not lower than the investor share of the single-family housing stock. Blackley and Follain (1995) conclude that "this brings into question the investor share based upon HMDA data" (page 15).

The RFS's investor share should be adjusted downward in part because the RFS assigns all vacant properties to the rental group, but some of these are likely intended for the owner market, especially among one-unit properties. Blackley and Follain's analysis of this issue suggests lowering the investor share from 17.3 percent to about 14-15 percent.

Finally, Blackley and Follain note that a conservative estimate of the SF investor share is advisable because of the difficulty of measuring the magnitudes of the various effects that they analyzed.²⁷ In their 1996 paper, they conclude that 12 percent is a

reasonable estimate of the investor share of single-family mortgage originations.²⁸ Blackley and Follain caution that uncertainty exists around this estimate because of inadequate data.

3. Single-Family Market in Terms of Unit Shares

The market share estimates for the housing goals need to be expressed as percentages of units rather than as percentages of mortgages. Thus, it is necessary to compare unit-based distributions of the single-family mortgage market under the alternative estimates discussed so far. The mortgage-based distributions given above in Section D.1 were adjusted in two ways. First, the owner-occupied HMDA data were disaggregated between SF-O and SF 2-4 mortgages based on RFS data, which show that SF 2-4 mortgages represent approximately 2 percent of all single-family mortgages. Second, the resulting mortgage-based distributions were shifted to unit-based distributions by applying the unit-per-mortgage assumptions in HUD's proposed rule. HUD assumed 2.25 units per SF 2-4 property and 1.35 units per SF investor property; both figures were derived from the 1991 RFS.²⁹

	1997 HMDA (percent)	1987-91 RFS (percent)	HUD's 1995 rule (percent)	Blackley/ Follain Alter- native (percent)
SF-O	84.8	73.8	83.0	80.6
SF-2-4 Owner ¹	* 1.9	2.1	1.9	1.9
SF 2-4 Renter	* 2.4	2.7	2.4	2.3
SF Investor ¹	10.9	21.4	12.7	15.2
Total	100.0	100.0	100.0	100.0
SF-Rental	13.3	24.1	15.1	17.5

¹ Notice that the SF 2-4 category has been divided into its owner and renter subcomponents. This is easily done based on the assumption of 2.25 units per SF 2-4 mortgage. For each mortgage, one unit represents the owner occupant and 1.25 additional units represent renter occupants. The owner-occupant is included in the SF-O category in this Appendix. This is necessary because different data sources are used to estimate the owner's income and the affordability of the rental units. The income of owners of 2-4 properties are included in the borrower income data reported by HMDA. The AHS and POMS will be used to estimate the affordability of the rental units.

* Estimate

²⁵ The single-family owner percentages based on 1998 HMDA data are as follows: Purchase (91.0 percent), Refinance (94.5 percent), and All (93.2 percent). The higher "All" percent reflects the higher share of refinance mortgages during 1998.

²⁶ Dixie M. Blackley and James R. Follain, "A Critique of the Methodology Used to Determine Affordable Housing Goals for the Government Sponsored Housing Enterprises," unpublished report prepared for Office of Policy Development and Research, Department of Housing and Urban Development, October 1995; and "HUD's Market

Share Methodology and its Housing Goals for the Government Sponsored Enterprises," unpublished paper, March 1996.

²⁷ For example, they note that discussions with some lenders suggest that because of higher mortgage rates on investor properties, some HMDA-reported owner-occupants may in fact be "hidden" investors; however, it would be difficult to quantify this effect. They also note that some properties may switch from owner to renter properties soon after the mortgage is originated. While such loans would be classified by HMDA as owner-occupied at the

time of mortgage origination, they could be classified by the RFS as rental mortgages. Again, it would be difficult to quantify this effect given available data.

²⁸ Blackley and Follain (1996), p. 20.

²⁹ The unit-per-mortgage data from the 1991 RFS match closely the GSE purchase data for 1996 and 1997. Blackley and Follain show that an adjustment for vacant investor properties would raise the average units per mortgage to 1.4; however, this increase is so small that it has little effect on the overall market estimates.

Three points should be made about these data. First, notice that the "SF-Rental" row highlights the share of the single-family mortgage market accounted for by all rental units.

Second, notice that the rental categories represent a larger share of the unit-based market than they did of the mortgage-based market reported earlier. This, of course, follows directly from applying the loan-per-unit expansion factors.

Third, notice that the rental share under HMDA's unit-based distribution is again about one-half of the rental share under the RFS's distribution. The rental share in HUD's 1995 rule is slightly larger than that reported by HMDA. The rental share in the "Blackley-Follain" alternative is slightly above that in HUD's 1995 Rule.

4. Conclusions

This section has reviewed data and analyses related to determining the rental share of the single-family mortgage market. There are two main conclusions:

(1) While there is uncertainty concerning the relative size of this market, the projections made by HUD appear reasonable and, in fact, are below the estimate provided by Blackley and Follain.

(2) HMDA likely underestimates the single-family rental mortgage market. Thus, this part of the HMDA data are not considered reliable enough to use in computing the market shares for the housing goals. Various sensitivity analyses of the market shares for single-family rental properties are conducted in Sections F, G, and H. These analyses will show the effects on the overall market estimates of the different projections about the size of the single-family rental market.

E. HUD's Market Share Model

This section integrates findings from the previous two sections about the size of the multifamily mortgage market and the relative distribution of single-family owner and rental mortgages into a single model of the mortgage market. The section provides the basic equations for HUD's market share model and identifies the remaining parameters that must be estimated.

The output of this section is a unit-based distribution for the four property types discussed in Section B.³⁰ Sections F–H will apply goal percentages to this property distribution in order to determine the size of the mortgage market for each of the three housing goals.

1. Basic Equations for Determining Units Financed in the Mortgage Market

The model first estimates the number of dwelling units financed by conventional conforming mortgage originations for each of the four property types. It then determines each property type's share of the total number of dwelling units financed.

a. Single-Family Units

This section estimates the number of single-family units that will be financed in

the conventional conforming market, where single-family units (SF-UNITS) are defined as:

$$\text{SF-UNITS} = \text{SF} - \text{O} + \text{SF} 2 - 4 + \text{SF} - \text{INVESTOR}$$

First, the dollar volume of conventional conforming single-family mortgages (CCSFMS) is derived as follows:

$$(1) \text{CCSFMS} = \text{CONF\%} * \text{CONV\%} * \text{SFORIG\$}$$

Where:

CONV%=conforming mortgage originations as a percent (measured in dollars) of conventional single-family originations; estimated to be 87%.³¹

CONF%=conventional mortgage originations as a percent of total mortgage originations; forecasted to 78% by industry and GSEs.³²

SFORIG\$=dollar volume of single-family one-to-four unit mortgages; \$1,100 billion is used here as a starting assumption to reflect market conditions during the years 2000–2003.³³ Alternative assumptions will be examined later.³⁴

³¹ From MBA volume estimates, the conventional share of the 1–4 family market was between 86 and 88 percent of the market from 1993 to 1998, with a one-time low of 81 percent in 1994. Calculated from "1–4 Family Mortgage Origination Volume" tables in Mortgage Finance Review, Vol. 6, No. 4, p. 7, and Vol. 7, No. 1, p. 7, and from "MBA Mortgage Finance Forecast," September 1999, at www.mbaa.org/marketdata/forecasts/mffore0999.html.

³² Data provided by Fannie Mae show that conforming loans have been about 78 percent of total conventional loans over the past few years.

³³ Single-family mortgage originations of \$1,100 billion is \$370 billion less than the record setting \$1,470 billion in 1998 and \$266 billion higher than the \$834 billion in 1997. As discussed later, single-family originations could differ from \$1,100 billion during the 2000–2003 period that the goals will be in effect. As recent experience shows, market projections often change. For example, \$1,100 billion is similar to year-2000 projections by the Mortgage Bankers Association made in June, 1999. (See *Mortgage Finance Review*, Vol. 7, No. 2, "Mortgage Finance Forecasts," p. 2.) However, more recently, MBA estimates for year 2000 volume have dropped to \$952 billion (see MBA Mortgage Finance Forecast, September 1999). Section F will report the effects on the market estimates of alternative estimates of single-family mortgage originations. As also explained later, the important concept for deriving the goal-qualifying market shares is the relative importance of single-family versus multifamily mortgage originations (the "mix effect") rather than the total dollar volume of single-family originations considered in isolation.

³⁴ The model also requires an estimated refinancing rate because purchase and refinancing loans have different shares of goal-qualifying units. Over the past year, the MBA has estimated the year 2000 refinancing rate to be 20, 30, and 38 percent for the total market (expressed in dollar terms), with 20 percent the latest estimate. The model uses a refinancing rate of 40 percent for conforming conventional loans, which is consistent with the MBA's 30 percent estimate, since refinancing rates are higher for the number of conventional conforming loans than for the total market expressed in dollar terms. The 40 percent refinancing assumption (compared with the recent, lower MBA projections) results in conservative estimates of goal-qualifying units in the market, since the low-mod share of refinancing units is lower than the low-mod share of purchase units. Sensitivity analyses for alternative refinancing rates are presented in Sections F–H.

Substituting these values into (1) yields an estimate for the conventional conforming market (CCSFMS) of \$746 billion.

Second, the number of conventional conforming single-family mortgages (CCSFM#) is derived as follows:

$$(2) \text{CCSFM\#} = \text{CCSFMS} / \text{SFLOAN\$}$$

Where:

SFLOAN\$=the average conventional conforming mortgage amount for single-family properties; estimated to be \$100,000.³⁵

Substituting this value into (2) yields an estimate of 7.46 million mortgages.

Third, the total number of single-family mortgages is divided among the three single-family property types. Using the 88/2/10 percentage distribution for single-family mortgages (see Section C), the following results are obtained:

(3a) SF – OM#=.88*CCSFM#=number of owner-occupied, one-unit mortgages=6.56 million.

(3b) SF – 2–4M#=.02*CCSFM#=number of owner-occupied, two-to-four unit mortgages=.15 million.

(3c) SF – INV#=.10*CCSFM#=number of one-to-four unit investor mortgages=.75 million.

Fourth, the number of dwelling units financed for the three single-family property types is derived as follows:

(4a) SF – O = SF – OM# + SF – 2–4M# = number of owner-occupied dwelling units financed=6.72 million.

(4b) SF 2–4 = 1.25*SF – 2–4M# = number of rental units in 2–4 properties where a owner occupies one of the units=.18 million.³⁶

(4c) SF – INVESTOR = 1.35*SF – INV# = number of single-family investor dwelling units financed=1.01 million.

Summing equations 4a–4c gives 7.91 million for the projected number of newly-mortgaged single-family units (SF-UNITS).

b. Multifamily Units

The number of dwelling units financed by conventional conforming multifamily originations is:

$$(5) \text{MF-UNITS} = \text{CCMFMS} / \text{MFLOAN\$}$$

Where:

CCMFMS=conventional conforming mortgage originations, which are assumed to be \$46 billion as a starting point; as discussed in Section C, alternative estimates of the multifamily market will be included in the analysis.

³⁵ The average 1997 loan amount is estimated at \$92,844 for owner occupied units using 1997 HMDA metro average loan amounts for purchase and refinancing loans, and then weighting by an assumed 40 percent refinancing rate. A small adjustment is made to this figure to account for a small number of two-to-four and investor properties (see Section C above). This produces an average loan size of \$91,544 for 1997, which is then inflated 3 percent a year for three years to arrive at an estimated \$100,000 average loan size for 2000.

³⁶ Based on the RFS, there is an average of 2.25 housing units per mortgage for 2–4 properties. 1.25 is used here because one (i.e., the owner occupant) of the 2.25 units is allocated to the SF-O category. The RFS is also the source of the 1.35 used in (4c).

³⁰ The property distribution reported in Section A is an example of the output of the market share model. Thus, this section completes Step 1 of the three-step procedure outlined in Section A.

MFLOAN\$=average loan amount per housing unit in multifamily properties=\$30,000.³⁷

Substituting these values into (5) yields a projection for MF-UNITS of 1.53 million.

c. Total Units Financed

The total number of dwelling units financed by the conventional conforming

mortgage market (TOTAL) can be expressed in three useful ways:

(6a) TOTAL=SF-UNITS+MF-UNITS=9.44 million

(6b) TOTAL=SF-O+SF 2-4+SF-INVESTOR+MF-UNITS

(6c) TOTAL=SF-O+SF-RENTAL+MF-UNITS where SF-RENTAL equals SF-2-4 plus SF-INVESTOR.

2. Dwelling Unit Distributions by Property Type

The next step is to express the number of dwelling units financed for each property type as a percentage of the total number of units financed by conventional conforming mortgage originations.³⁸

The projections used above in equations (1)-(6) produce the following distributions of financed units by property type:

	Percent share		Percent share
SF-O	71.1	SF-O	¹ 71.1
SF 2-4	2.0	SF-RENTER	12.7
SF INVESTOR	10.7	MF-UNITS	16.2
MF-UNITS	16.2		
Total	100.0		100.0

¹ Owners of 2-4 properties account for 1.6 percentage points of the 71.1 percent for SF-O.

Sections C and D discussed alternative projections for the volume of the multifamily originations and the investor share of single-family mortgages. The analysis in this appendix will consider three multifamily origination levels—\$40 billion, \$46 billion, and \$52 billion—and three projections about the investor share of single-family mortgages—8 percent, 10 percent, and 12 percent. The middle values (\$46 billion and 10 percent) are used in the above calculations and will be considered the “baseline” projections throughout the Appendix.

However, HUD recognizes the uncertainty of projecting origination volume in markets such as multifamily; therefore, the analysis in Sections G-H will also consider market assumptions other than the baseline assumptions.

Table D.3 reports the unit-based distributions produced by HUD’s market share model for different combinations of these projections. The effects of the different projections can best be seen by examining the owner category which varies by 7 percentage points, from a low of 67.2 percent

(multifamily originations of \$52 billion coupled with an investor mortgage share of 12 percent) to a high of 74.3 percent (multifamily originations of \$40 billion coupled with an investor mortgage share of 8 percent). The owner share under the baseline projections (\$46 billion and 10 percent) is 71.1 percent, which is approximately the same as the owner share (71.0 percent) in the baseline projection of HUD’s 1995 Rule.

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³⁷ See Section C for a discussion of average multifamily loan amounts.

³⁸ The share of the mortgage market accounted for by owner occupants is (SF-O)/TOTAL; the share of

the market accounted for by all single-family rental units is SF-RENTAL/TOTAL; and so on.

Table D.3
Distribution of Financed Dwelling Units
by Property Type for Different Projections of
Multifamily and Single-Family Investor Originations

Investor Share Percentage of Single-Family Mortgage Market	Size of Multifamily Market		
	\$40 Billion	\$46 Billion	\$52 Billion
<u>12 Percent</u>			
Single-Family Owner-Occupied	70.3 %	68.6 %	67.2 %
Single-Family Rental	14.9	15.4	15.1
Multifamily	<u>14.8</u>	<u>16.0</u>	<u>17.7</u>
Total	100.0	100.0	100.0
<u>10 Percent</u>			
Single-Family Owner-Occupied	72.3 %	71.1 %	69.6 %
Single-Family Rental	12.8	12.7	12.3
Multifamily	<u>14.8</u>	<u>16.2</u>	<u>18.1</u>
Total	100.0	100.0	100.0
<u>8 Percent</u>			
Single-Family Owner-Occupied	74.3 %	73.1 %	71.6 %
Single-Family Rental	10.7	10.6	10.3
Multifamily	<u>14.9</u>	<u>16.5</u>	<u>18.1</u>
Total	100.0	100.0	100.0

Comparison with the RFS. The Residential Finance Survey is the only mortgage data source that provides unit-based property distributions similar to those reported in Table D.3. Based on RFS data for 1987 to 1991, HUD estimated that, of total dwelling units in properties financed by recently acquired conventional conforming mortgages, 56.5 percent were owner-occupied units, 17.9 percent were single-family rental units, and 25.6 percent were multifamily rental units.³⁹ Thus, the RFS presents a much lower owner share than does HUD's model. This difference is due mainly to the relatively high level of multifamily originations (relative to single-family originations) during the mid- to late-1980s, which is the period covered by the RFS.⁴⁰

3. Sensitivity of Property Distributions to Changes in Other Model Parameters

The multifamily and single-family rental markets are not the only areas where some degree of uncertainty exists about their magnitudes. HUD examined the sensitivity of the property distributions given in Table D.3 to changes in several other model parameters.

³⁹ Restricting the RFS analysis to 1991 resulted in only minor changes to the market shares.

⁴⁰ Between 1987 and 1991, annual multifamily mortgage originations averaged \$32 billion, representing 7.2 percent of conventional mortgage originations. In 1997, conventional multifamily originations stood at \$40.7 billion but because of the increase in single-family originations since the late 1980s, the multifamily share of total originations had dropped to 4.7 percent.

Most of these sensitivity analyses will be reported when discussing the market estimates for each of the housing goals. Suffice it to say here that any changes that reduce the owner category such as reducing the overall level of single-family origination activity or raising the per unit loan amounts for single-family mortgages tend to increase the market estimates for each of the housing goals. This occurs because the goal percentages for owner mortgages are lower than those for rental housing.

F. Size of the Conventional Conforming Mortgage Market Serving Low- and Moderate-Income Families

This section estimates the size of the low- and moderate-income market by applying low- and moderate-income percentages to the property shares given in Table D.3. This section essentially accomplishes Steps 2 and 3 of the three-step procedure discussed in Section B.

Technical issues and data adjustments related to the low- and moderate-income percentages for owners and renters are discussed in the first two subsections. Then, estimates of the size of the low- and moderate-income market are presented along with several sensitivity analyses. Based on these analyses, HUD concludes that 50–55 percent is a reasonable estimate of the mortgage market's low- and moderate-income share for the years (2000–2003) which the new goals will be in effect.

This rule proposes that the Low- and Moderate-Income Goal be established at 48

percent of eligible units financed in calendar year 2000, and 50 percent of eligible units financed in each of calendar years 2001–2003.

1. Low- and Moderate-Income Percentage for Single-Family Owner Mortgages

a. HMDA Data

The most important determinant of the low- and moderate-income share of the mortgage market is the income distribution of single-family borrowers. HMDA reports annual income data for families who live in metropolitan areas and purchase a home or refinance their existing mortgage.⁴¹ Table D.4 gives the percentage of mortgages originated for low- and moderate-income families for the years 1992–1998. Data for home purchase and refinance loans are presented separately; the discussion will focus on home purchase loans because they typically account for the majority of all single-family owner mortgages. For each year, a low- and moderate-income percentage is also reported for the conforming market without loans originated by lenders that primarily originate manufactured home loans (discussed below).

⁴¹ As noted earlier, HMDA data are expressed in terms of number of loans rather than number of units. In addition, HMDA data do not distinguish between owner-occupied one-unit properties and owner-occupied 2–4 properties. This is not a particular problem for this section's analysis of owner incomes.

Table D.4

**Single-Family Owner-Occupied Mortgage Market
by Borrower Income**

	Home Purchase		Refinance	
	Conforming Market	Market W/O Mfg loans	Conforming Market	Market W/O Mfg loans
Very-Low-Income Share				
1992	8.7 %	7.6 %	4.5 %	4.2 %
1993	10.8	9.6	5.8	5.6
1994	11.9	10.7	11.0	10.2
1995	12.0	10.5	12.3	11.2
1996	12.7	10.8	13.0	12.2
1997	13.0	11.0	14.5	13.9
1998	13.3	11.4	11.3	11.1
Low- and-Moderate Income Share				
1992	34.4 %	33.0 %	25.2 %	24.8 %
1993	38.9	37.4	29.3	29.1
1994	41.8	40.3	39.9	38.9
1995	41.4	39.2	41.1	39.6
1996	42.2	39.4	42.7	41.6
1997	42.5	39.6	45.0	44.1
1998	43.0	40.4	39.7	39.4

Source: HMDA data for metropolitan areas. "Market without manufactured housing loans" excludes loans by lenders that primarily originate manufactured housing loans and loans less than \$15,000.

Table D.4 also reports similar data for very-low-income families (that is, families with incomes less than 60 percent of area median income). As discussed in Section H, very-low-income families are the major component of the special affordable mortgage market.

Two trends in the income data should be mentioned—one related to the market's funding of low-and moderate-income families since the 1995 Rule was written and the other related to the different borrower income distributions for refinance and home purchase mortgages.

Low-Mod Market Share Since 1995. As discussed in the 1995 Rule, the percentage of borrowers with less than area median income increased significantly between 1992 and 1994. Mortgages to low-mod borrowers increased from 34.4 percent of the home purchase market in 1992 to 41.8 percent of that market in 1994. Over the next four years (1995–98), the low-mod share of the home purchase market remained at a high level, averaging about 42 percent, or almost 40 percent if manufactured loans are excluded from the market totals. The share of the market accounted for by very-low-income borrowers followed a similar trend, increasing from 8.7 percent in 1992 to 11.9 percent in 1994 and then remaining at a high level through 1998. As discussed in Appendix A, this jump in low-income lending has been attributed to several factors, including: a favorable economy accompanied by historically low interest rates; the entry into the housing market of more diverse groups including non-traditional households (e.g., singles), immigrants, and minority families seeking homeownership for the first time; and, affordable lending initiatives and outreach efforts on the part of the mortgage industry. Essentially, the affordable lending market is much stronger than it appeared to be when HUD wrote the 1995 Rule. At that time, there had been two years (1993 and 1994) of increasing affordable lending for lower-income borrowers. The four additional years of data for 1995–98 show more clearly the underlying strength of this market. While lending patterns could change with sharp changes in the economy, the fact that there has been six years (1993–98) of strong affordable lending suggests the market has changed in fundamental ways from the mortgage market of the early 1990s.

Refinance Mortgages. HUD's model for determining the size of the low-and moderate-income market assumes that low-mod borrowers will represent a smaller share of refinance mortgages than they do of home purchase mortgages. However, as shown in Table D.4, the income characteristics of borrowers refinancing mortgages seem to depend on the overall level of refinancing in the market. During the refinancing wave of 1992 and 1993, refinancing borrowers had much higher incomes than borrowers purchasing homes. For example, during 1993 low-and moderate-income borrowers accounted for 29.3 percent of refinance mortgages, compared to 38.9 percent of home purchase borrowers. In 1998, another period of high refinance activity, low-and moderate-income borrowers accounted for 39.7 percent of refinance loans, versus 43.0 percent of

home purchase loans. But during the years (1995–97) characterized by lower levels of refinancing activity, the low-mod share for refinance mortgages was about the same as that for home purchase mortgages. In 1997, the low-mod share of refinance mortgages (45.0) was even higher than the low-mod share of home loans (42.5 percent).

The projection model assumes that refinancing will be 40 percent of the single-family mortgage market. However given the volatility of refinance rates from year to year, it is important to conduct sensitivity tests using different refinance rates.

b. Manufactured Housing Loans

The mortgage market definition in this appendix includes manufactured housing loans, which have become an important source of affordable housing and which the GSEs have started to purchase. Because the market estimates in HUD's 1995 Rule were adjusted to exclude manufactured housing loans, several tables in this appendix will show how the goals-qualifying shares of the single-family-owner market change depending on the treatment of manufactured housing loans. As explained later, the effect of manufactured housing on HUD's metropolitan area market estimate for each of the three housing goals is a modest one percentage point.

As discussed in Appendix A, the manufactured housing market has been increasing rapidly over the past few years, as sales volume has increased from \$4.7 billion in 1991 to \$16.3 billion in 1998. The affordability of manufactured homes for lower-income families is demonstrated by their average price of \$41,000 in 1997, a fraction of the \$176,000 for new homes and \$154,000 for existing homes. Many households live in manufactured housing because they simply cannot afford site-built homes, for which the construction costs per square foot are much higher.

Data on the incomes of purchasers of manufactured homes is not readily available, but HMDA data on home loans made by 21 lenders that primarily originate manufactured home loans, discussed below, indicate that:⁴²

- (i) A very high percentage of these loans—76 percent in 1998—would qualify for the Low- and Moderate-Income Goal,
- (ii) A substantial percentage of these loans—42 percent in 1998—would qualify for the Special Affordable Goal, and
- (iii) Almost half of these loans—47 percent in 1998—would qualify for the Underserved Areas Goal.

Thus an enhanced presence in this market by the GSEs would benefit many lower-income families. It would also contribute to their presence in underserved rural areas, especially in the South.

To date the GSEs have played a minimal role in the manufactured home loan market, but both enterprises have expressed an

interest in expanding their roles.⁴³ Except in structured transactions, the GSEs do not purchase manufactured housing loans under their seller/servicer guidelines unless they are real estate loans. That is, such homes must have a permanent foundation and the site must be either purchased as part of the transaction or already owned by the borrower. Industry trends toward more homes on private lots and on concrete foundations suggest that the percentage of manufactured homes that would qualify as real estate loans under GSE guidelines has grown in the past few years. There has also been a major shift from single-section homes to multisection homes, which contain two or three units which are joined together on site.

Although manufactured home loans cannot be identified in the HMDA data, HUD staff have identified 21 lenders that primarily originate manufactured home loans and likely account for most of these loans in the HMDA data for metropolitan areas. In Table D.4, the data presented under "Conforming Market Without Manufactured Home Loans" excludes loans originated by manufactured housing lenders, as well as loans less than \$15,000. The lenders include companies such as Green Tree Financial; Vanderbilt Mortgage; Deutsche Financial Capital; Oakwood Acceptance Corporation; Allied Acceptance Corporation; Belgravia Financial Services; Ford Consumer Finance Company; and the CIT Group.⁴⁴

c. American Housing Survey Data

The American Housing Survey also reports borrower income data similar to that reported in Table D.3.⁴⁵ The low- and moderate-income market shares from the AHS are as follows:

1985—27.0%
 1987—32.0%
 1989—34.0%
 1991—36.0%
 1993—33.0% (38.7% home purchase and 28.6% refinance)
 1995—40.0% (38.5% home purchase and 43.2% refinance)

According to the AHS, 38.5 percent of those families surveyed during 1995 who had recently purchased their homes, and who obtained conventional mortgages below the

⁴³ Freddie Mac, the Manufactured Housing Institute and the Low Income Housing Fund have formed an alliance to utilize manufactured housing along with permanent financing and secondary market involvement to bring affordable, attractive housing to underserved, low- and moderate-income urban neighborhoods. *Origination News*. (December 1998), p. 18.

⁴⁴ Randall M. Scheessele had developed a list of nine manufactured home lenders that has been used by several researchers in analyses of HMDA data prior to 1997. Scheessele recently developed the expanded list of 21 manufactured home loan lenders in his analysis of 1998 HMDA data. (See Randall M. Scheessele, 1998 *HMDA Highlights*, *op. cit.*) In these appendices, the number of manufactured home loans deducted from the market totals for the years 1993 to 1997 are the same as reported by Scheessele (1999) in his Table D.2b.

⁴⁵ See Appendix D of the 1995 Rule for a detailed discussion of the AHS data and improvements that have been made to the survey to better measure borrower incomes and rent affordability.

⁴² Since most HMDA data are for loans in metropolitan areas and a substantial share of manufactured homes are located outside metropolitan areas, HMDA data may not accurately state the goals-qualifying shares for loans on manufactured homes in all areas.

conforming loan limit, had incomes below the area median; this compares with 39.3 percent based on 1995 HMDA data that excludes manufactured homes (as the AHS data do).

A longer-term perspective of the mortgage market can be gained by examining income data from the last six American Housing Surveys. During the earlier period between 1987 and 1991, the low- and moderate-income share increased from 27 percent to 36 percent, and averaged 32.3 percent. After remaining at a relatively low percentage (33.0 percent) during the heavy refinance year of 1993, the low- and moderate-income share rebounded to 40.0 percent in 1995. As noted earlier, this is about the same market share reported by HMDA data for 1995.

Since HMDA data cover over 80 percent of the single-family-owner mortgage market, and the American Housing Survey represents only a very small sample of this market, the HMDA data will be the major source of information on the characteristics of single-family property owners receiving mortgage financing. As discussed next, the American Housing Survey and the Property Owners and Managers Survey will be relied on for information about the rents and affordability of single-family and multifamily rental properties.

2. Low- and Moderate-Income Percentage for Renter Mortgages

The 1995 Rule relied on the American Housing Survey for a measure of the rent affordability of the single-family rental stock and the multifamily rental stock. As explained below, the AHS provides rent information for the stock of rental properties rather than for the flow of mortgages financing that stock. This section discusses a new survey, the Property Owners and Managers Survey (POMS), that provides information on the flow of mortgages financing rental properties. As discussed below, the AHS and POMS data provide very similar estimates of the low- and moderate-income share of the rental market.

a. American Housing Survey Data

The American Housing Survey does not include data on mortgages for rental properties; rather, it includes data on the characteristics of the existing rental housing stock and recently completed rental properties. Current data on the income of prospective or actual tenants has also not been readily available for rental properties. Where such income information is not available, FHEFSSA provides that the rent of a unit can be used to determine the affordability of that unit and whether it qualifies for the Low- and Moderate-Income Goal. A unit qualifies for the Low- and Moderate-Income Goal if the rent does not

exceed 30 percent of the local area median income (with appropriate adjustments for family size as measured by the number of bedrooms). Thus, the GSEs' performance under the housing goals is measured in terms of the affordability of the rental dwelling units that are financed by mortgages that the GSEs purchase; the income of the occupants of these rental units is not considered in the calculation of goal performance. For this reason, it is appropriate to base estimates of market size on rent affordability data rather than on renter income data.

A rental unit is considered to be "affordable" to low- and moderate-income families, and thus qualifies for the Low- and Moderate-Income Goal, if that unit's rent is equal to or less than 30 percent of area median income. Table D.5 presents AHS data on the affordability of the rental housing stock for the survey years between 1985 and 1995. The 21995 AHS shows that for 1-4 unit unsubsidized single-family rental properties, 97 percent of all units and of units constructed in the preceding three years had gross rent (contract rent plus the cost of all utilities) less than or equal to 30 percent of area median income. For multifamily unsubsidized rental properties, the corresponding figure was 95 percent. The AHS data for 1989, 1991 and 1993 are similar to the 1995 data.

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Table D.5

**Rental Market By Affordability
of Dwelling Unit: American
Housing Survey, 1985-1995**

Units Affordable at 100% of Area Median Income	Recently Constructed Stock(a)	Stock 4 Years or Older	Existing Stock
<u>1-4 Properties</u>			
1985	75%	94%	93%
1987	80%	93%	92%
1989	90%	97%	97%
1991	92%	97%	97%
1993	92%	98%	98%
1995	89%	97%	97%
<u>Multifamily (5+) Properties</u>			
1985	88%	94%	93%
1987	86%	93%	92%
1989	88%	96%	95%
1991	88%	97%	96%
1993	88%	96%	96%
1995	89%	95%	95%
<u>Units Affordable at 60% of Area Median Income</u>			
<u>1-4 Properties</u>			
1985	8%	56%	54%
1987	17%	54%	52%
1989	24%	60%	59%
1991	26%	64%	63%
1993	37%	61%	61%
1995	30%	58%	57%
<u>Multifamily (5+) Properties</u>			
1985	14%	44%	41%
1987	18%	43%	40%
1989	13%	51%	47%
1991	18%	54%	51%
1993	12%	53%	51%
1995	20%	50%	49%

Source: American Housing Surveys, 1985, 1987, 1989, 1991, 1993, 1995.

a. Constructed in last 3 years.

b. Property Owners and Managers Survey (POMS)

During the 1995 rule-making, concern was expressed about using data on rents from the outstanding rental stock to proxy rents for newly mortgaged rental units.⁴⁶ At that time, HUD conducted an analysis of this issue using the Residential Finance Survey and concluded that the existing stock was an adequate proxy for the mortgage flow when rent affordability is defined in terms of less than 30 percent of area median income, which is the affordability definition for the Low- and Moderate-Income Goal. More specifically, that analysis suggested that 85 percent of single-family rental units and 90 percent of multifamily units are reasonable estimates for projecting the percentage of financed units affordable at the low- and moderate-income level.⁴⁷ HUD has investigated this issue further using the POMS.

POMS Methodology. The affordability of multifamily and single-family rental housing backing mortgages originated in 1993–1995 was calculated using internal Census Bureau files from the American Housing Survey-National Sample (AHS) from 1995 and the Property Owners and Managers Survey from 1995–1996. The POMS survey was conducted on the same units included in the AHS survey, and provides supplemental information such as the origination year of the mortgage loan, if any, recorded against the property included in the AHS survey. Monthly housing cost data (including rent and utilities), number of bedrooms, and

metropolitan area (MSA) location data were obtained from the AHS file.

In cases where units in the AHS were not occupied, the AHS typically provides rents, either by obtaining this information from property owners or through the use of imputation techniques. Estimated monthly housing costs on vacant units were therefore calculated as the sum of AHS rent and utility costs estimated using utility allowances published by HUD as part of its regulation of the GSEs. Observations where neither monthly housing cost nor monthly rent was available were omitted, as were observations where MSA could not be determined. Units with no cash rent and subsidized housing units were also omitted. Because of the shortage of observations with 1995 originations, POMS data on year of mortgage origination were utilized to restrict the sample to properties mortgaged during 1993–1995. POMS weights were then applied to estimate population statistics. Affordability calculations were made using 1993–95 area median incomes calculated by HUD.

POMS Results. The rent affordability estimates from POMS of the affordability of newly-mortgaged rental properties are quite consistent with the AHS data reported in Table D.5 on the affordability of the rental stock. Ninety-six (96) percent of single-family rental properties with new mortgages between 1993 and 1995 were affordable to low- and moderate-income families, and 56 percent were affordable to very-low-income families. The corresponding percentages for newly-mortgaged multifamily properties are 96 percent and 51 percent, respectively. Thus, these percentages for newly-mortgaged

properties from the POMS are similar to those from the AHS for the rental stock. As discussed in the next section, the baseline projection from HUD's market share model assumes that 90 percent of newly-mortgaged, single-family rental and multifamily units are affordable to low- and moderate-income families.

3. Size of the Low- and Moderate-Income Mortgage Market

This section provides estimates of the size of the low- and moderate-income mortgage market. Subsection 3.a provides some necessary background by comparing HUD's estimate made during the 1995 rule-making process with actual experience between 1995 and 1998. Subsection 3.b presents new estimates of the low-mod market while Subsection 3.c reports the sensitivity of the new estimates to changes in assumptions about economic and mortgage market conditions.

a. Comparison of Market Estimates with Actual Performance

The market share estimates that HUD made during 1995 can now be compared with actual market shares for 1995 to 1997. Projections for 1998 will be discussed in the next section. This discussion of the accuracy of HUD's past market estimates considers all three housing goals, since the explanations for the differences between the estimated and actual market shares are common across the three goals. HUD estimated the market for each housing goal for 1995–97, and obtained the following results:⁴⁸

	Low-Mod (percent)	Special affordable (percent)	Underserved areas ¹ (percent)
1995	56.8	28.4	32.9
1996	57.2	28.5	32.7
1997	57.8	29.0	33.7

¹ The underserved area market shares presented here are based on data for metropolitan areas; as discussed in the next section, accounting for non-metropolitan areas would likely raise the overall market share for this goal by as much as a percentage point.

HUD market estimates in 1995 were 48–52 percent for the Low- and Moderate-Income Goal, 20–23 percent for the Special Affordable Goal, and 25–28 percent for the Underserved Areas Goal. Thus, even the upper bound figures for the market share ranges in the 1995 Rule proved to be low- for the low-mod estimate, 52 percent versus 57–58 percent; for the special affordable estimate, 23 versus 28–29 percent, and for

the underserved areas estimate, 28 percent versus 33 percent.

There are several factors explaining HUD's underestimate of the goals-qualifying market shares. The 1995–97 mortgage markets originated more affordable single-family mortgages than anticipated, mainly due to historically low interest rates and strong economic expansion. In 1997, for instance, almost 44 percent of all (home purchase and

refinance) single-family-owner mortgages qualified for the Low- and Moderate-Income Goal, 16 percent qualified for the Special Affordable Goal, and 28 percent qualified for the Underserved Areas Goal.⁴⁹ HUD's 1995 estimates anticipated smaller shares of new

⁴⁶ Some even argued that data based on the recently completed stock would be a better proxy for mortgage flows. In the case of the Low- and Moderate-Income Goal, there is not a large difference between the affordability percentages for the recently constructed stock and those for the outstanding stock of rental properties. But this is not the case when affordability is defined at the very-low-income level. As shown in Table D.5, the recently completed stock houses substantially fewer very-low-income renters than does the existing stock. Because this issue is important for the Special Affordable Goal, it will be further analyzed in Section H when that goal is considered.

⁴⁷ In 1997, 75.6 percent of GSE purchases of single-family investor rental units and over 90

percent of their purchases of multifamily units qualified under the Low- and Moderate-Income Goal.

⁴⁸ The following goals-qualifying shares for 1995–97 are, of course, estimates themselves; even though information is available from HMDA and other data sources for most of the important model parameters, there are some areas where information is limited, which leads to a range of estimates rather than precise point estimates. For example, HUD had two sets of average per-unit loan amounts for multifamily properties. HUD's "higher" estimates (\$24,698 in 1995, \$25,268 in 1996, and \$27,279 in 1997) are used in the text. HUD's "lower" estimates (\$22,310 in 1995, \$24,047 in 1996, and \$25,167 in 1997) provided slightly higher market shares. For

example, the 1997 figures under the "lower" estimates of per-unit multifamily loan amounts were as follows: Low- and Moderate-Income Goal (58.4 percent); Special Affordable Goal (29.5 percent); and Underserved Areas Goal (33.9 percent). The "lower" per-unit loan amounts result in a larger number of multifamily units in HUD's model, which leads to higher percentages of goals-qualifying loans in the overall market.

⁴⁹ The 1995–97 goals-qualifying percentages for single-family mortgages are based on HMDA data for all (both home purchase and refinance) mortgages. Thus, the implicit refinance rate is that reported by HMDA for conventional conforming mortgages.

mortgages being originated for low-income families and in their neighborhoods.^{50 51}

The financing of rental properties during 1995–97 was larger than anticipated. HUD's earlier estimates assumed a rental share of 29 percent, which was lower than the approximately 31 percent rental share for the years 1995–97. The underestimate for rental housing was due to a larger multifamily market (\$32 billion for 1995, \$37 billion for 1996, and \$41 billion for 1997) than anticipated in the 1995 GSE Rule (\$30 billion) and to lower per unit multifamily loan amounts than assumed in HUD's earlier model.⁵²

⁵⁰ HUD had based its earlier projections heavily on market trends between 1992 and 1994. During this period, low- and moderate-income borrowers accounted for only 38 percent of home purchase loans, which is consistent with an overall market share for the Low- and Moderate-Income Goal of 52 percent (see Table D.7 below), which was HUD's upper bound in the 1995 Rule. Based on the 1993 and 1994 mortgage markets, HUD's earlier estimates also assumed that refinance mortgages would have smaller shares of lower-income borrowers than home purchase loans; the experience during the 1995–1997 period was the reverse, with refinance loans having higher shares of lower-income borrowers than home purchase loans. For example, in 1997, 45 percent of refinancing borrowers had less-than-area-median incomes, compared with 42.5 percent of borrowers purchasing a home.

⁵¹ The 1995–97 estimates also include the effects of small loans (less than \$15,000) and manufactured housing loans which increase the market shares for metropolitan areas by approximately one percentage point. For example, assuming a constant mix of owner and rental properties, excluding these loans would reduce the goals-qualifying shares as follows: the Low- and Moderate-Income Goal by 1.4 percentage points, and the Special Affordable Goal and Underserved Areas Goals by one percentage point. However, dropping manufactured housing from the market totals would increase the rental share of the market, which would tend to lower these impact estimates. It should also be mentioned that manufactured housing in non-metropolitan areas is not included in HUD's analysis due to lack of data; including this segment of the market would tend to increase the goals-qualifying shares of the overall market. Thus, the analyses of manufactured housing reported above and throughout the text pertain only to manufactured housing loans in metropolitan areas, as measured by loans originated by the manufactured housing lenders identified by Scheessele, *op. cit.*

⁵² The accuracy of the single-family portion of HUD's model can be tested using HMDA data. The number of single-family loans reported to HMDA for the years 1995 to 1997 can be compared with the corresponding number predicted by HUD's model. Single-family loans reported to HMDA during 1995 were 79 percent of the number of loans predicted by HUD's model; comparable percentages for 1996 and 1997 were 83 percent and 82 percent, respectively. Studies of the coverage of HMDA data conclude that HMDA covers approximately 85 percent of the conventional conforming market. (See Randall M. Scheessele, *HMDA Coverage of the Mortgage Market*, *op. cit.*) The fact that the HMDA data account for lower percentages of the single-family loans predicted by HUD's model suggests that HUD's model may be slightly overestimating the number of single-family loans during the 1995–97 period. The only caveat to this concerns manufactured housing in non-metropolitan areas. The average loan amount that HUD used in calculating the number of units financed from mortgage origination dollars did not include the effects of manufactured housing in non-metropolitan areas; thus, HUD's average loan

B&C Mortgages. As discussed in Appendix A, the market for subprime mortgages has experienced rapid growth over the past 2–3 years. Comprehensive data for measuring the size of this market are not available. However, estimates by various industry observers suggest that the subprime market could have accounted for as much as 15 percent of all mortgages originated during 1997, which would have amounted to approximately \$125 billion.⁵³ In terms of credit risk, this \$125 billion includes a wide range of mortgage types. “A-minus” loans, which represented about half of the subprime market in 1997, make up the least risky category. The GSEs are involved in this market—for instance, Freddie Mac has initiated programs to purchase A-minus loans through its Loan Prospector system. The remaining categories (mainly “B” and “C” loans) experience much higher delinquency rates than A-minus loans.⁵⁴

The effects of excluding B&C mortgages on the estimated market shares for goals-qualifying loans in 1997 can be derived by combining information from various sources. First, the \$125 billion estimate for the subprime market was reduced by 15 percent to arrive at an estimate of \$106 billion for subprime loans that were less than the conforming loan limit of \$214,600 in 1997. This figure was reduced by one-half to arrive at an estimate of \$53 billion for the conforming B&C market; with an average loan amount of \$68,289 (obtained from HMDA data, as discussed below), the \$53 billion represented approximately 776,000

amount is too high, which suggests that single-family-owner mortgages are underestimated. (Similarly, the goals-qualifying percentages in HUD's model are based on metropolitan area data and therefore do not include the effects of manufactured housing in non-metropolitan areas.)

⁵³ A 15 percent estimate for 1997 is reported by Michelle C. Hamecs and Michael Benedict, “Mortgage Market Developments”, in *Housing Economics*, National Association of Home Builders, April 1998, pages 14–17. Hamecs and Benedict draw their estimate from a survey by *Inside B&C Lending*, an industry publication. A 12 percent estimate is reported in “Subprime Products: Originators Still Say Subprime Is ‘Wanted Dead or Alive’” in *Secondary Marketing Executive*, August 1998, 34–38. Forest Pafenberg reports that subprime mortgages accounted for 10 percent of the conventional conforming market in 1997; see his article, “The Changing Face of Mortgage Lending: The Subprime Market”, *Real Estate Outlook*, National Association of Realtors, March 1999, pages 6–7. Pafenberg draws his estimate from *Inside Mortgage Capital*, which used data from the Mortgage Information Corporation. The uncertainty about what these various estimates include should be emphasized; for example, they may include second mortgages and home equity loans as well as first mortgages, which are the focus of this analysis.

⁵⁴ Based on information from The Mortgage Information Corporation, Pafenberg reports the following serious delinquency rates (either 90 days past due or in foreclosure) for 1997 by type of subprime loan: 2.97 percent for A-minus; 6.31 percent for B; 9.10 percent for C; and 17.69 percent for D. The D category accounted for only 5 percent of subprime loans. Also see “Subprime Mortgage Delinquencies Inch Higher, Prepayments Slow During Final Months of 1998”, *Inside MBS & ABS*, March 12, pages 8–11, where it is reported that fixed-rate A-minus loans have delinquency rates similar to high-LTV (over 95 percent) conventional conforming loans.

B&C loans originated during 1997 under the conforming loan limit.

HMDA data was used to provide an estimate of the portion of these 776,000 B&C loans that would qualify for each of the housing goals. HMDA data does not identify subprime loans, much less divide them into their A-minus and B&C components. As explained in Appendix A, HUD staff have identified HMDA reporters that primarily originate subprime loans. The goals-qualifying percentages of the loans originated by these subprime lenders in 1997 were as follows: 59.3 percent qualified for the Low- and Moderate-Income Goal, 29.4 percent for the Special Affordable Goal, and 46.1 percent for the Underserved Areas Goal.⁵⁵ Applying the goals-qualifying percentages to the estimated B&C market total of 776,000 gives the following estimates of B&C loans that qualified for each of the housing goals in 1997: Low- and Moderate Income (460,000), Special Affordable (228,000), and Underserved Areas (358,000).

Adjusting HUD's model to exclude the B&C market involves subtracting the above four figures for the overall B&C market and for B&C loans that qualify for each of the three housing goals from the corresponding figures estimated by HUD for the total single-family and multifamily market inclusive of B&C loans. HUD's model estimates that 8,220,000 single-family and multifamily units were financed during 1997; of these, 4,751,000 (57.8 percent) qualified for the Low- and Moderate-Income Goal, 2,387,000 (29.0 percent) for the Special Affordable Goal, and 2,767,000 (33.7 percent) for the Underserved Areas Goal. Deducting the B&C market estimates produces the following adjusted market estimates: a total market of 7,444,000, of which 4,291,000 (57.6 percent) qualified for the Low- and Moderate-Income Goal, 2,159,000 (29.0 percent) for the Special Affordable Goal, and 2,409,000 (32.4 percent) for the Underserved Areas Goal.

As seen, the low-mod market share estimate exclusive of B&C loans (57.6 percent) is similar to the original market estimate (57.8 percent) and the corresponding special affordable market estimate (29.0 percent) is the same as the original estimate. This occurs because the B&C loans that were dropped from the analysis had similar low-mod and special affordable percentages as the overall (both single-family and multifamily) market. For example, the low-mod share of the B&C was projected to be 59.3 percent and HUD's market model projected the overall low-mod share to be 57.8 percent. Thus, dropping B&C

⁵⁵ These percentages are based on 42 subprime lenders identified by Randall M. Scheessele; slightly lower goals-qualifying percentages for 1997 (57.3 percent, 28.1 percent, and 44.7 percent, respectively) were obtained based on Scheessele's more recent list of subprime lenders. Given the similarity of the two sets of percentages, the analysis was not repeated using the more recent list. For further comparison between the two lists, see Randall M. Scheessele, *1998 HMDA Highlights*, *op. cit.* Not surprisingly, the goals-qualifying percentages for subprime lenders are much higher than the percentages (43.6 percent, 16.3 percent, and 27.8 percent, respectively) for the overall single-family conventional conforming market in 1997.

loans from the market totals does not change the overall low-mod share of the market appreciably.

The situation is different for the Underserved Areas Goal. Underserved areas account for 46.1 percent of the B&C loans, which is a higher percentage than the underserved area share of the overall market (33.7 percent). Thus, dropping the B&C loans leads to a reduction in the underserved areas market share of 1.3 percentage points, from 33.7 percent to 32.4 percent.⁵⁶

Dropping B&C loans from HUD's model changes the mix between rental and owner units in the final market estimate. Based on assumptions about the size of the owner and rental markets for 1997, HUD's model calculates that single-family-owner units accounted for about 69.5 percent of total units financed during 1997. Dropping the B&C owner loans, as described above, reduces the owner percentage of the market by about three percentage points to 66.3 percent. Thus, another way of explaining why the goals-qualifying market shares are not affected so much by dropping B&C loans is that the rental share of the overall market increases as the B&C owner units are dropped from the market. Since rental units have very high goals-qualifying percentages, their increased importance in the market partially offsets the negative effects on the goals-qualifying shares of any reductions in B&C owner loans. In fact, this rental mix effect would come into play with any reduction in owner units from HUD's model.

There are caveats that should be mentioned concerning the above adjustments for the B&C market. The adjustment for B&C loans depends on several estimates relating to the 1997 mortgage market, derived from various sources. Different estimates of the size of the B&C market in 1997 or the goals-qualifying shares of the B&C market could lead to different estimates of the goals-qualifying shares for the overall market. The goals-qualifying shares of the B&C market were based on HMDA data for selected lenders that primarily originate subprime loans; since

these lenders are likely originating both A-minus and B&C loans, the goals-qualifying percentages used here may not be accurately measuring the goals-qualifying percentages for only B&C loans. The above technique of dropping B&C loans also assumes that the coverage of B&C and non-B&C loans in HMDA's metropolitan area data is the same; however, it is likely that HMDA coverage of non-B&C loans is higher than its coverage of B&C loans.⁵⁷ Despite these caveats, it also appears that reasonably different estimates of the various market parameters would not likely change, in any significant way, the above estimates of the effects of excluding B&C loans in calculating the goals-qualifying shares of the market. As discussed below, HUD provides a range of estimates for the goals-qualifying market shares to account for uncertainty related to the various parameters included in its projection model for the mortgage market.

1998 Projections. As discussed earlier in Section C.2.c, there is particular uncertainty regarding multifamily origination activity for the year 1998 due to, among other things, HUD's SMLA data not yet being available. The discussion in Section C.2.c concluded that 1998 multifamily originations could have ranged from \$50 to \$60 billion. In this section, the 1998 goals-qualifying market shares are first estimated assuming \$50 billion in multifamily originations, although it is important to recognize the uncertainty of

⁵⁷ Dropping B&C loans in the manner described in the text results in the goals-qualifying percentages for the non-B&C market being underestimated since HMDA coverage of B&C loans is less than that of non-B&C loans and since B&C loans have higher goals-qualifying shares than non-B&C loans. For instance, the low-mod shares of the market reported in Table D.4 underestimate (to an unknown extent) the low-mod shares of the market inclusive of B&C loans; so reducing the low-mod owner shares by dropping B&C loans in the manner described in the text would provide an underestimate of the low-mod share of the non-B&C owner market. A study of 1997 HMDA data in Durham County, North Carolina by the Coalition for Responsible Lending (CRL) found that loans by mortgage and finance companies are often not reported to HMDA. For a summary of this study, see "Renewed Attack on Predatory Subprime Lenders" in *Fair Lending/CRA Compass*, June 9, 1999.

this estimate. The high volume of single-family mortgages in 1998 increased the share of single-family-owner units to 73.1 percent, while single-family rental units comprised 13.0 percent, and multifamily units comprised a reduced 13.9 percent of the market. This shift toward single-family loans, combined with the higher level of single-family refinance activity in 1998, results in market shares for metropolitan areas that are slightly smaller than reported earlier for 1995–97: low-mod, 54.1 percent; special affordable, 26.0 percent; and underserved areas, 30.4 percent. While lower, these estimates remain higher than the market estimates that HUD made in 1995 (see earlier discussion for reasons).⁵⁸

b. Market Estimates

This section provides HUD's estimates for the size of the low- and moderate-income mortgage market that will serve as a proxy for the four-year period (2000–2003) when the new housing goals will be in effect. Three alternative sets of projections about property shares and property low- and moderate-income percentages are given in Table D.6. Case 1 projections represent the baseline and intermediate case; it assumes that investors account for 10 percent of the single-family mortgage market. Case 2 assumes a lower investor share (8 percent) based on HMDA data and slightly more conservative low- and moderate-income percentages for single-family rental and multifamily properties (85 percent). Case 3 assumes a higher investor share (12 percent) consistent with Follain and Blackley's suggestions.

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⁵⁸ If B&C loans are excluded from the market (using the techniques discussed earlier), the market estimates fall slightly as follows: low-mod, 53.8 percent; special affordable, 25.8 percent; and underserved areas, 29.4 percent. In 1998, the conforming B&C market is estimated to be \$65 billion, with an average loan amount of \$77,796, representing an estimated 836,000 B&C conforming loans. The 1998 goals-qualifying percentages (low-mod, 58.0 percent; special affordable, 28.5 percent; and underserved areas, 44.7 percent) used to "proxy" the B&C market were similar to those reported earlier for 1997. As noted earlier, there is much uncertainty about the size of the B&C market.

⁵⁶ As discussed later, the underserved area share is probably a percentage point higher than this due to HUD's model not accounting for the high percentage of loans in underserved counties of non-metropolitan areas.

Table D.6

Alternative Assumptions for Single-Family Rental and Multifamily Mortgage Shares

	Case 1	Case 2	Case 3
1. Single-Family Mortgage Shares			
Single-Family Owner-Occupied	88.0%	90.0%	85.6%
Single-Family 2-4	2.0%	2.0%	2.4%
Single-Family 1-4 Investor	10.0%	8.0%	12.0%
2. Units Per Single-Family Mortgage			
Single-Family 2-4	2.25	2.25	2.25
Single-Family 1-4 Investor	1.35	1.35	1.40
3. Multifamily Loan Per Unit	\$30,000	\$30,000	\$30,000
4. Percentage Affordable at Area Median Income (AMI)			
Single-Family Rental	90.0%	85.0%	95.0%
Multifamily	90.0%	85.0%	95.0%
5. Percentage Underserved			
Single-Family Rental	42.5%	40.0%	45.0%
Multifamily	48.0%	46.0%	48.0%
6. Percent Affordable at 60% of AMI			
Single-Family Rental	50.0%	47.0%	53.0%
Multifamily	47.0%	44.0%	50.0%
7. Percentage Low-Income in Low-Income Areas:			
Single-Family Rental	8.0%	6.0%	8.0%
Multifamily	11.0%	10.0%	12.0%

Table D.7

Low- and Moderate-Income Mortgage Market: Sensitivity Analysis

Case 1 with Different Percentages for Single-Family Owner-Occupied's with Income Less than AMI:		Size of Multifamily Market		
		\$40 Billion	\$46 Billion	\$52 Billion
Single-Family: ^a	43%	55.2 %	55.7 %	56.4 %
	42%	54.4	55.0	55.7
	41%	53.7	54.3	55.0
	40%	53.0	53.6	54.3
	39%	52.3	52.9	53.6
	38%	51.5	52.2	52.9
	37%	50.8	51.5	52.3
	36%	50.1	50.7	51.6
	35%	49.4	50.0	50.9
	34%	48.6	49.3	50.2
Single-Family:	40% with:			
	Case 1 (above)	53.0 %	53.6 %	54.3 %
	Case 2	50.7	51.2	51.9
	Case 3	55.8	56.5	57.3
Single-Family:	36% with:			
	Case 1 (above)	50.1 %	50.7 %	51.6 %
	Case 2	47.7	48.3	49.3
	Case 3	53.0	53.7	54.6

^a These percentages are used for home purchase loans. Refinance loans were assumed to be 3 percentage points less for each alternative.

Because single-family-owner units account for about 70 percent of all newly mortgaged dwelling units, the low- and moderate-income percentage for owners is the most important determinant of the total market estimate.⁵⁹ Thus, Table D.7 provides market estimates for different owner percentages as well as for different sizes of the multifamily market—the \$46 billion projection bracketed by \$40 and \$52 billion. Several low-mod percentages of the owner market are given in Table D.7 to account for different perceptions about the low-mod share of that market. Essentially, HUD's approach throughout this appendix is to provide several sensitivity analyses to illustrate the effects of different views about the goals-qualifying share of the single-family-owner market on the goals-qualifying share of the overall mortgage market. This approach recognizes that there is some uncertainty in the data and that there can be different viewpoints about the various market definitions and other model parameters.

As shown in Table D.7, the market estimate is 54–56 percent if the owner percentage is at or above 40 percent (slightly less than its 1994–98 levels), and it is 53 percent if the owner percentage is 39 percent (its 1993 level). If the low- and moderate-income percentage for owners fell from its 1997–98 level of 43 percent to 36 percent, the overall market estimate would be approximately 51 percent. Thus, 51 percent is consistent with a rather significant decline in the low-mod share of the single-family home purchase market. Under HUD's baseline projections, the home purchase percentage can fall as low as 34 percent—about four-fifths of the 1997–98 level—and the low- and moderate-income market share would still be above 49 percent.

The volume of multifamily activity is also an important determinant of the size of the low- and moderate-income market. HUD is aware of the uncertainty surrounding projections of the multifamily market and consequently recognizes the need to conduct sensitivity analyses to determine the effects on the overall market estimate of different assumptions about the size of that market. As discussed in Section E.2, the baseline assumption of \$46 billion in multifamily originations produces a rental mix of 28.9 percent, which is about the same as the baseline projection in HUD's 1995 Rule. Lowering the multifamily projection to \$40 billion reduces the rental mix to 27.6 percent, which produces the set of overall low-mod market estimates that are reported in the first column of Table D.7. Compared with \$46 billion, the \$40 billion assumption reduces

the overall low-mod market estimates by slightly over a half percentage point. For example, when the low-mod share of the owner market is 42 percent, the low-mod share of the overall market is 55.0 percent assuming \$46 billion in multifamily originations but is 54.4 percent assuming \$40 billion in multifamily originations.

The market estimates for Case 2 and Case 3 bracket those for Case 1. The smaller single-family rental market and lower low- and moderate-income percentages for rental properties result in the Case 2 estimates being almost two percentage points below the Case 1 estimates. Conversely, the higher percentages under Case 3 result in estimates of the low-mod market approximately three percentage points higher than the baseline estimates.

The various market estimates presented in Table D.7 are not all equally likely. Most of them equal or exceed 51 percent; in the baseline model, estimates below 51 percent would require the low-mod share of the single-family owner market for home purchase loans to drop to approximately 36 percent which would be over six percentage points lower than the 1993–98 average for the low-mod share of the home purchase market. With multifamily volume at \$40 billion, the low-mod share of the owner market can fall to almost 36 percent before the average market share falls below 51 percent.

The upper bound (56 percent) of the low-mod estimates reported in Table D.7 for the baseline case is lower than the low-mod share of the market between 1995 and 1997. As reported above, HUD estimates that the low-mod market share during this period was 57–58 percent. There are two reasons the upper bound of 56 percent is lower than the recent, 1995–97 experience. First, the projected rental share of 29 percent is slightly lower than the rental share of 32 percent for the 1995–97 period; a smaller market share for rental units lowers the market share. Second, HUD's projections assume that refinancing borrowers will have higher incomes than borrowers purchasing a home (explained below). As Table D.4 shows, this was the reverse of the situation between 1995 and 1997 when refinancing borrowers had higher incomes than borrowers purchasing a home.⁶⁰ This fact, along with the larger single-family mix effect, resulted in the low-mod share of the market falling below the 1997 level of 57–58 percent.

B&C Loans. B&C loans can be deducted from HUD's low-mod market estimates using the same procedure described earlier. But before doing that, some comments about how HUD's projection model operates are in order. HUD's projection model assumes that the low-mod share of refinance loans will be three percentage points lower than the low-mod share of home purchase loans, even though there have been years recently (1995–97) when the low-mod share of refinance loans has been as high or higher than that for home purchase loans (see Table D.4).⁶¹ Since B&C loans are primarily refinance loans, this

assumption of a lower low-mod share for refinance loans partially adjusts for the effects of B&C loans, based on 1995–97 market conditions. For example, in Table D.7, the low-mod home purchase percentage of 43 percent, which reflects 1997 conditions, is combined with a low-mod refinance percentage of 40 percent when, in fact, the low-mod refinance percentage in 1997 was 45 percent. Thus, by taking the 1992–98 average low-mod differential between home purchase and refinance loans, the projection model deviates from 1995–97 conditions in the single-family owner market.⁶²

The effects of deducting the B&C loans from the projection model can be illustrated using the above example of a low-mod home purchase percentage of 43 percent and a low-mod refinance percentage of 40 percent; as Table D.7 shows, this translates into an overall low-mod market share of 55.7 percent. As in Section F.3.a, it is assumed that the subprime market accounts for 15 percent of all mortgages originated, which would be \$144 billion based on \$957 billion for the conventional market. This \$144 billion estimate for the subprime market is reduced by 15 percent to arrive at \$122 billion for subprime loans that will be less than the conforming loan limit. This figure is reduced by one-half to arrive at approximately \$60 billion for the conforming B&C market; with an average loan amount of \$75,043, the \$60 billion represents 799,542 B&C loans projected to be originated under the conforming loan limit.⁶³

Following the procedure discussed in Section F.3.a, the low-mod share of the market exclusive of B&C loans is estimated to be 55.4 percent, which is only slightly lower than the original estimate (55.7 percent).⁶⁴ As noted earlier, this occurs

⁶² Rather, this approach reflects 1998 market conditions when the low-mod differential between home purchase and refinance loans was approximately three percentage points.

⁶³ The \$75,043 is derived by adjusting the 1997 figure of \$68,289 upward based on recent growth in the average loan amount for all loans. Also, it should be mentioned that one recent industry report suggests that the B&C part of the subprime market has fallen to 37 percent. See "Retail Channel Surges in the Troubled '98 Market" in *Inside B&C Lending*, March 25, 1999, page 3. If the 1998 average (\$76,223) for the 200 subprime lenders had been adjusted upward, the projected year 2000 average would have been higher (\$81,164), which would have reduced the projected number of B&C loans to 739,244.

⁶⁴ As before, 1997 HMDA data for the 42 lenders were used to provide an estimate of 59.3 percent for the portion of the B&C market that would qualify as low- and moderate-income; using the low-mod percentage (58.0 percent) for the larger, 200 sample of subprime lenders would have given similar results. Applying the 59.3 percentage to the estimated B&C market total of 799,542 gives an estimate of 474,128 B&C loans that would qualify for the Low- and Moderate-Income Goal. Adjusting HUD's model to exclude the B&C market involves subtracting the 799,542 B&C loans and the 474,128 B&C low-mod loans from the corresponding figures estimated by HUD for the total single-family and multifamily market inclusive of B&C loans. HUD's projection model estimates that 9,445,809 single-family and multifamily units will be financed and of these, 5,263,085 (55.7 percent as in Table D.7) will qualify for the Low- and Moderate-Income Goal. Deducting the B&C market estimates produces

⁵⁹ The percentages in Table D.7 refer to borrowers purchasing a home. In HUD's model, the low-mod share of refinancing borrowers is assumed to be three percentage points lower than the low-mod share of borrowers purchasing a home; three percentage points is the average differential between 1992 and 1998. Thus, the market share model with the 40 percent owner percentage in Table D.7 assumes that 40 percent of home purchase loans and 37 percent of refinance loans are originated for borrowers with low- and moderate-income. If the same low-mod percentage were used for both refinancing and home purchase borrowers, the overall market share for the Low- and Moderate-Income Goal would increase by 0.8 of a percentage point.

⁶⁰ On the other hand, in the heavy refinance year of 1998, refinancing borrowers had higher incomes than borrowers purchasing a home.

⁶¹ The three percentage point differential is the average for the years 1992 to 1998 (see Table D.4).

because the B&C loans that were dropped from the analysis had similar low-mod percentages as the overall (both single-family and multifamily) market (59.3 percent and 55.7 percent, respectively). The impact of dropping B&C loans is larger when the overall market share for low-mod loans is smaller. As shown in Table D.7, a 38 percent low-mod share for single-family owners is associated with an overall low-mod share of 52.2 percent. In this case, dropping B&C loans would reduce the low-mod market share by almost one percentage point (0.7 percent) to 51.5 percent. Still, dropping B&C loans from the market totals does not change the overall low-mod share of the market appreciably.

Dropping B&C loans from HUD's projection model changes the mix between rental and owner units in the final market estimate; rental units accounted for 31.5 percent of total units after dropping B&C loans compared with 28.9 percent before dropping B&C loans. Since practically all rental units qualify for the low-mod goal, their increased importance in the market partially offsets the negative effects on the goals-qualifying shares of any reductions in B&C owner loans.

Section F.3.a discussed several caveats concerning the analysis of B&C loans. It is not clear what types of loans (e.g., first versus second mortgages) are included in the B&C market estimates. There is only limited data on the borrower characteristics of B&C loans and the extent to which these loans are included in HMDA is not clear. Still, the analysis of Table D.7 and the above analysis of the effects of dropping B&C loans from the market suggest that 50–55 percent is a reasonable range of estimates for the low- and moderate-income market for the years 2000–2003. This range covers markets without B&C loans and allows for market environments that would be much less affordable than recent market conditions. The next section presents additional analyses related to market volatility and affordability conditions.

c. Economic Conditions, Market Estimates, and the Feasibility of the Low- and Moderate-Income Housing Goal

During the 1995 rule-making, there was a concern that the market share estimates and the housing goals failed to recognize the volatility of housing markets and the existence of macroeconomic cycles. There was particular concern that the market shares and housing goals were based on a period of economic expansion accompanied by record low interest rates and high housing affordability. This section discusses these issues, noting that the Secretary can consider shifts in economic conditions when evaluating the performance of the GSEs on the goals, and noting further that the market share estimates can be examined in terms of less favorable market conditions than existed during the 1993 to 1998 period.

Volatility of Market. The starting point for HUD's estimates of market share is the projected \$1,100 billion in single-family originations. Shifts in economic activity

could obviously affect the degree to which this projection is borne out. Changing economic conditions can affect the validity of HUD's market estimates as well as the feasibility of the GSEs' accomplishing the housing goals.

One only has to recall the volatile nature of the mortgage market in the past few years to appreciate the uncertainty around projections of that market. Large swings in refinancing, consumers switching between adjustable-rate mortgages and fixed-rate mortgages, and increased first-time homebuyer activity due to record low interest rates, have all characterized the mortgage market during the nineties. These conditions are beyond the control of the GSEs but they would affect their performance on the housing goals. A mortgage market dominated by heavy refinancing on the part of middle-income homeowners would reduce the GSEs' ability to reach a specific target on the Low- and Moderate-Income Goal, for example. A jump in interest rates would reduce the availability of very-low-income mortgages for the GSEs to purchase. But on the other hand, the next few years may be highly favorable to achieving the goals because of the high refinancing activity in 1998 and anticipated in 1999. A period of low interest rates would sustain affordability levels without causing the rush to refinance seen earlier in 1993 and more recently in 1998. A high percentage of potential refinancers have already done so, and are less likely to do so again.

HUD conducted numerous sensitivity analyses of the market shares. For example, increasing the single-family mortgage origination projection by \$200 billion, from \$1,100 billion to \$1,300 billion, would reduce the market share for the Low- and Moderate-Income Goal by approximately one percentage point, assuming the other baseline assumptions remain unchanged. This reduction in the low-mod share of the mortgage market share occurs because the rental share of newly-mortgaged units is reduced (from 28.9 percent to 27.1 percent).

HUD also examined potential changes in the market shares under two very different macroeconomic environments, one assuming a recession and one assuming a period of low interest rates and heavy refinancing. The recessionary environment was simulated using Fannie Mae's minimum projections of single-family mortgage originations (\$880 billion) and multifamily originations (\$35 billion) for the year 2000. The low- and moderate-income share of the home purchase market was reduced to 34 percent, or 8.5 percentage points lower than its 1997 share.⁶⁵ Under these rather severe conditions, the overall market share for the Low- and Moderate-Income Goal would decline to 49 percent.

The heavy refinance environment was simulated assuming that the single-family origination market increased to \$1,650 billion (compared with HUD's baseline of \$1,100

billion) and that the multifamily market increased to \$52 billion (compared with HUD's baseline of \$46 billion). The relatively high level of single-family originations increases the owner share of newly-mortgaged dwelling units from 71 percent under HUD's baseline model to 74 percent in the simulated heavy refinance environment. Refinances were assumed to account for 60 percent of all single-family mortgage originations. If low- and moderate-income borrowers accounted for 40 percent of borrowers purchasing a home but only 36 percent of refinancing borrowers, then the market share for the Low- and Moderate-Income Goal would be 51 percent. If the first two percentages were reduced to 39 percent and 32 percent, respectively, then the market share for the Low- and Moderate-Income Goal would fall to 49 percent. However, if the refinance market resembled 1998 conditions, the low-mod share would be 54 percent, as reported earlier.

Finally, HUD simulated the specific scenario based on the MBA's most recent market estimate of \$950 billion and a refinance rate of 20 percent. In this case, assuming a low- mod home purchase percentage of 40, the overall low-mod market share was 54.9 percent, assuming \$46 billion in multifamily loans, and 54.3 percent, assuming \$40 billion in multifamily loans.

Feasibility Determination. As stated in the 1995 Rule, HUD is well aware of the volatility of mortgage markets and the possible impacts on the GSEs' ability to meet the housing goals. FHEFSSA allows for changing market conditions.⁶⁶ If HUD has set a goal for a given year and market conditions change dramatically during or prior to the year, making it infeasible for the GSE to attain the goal, HUD must determine "whether (taking into consideration market and economic conditions and the financial condition of the enterprise) the achievement of the housing goal was or is feasible." This provision of FHEFSSA clearly allows for a finding by HUD that a goal was not feasible due to market conditions, and no subsequent actions would be taken. As HUD noted in the 1995 GSE Rule, it does not set the housing goals so that they can be met even under the worst of circumstances. Rather, as explained above, HUD has conducted numerous sensitivity analyses for economic environments much more adverse than has existed in recent years. If macroeconomic conditions change even more dramatically, the levels of the goals can be revised to reflect the changed conditions. FHEFSSA and HUD recognize that conditions could change in ways that require revised expectations.

Affordability Conditions and Market Estimates. The market share estimates rely on 1992–1998 HMDA data for the percentage of low- and moderate-income borrowers. As discussed in Appendix A, record low interest rates, a more diverse socioeconomic group of households seeking homeownership, and affordability initiatives of the private sector have encouraged first-time buyers and low-income borrowers to enter the market during the six-year period between 1993 and 1998.

the following adjusted market estimates: a total market of 8,646,268 of which 4,788,957 (55.4 percent) will qualify for the Low- and Moderate-Income Goal.

⁶⁵ Refinance mortgages were assumed to account for 15 percent of all single-family originations; 31 percent of refinancing borrowers were assumed to have less-than-area-median incomes, which is 14 percentage points below the 1997 level. The average per unit multifamily loan amount was assumed to be \$29,000.

⁶⁶ Section 1336(b)(3)(A).

A significant increase in interest rates over their 1993–98 levels would reduce the presence of low-income families in the mortgage market and the availability of low-income mortgages for purchase by the GSEs. As discussed above, the 50–55 percent range for the low-mod market share covers economic and housing market conditions less favorable than recent conditions of low interest rates and economic expansion. The low-mod share of the single-family home purchase market could fall to 34 percent, which is over nine percentage points lower than its 1998 level of about 43 percent, before the baseline market share for the Low- and Moderate-Income Goal would fall below 50 percent.

d. Conclusions About the Size of Low- and Moderate-Income Market

Based on the above findings as well as numerous sensitivity analyses, HUD concludes that 50–55 percent is a reasonable range of estimates of the mortgage market's low- and moderate-income share for the year 2000 and beyond. This range covers much more adverse market conditions than have existed recently, allows for different assumptions about the multifamily market, and excludes the effects of B&C loans. HUD recognizes that shifts in economic conditions could increase or decrease the size of the low- and moderate-income market during that period.

G. Size of the Conventional Conforming Market Serving Central Cities, Rural Areas, and Other Underserved Areas

The following discussion presents estimates of the size of the conventional conforming market for the Central City, Rural Areas, and other Underserved Areas Goal; this housing goal will also be referred to as the Underserved Areas Goal or the Geographically-Targeted Goal. The first two sections focus on underserved census tracts in metropolitan areas. Section 1 presents underserved area percentages for different property types while Section 2 presents market estimates for metropolitan areas. Section 3 discusses B&C loans and rural areas.

This rule proposes that the Central Cities, Rural Areas, and other Underserved Areas Goal for the years 2000 and thereafter be set at 29 percent of eligible units financed in calendar year 2000, and 31 percent of eligible units financed in each of calendar years 2001–2003.

1. Geographically-Targeted Goal Shares by Property Type

For purposes of the Geographically-Targeted Goal, underserved areas in metropolitan areas are defined as census tracts with:

- (a) Tract median income at or below 90 percent of the MSA median income; or
- (b) A minority composition equal to 30 percent or more and a tract median income

no more than 120 percent of MSA median income.

Owner Mortgages. The first set of numbers in Table D.8 are the percentages of single-family-owner mortgages that financed properties located in underserved census tracts of metropolitan areas between 1992 and 1998. In 1997 and 1998, approximately 25 percent of home purchase loans financed properties located in these areas; this represents an increase from 22 percent in 1992 and 1993. In some years, refinance loans are even more likely than home purchase loans to finance properties located in underserved census tracts. Between 1994 and 1997, 28.5 percent of refinance loans were for properties in underserved areas, compared to 25.1 percent of home purchase loans.⁶⁷ In the heavy refinance year of 1998, underserved areas accounted for about 25 percent of both refinance and home purchase loans.

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⁶⁷ As shown in Table D.8, excluding loans less than \$15,000 and manufactured home loans reduces the 1997 underserved area percentage by 1.2 percentage points for all single-family-owner loans from 27.8 to 26.6 percent. Dropping only small loans reduces the underserved areas share of the metropolitan market by 0.4 and dropping manufactured loans (above \$15,000) reduces the market by 0.8.

Table D.8

Underserved Area Mortgage Market In Metropolitan Areas: 1993-1998 HMDA Data

Single-Family Owner-Occupied	Purchase		Refinance		Total	
1992	22.2%	(21.5)	20.1%	(19.9)	20.8	(20.4)
1993	21.9	(21.1)	19.5	(19.4)	20.2	(19.9)
1994	24.4	(23.5)	27.5	(26.7)	25.5	(24.9)
1995	25.5	(24.2)	29.3	(28.1)	26.9	(25.6)
1996	25.0	(23.1)	28.7	(27.9)	26.7	(25.3)
1997	25.2	(23.3)	30.8	(30.1)	27.8	(26.6)
1998	24.6	(22.8)	24.9	(24.5)	24.8	(23.9)
<u>Non-Owner</u>						
1992					42.4	
1993		39.3		41.1	40.4	
1994		39.6		46.7	43.0	
1995		40.1		50.1	43.7	
1996		39.7		48.8	43.5	
1997		40.5		51.2	45.0	
1998		40.3		46.5	43.6	
<u>Multifamily</u> ¹						
1992					50.2	
1993					47.1	
1994					51.0	
1995					47.8	
1996					48.5	
1997					48.0	
1998					47.0	

Source: HMDA data for metropolitan areas. Numbers in parantheses exclude loans less than \$15,000 and loans from lenders that primarily originate manufactured housing home loans. The reductions in the refinance percentages are mainly due to excluding loans less than \$15,000, as there are few manufactured housing refinance loans.

¹ A purchase/refinance breakdown is not available for multifamily.

Since the 1995 Rule was written, the single-family-owner market in underserved areas has remained strong, similar to the low- and moderate-income market discussed in Section F. Over the past five years, the underserved area share of the metropolitan mortgage market has leveled off at 25–28 percent, considering both home purchase and refinance loans. This is higher than the 23 percent average for the 1992–94 period, which was the period that HUD was considering when writing the 1995 Rule. As discussed earlier, economic conditions could change and reduce the size of the underserved areas market; however, that market appears to have shifted to a higher level over the past five years.

Renter Mortgages. The second and third sets of numbers in Table D.8 are the underserved area percentages for single-family rental mortgages and multifamily mortgages, respectively. Based on HMDA data for single-family, non-owner-occupied (investor) loans, the underserved area share of newly-mortgaged single-family rental units has been in the 43–45 percent range over the past five years. HMDA data also show that about half of newly-mortgaged multifamily rental units are located in underserved areas.

2. Market Estimates for Underserved Areas in Metropolitan Areas

In the 1995 GSE Rule, HUD estimated that the market share for underserved areas would be between 25 and 28 percent. This estimate turned out to be below market experience, as underserved areas accounted for approximately 33 percent of all mortgages originated in metropolitan areas between 1995 and 1997 and for 30 percent in 1998 (see Section F.3.a above).⁶⁸

⁶⁸ As mentioned earlier, dropping B&C loans reduces the underserved area estimate for 1997 from 33.7 percent to 32.4 percent. The main reason for HUD's underestimate in 1995 was not anticipating the high percentages of single-family-owner mortgages that would be originated in underserved areas. During the 1995–97 period, about 27 percent of single-family-owner mortgages financed properties in underserved areas; this compares with 24 percent for the 1992–94 period which was the basis for HUD's earlier analysis. There are other reasons the underserved area market shares for 1995 to 1997 were higher than HUD's 25–28 percent estimate. As discussed earlier, rental properties accounted for a larger share (31 percent) of the market during this period than assumed (29 percent) in HUD's 1995 model. Single-family rental and multifamily mortgages originated

Table D.9 reports HUD's estimates of the market share for underserved areas based on the projection model discussed earlier.⁶⁹ After presenting these estimates, which are based mainly on HMDA data for metropolitan areas, the effects of dropping B&C loans and including non-metropolitan areas will be discussed.

during this period were also more likely to finance properties located in underserved areas than assumed in HUD's earlier model. In 1997, 45 percent of single-family rental mortgages and 48 percent of multifamily mortgages financed properties in underserved areas, both figures larger than HUD's assumptions (37.5 percent and 42.5 percent, respectively) in its earlier model. Even in the heavy refinance year of 1998, the underserved areas market share (30 percent) was higher than projected by HUD during the 1995 rule-making process.

⁶⁹ Table D.9 presents estimates for the same combinations of projections used to analyze the Low- and Moderate-Income Goal. Table D.6 in Section F.3 defines Cases 1, 2, and 3; Case 1 (the baseline) projects a 42.5 percent share for single-family rentals and a 48 percent share for multifamily properties while the more conservative Case 2 projects 40 percent and 46 percent, respectively.

Table D.9

Underserved Area Market Estimates For Metropolitan Areas: Sensitivity Analysis

Case 1 with Different Underserved Areas Percentages for Single-Family Owner-Occupied's:		Size of Multifamily Market		
		\$40 Billion	\$46 Billion	\$52 Billion
Single-Family Owner-Occupied: ^a	28%	32.8 %	33.1 %	33.4 %
	27%	32.1	32.4	32.7
	26%	31.4	31.7	32.0
	25%	30.7	30.9	31.3
	24%	29.9	30.2	30.6
	23%	29.2	29.5	29.9
	22%	28.5	28.8	29.2
	21%	27.8	28.1	28.5
	20%	27.0	27.4	27.8
	19%	25.8	26.7	27.1
	18%	25.6	26.0	26.4
<u>Single-Family Owner-Occupied: 25% with:</u>				
	Case 1 (above)	30.7 %	30.9 %	31.3 %
	Case 2	29.7	30.0	30.3
	Case 3	31.5	31.8	32.1
<u>Single-Family Owner-Occupied: 22% with:</u>				
	Case 1 (above)	28.5 %	28.8 %	29.2 %
	Case 2	27.5	27.8	28.2
	Case 3	29.4	29.7	30.1

^a These percentages are assumed to be the overall (both home purchase and refinance) percentages of single-family owner mortgages in underserved census tracts.

The percentage of single-family-owner mortgages financing properties in underserved areas is the most important determinant of the overall market share for this goal. Therefore, Table D.9 reports market shares for different single-family-owner percentages ranging from 28 percent (1997 HMDA) to 20 percent (1993 HMDA) to 18 percent. If the single-family-owner percentage for underserved areas is at its 1994–98 HMDA average of 26 percent, the market share estimate is almost 32 percent. The overall market share for underserved areas peaks at 33 percent when the single-family-owner percentage is at its 1997 figure of 28 percent. Most of the estimated market shares for the owner percentages that are slightly below recent experience are in the 30–31 percent range. In the baseline case, the single-family-owner percentage can go as low as 23 percent, which is over 3 percentage points lower than the 1994–98 HMDA average, and the estimated market share for underserved areas remains almost 30 percent.⁷⁰

Unlike the Low- and Moderate-Income Goal, the market estimates differ only slightly as one moves from Case 1 to Case 3 and from \$40 billion to \$52 billion in the size of the multifamily market. For example, reducing the assumed volume to \$40 billion reduces the overall market projection for underserved areas by only about 0.3 percentage points. This is because the underserved area differentials between owner and rental properties are not as large as the low- and moderate-income differentials reported earlier. Several additional sensitivity analyses were conducted. For example, adding (deducting) \$200 billion to the \$1,100 billion single-family originations would reduce (increase) the underserved area market share by about 0.7 (1.0) percent, assuming there were no other changes. The MBA estimated in September 1999 that year 2000 single-family mortgage volume would be about \$950 billion, with a refinance rate of 20 percent. With these assumptions and a single-family owner underserved area percentage of 25 percent, the overall market share for underserved units is 31.4 percent if multifamily loans total \$46 billion, and 31.1 percent if multifamily loans total \$40 billion.

3. Adjustments: B&C Loans and the Rural Underserved Area Market

B&C Loans. The procedure for dropping B&C loans from the projections is the same as described in Section F.3.b for the Low- and Moderate-Income Goal. The underserved area percentage for B&C loans is 46.1 percent, which is much higher than the projected percentage for the overall market (slightly over 30 percent as indicated in Table D.9). Thus, dropping B&C loans will reduce the overall market estimates. Consider in Table D.9, the case of a single-family-owner percentage of 28 percent, which yields an overall market estimate for underserved areas of 33.1 percent. Dropping B&C loans from the

projection model reduces the underserved areas market share by 1.2 percentage points to 31.9.

Non-metropolitan Areas. Underserved rural areas are non-metropolitan counties with:

- (a) County median income at or below 95 percent of the greater of statewide non-metropolitan median income or nationwide non-metropolitan income; or
- (b) A minority composition equal to 30 percent or more and a county median income no more than 120 percent of statewide non-metropolitan median income.

HMDA does not provide mortgage data for non-metropolitan counties, which makes it impossible to estimate the size of the mortgage market in rural areas. However, all indicators suggest that underserved counties in non-metropolitan areas comprise a larger share of the non-metropolitan mortgage market than the underserved census tracts in metropolitan areas comprise of the metropolitan mortgage market. For instance, underserved counties within rural areas include 54 percent of non-metropolitan homeowners; on the other hand, underserved census tracts in metropolitan areas account for only 34 percent of metropolitan homeowners.

In 1997, 36 percent of the GSE's total purchases in non-metropolitan areas were in underserved counties while 27 percent of their purchases in metropolitan areas were in underserved census tracts. These figures also suggest the market share for underserved counties in rural areas is higher than the market share for underserved census tracts in metropolitan areas. Thus, HUD's use of the metropolitan estimate to proxy the overall market for this goal, including rural areas, is conservative. If mortgage data for non-metropolitan areas were available, the estimated market share for the Underserved Areas Goal could be as much as one percentage point higher.⁷¹

The estimates presented in Table D.9 and this section's analysis of dropping B&C loans and including non-metropolitan areas suggest that 29–32 percent is a reasonable range for the market estimate for underserved areas based on the projection model described earlier. This range incorporates market conditions that are more adverse than have existed recently and it excludes B&C loans from the market estimates.

4. Conclusions

Based on the above findings as well as numerous sensitivity analyses, HUD concludes that 29–32 percent is a reasonable estimate of mortgage market originations that would qualify toward achievement of the Geographically Targeted Goal if purchased by a GSE. HUD recognizes that shifts in economic and housing market conditions

could affect the size of this market; however, the market estimate allows for the possibility that adverse economic conditions can make housing less affordable than it has been in the last few years. In addition, the market estimate incorporates a range of assumptions about the size of the multifamily market.

H. Size of the Conventional Conforming Market for the Special Affordable Housing Goal

This section presents estimates of the conventional conforming mortgage market for the Special Affordable Housing Goal. The special affordable market consists of owner and rental dwelling units which are occupied by, or affordable to: (a) very-low-income families; or (b) low-income families in low-income census tracts; or (c) low-income families in multifamily projects that meet minimum income thresholds patterned on the low-income housing tax credit (LIHTC).⁷² HUD estimates that the special affordable market is 23–26 percent of the conventional conforming market.

HUD is proposing that the annual goal for mortgage purchases qualifying under the Special Affordable Housing Goal be 18 percent of eligible units financed in calendar year 2000, and 20 percent of eligible units financed in each of calendar years 2001–2003. This proposed rule further provides that of the total mortgage purchases counted toward the Special Affordable Housing Goal, each GSE must annually purchase multifamily mortgages in an amount equal to at least 0.9 percent of the dollar volume of combined (single family and multifamily) 1998 mortgage purchases in each of calendar year 2000, and 1.0 percent in each of calendar years 2001–2003. This implies the following thresholds for the two GSEs:⁷³

	2000 (in billions)	2001–2003 (in billions)
Fannie Mae	\$3.31	\$3.68
Freddie Mac	2.46	2.73

Section F described HUD's methodology for estimating the size of the low- and moderate-income market. Essentially the same methodology is employed here except that the focus is on the very-low-income market (0–60 percent of Area Median Income) and that portion of the low-income market (60–80 percent of Area Median Income) that is located in low-income census tracts. Data are not available to estimate the number of renters with incomes between 60 and 80 percent of Area Median Income who live in projects that meet the tax credit thresholds. Thus, this part of the Special Affordable Housing Goal is not included in the market estimate.

⁷⁰ The recession scenario described in Section F.3.c assumed that the underserved area percentage for single-family-owner mortgages was 21 percent or almost seven percentage points lower than its 1997 value. In this case, the overall market share for underserved areas declines to 28 percent.

⁷¹ Assuming that non-metropolitan areas account for 15 percent of all single-family-owner mortgages and recalling that the projected single-family-owner market for the year 2000 accounts for 71 percent of newly-mortgaged dwelling units, then the underserved area differential of 9 percent in the GSE purchase data would raise the overall market estimate by 0.96 of a percentage point (9 times 0.15 times 0.71). Of course, the market differential may not be the same as that reflected in the GSE data.

⁷² There are two LIHTC thresholds: at least 20 percent of the units are affordable at 50 percent of AMI or at least 40 percent of the units are affordable at 60 percent of AMI.

⁷³ HUD has determined that the total dollar volume of the GSEs' combined (single and multifamily) mortgage purchases in 1998, measured in unpaid principal balance at acquisition, was as follows: Fannie Mae \$367,589 million; Freddie Mac \$273,231 million.

1. Special Affordable Shares by Property Type

The basic approach involves estimating for each property type the share of dwelling units financed by mortgages in a particular year that are occupied by very-low-income families or by low-income families living in low-income areas. HUD has combined mortgage information from HMDA, the American Housing Survey, and the Property Owners and Managers Survey in order to estimate these special affordable shares.

a. Special Affordable Owner Percentages

The percentage of single-family-owners that qualify for the Special Affordable Goal is reported in Table D.10. Table D.10 also

reports data for the two components of the Special Affordable Goal—very-low-income borrowers and low-income borrowers living in low-income census tracts. HMDA data show that special affordable borrowers accounted for 15.3 percent of all conforming home purchase loans between 1996 and 1998. The special affordable share of the market has followed a pattern similar to that discussed earlier for the low-mod share of the market. The percentage of special affordable borrowers increased significantly between 1992 and 1994, from 10.4 percent of the conforming market to 12.6 percent in 1993, and then to 14.1 percent in 1994. The additional years since the 1995 Rule was written have seen the special affordable

market maintain itself at an even higher level. Over the past four years (1995–98), the special affordable share of the market has averaged 15.1 percent, or almost 13.0 percent if manufactured and small loans are excluded from the market totals. As mentioned earlier, lending patterns could change with sharp changes in the economy, but the fact that there have been several years of strong affordable lending suggests that the market has changed in fundamental ways from the mortgage market of the early 1990s. The effect of one factor, the growth in the B&C loans, on the special affordable market is discussed below in Section H.2.

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Table D.10

**Special Affordable Share of
Single-Family Owner-Occupied Mortgage Market**

	Home Purchase		Refinance	
	Conforming Market	Market W/O Mfg loans	Conforming Market	Market W/O Mfg loans
1. Very-Low-Income				
1992	8.7 %	7.6 %	4.5 %	4.2 %
1993	10.8	9.6	5.8	5.6
1994	11.9	10.7	11.0	10.2
1995	12.0	10.5	12.3	11.2
1996	12.7	10.8	13.0	12.2
1997	13.0	11.0	14.5	13.9
1998	13.3	11.4	11.3	11.1
2. Low Income in Low Income Areas				
1992	1.7 %	1.6 %	1.1 %	1.0 %
1993	1.8	1.7	1.2	1.2
1994	2.2	2.1	2.3	2.2
1995	2.4	2.2	2.7	2.5
1996	2.3	2.0	2.6	2.5
1997	2.3	2.0	3.0	2.9
1998	2.2	2.0	2.2	2.1
3. Special Affordable (1 plus 2)				
1992	10.4 %	9.3 %	5.5 %	5.2 %
1993	12.6	11.3	7.0	6.8
1994	14.1	12.8	13.2	12.4
1995	14.4	12.7	14.9	13.7
1996	15.0	12.8	15.6	14.7
1997	15.3	13.0	17.6	16.8
1998	15.5	13.4	13.5	13.2

Source: HMDA data. "Market without manufactured housing loans" excludes loans by lenders that primarily originate manufactured housing loans and loans less than \$15,000.

b. Very-Low-Income Rental Percentages

Table D.5 in Section F reported the percentages of the single-family rental and multifamily stock affordable to very-low-income families. According to the AHS, 57 percent of single-family units and 49 percent of multifamily units were affordable to very-low-income families in 1995. The corresponding average values for the AHS's six surveys between 1985 and 1995 were 58 percent and 47 percent, respectively.

Outstanding Housing Stock versus Mortgage Flow. As discussed in Section F, an important issue concerns whether rent data based on the existing rental stock from the AHS can be used to proxy rents of newly mortgaged rental units.⁷⁴ HUD's analysis of POMS data suggests that it can—estimates from POMS of the rent affordability of newly-mortgaged rental properties are quite consistent with the AHS data reported in Table D.5 on the affordability of the rental stock. Fifty-six (56) percent of single-family rental properties with new mortgages between 1993 and 1995 were affordable to very-low-income families, as was 51 percent of newly-mortgaged multifamily properties. These percentages for newly-mortgaged properties from the POMS are similar to those reported above from the AHS for the rental stock. The baseline projection from HUD's market share model assumes that 50 percent of newly-mortgaged, single-family rental units, and 47 percent of multifamily units, are affordable to very-low-income families.

c. Low-Income Renters in Low-Income Areas

HMDA does not provide data on low-income renters living in low-income census tracts. As a substitute, HUD used the POMS

⁷⁴ Previous analysis of this issue has focused on the relative merits of data from the recently completed stock versus data from the outstanding stock. The very-low-income percentages are much lower for the recently completed stock—for instance, the average across the five AHS surveys were 15 percent for recently completed multifamily properties versus 46 percent for the multifamily stock. But it seems obvious that data from the recently completed stock would underestimate the affordability of newly-mortgaged units because they exclude purchase and refinance transactions involving older buildings, which generally charge lower rents than newly-constructed buildings. Blackley and Follain concluded that newly-constructed properties did not provide a satisfactory basis for estimating the affordability of newly-mortgaged properties. See "A Critique of the Methodology Used to Determine Affordable Housing Goals for the Government Sponsored Housing Enterprises."

and AHS data. The share of single-family and multifamily rental units affordable to low-income renters at 60–80 percent of area median income (AMI) and located in low-income tracts was calculated using the internal Census Bureau AHS and POMS data files.⁷⁵ The POMS data showed that 8.3 percent of the 1995, single-family rental stock, and 9.3 percent of single-family rental units receiving financing between 1993 and 1995, were affordable at the 60–80 percent level and were located in low-income census tracts. The POMS data also showed that 12.4 percent of the 1995 multifamily stock, and 13.5 percent of the multifamily units receiving financing between 1993 and 1995, were affordable at the 60–80 percent level and located in low-income census tracts.⁷⁶ The baseline analysis below assumes that 8 percent of the single-family rental units and 11.0 percent of multifamily units are affordable at 60–80 percent of AMI and located in low-income areas.⁷⁷

2. Size of the Special Affordable Market

During the 1995 rule making, HUD estimated a market share for the Special Affordable Goal of 20–23 percent. This estimate turned out to be below market experience, as the special affordable market accounted for almost 29 percent of all housing units financed in metropolitan areas

⁷⁵ Affordability was calculated as discussed earlier in Section F, using AHS monthly housing cost, monthly rent, number of bedrooms, and MSA location fields. Low-income tracts were identified using the income characteristics of census tracts from the 1990 Census of Population, and the census tract field on the AHS file was used to assign units in the AHS survey to low-income tracts and other tracts. POMS data on year of mortgage origination were utilized to restrict the sample to properties mortgaged during 1993–1995.

⁷⁶ During the 1995 rule-making process, HUD examined the rental housing stock located in low-income zones of 41 metropolitan areas surveyed as part of the AHS between 1989 and 1993. While the low-income zones did not exactly coincide with low-income tracts, they were the only proxy readily available to HUD at that time. Slightly over 13 percent of single-family rental units were both affordable at the 60–80 percent of AMI level and located in low-income zones; almost 16 percent of multifamily units fell into this category.

⁷⁷ Therefore, combining the assumed very-low-income percentage of 50 percent (47 percent) for single-family rental (multifamily) units with the assumed low-income-in-low-income-area percentage of 8 percent (11 percent) for single-family rental (multifamily) units yields the special affordable percentage of 58 percent (58 percent) for single-family rental (multifamily) units. This is the baseline Case 1 in Table D.6.

between 1995 and 1997. As explained in Section F.3.a, there are several explanations for HUD's underestimate of the 1995–97 market. The financing of rental properties during 1995–97 was larger than anticipated. HUD's earlier estimates assumed a rental share of 29 percent, which was lower than the approximately 31 percent rental share for the years 1995–97. Another important reason for HUD's underestimate was not anticipating the high percentage of single-family-owner mortgages that would be originated for special affordable borrowers. During the 1995–97 period, 15.4 percent of all (both home purchase and refinance) single-family-owner mortgages financed properties for special affordable borrowers; this compares with 9.5 percent for the 1992–94 period which was the basis for HUD's earlier analysis. The 1995–97 mortgage markets originated more affordable single-family mortgages than anticipated.⁷⁸ Furthermore, the special affordable market remained strong during the heavy refinance year of 1998. Over 26 percent of all dwelling units financed in 1998 qualified for the Special Affordable Goal.

The size of the special affordable market depends in large part on the size of the multifamily market and on the special affordable percentages of both owners and renters. Table D.11 gives new market estimates for different combinations of these factors. As before, Case 2 is slightly more conservative than the baseline projections (Case 1) mentioned above. For instance, Case 2 assumes that only 6 percent of rental units are affordable to low-income renters living in low-income areas.

⁷⁸ The 29.0 percent estimate for 1997 also includes manufactured housing and small loans while HUD's earlier 20–23 percent estimate excluded the effects of these loans. Excluding manufacturing housing and small loans from the 1997 market would reduce the special affordable share of 29.0 percent by a percentage point to 28.0 percent. This can be approximated by multiplying the single-family-owner property share (0.69) for 1997 by the 1.4 percentage point differential between the special affordable share of all (home purchase and refinance) single-family-owner mortgages in 1997 with manufactured and small loans included (16.3 percent) and the corresponding share with these loans excluded (14.9 percent). This gives a reduction of 0.97 percentage point. These calculations overstate the actual reduction because they do not include the effect of the increase in the rental share of the market that accompanies dropping manufactured housing and small loans from the market totals.

Table D.11

**Special Affordable Mortgage Market:
Sensitivity Analysis**

	Size of Multifamily Market		
	\$40 Billion	\$46 Billion	\$52 Billion
Case 1 With:			
(a) Rent Affordable at 60% AMI: Single-Family Rent Percentages= 50%, Multifamily= 47%			
(b) Low-Income in Low-Income Areas= 8% for Single-Family Rental and 11% for Multifamily			
(c) Single-Family Owner-Occupied's Special Affordable Share: ^a			
15.0%	26.5 %	27.0 %	27.7 %
14.0%	25.8	26.3	27.0
13.0%	25.1	25.6	26.3
12.0%	24.4	24.9	25.6
11.0%	23.6	24.2	24.9
10.0%	22.9	23.5	24.2
9.0%	22.2	22.8	23.5
Case 2 With:			
(a) Rent Affordable at 60% AMI: Single-Family Rent Percentages= 47%, Multifamily= 44%			
(b) Low-Income in Low-Income Areas= 6% for Single-Family Rental and 10% for Multifamily			
(c) Single-Family Owner-Occupied's Special Affordable Share:			
14.0%	23.8 %	24.3 %	24.9 %
13.0%	23.0	23.5	24.2
12.0%	22.3	22.8	23.5
11.0%	21.5	22.1	22.7
10.0%	20.8	21.3	22.0
Case 3 With:			
(a) Rent Affordable at 60% AMI: Single-Family Rent Percentage= 53%, Multifamily= 50%			
(b) Low-Income in Low-Income Areas= 8% for Single-Family Rental and 12% for Multifamily			
(c) Single-Family Owner-Occupied's Special Affordable Share:			
14.0%	28.0 %	28.6 %	29.3 %
13.0%	27.3	27.9	28.6
12.0%	26.6	27.2	27.9
11.0%	25.9	26.5	27.2
10.0%	25.2	25.8	26.6

^a These percentages are used for home purchase loans. Refinance loans were assumed to be 1.4 percentage points lower for each alternative.

When the special affordable share of the single-family market for home mortgages is at its 1994–98 level of 14–15 percent, the special affordable market estimate is 26–27 percent under HUD's baseline projections. In fact, the market estimates remain above 24 percent even if the special affordable percentage for home loans falls from its 15-percent-plus level during 1996–1998 to as low as 10–11 percent, which is similar to the 1992 level. Thus, a 24 percent market estimate allows for the possibility that adverse economic conditions could keep special affordable families out of the housing market. On the other hand, if the special affordable percentage stays at its recent levels, the market estimate is as high as 27 percent.⁷⁹

B&C Loans. The procedure for dropping B&C loans from the projections is the same as described in Section F.3.b for the Low- and Moderate-Income Goal. The special affordable percentage for B&C loans is 29.4 percent, which is not much higher than the projected percentages for the overall market given in Table D.9). Thus, dropping B&C loans will not appreciably reduce the overall market estimates. Consider in Table D.11, the case of a single-family-owner percentage of 15 percent, which yields an overall market estimate for Special Affordable Goal of 27 percent. Dropping B&C loans from the projection model reduces the special affordable market share by 0.2 percentage points to 26.8. The effect would be slightly larger for the other cases given in Table D.11.

Based on the data presented in Table D.11 and the analysis of the effects of excluding B&C loans from the market, a range of 23–26 percent is a reasonable estimate of the special affordable market. This range includes market conditions that are much more adverse than have recently existed. Additional sensitivity analyses are provided in the remainder of this section.

Additional Sensitivity Analyses. The market estimate declines by one-half of a percentage point if the estimate of the multifamily mortgage market is changed from \$46 billion to \$40 billion. For example, when the special affordable share of the owner market is 13 percent, the overall market estimate is reduced from 25.6 percent to 25.1 percent when the multifamily volume assumption is reduced from \$46 billion to \$40 billion. The market estimates under the more conservative Case 2 projections are approximately two percentage points below

those under the Case 1 projections. This is due mainly to Case 2's lower share of single-family investor mortgages (8 percent versus 10 percent in Case 1) and its lower affordability and low-income-area percentages for rental housing (e.g., 53 percent for single-family rental units in Case 2 versus 58 percent in Case 1).

Increasing the volume of single-family originations by \$200 billion to \$1,300 billion reduces the market estimate by 0.7 percentage points, while reducing the volume of single-family originations by \$200 billion to \$900 billion increases the market estimate by about one percentage point. Using a recent MBA projection of \$950 billion in single-family originations and a 20 percent refinancing rate, the special affordable market is projected to be 26.6 percent if multifamily originations are \$46 billion, and 26.0 percent if multifamily originations are \$40 billion, assuming that the single-family owner-occupied special affordable share is 13 percent.

A recession scenario and a heavy refinancing scenario were described during the discussion of the Low- and Moderate-Income Goal in Section F. The recession scenario assumed that special affordable borrowers would account for only 9–10 percent of newly-originated home loans. In these cases, the market share for the Special Affordable Goal declines to 23–24 percent. In the heavy refinancing scenario, the special affordable percentage for refinancing borrowers was assumed to be four percentage points lower than the corresponding percentage for borrowers purchasing a home. In this case, the market share for the Special Affordable Goal was typically in the 23–25 percent range, depending on assumptions about the incomes of borrowers in the home purchase market. As noted earlier, the special affordable market share was approximately 26 percent during 1998, a period of heavy refinancing activity.

Tax Credit Definition. Data are not available to measure the increase in market share associated with including low-income units located in multifamily buildings that meet threshold standards for the low-income housing tax credit. Currently, the effect on GSE performance under the Special Affordable Housing Goal is rather small. For instance, adding the tax credit condition increases Fannie Mae's 1997 performance by only half a percentage point, from 16.5 to 17 percent. At first glance, this small effect seems at odds with the fact that 26.5 percent of Fannie Mae's multifamily purchases during 1997 involved properties with a very-low-income occupancy of 100 percent, and 43.0 percent involved properties with a very-low-income occupancy of over 40 percent. The explanation, of course, is that most of the rental units in these "tax-credit" properties are covered by the very-low-income and low-income-in-low-income-areas components of the Special Affordable Goal.

3. Conclusions

Sensitivity analyses were conducted for the market shares of each property type, for the very-low-income shares of each property type, and for various assumptions in the market projection model. These analyses

suggest that 23–26 percent is a reasonable estimate of the size of the conventional conforming market for the Special Affordable Housing Goal. This estimate excludes B&C loans and allows for the possibility that homeownership will not remain as affordable as it has over the past five years. In addition, the estimate covers a range of projections about the size of the multifamily market.

I. Impact of New FHA Loan Limits

This section discusses recent statutory changes that raised the FHA loan limits and the impact of these changes on the conventional market and the ability of the GSEs to meet their housing goals.

Studies have shown that the FHA has been the primary bearer of credit risk on home mortgage loans to lower-income and African American or Hispanic borrowers and in low-income, central city, and minority neighborhoods. Many of the loans that FHA insures would qualify for one or more of the GSEs' housing goals. Raising the FHA loan limits will increase the portion of the mortgage market that is eligible for FHA, possibly resulting in a shift of loans from the conventional market to FHA. It could also shift loans that would otherwise meet the GSE goals from the conventional market to FHA. To the extent this occurs, the new FHA loan limits could have an impact on the conventional market and on the GSEs.

The information in this section suggests that many of the new FHA loans would not qualify for conventional financing. Some of the above mentioned studies have also shown that there has been little overlap between FHA and the conventional market prior to the loan limit increase. This is likely to be the case for newly eligible FHA loans as the higher loan limits extend FHA access to more families who are denied mortgage credit or otherwise underserved by the conventional market. The new FHA loans are likely to collectively resemble current FHA loans in many respects, but with higher loan amounts and borrower incomes. Differential homeownership rates as well as mortgage credit denials which persist across income levels for minority families and inner city residents provide evidence that underserved markets exist for FHA to serve at these higher loan amounts and incomes.

The number of new FHA loans resulting from the loan limit increase is likely to be relatively small. While reasonable estimates of new FHA volume could vary, their range is likely to be under 50,000 new loans compared to FHA's total home purchase loan volume of about 800,000 in 1998. Standard and Poor's Insurance Ratings Service does not offer a numerical estimate, but this rating agency finds the outlook for the private mortgage insurance industry is stable through 2001, and suggests that the portion of the market that FHA will serve near the new loan limits will be less than the portion it presently serves at lower levels. Similarly, Moody's Investors Service believes the higher FHA loan limits will "dent" the volumes of private mortgage insurers, but is not a source of significant concern with regard to the industry outlook.

Furthermore, most new loans are expected to come from higher cost housing markets. In

⁷⁹ The upper bound of 27 percent from HUD's baseline special affordable model is obtained when the special affordable share of home purchase loans is 15.0 percent, which was the figure for 1997 (see Table D.10). However, the upper bound of 27 percent is below the 1997 estimate of the special affordable market of 29.0 percent presented earlier (see Section F.3.a). There are several reasons for this discrepancy. As mentioned earlier, the rental share in HUD's baseline projection model is less than the rental share of the 1997 market. In addition, HUD's projection model assumes that the special affordable share of refinancing mortgages will be 1.4 percentage points less than the corresponding share for home purchase loans (1.4 percent is the average difference between 1992 and 1998). But in 1997, the special affordable share (17.6 percent) of refinancing mortgages was larger than the corresponding share (15.3 percent) for home loans.

many of these markets the old FHA loan limit ceiling denied FHA access to all but the bottom tier of the local housing market. In these higher cost markets, the new FHA loans will typically be above \$150,000 requiring borrower incomes in excess of \$60,000 to qualify.

The discussion of this issue is organized as follows. Section I describes the statutory changes in the FHA floor and ceiling. Section 2 discusses the estimated budget impact of the changes in the legislation, including the FHA volume increases that were assumed for making this estimate. Section 3 provides the estimated range of new FHA loan volume. Section 4 discusses why the overlap with the conventional market for the new FHA loans should be small. Finally Section 5 discusses the impacts on the conventional market and the GSEs.

1. Changes in the Statutory FHA Loan Limit Floor and Ceiling

The Department's FY 1999 Appropriations Act raised the FHA loan limit floor and ceiling to 48 and 87 percent, respectively, of the GSEs' conforming loan limit. Prior to this change the FHA loan limit floor and ceiling were 38 and 75 percent, respectively, of the conforming loan limit. The statute did not change the method of establishing FHA loan limits by locality: FHA loan limits for a 1-family dwelling continue to be set at 95 percent of local median home sales price, subject to the statutory floor and ceiling as the minimum and maximum, respectively.⁸⁰

The Department implemented the new FHA loan limit floor and ceiling in October 1998. In January 1999 the Department again revised FHA loan limits to reflect the higher conforming loan limit that went into effect on January 1.⁸¹

2. Estimated Budget Impacts

Prior to passage of the 1999 HUD Appropriations Act, the Department estimated the budget impact of the legislative proposal to raise the FHA loan limit floor and ceiling to 48 and 87 percent, respectively, of the conforming loan limit.⁸² At that time the

Department estimated the percentage increase in the number of FHA-insured home purchase loans in FY 1999 relative to the prior year would be about 2.6 percent in metropolitan areas and about 11 percent in non-metropolitan areas. The average loan amount of the new loans was estimated at the time to be about \$143,000, reflecting the fact that some new loans would come in at or near the new floor of (then) \$109,032 and others in higher cost markets would come in at or near the new ceiling of (then) \$197,621. Areas with 1998 loan limits between the new floor of \$109,032 and the 1998 ceiling of \$170,362 were considered to be unaffected by the statutory changes because their loan limit would continue to be set at 95 percent of local median sales price. The Department estimated that 36 high-cost metropolitan areas would be affected by the higher proposed ceiling, 174 lower-cost metropolitan areas and most non-metropolitan counties would be affected by the higher floor, and 115 moderate-cost metropolitan areas would be unaffected.

The biggest impact on FHA volume was expected from raising the ceiling in the 36 highest cost metropolitan areas. In these high cost areas, the old FHA ceiling (75 percent

individual metropolitan area level. For each metropolitan area, the Department analyzed the HMDA distribution of all home purchase loans made in 1996.

The first step in the Department's methodology was to determine the number and size of newly eligible loans in metropolitan areas (as reported in HMDA) had the higher FHA floor and ceiling provisions been in effect in 1996. To do this, the Department used the actual 1996 FHA loan limit for each area and estimated new hypothetical FHA limits for each area using 48 and 87 percent of the 1996 conforming loan limit of \$207,000 as the new floor and ceiling. The next step was to estimate the share of the newly eligible loans in each area that might come to FHA. The FHA shares were estimated for each decile of the HMDA distribution in the local market, assuming that FHA's average share of the eligible market in each MSA would decline as FHA's penetration extended into the higher deciles of the market. The assumption of declining FHA market shares in the upper deciles of the market was reasonable for two reasons. First, higher income borrowers generally have more choices in terms of access to conventional financing. Second, FHA's downpayment requirements at the time were greater for higher priced homes. Under FHA downpayment rules in effect at the time this analysis was performed, FHA required a 10 percent marginal downpayment on the amount of property acquisition cost above \$125,000. (Acquisition cost is defined as the lesser of sales price or appraised value plus allowable borrower-paid closing costs.) Higher downpayment requirements in the upper end of the market made FHA financing a less attractive alternative to conventional financing for potential borrowers who could qualify for a conventional loan.

For non-metropolitan areas, the methodology was less area specific because HMDA data do not generally cover non-metropolitan areas. Rather, 1995 American Housing Survey data was used to determine that about 75 percent of the rural market was already eligible for FHA under the old floor (38 percent of conforming loan limit). Despite the high eligibility, only 7 percent of the rural market was actually financed with FHA-insured loans. Raising the FHA floor to 48 percent of the conforming loan limit was estimated to increase FHA volume by about 11 percent, assuming a declining share of the newly eligible existing housing market, plus some additional demand for new construction.

of the conforming loan limit) was lower than 95 percent of the local median house price. Thus, the old ceiling limited FHA eligibility to the lower-priced portion of the local market. Raising the ceiling would extend FHA eligibility into the higher volume middle of the local sales market for these high cost markets.

In lower cost areas where the old FHA floor applied, FHA eligibility was already above the middle of the local market. That is, the old floor (38 percent of the conforming loan limit) was higher than 95 percent of the local median house price.⁸³ Raising the FHA floor would have a relatively small impact in these lower cost areas, as FHA is likely to capture a smaller share of the newly eligible upper portion of the lower market.

Two additional provisions enacted by the HUD Appropriations Act were not incorporated into the Department's original budget estimate. These are (1) the provision which directed the Department to set new loan limits for entire metropolitan areas based on the median home sales price of the highest cost county within the metropolitan area, and (2) the downpayment simplification provision, which not only simplified the minimum FHA downpayment calculation but also eliminated the 10 percent marginal downpayment requirement for higher priced homes.⁸⁴

The high cost county provision was estimated to raise the budget impact by about 6 percent to \$85 million. The impact was at first considered to be small because the Department did not have access to county-level median sales prices in most metropolitan areas with which to implement this provision. Rather, changes due to the highest cost county provision were assumed to come from locally generated sales data submitted to the Department by individual counties to appeal their FHA loan limits. Loan limit changes based on previously approved local appeals would not have a large impact on FHA volume, and would affect primarily moderate cost metropolitan areas (most being among the 115 moderate cost areas unaffected by the new floor and ceiling as noted above). However, the impact of this provision may prove to be larger than the original estimate as additional appeals are being filed from multiple county metropolitan areas, and as the Department

⁸⁰ Different percentages of local median sales price apply to 2-, 3-, and 4-family dwellings.

⁸¹ The Department's January 1999 update also represented a comprehensive update of FHA loan limits based on an analysis of 1998 local median sales prices from various data sources. This comprehensive update, the first undertaken by the Department since 1995, raised FHA loan limits in over 90 percent of the nation's 3,141 counties. In many of the counties which received increases in January 1999, the FHA loan limit had not changed since the previous comprehensive update in 1995. For many of these areas the 1999 increase was due to the Department's reestimation of the local median sales price, and not due to the statutory changes.

⁸² The budget impact was estimated to be \$80 million in first year savings, which represents the net present value of future cash flows associated with the new loans the Department expected to make as a result of the higher loan limit floor and ceiling.

The methodology used by the Department to arrive at these budget estimates was reviewed by the Office of Management and Budget and by the Congressional Budget Office. The methodology was based on a detailed analysis of the 1996 Home Mortgage Disclosure Act data disaggregated to the

⁸³ The Department used 1995 American Housing Survey data to estimate that 75 percent of the rural market was already covered by the old FHA floor at 38 percent of conforming loan limit.

⁸⁴ Prior to the enactment of HUD's FY 1999 Appropriations Act, FHA's statutory downpayment requirements were 3 percent of the first \$25,000 of property acquisition cost, 5 percent of the next \$100,000 of acquisition cost, and 10 percent of the acquisition cost above \$125,000. (Acquisition cost is defined as the lesser of sales price or appraised value of the property plus allowable borrower-paid closing costs.) The new provision limits the mortgage to 97.75 percent (or 97.15 percent in areas with lower than average closing costs), subject to the borrower having a 3 percent minimum cash investment. (Borrower cash investment includes allowable borrower-paid closing costs.) This change in the FHA downpayment provisions will raise the maximum FHA mortgage amount for buyers of higher priced homes.

seeks out new national sources of county level median sales prices.⁸⁵

The downpayment provisions in the HUD Appropriations Act were tested in pilot programs conducted by FHA in Alaska and Hawaii during 1997. In both these states, where home prices are generally higher than the rest of the nation, the downpayment simplification pilot raised the percentage of large loans that FHA insured in 1997 relative to the pre-pilot year of 1996. In the Department's 1998 report to Congress on the Alaska and Hawaii pilots, it was reported that during these two years loans over \$150,000 increased from 20 percent to 28 percent in Alaska, and from 51 percent to 54 percent in Hawaii.⁸⁶ This experience suggests that the downpayment simplification provision will affect the volume of large loans the Department insures and could produce a higher impact from raising the FHA loan limit ceiling.

3. Estimated FHA Loan Volume

The inclusion of the high cost county and the downpayment simplification provisions in the HUD FY 1999 Appropriations Act suggest that the estimate of about a 3 percent increase in FHA home purchase volume due to the higher FHA loan limits may be low. The impacts of these two additional provisions are difficult to quantify with precision. A volume estimate for FHA which takes into account the high cost county and downpayment simplification provisions could be two times the original 3 percent estimate. That is, the combined impact of all the statutory changes on FHA loan volume would be an increase of approximately 6 percent in home purchase mortgages insured.

In addition, the average loan amount of new loans, which had been estimated at \$143,000, should now be estimated at about \$154,000, reflecting new loans now coming from moderate-cost previously unaffected areas (due to the high cost county provision), and more loans than originally estimated

coming from the highest cost areas (due to downpayment simplification).

The 1999 dollar volume of new FHA business associated with the loan limit increase and the other provisions of the 1999 Appropriations Act is estimated as follows. In FY 1998, the Department insured about 800,000 home purchase loans. Using 6 percent as the estimated increase in the number of home purchase loan cases that FHA will insure in a typical year gives about 50,000 new loans. At an average loan amount of \$154,000 per new loan, the estimated annual dollar volume impact would be over \$7.0 billion.

An estimate of the breakdown of the new loans by size and minimum income to qualify is as follows. If one assumes the upper end of the likely range of new FHA home purchase loan cases (that is, a 6 percent increase), then the following is an estimated breakdown of loan size and minimum borrower incomes:⁸⁷

Range of loan amounts	Number of new loans	Average New loan amount	Minimum income to qualify for average loan
Under \$150,000	12,000	\$92,000	\$33,000
\$150,000 and Over	36,000	175,000	60,000
Total	48,000	154,000	

4. Overlap with the Conventional Market Should be Small

The Department based its original budget impact estimate and the revised volume estimate on an analysis of HMDA data because this data source was determined to be the best available indicator of local market activity by loan size. By using HMDA data for this purpose, one might infer that all the new FHA-insured loans will result in a one-for-one reduction in conventional lending. Rather, as will be discussed below, the Department believes that FHA will extend new housing opportunities to those who are inadequately served by the conventional markets. HMDA data are limited in that they do not support an analysis of the potential overlap between the new FHA loans and the existing conventional market. The question of overlap will instead be addressed by the discussion and analysis presented below.

a. FHA Competition with Private Mortgage Insurance

In a February 1999 commentary on the outlook for the U.S. residential mortgage insurance industry, Standard and Poor's Insurance Ratings Service projected a stable outlook for the PMI industry through 2001 and makes the following comments on the impact of the higher FHA loan limits:

Congress recently increased the size limits of loans eligible for Federal Housing Administration insurance. The [FHA] limit in "high cost" areas is . . . not far below the GSE limit of \$240,000. While FHA borrowers meet lower standards than conforming borrowers, and pay higher rates and fees for their loans, a good number of FHA borrowers are thought to qualify for the conforming market. There is no doubt that the increase in the FHA size limitation will pull eligible borrowers from the conforming market. However, borrowers who qualify for private mortgages generally have more financing alternatives as the loan amounts rise. Therefore, the portion of eligible loans that the FHA takes at these upper levels should be less than that of the loans it insures at lower levels.⁸⁸

Similarly, Moody's Investors Service, in an October, 1998 report on the outlook of the U.S. mortgage insurance industry, states

The recently approved increase of the size of eligible mortgages under the FHA programs, while denting the private mortgage insurers' volumes, is not a source of significant additional concern.⁸⁹

The Standard and Poor's analysis is correct in focusing on the impact of the new high cost ceiling and not the new floor. In areas affected by the higher floor, the old floor already gave borrowers access to well over

half of the local sales market. Raising the floor only increased FHA access to the upper tiers of these low costs markets and made FHA financing of new construction more feasible. Rather, in the highest cost markets, which were capped by the old ceiling, the new FHA ceiling will have the greatest impact. In these high cost areas, FHA access was previously limited to the lower tiers of the local market. The increase in the ceiling will now extend FHA access to more of the higher-volume middle portion of the market. Yet, as the Standard and Poor's analysis also correctly points out, the higher dollar loan amounts suggest potential borrowers will have more alternatives in the conventional market, and when comparing FHA premiums with PMI premiums, most who qualify for a conventional loan will do so.

b. Cost Comparison: FHA Premiums are Higher

Standard and Poor's acknowledgment that FHA costs are higher than PMI costs is consistent with the Department's own analysis of the premium differentials between FHA and PMI. Except for loan to value ratios above 95 percent (which represent a very small, albeit growing, fraction of the loans that the PMIs insure) FHA's premiums are much higher than PMI premiums. For example, a 30-year \$100,000 conventional loan with a 90 percent LTV

⁸⁵ The Department is working with the Office of Federal Housing Enterprise Oversight to develop additional data on local median sales price that may prove useful for future FHA loan limit determinations.

⁸⁶ "A Study of FHA Downpayment Simplification," April 1998, Tables 11 and 12.

⁸⁷ Minimum incomes based on a 7.5 percent, 30-year fixed-rate mortgage loan and a front-end ratio of 29 percent.

⁸⁸ Standard and Poor's, 1999. "Stable Outlook Projected for U.S. Domestic Residential Mortgage Insurance, Industry Conditions and Outlook 1998 to

2001," Insurance Ratings Service Commentary, February 17, p. 9.

⁸⁹ Moody's Investors Service, Inc., 1998. "US Mortgage Insurers Industry Outlook," October, p. 8.

ratio will typically cost a borrower about \$2,900 (net present value at origination) in PMI premiums, assuming the PMI coverage is canceled when the LTV is amortized down to 80 percent. The FHA premium, which cannot be canceled without the lender's consent, will cost \$6,000 for a similar loan if the loan is held to term, or \$5,200 if the loan is prepaid after 8 years.⁹⁰ For the highest LTV loans—those with LTVs above 95 percent—the PMI premium, assuming cancellation when the LTV amortizes down to 80 percent, is \$6,600, or \$5,500 if the loan is prepaid after 8 years.⁹¹ Although the present value of the FHA premium on these highest LTV loans can be less than the typical PMI premium if the loan is prepaid early, very-low-downpayment loans have a tendency to prepay more slowly than loans with higher initial equity.

c. Evidence of Little Overlap Before Loan Limit Increase

Although the Standard and Poor's report states that "a good number" of FHA borrowers (prior to the loan limit increase) were thought to qualify for the conventional market, there have been numerous studies showing that the overlap between FHA and the conventional market has actually been rather small. A 1996 study by the United States General Accounting Office (GAO) documents that FHA leads in the provision of insurance for riskier low-downpayment mortgages.⁹² The GAO report goes on to provide evidence that there has in fact been very little overlap between FHA and PMI loans. According to the GAO:

(i) 65 percent of FHA loans have downpayments of 5 percent or less, compared to 8 percent of PMI loans and less than 2 percent of loans purchased by the GSEs.

(ii) More than three-fourths of FHA-insured first-time borrowers would not have met PMI downpayment requirements. And FHA borrowers who do have the cash for a conventional loan downpayment often fail to meet the more stringent PMI credit standards.

In addition, a recent study by the Board of Governors of the Federal Reserve concluded that FHA is the primary bearer of credit risk for home purchase loans to lower-income

and black or Hispanic borrowers and in low-income and minority neighborhoods.⁹³ The Federal Reserve Board study concluded that FHA bears about two-thirds of the aggregate credit risk for low-income and minority borrowers and their neighborhoods, while private mortgage insurers bear only 6 to 8 percent of this risk, and the GSEs bear only 4 to 5 percent of this risk. With this demonstrated capacity to carry greater risk than the conventional market, FHA complements, not competes with, private sector efforts to expand homeownership opportunities.

d. The New FHA Loans Will Continue to Address Underserved Markets

Other sources confirm that the higher FHA loan limits, particularly those in the highest cost areas (but also other areas), can be useful in addressing many of the same underserved markets that FHA currently addresses. Appendix A refers to studies which show that homeownership rates for young married couples, female-headed households, center city residents, and racial and ethnic minorities lag far behind the national average. In addition, these homeownership gaps persist across income levels.

FHA, which currently serves a disproportionate share of young married couples, female-headed households, center city residents, and racial and ethnic minorities, will continue to address these underserved markets with the new loans based on higher loan limits.⁹⁴ Given these homeownership differences which persist across income levels, the higher FHA loan limits will enable FHA extend its service to underserved markets at higher income levels.

e. HMDA Denials by Income Level

Another source that suggests higher FHA loan limits can be useful in addressing many of the same underserved markets that FHA currently addresses is HMDA. Mortgage lending information gathered by the Federal Reserve Board under requirements of the Home Mortgage Disclosure Act shows that in 1996 some 350,000 households—about one in eight applicants—were denied credit in the conforming conventional market. These denials limit homebuying opportunities for both minority and white households seeking to live in urban and suburban communities. Mortgage denial rates are particularly high for racial and ethnic minorities, but white households accounted for nearly two-thirds of the 350,000 denials. In addition to the high denial rates for racial and ethnic minorities seeking to purchase homes in inner city areas, whites choosing to live in the city are

also denied mortgages at higher rates than their suburban counterparts. About a third of the 350,000 denials were made to applicants with incomes above the area median income, and nearly a fourth were made to applicants with incomes greater than 120 percent of area median income.

6. Why Small Impacts on the Conventional Market and the GSEs Are Likely

The impacts of the higher FHA loan limits on the conventional market and on the ability of the GSEs to meet their housing goals are likely to be small. The reasons for this conclusion are as follows.

First, there has been little overlap between FHA and the conventional market prior to the loan limit increase, and this is likely to be the case for newly eligible loans as well. The loan limit increase will extend FHA access to more families who are denied mortgage credit or otherwise underserved by the conventional market.

Second, the number of new FHA loans resulting from the loan limit increase is likely to be relatively small. While reasonable estimates of new FHA volume could vary, their range is likely to be under 50,000 new loans compared to FHA's total home purchase loan volume of about 800,000 in 1998. Two major Wall Street rating agencies, while not offering specific volume estimates, have suggested that the impacts of the FHA changes will be small on the private mortgage insurance industry.

Finally, many of these new FHA loans are expected to come from high cost housing markets with loan amounts typically above \$150,000 and borrowers with annual incomes in excess of \$60,000. Even at these higher loan amounts and borrower incomes, the FHA's higher premium costs would motivate most borrowers to favor conventional financing with private mortgage insurance if they qualified.

The new FHA loans are likely to come from borrowers who are being underserved by the conventional market, collectively resembling current FHA loans in many respects, but with higher loan amounts and borrower incomes. Differential homeownership rates as well as mortgage credit denials which persist across income levels for minority families and inner city residents provides evidence that underserved markets exist for FHA to serve at these higher loan amounts and incomes.

Appendix E—GSE Mortgage Data and AHAR Information: Proprietary Information/Public-Use Data

The following matrices distinguish proprietary from public-use mortgage data elements. A "YES" designation indicates that the data element is proprietary and not included in the public use database in the format indicated. A "NO", "NO, Added field", "Yes, but recode", and "YES, but redefine and recode as" indicate that the data element is included in the public use database. Certain data are coded as missing or not available either because the data was not submitted or because the data is proprietary.

The first matrix relates to GSE data on single-family owner-and renter-occupied 1–

⁹⁰ Assumes 25 percent PMI coverage, an annual PMI premium of 0.52 percent, a mortgage rate of 7.5 percent, and a discount rate of 7 percent. The PMI cost for a loan prepaid after 8 years is not shown because the PMI coverage would be canceled before the 8th year. The FHA premium is 2.25 percent upfront, plus 0.5 percent annually for 12 years. These assumptions do not reflect recent premium reduction initiatives by the GSEs and FHA under which the GSEs will reduce PMI coverage requirements and FHA will reduce its upfront premium for some borrowers. None of these initiatives have achieved high volumes as yet.

⁹¹ Assumes 30 percent PMI coverage, an annual PMI premium of 0.9 percent, a mortgage rate of 7.5 percent, and a discount rate of 7 percent. The FHA premium is 2.25 percent upfront, plus 0.5 percent for 30 years. As noted in the prior footnote, the assumptions do not reflect recent premium reduction initiatives by the GSEs and FHA.

⁹² United States General Accounting Office, 1998. "FHA's Role in Helping People Obtain Home Mortgages." GAO/RCED-96-123.

⁹³ Glenn B. Canner, Wayne Passmore, and Brian J. Surette, 1996. "Distribution of Credit Risk Among Providers of Mortgages to Lower-Income and Minority Homebuyers." *Federal Reserve Bulletin*, 82(12), 1077-1102.

⁹⁴ FHA has already been filling credit gaps by serving a disproportionate number of young first-time buyers, borrowers making low downpayments, households living in urban areas, African-Americans and Hispanics, and lower-income borrowers. HMDA data from 1996 indicate that while FHA provided mortgage credit to about 20 percent of conforming loans in metropolitan areas, it insured nearly 40 percent of all such loans made to African American or Hispanic borrowers.

4-unit properties. The second matrix relates to property-level data on multifamily properties. The third matrix relates to unit-class level data on multifamily properties.

The unit-classes are defined by the GSEs for each property and are differentiated based on the number of bedrooms in the units and on the average contract rent for the units. A unit-

class must be included for each bedroom/rent category represented in the property.

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Matrix E.1
GSE Single-Family Mortgage Data
Owner- and Renter-Occupied 1- to 4-Unit Properties
Proprietary Information/Public-Use Data

The "Census Tract File" contains mortgage-level data on all single-family properties.
 The "National File A" contains mortgage-level data on owner-occupied 1-unit properties.
 The "National File B" contains unit-level data on all single-family properties.

#	Field Description	Values	Census Tract File	National File A	National File B
0	Agency Flag	1=Fannie Mae 2=Freddie Mac	NO	NO	NO
1	Loan Number		YES, but recode as a Random Number ¹	YES, but recode as a Random Number ¹	YES, but recode as a Random Number ¹
2	US Postal State	0=Missing	NO	YES	YES
3	US Postal Zip Code		YES	YES	YES
4	MSA Code	0000=Missing	NO	YES, but recode as: 1=Metropolitan 2=Non-metropolitan 9=Missing	YES, but recode as: 1=Metropolitan 2=Non-metropolitan 9=Missing
5	Place Code - FIPS		YES	YES	YES
6	County - 1990 Census	000=Missing	NO	YES	YES
7	Census Tract/BNA - 1990 Census	000000=Missing	NO	YES	YES
8 ²	Census Tract Geographic Designation	1=Tract Entirely Within Central City 2=Tract Entirely Outside Central City 3=Central City Split Tract 9=Not Able To Code	NO	YES	YES
9 ²	Central City Flag 1	9999=Not Able To Code	NO	YES	YES
10 ²	Central City Flag 2	9998=Not Available 9999=Not Applicable	NO	YES	YES
11	1990 Census Tract - Percent Minority	9999=Not Available	NO	YES, but recode as: 1=0- <10% 2=10- <30% 3=30- 100% 9=Missing	YES, but recode as: 1=0- <10% 2=10- <30% 3=30- 100% 9=Missing

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#	Field Description	Values	Census Tract File	National File A	National File B
12	1990 Census Tract - Median Income	999999=Not Available	NO	YES	YES
13	1990 Local Area Median Income	999999=Not Available	NO	YES	YES
14	Tract Income Ratio	9999=Not Applicable	NO	YES, but recode as: 1=0- <=80% 2=80- <=120% 3= >120% 9=Missing	YES, but recode as: 1=0- <=80% 2=80- <=120% 3= >120% 9=Missing
15	Borrower(s) Annual Income	99999999=Not Available	YES, but recode in terms of dollars for year of acquisition.	YES	YES
16	Area Median Family Income	999999=Not Available or Withheld as Proprietary	YES, but recode in terms of dollars for year of acquisition.	YES	YES
17 ³	Borrower Income Ratio	9999=Not Applicable, Not Available, or Withheld as Proprietary	YES, but recode proprietary data as 9999.	YES, but recode as: 1=0- <=60% 2=60- <=100% 3= >100 9=Not Applicable	YES, but redefine and recode as: ³ 1=0- <=60% 2=60- <=100% 3= >100 9=Not Applicable
18	Acquisition UPB		YES, but recode as: Actual values for < \$200,000 999998= >=\$200,000 999999=Missing	YES	YES
19	LTV at Origination	999=Not Applicable	YES	YES, but recode as: 1=0- <=60% 2=60- <=80% 3=80- <=90% 4=90- <=95% 5= > 95% 9=Missing	YES

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#	Field Description	Values	Census Tract File	National File A	National File B
20	Date of Mortgage Note		YES	YES	YES, but recode as: 1=Originated same calendar year as acquired 2=Originated prior to calendar year of acquisition 9=Missing
21	Date of Acquisition		YES	YES	YES
22	Purpose of Loan	1=Purchase 2=Refinancing 3=Second Mortgage 4=Rehabilitation 9=Not Applicable/Not Available	NO	NO	NO
23	Cooperative Unit Mortgage	1=Yes 2=No 8=Not Available 9=Not Applicable	YES	YES	YES
24 ²	Refinancing Loan from Own Portfolio	1=Yes 2=No 9=Not Applicable	YES	YES	YES
25	Special Affordable, Seasoned Loan: Are Proceeds Recycled?	1=Yes 2=No 9=Not Applicable	YES	YES	YES
26	Product Type	01=Fixed Rate 02=ARM 03=Balloon 04=GPM/GEM 05=Reverse Annuity Mortgage 06=Other 07...98=List Other Distinct Products 99=Not Available	YES	YES	YES

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#	Field Description	Values	Census Tract File	National File A	National File B
27	Federal Guarantee	1=FHAVA 2=FMHA-Guaranteed Rural Housing Loan 3=HECMs 4=No Federal Guarantee 5=Title 1-FHA	NO	NO	NO
28	RTC/FDIC	1=Yes 2=No	YES	YES	YES
29	Term of Mortgage at Origination		YES	YES	YES
30	Amortization Term	998=Non-Amortizing Loan 999=Not Available	YES	YES	YES
31 ⁴	Lender Institution Name		YES	YES	YES
32 ⁴	Lender City		YES	YES	YES
33 ⁴	Lender State		YES	YES	YES
34	Type of Seller Institution	1=Mortgage Company 2=SAIF Insured Depository Institution 3=BIF Insured Depository Institution 4=NCUA Insured Credit Union 5=Other	YES	YES	NO
35	Number of Borrowers	99=Missing	NO	YES	YES
36	First-Time Home Buyer	1=Yes 2=No 9=Not Available	NO	YES	YES
37	Mortgage Purchased under GSE's Community Lending Program	1=FNMA's Community Homebuyer Program 2=FNMA's Community Lending Other 3=FNMA's Other Housing Impact Programs OR 1=FHLMC's Affordable Gold 2=FHLMC's Alternative Qualifying 9=Not Applicable (either GSE)	YES	YES	YES

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#	Field Description	Values	Census Tract File	National File A	National File B
38	Acquisition Type	1=Cash 2=Swap 3=Other 4=Credit Enhancement 5=Bond or Debt Purchase 6=REMIC 7=Reinsurance 8=Risk Sharing 9=REIT	YES	YES	YES
39	GSE's Real Estate Owned	1=Yes 2=No 3=Not Available	YES	YES	YES
40 ²	Public Subsidy Programs	1=Federal only 2=State or Local only 3=Other/Private Subsidy only 4=Federal and State or Local 5=Federal and Other 6=State or Local and Other 7=Federal, State or Local and Other 9=Data Not Provided	YES	YES	YES
41	Borrower Race or National Origin	1=American Indian or Alaskan Native 2=Asian or Pacific Islander 3=Black 4=Hispanic 5=White 6=Other 7=Information Not Provided by Applicant In Mail or Telephone Application 8=Not Applicable 9=Not Available	NO	NO	NO

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#	Field Description	Values	Census Tract File	National File A	National File B
42	Co-Borrower Race or National Origin	1=American Indian or Alaskan Native 2=Asian or Pacific Islander 3=Black 4=Hispanic 5=White 6=Other 7=Information Not Provided by Applicant In Mail or Telephone Application 8=Not Applicable 9=Not Available	NO	NO ⁶	NO ⁶
43	Borrower Gender	1=Male 2=Female 3=Information Not Provided by Applicant In Mail or Telephone Application 4=Not Applicable 9=Not Available	NO	YES, but recode to combine Fields 43 and 44: 1=Male(s) only 2=Female(s) Only 3=Male and Female 9=Original 3, 4, 9	YES, but recode to combine Fields 43 and 44: 1=Male(s) only 2=Female(s) Only 3=Male and Female 9=Original 3, 4, 9
44	Co-Borrower Gender	1=Male 2=Female 3=Information Not Provided by Applicant In Mail or Telephone Application 4=Not Applicable 9=Not Available	NO	YES	YES
45	Age of Borrower	999=Data Not Provided	NO	YES	YES
46	Age of Co-Borrower	999=Data Not Provided	NO	YES	YES
47 ^b	Occupancy Code	1=Principal Residence/Owner-Occupied 2=Second Home 3=Investment Property (Rental) 9= Not Available	YES, but recode as: 1= Owner-Occupied Property (1-4 Units) 2= Investment Property (1-4 Units) 9= Not Available	YES	YES, but redefine and recode as: ⁵ 1=Owner-Occupied 2=Rental Unit in an Owner-Occupied Property 3=Investment Property (Rental) 9=Not Available

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#	Field Description	Values	Census Tract File	National File A	National File B
48	Number of Units		YES	NO	NO
49	Unit - Number of Bedrooms	99=Data Not Provided	YES	YES	YES
50	Unit - Owner Occupied	1=Yes 2=No	YES	YES	NO
51	Unit - Affordability Category	1=Low-Income Family (but not Very Low-Income) in a Low-Income Area 2=Very Low-Income Family, in a Low-Income Area 3=Very Low-Income Family, Not in a Low-Income Area 4=Other 9=Not Available 0=Missing	YES	NO	NO
52	Unit - Reported Rent Level	99999=Not Applicable	YES	YES	YES
53	Unit - Reported Rent Plus Utilities	99999=Not Applicable	YES	YES	YES
54	Fannie Mae Exclusions	1=Excluded from Goal Reporting	YES	YES	YES
55 ⁴	Geographically Targeted Indicator	1=Yes 2=No 9=Not Applicable	NO, Added Field	NO, Added Field	NO, Added Field

¹ Different random number on each of the tract and national files.² Not applicable to 1996 and beyond data sets. Central city is as defined by the Office of Management and Budget.³ The borrower income ratio field is defined for rental units on National File B to reflect the affordability of units based on rent data submitted by the GSEs to the Secretary.⁴ Not applicable to 1993-1995 data sets.⁵ National File B is recoded so that rental and owner-occupied units of 2-4 unit properties can be distinguished.

Matrix E.2
GSE Multifamily Mortgage Data
Property Level
Proprietary Information/Public-Use Data

The "Census Tract File" contains property level data on all multifamily properties.
The "National File" consists of two parts: one part contains property level data and the other consists of unit-class-level data for all multifamily properties.

#	Field Description	Values	Census Tract File	National File
0	Agency Flag	1=Fannie Mae 2=Freddie Mac	NO	NO
1	Loan Number		Yes, but recode as a Random Number ¹	Yes, but recode as a Random Number ¹
2	US Postal State	00=Missing	NO	YES
3	US Postal Zip Code		YES	YES
4	MSA Code	0000=Missing	NO	YES
5	Place Code - FIPS		YES	YES
6	County - 1990 Census	000=Missing	NO	YES
7	Census Tract/BNA - 1990 Census	000000=Missing	NO	YES
8 ²	Census Tract Geographic Designation	1=Tract Entirely Within Central City 2=Tract Entirely Outside Central City 3=Central City Split Tract 9=Not Able To Code	NO	YES
9 ²	Central City Flag 1	9999=Not Able To Code	NO	YES
10 ²	Central City Flag 2	9998=Not Available 9999=Not Applicable	NO	YES
11	1990 Census Tract - Percent Minority	9999=Not Available	NO	YES, but recode as: 1=0- <10% 2=10- <30% 3=30- 100% 9=Missing
12	1990 Census Tract - Median Income	999999=Not Available	NO	YES

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#	Field Description	Values	Census Tract File	National File
13	1990 Local Area Median Income	999999=Not Available	NO	YES
14	Tract Income Ratio	9999=Not Applicable	NO	YES, but recode as: 1=0-<=80% 2=80-<=120% 3= >120% 9=Missing
15	Area Median Family Income	999999=Not Available	NO	YES
16	Affordability Category	1= >=20% are especially-low-income and <40% are very-low-income 2= <20% & >=40% 3= >=20% & >=40% 4= <20% & <40% 8=Not Available 9=Not Eligible 0=Missing	YES	NO
17	Acquisition UPB		YES, but recode as: 1= <= \$500,000 2= \$500,000-<=\$1m 3= \$1m-<=\$2m 4= \$2m-<=\$4m 5= > \$4m 9=Missing	YES
18	Participation Percent		YES	YES
19	Date of Mortgage Note		YES	YES, but recode as: 1= Originated same calendar year as acquired 2= Originated prior to calendar year of acquisition 9= Missing

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#	Field Description	Values	Census Tract File	National File
20	Date of Acquisition		YES	YES
21	Purpose of Loan	1=Purchase 2=Refinancing 3=New Construction 4=Rehabilitation 9=Not Applicable/Not Available	YES	NO
22	Cooperative Project Loan	1=Yes 2=No 8=Not Available 9=Not Applicable	YES	YES
23 ²	Refinancing Loan from Own Portfolio	1=Yes 2=No 9=Not Applicable	YES	YES
24	Special Affordable, Seasoned Loan: Are Proceeds Recycled?	1=Yes 2=No 9=Not Applicable	YES	YES
25	Mortgagor Type	1=Individual 2=For Profit Entity 3=Nonprofit Entity 4=Public Entity 5=Other	YES	YES
26	Term of Mortgage at Origination		YES	YES
27	Loan Type	1=Fixed Rate 2=ARM 3=GPM	YES	YES
28	Construction Loan	1=Yes 2=No	YES	YES
29	Amortization Term	998=Non-Amortizing Loan 999=Not Available	YES	YES
30 ³	Lender Institution		YES	YES

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#	Field Description	Values	Census Tract File	National File
31 ³	Lender City		YES	YES
32 ³	Lender State		YES	YES
33	Type of Seller Institution	1=Mortgage Company 2=SAIF Insured Depository Institution 3=BIF Insured Depository Institution 4=NCUA Insured Credit Union 5=Other	NO	NO
34	Government Insurance	1=Yes 2=No 3=FHA Risk Sharing 9=Not Available	YES	NO
35	FHA Risk Share Percent		YES	YES
36	Acquisition Type	1=Cash 2=Swap 3=Other 4=Credit Enhancement 5=Bond/Debt Purchased 6=REMIC 7=Reinsurance 8=Risk Sharing 9=REIT	YES	YES
37	GSE Real Estate Owned	1=Yes 2=No 3=Not Available	YES	YES
38	Public Subsidy Program	1=Federal only 2=State or Local only 3=Other/Private Subsidy only 4=Federal and State or Local 5=Federal and Other 6=State or Local and Other 7=Federal, State or Local and Other 9=Data Not Provided	YES	YES
39	Total Number of Units		YES	NO
40 ²	Special Affordable - 45 Percent	0=Missing or Not Applicable	YES	NO

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#	Field Description	Values	Census Tract File	National File
41 ²	Special Affordable - 55 Percent	0=Missing or Not Applicable	YES	NO
42	Fannie Mae Exclusions	1=Excluded from Goal Reporting	YES	YES
43 ³	Geographically Targeted Indicator	1=Yes 2=No 9=Not Applicable	NO, Added Field	NO, Added Field

¹ Different random numbers on tract and national files² Not applicable to 1996 and beyond data sets.³ Not applicable to 1993-1995 data sets.

Matrix E.3
GSE Multifamily Mortgage Data
Unit-Class Level
Proprietary Information/Public-Use Data

#	Field Description	Values	Census Tract File	National File
0	Agency Flag		YES	NO
1	Loan Number		YES	Yes, but recode as a Random Number ¹
44	Unit Type XX-Number of Bedrooms		YES	YES, but recode as: 1=0-1 Bedroom 2= 2 or more Bedrooms
45	Unit Type XX-Number of Units		YES	NO
46	Unit Type XX-Average Rent Level		YES	YES
47	Unit Type XX-Average Rent Plus Utilities		YES	YES
48	Unit Type XX-Affordability Level		YES	YES, but recode as: 1=0- <=50% 2=50- <=60% 3=60- <=80% 4=80- <=100% 5= > 100% 9=Not Available
49	Unit Type XX-Tenant Income Indicator	0=No or Not Provided 1=Yes	YES	NO

¹ This number will match the property level random number on the national file.