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GOAL PERFORMANCE AND CHARACTERISTICS OF MORTGAGES PURCHASED BY FANNIE MAE AND FREDDIE MAC, 1998-2000

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Comments Welcome

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ABSTRACT

This paper (an update of HF-006) analyzes the performance of Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market, in meeting the housing goals established by HUD for 1998-2000. It also presents information on detailed borrower, locational, and loan characteristics of single-family mortgages purchased by the GSEs in this period. The report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that the GSEs passed all of their housing goals in 1998-2000 and generally achieved the highest levels of performance on the housing goals to date in 2000. It also finds that in most areas, by 2000 Freddie Mac had eliminated the performance gap with Fannie Mae that had existed in previous years.

Goal Performance and Characteristics of Mortgages Purchased By Fannie Mae and Freddie Mac, 1998-2000[1]

I. Introduction and Main Findings

This paper reports on the performance of Fannie Mae and Freddie Mac, government-sponsored enterprises (GSEs) in the secondary mortgage market, on goals established for their mortgage purchases by the HUD Secretary. It also provides information on basic characteristics of the loans purchased by these GSEs in recent years.

A. Introduction

Fannie Mae and Freddie Mac are the two largest sources of housing finance in the United States. They fund the mortgages they acquire by purchasing loans directly from mortgage originators in the primary market, such as mortgage bankers and depository institutions, and holding these loans in portfolio, or by acting as a conduit and issuing mortgage-backed securities (MBS), which are then sold in the capital markets to a wide variety of investors. HUD has estimated that 11.7 million single-family and multifamily dwelling units were financed by conventional conforming mortgages in 1998, and that the GSEs provided financing for 55 percent of these units.[2]

HUD is the mission regulator for Fannie Mae and Freddie Mac, and a major aspect of this regulation involves setting minimum percentage-of-business goals for the GSEs' mortgage purchases. These housing goals measure the enterprises' support for very low-income and low- and moderate-income lending and lending in underserved geographic areas. Given the GSEs' dominant role in the mortgage market, the housing goals play an important role in encouraging mortgage originators to undertake more affordable lending. In October 2000 the Department updated and increased the levels of these goals for the years 2001-03.

In 1992 Congress expressed concern about an "information vacuum" with regard to the activities of Fannie Mae and Freddie Mac.[3] To provide for enhanced oversight and

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[1] The author gratefully acknowledges the computer and data assistance of Ian Keith and Nana Farshad. Helpful comments on an earlier draft were received from Sandra Fostek, Harold Bunce, John Gardner, Mike Price, and Phyllis Armstrong. The author assumes responsibility for any errors.

[2] These data are presented in Table A.7b of HUD's regulation of the GSEs, published in the *Federal Register*, Volume 65, October 31, 2000, p. 65128. Conventional mortgages exclude loans that are insured by the Federal Housing Administration or the Rural Housing Administration or guaranteed by the Veterans Administration. Conforming mortgages are those with an unpaid principal balance no greater than the maximum allowable under the GSEs' charter acts—$275,000 for 1-unit properties in most areas of the United States in 2001.

[3] See the *Federal Housing Enterprises Regulatory Reform Act of 1992*, Senate Report 102-282, 102nd Congress, 2nd. Session at 39 (1992) for Congressional concerns about the lack of information on the activities of Fannie Mae and Freddie Mac.

regulation of these two enterprises and to increase information about the GSEs' operations, Congress enacted the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA). This act established the current regulatory structure for the GSEs. Specifically, it:

- Required the Secretary of HUD to establish annual affordable and geographic goals for the GSEs' purchases of mortgages. Under this authority, the Secretary initially set goals for 1993-95 (referred to as the "transition period"), raised them for 1996-2000, and raised them again for 2001-03.[4]

- Provided for financial safety-and-soundness oversight of the GSEs by the Office of Federal Housing Enterprise Oversight (OFHEO), an independent office within HUD which establishes capital standards for the enterprises and conducts regulatory examinations of their operations.

- Maintained programmatic oversight of the GSEs by the Secretary in all areas other than financial safety-and-soundness, under the Secretary's general regulatory power.

- Provided for review and approval or disapproval of the GSEs' new program requests by the Secretary.

- Required the Secretary to issue regulations pertaining to the prohibition of discrimination by the GSEs, and called for the Secretary to periodically review and comment on the GSEs' underwriting and appraisal guidelines.

- Required the GSEs to submit loan-level data to the Secretary about the mortgages they purchase, including detailed borrower, property, and mortgage characteristics.

FHEFSSA further required HUD, after taking proprietary considerations into account, to make the loan-level data submitted by the GSEs available to interested parties in the form of a public use database.[5] The Act also called for the Department to analyze data on the GSEs' operations, in order to report to Congress and the public on the extent to which the GSEs are achieving their statutory purposes. This paper is the thirteenth in a series, *Working Papers in Housing Finance,* issued since December 1996. These papers are intended to help alleviate the "information vacuum" regarding the GSEs' activities that Congress found in 1992.

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[4] HUD's current regulations regarding the GSEs, as revised on October 31, 2000, are contained in Title 24, Part 81 of the *Code of Federal Regulations*.

[5] The specifications of the public use database are presented in the *Federal Register*, Volume 61, October 17, 1996, pp. 54322-54329. This database is also discussed in "New Public Data on Fannie Mae and Freddie Mac," *U. S. Housing Market Conditions*, May 1997. Data has been released for the years 1993-2000.

This paper is the third in a series of papers which review broadly the characteristics of the mortgages purchased by Fannie Mae and Freddie Mac, including their performance under the housing goals and loan and borrower characteristics.[6] Section II reviews Fannie Mae's and Freddie Mac's mortgage purchases by major property type. Section III presents information on the GSEs' performance on the housing goals established by HUD since 1993, with particular emphasis on performance since 1996, when permanent HUD-established goals came into effect.[7] Section IV presents basic characteristics (borrower income and race, type of neighborhood, loan characteristics) of the GSEs' purchases of loans on one-family properties in 1998-2000, updating earlier analyses which focused on the 1993-95 and 1996-97 periods.[8]

The analysis in this paper is based on the loan-level data that the GSEs submit annually to HUD about the mortgages they purchase. In some cases certain data elements are missing from the loan-level data. Appendix B contains a discussion of the nature, extent, and trends in this "missing data problem" for recent years. Data on various characteristics of the GSEs' mortgage purchases for some years is contained in the tables in Appendix C.

B. Main Findings

The main findings of this report are:

- Both GSEs far surpassed each of the three housing goals established by the Department in 2000. On the *low- and moderate-income goal*, Fannie Mae's performance was 49.4 percent and Freddie Mac's performance was 49.9 percent, exceeding the goal of 42 percent. On the *underserved areas goal*, Fannie Mae's performance was 31.0 percent and Freddie Mac's performance was 29.2 percent, well above the goal of 24 percent. On the *special affordable goal*, Fannie Mae's performance was 19.2 percent and Freddie Mac's performance was 20.7 percent, exceeding the special affordable goal of 14 percent.

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[6] The previously-released papers are Paul B. Manchester, Sue George Neal, and Harold L. Bunce, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 1993-95,* Working Paper No. HF-003 (March 1998), and Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996-97 Update,* Working Paper No. HF-006 (August 1998).

[7] Under FHEFSSA, interim goals became effective in 1993. Appendix A describes the structure of and performance on the goals for 1993-95.

[8] Four other papers have focused on comparisons between the GSEs and the primary mortgage market. They are Harold L. Bunce and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans,* Working Paper No. HF-001 (December 1996) and *The GSEs' Funding of Affordable Loans: 1996 Update,* Working Paper No. HF-005 (July 1998), and Harold L. Bunce, *The GSEs' Funding of Affordable Loans: A 1999 Update,* Working Paper No. HF-012 (December 2000) and *The GSEs' Funding of Affordable Loans: A 2000 Update,* Working Paper No. HF-013 (April 2002). Additional analyses and market comparisons are contained in HUD's rule establishing the GSEs' housing goals for 2001-03, published in the *Federal Register*, Volume 65, October 31, 2000, pages 65043-65229.

- Freddie Mac achieved its highest performance in 2000 on each of the three housing goals, which took effect in 1996, and Fannie Mae achieved its highest performance in 2000 on the low- and moderate-income and special affordable housing goals.

- Freddie Mac generally lagged behind Fannie Mae in performance on the housing goals in the mid-1990s, but surpassed Fannie Mae on the low- and moderate-income and special affordable housing goals in 2000.

- Despite changes in interest rates over the 1993-2000 period and the resulting impacts on home purchase and refinance mortgage volume, the shares of both GSEs' purchases of loans on one-family owner-occupied properties qualifying for the two income-based goals rose steadily between 1993 and 2000. (Overall performance varied over this period due to changes in the volume and nature of the GSEs' purchases of mortgages on rental properties.)

- Loans to refinance existing mortgages were more likely to qualify for the housing goals in 2000 than loans taken out to purchase homes, and purchases of seasoned mortgages (those originated in previous years) generally increased the GSEs' overall goal performance in 2000.

- The shares of Freddie Mac's purchases of single-family loans for a number of categories of borrowers or locations were at record levels in 2000. As a result, and because peaks occurred for Fannie Mae in previous years for most categories, there was a substantial degree of convergence between the two GSEs in many categories of targeted single-family lending between 1997 and 2000.

- African American borrowers accounted for about 4 percent of each GSE's single-family home purchase mortgages in 2000, which was a modest increase from the levels attained in 1998-99, but below the peak level attained by Fannie Mae in earlier years.

- Hispanics' shares of both GSEs' single-family home purchase loans have increased somewhat over time, and rose sharply to record levels for both enterprises in 2000, with Fannie Mae continuing to outdistance Freddie Mac in this regard.

Additional, more detailed findings are contained in the concluding sections of Sections II, III, and, especially, IV.

The Department raised the GSEs' housing goals significantly for 2001—the low- and moderate-income goal from 42 percent to 50 percent, the underserved areas goal from 24 percent to 31 percent, and the special affordable goal from 14 percent to 20 percent. Information on the enterprises' housing goal performance in 2001 will be available in Spring 2002.

II. Overview of the GSEs' Mortgage Purchases in 1998-2000

Fannie Mae and Freddie Mac are exceptionally large business operations, both in terms of mortgages purchased and total dwelling units financed (see data for 2000 in Table 1; corresponding data for 1998-99 is shown in Tables C.1-C.2 of Appendix C). In 2000, Fannie Mae's mortgage purchases of $235 billion financed almost 2.3 million dwelling units, while Freddie Mac's mortgage purchases of $175 billion financed nearly 1.7 million units. Reflecting market trends, both GSEs' purchases were lower in 2000 than in 1999, and substantially below the record levels achieved during the refinancing wave of 1998, when Fannie Mae purchased $368 billion in mortgages and Freddie Mac purchased $273 billion, financing 3.7 million and 2.7 million dwelling units respectively (see Figure 1.) Due to the strong housing market and the demand for refinance mortgages, the record mortgage volume of 1998 had already been surpassed by the end of the third quarter of 2001.[9]

A. GSEs' Business by Major Property Type

The GSEs have traditionally focused on mortgages for one-unit owner-occupied properties, but in recent years they have become increasingly involved in the mortgage markets for all types of properties. Recent statistics on the GSEs' business by property type are presented in this section.

Mortgages on One-Family Owner-Occupied Properties. Mortgages purchased by the GSEs are primarily secured by one-family owner-occupied properties. Of all the housing units financed by the GSEs in 2000, for example, 77 percent of Fannie Mae's units and 83 percent of Freddie Mac's units were in these properties (see Figure 2.) HUD has estimated that such properties typically account for about 72 percent of all dwelling units financed in the conventional conforming market.[10] Thus both GSEs focus their business somewhat more on one-family owner-occupied properties than does the overall market.

Mortgages on Single-Family Rental Properties. The GSEs also purchase mortgages on single-family rental properties, which include both 1- to 4-unit investor-owned properties with no owner-occupied units, and 2- to 4-unit properties that contain one owner-occupied unit and one or more rental units.[11] HUD's analysis indicates that single-family rental mortgage purchases accounted for 7 percent of total dwelling units financed by Freddie Mac

[9] See "Fannie Mae Reports Record Third Quarter 2001 Financial Results," Fannie Mae news release, October 15, 2001, and Freddie Mac, "Third Quarter 2001 Investor Analyst Report," October 2001. Also, the National Association of Realtors reports that despite a decline in existing home sales in September, sales for the first 9 months of 2001 were slightly ahead of the record volume attained in 1999.

[10] HUD estimated primary mortgage market shares by property type in the rule establishing the housing goals for 2001-03, published in the *Federal Register*, Volume 65, October 31, 2000.

[11] Data on the volume of the GSEs' single-family rental purchases backed by 2- to 4-unit owner-occupied properties include the owner-occupied units.

and 10 percent of total dwelling units financed by Fannie Mae in 2000. HUD has estimated that these properties typically account for about 13 percent of units financed in the conventional conforming mortgage market.

Mortgages on Multifamily Properties. The GSEs also purchase mortgages on multifamily properties--rental properties containing 5 or more units. After withdrawing from the multifamily mortgage market in the early 1990s, Freddie Mac reentered this market near the end of 1993, though it had negligible multifamily purchase volume ($191 million) for that year. Its volume grew steadily through 1998 to $6.6 billion and then rose sharply to $7.6 billion in 1999, before declining to $6.8 billion in 2000. Despite the increases, Freddie Mac's multifamily purchases accounted for only 10 percent of the units it financed in 2000.[12] In comparison, HUD has estimated that multifamily mortgages typically account for about 15 percent of the total number of dwelling units financed in the conventional conforming market.

Fannie Mae was much more active than Freddie Mac in the multifamily mortgage market for most of the 1990s, although Freddie Mac closed this gap near the end of the decade. Fannie Mae's multifamily purchases reached a record level of $12.5 billion in 1998, then declined to $9.4 billion in 1999 before rising to $10.1 billion in 2000. Fannie Mae's multifamily purchases represented 13 percent of the enterprise's overall business in terms of total units financed in 2000, above the corresponding figure of 10 percent for Freddie Mac in 2000.[13]

B. GSEs' Share of the Market

The GSEs' purchases accounted for a rising share of mortgages originated in the single-family conventional conforming market between 1980 and 1993 (see Figure 3.) In the early 1980s, the GSEs' share ranged from 12 to 34 percent of the dollar volume of originations in that market. In the high volume origination years of 1986 and 1987, the GSEs' share rose to about 45 percent, and then rose dramatically in the early 1990s, reaching a peak of 71 percent during the high refinancing year of 1993. In 1994, the GSEs' share of the market dropped to 55 percent, due primarily to a greater volume of adjustable-rate mortgages (ARMs).[14] The GSEs' market share fell further to 49 percent in 1995, remained below 55

[12] Multifamily purchases consistently represent a greater percentage of total units financed than of the dollar amount of mortgages purchased. This reflects the fact that multifamily mortgages generally have a much lower mortgage amount per unit than mortgages on one-family owner properties (e.g., $37,000 versus $112,000 for the GSEs' combined purchases in 2000; the disparity was even greater in earlier years).

[13]A greater presence in the multifamily market is a major reason why Fannie Mae's performance on the housing goals consistently exceeded Freddie Mac's record for most of the 1990s. Also, the increase in the multifamily share of Freddie Mac's mortgage purchases between 1993 and 2000 is a major reason for the gains in its performance on the housing goals over this period.

[14]Banks and thrifts are less likely to sell ARMs, which involve little interest rate risk, than fixed-rate mortgages to the GSEs. They generally hold ARMs in their portfolios.

percent in 1996-97, rose above 60 percent in 1998-99, and declined to 55 percent in 2000. Despite these yearly swings, the longer-term trend shows that the GSEs have accounted for an increasing share of the single-family conventional conforming mortgage market.

The GSEs' purchases have represented a smaller share of the multifamily market than of the single-family market. Conventional multifamily mortgage originations amounted to an estimated $52-55 billion in 1998 and $45-48 billion in 1999.[15] The GSEs' combined purchases of $19 billion and $17 billion amounted to about 36 percent of originations in these two years. The GSEs' share of this market has risen from an estimated level of 25 percent in 1997.

C. Conclusions

The section has provided a brief overview of the GSEs' mortgage purchases between 1998 and 2000. Following broad market patterns, the GSEs' mortgage purchases reached record highs during the refinancing wave of 1998, before declining in 1999 and falling further in 2000. In each year, the distribution of the GSEs' purchases by major property type differed from the corresponding distribution of market originations--the GSEs' focus their business much more on mortgages on one-family owner-occupied properties than the overall market. Their business is less focused on mortgages on single-family rental and multifamily properties than the overall market.

Since the mid-1990s, the GSEs have generally purchased at least 50 percent of the dollar volume of single-family mortgages originated in the conforming conventional mortgage market, peaking at 63 percent in 1999. In 1999, they accounted for about 37 percent of the dollar volume of originations in the multifamily mortgage market.

[15] These estimates are from Table D.10 of HUD's final rule on the GSEs' housing goals for 2001-03, published in the *Federal Register*, Volume 65, October 31, 2000, p. 65200. The range of estimates reflects the lack of a comprehensive database on multifamily mortgage originations.

III. Analysis of GSEs' Performance on HUD's Housing Goals in 2000

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA) requires the Secretary of HUD to establish three broad affordable housing goals for each of the GSEs: (1) a low- and moderate-income goal; (2) a geographically-targeted goal, for housing located in underserved areas; and (3) a targeted income-based goal for special affordable housing. This section discusses these housing goals and analyzes the GSEs' performance on the goals in 2000, with some analyses of recent trends.

A. Definitions of Housing Goals

In accordance with FHEFSSA, in December 1995 HUD issued housing goals for the GSEs for 1996-99, which were subsequently extended to 2000. These goals revised and restructured the goals which were in effect for 1993-95. The 1996-2000 goals were:

- A *low- and moderate-income goal*, which targeted mortgages on housing for families with income at or below area median income. This goal was set at 40 percent of total units financed by each of the GSEs in 1996, and at 42 percent for each year from 1997 through 2000.

- A *geographically-targeted goal*, which targeted mortgages on properties located in "underserved areas," defined by HUD as low-income and high-minority census tracts (excluding high-income, high-minority tracts). This goal was set at 21 percent of total units financed by each of the GSEs in 1996, and at 24 percent for each year from 1997 through 2000.

- A *special affordable goal*, which targeted mortgages on housing for very low-income families (those with incomes no greater than 60 percent of area median income) and low-income families living in low-income neighborhoods. This goal was set at 12 percent of total units financed by each of the GSEs in 1996, and at 14 percent for each year from 1997 through 2000.

- *Special affordable multifamily subgoals*, for very low-income renters and low-income renters living in low-income neighborhoods in multifamily properties. These subgoals were expressed in terms of a minimum dollar volume of purchases for each GSE, unlike the percentage-based goals above. Specifically, these subgoals were set at $1.29 billion per year for Fannie Mae and $988 million per year for Freddie Mac, for each year from 1996 through 2000.

The performance of the GSEs for all years from 1993 through 2000 and the levels of the goals for 1996 and 1997-2000 are presented in Table 2 and shown in Figures 4-6.[16] The

[16] The figures in Table 2 for 1993-95 indicate what housing goal performance would have been if the 1996-2000 goal structure had been in effect in those years.

figures on goal performance are based on HUD's analysis of loan-level data submitted to the Department by the GSEs.[17]

The 1996-2000 goals replaced those that were in effect for the 1993-95 "transition period." The major change was that the focus of the geographically-targeted goal was shifted from central cities, as defined periodically by the Office of Management and Budget, to "underserved areas" in cities, suburbs, and rural areas, as defined by HUD after considerable research on mortgage originations and loan denial rates. The special affordable goal was also reformulated as a percentage-of-business goal from the dollar-based goals of the transition period, and its structure was simplified. A focus on multifamily mortgages was retained through the special affordable multifamily subgoals. The 1993-95 goals and the GSEs' performance on those goals are summarized in Appendix A.[18]

B. Overall Goal Performance in 2000

HUD's analysis of loan-level data for 2000 finds that both Fannie Mae and Freddie Mac showed strong gains in performance and exceeded all of the housing goals set for them by the Department for in 2000:

- On the *low- and moderate-income goal*, Fannie Mae's performance was 49.4 percent (45.9 percent in 1999), and Freddie Mac's performance was slightly higher, at 49.9 percent (46.1 percent in 1999). Both GSEs far surpassed the low-mod goal of 42 percent, and approached the 50 percent goal that HUD has established for 2001-03.

- On the *underserved areas goal*, Fannie Mae's performance was 31.0 percent (26.8 percent in 1999), and Freddie Mac's performance was somewhat lower, at 29.2 percent (27.5 percent in 1999). Both enterprises exceeded the underserved areas goal of 24 percent by a wide margin, and reached or neared the 31 percent goal established for 2001-03.

- On the *special affordable goal*, Fannie Mae's performance was 19.2 percent (17.6 percent in 1999), and Freddie Mac's performance was higher, at 20.7 percent (17.2 percent in 1999). Both GSEs were well above the special affordable goal of

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[17] In some cases these figures differ from performance as reported by the GSEs in their Annual Housing Activity Reports (AHARs), submitted annually to the Department.

[18] For a full discussion of the transition period housing goals, see Chapter 3 of HUD's privatization study, *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility, A HUD Report*, Office of Policy Development and Research, HUD, July 1996.

14 percent, and neared or reached the 20 percent goal established for 2001-03.[19]

- On the dollar-based *special affordable multifamily subgoals,* Fannie Mae's purchases amounted to $3.79 billion--nearly three times its goal of $1.29 billion; Freddie Mac's purchases amounted to $2.40 billion--approximately 2.5 times its goal of $0.99 billion.

Overall, in 2000 both GSEs attained the highest levels of performance on each of the goals since the goals for 1996-2000 were established in 1995. And, as noted, in some cases their records on the goals in 2000 exceeded the higher goal levels established for the 2001-03 period.

One reason for the gains in GSE performance on the housing goals in 2000 may be that in July 1999 HUD stated that it planned to raise the goals above the 1999 level in two steps. The Department indicated that it would establish interim goals for 2000, with the goals to be established at the levels discussed above for 2001-03. For example, the Department planned to raise the low- and moderate-income goal from 42 percent in 1999 to 48 percent in 2000 and 50 percent in 2001. As it turned out, the goals were left at the 1999 level for 2000, and then raised for 2001 without an interim step. But the GSEs may have stepped up their goal-qualifying business in 2000 in response to HUD's intention to establish interim goals for that year.

C. Analysis of Changes in Goal Performance Between 1999 and 2000

As mentioned, Fannie Mae and Freddie Mac both demonstrated significant gains in performance on all of the housing goals in 2000, as shown in Figures 4-6.[20] Although both enterprises also surpassed their dollar-based special affordable multifamily subgoals by wide margins in 2000, their purchases in this area were not at record levels.

Low- and Moderate-Income Goal Performance. Fannie Mae's performance on the low- and moderate-income goal rose by 3.5 percentage points in 2000. This reflected an increase in the low-mod share of its single-family mortgage purchases, from 40.6 percent in 1999 to 42.8 percent in 2000, and to an increase in the multifamily share of its goal-eligible units, from 10 percent in 1999 to 13 percent in 2000.[21]

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[19] Fannie Mae reported its performance on the special affordable goal as 22.3 percent. The difference between the Fannie Mae-reported figure and the official HUD figure (19.2 percent) on special affordable goal performance results from HUD's goal-counting provisions regarding "recycling" of proceeds from the sale of seasoned special affordable mortgages.

[20] The units financed by one mortgage can be counted toward more than one of the housing goals.

[21] An increase in the multifamily share of units raises performance on the low- and moderate-income goal because more than 90 percentage of such units typically qualify for this goal.

Freddie Mac's performance on the low- and moderate-income goal rose by 3.8 percentage points in 2000. This primarily reflected an increase in the low-mod share of its single-family mortgage purchases, from 41.9 percent in 1999 to 45.0 percent in 2000.[22]

Special Affordable Goal Performance. Fannie Mae's performance on the special affordable rose by 1.6 percentage points in 2000. As in the case of the low-mod goal, this reflected an increase from 1999 in the special affordable share of its single-family mortgage purchases, and to an increase in the multifamily share of its goal-eligible units.

Freddie Mac's performance on the special affordable goal rose by 3.5 percentage points in 2000. Also as in the case of the low-mod goal, this was primarily due to an increase from 1999 in the special affordable share of its single-family mortgage purchases. Other factors were an increase in the special affordable share of its multifamily purchases, and an increase in the multifamily share of its goal-eligible units, reflecting Freddie Mac's increased focus on its multifamily business.

On the special affordable multifamily subgoal, Freddie Mac's purchases increased slightly to $2.40 billion in 2000, from $2.26 billion in 1999. Fannie Mae's special affordable multifamily mortgage purchases declined somewhat, from $4.06 billion in 1999 to $3.79 billion in 2000. As mentioned above, both GSEs comfortably passed their special affordable multifamily subgoals in 2000.

Underserved Areas Goal Performance. Fannie Mae's performance on the underserved areas goal increased sharply in 2000 to 31.0 percent, up from 26.8 percent in 1999. As with the income-based goals, this reflected a higher goal-qualifying share of its single-family mortgage purchases and an increase in the multifamily share of its goal-eligible units, but the latter factor was less important for this goal than for the income-based goals.

Freddie Mac's performance on the underserved areas goal also increased in 2000, from 27.5 percent in 1999 to 29.2 percent in 2000, but this was less than half the gain achieved by Fannie Mae. Freddie Mac's improved goal performance was due to an increase in the share of its single-family mortgage purchases on properties located in underserved areas.

D. Longer Term Trends in Goal Performance

Freddie Mac generally lagged behind Fannie Mae in goal performance for 1996-98, as indicated in Figures 4-6 and Table 2. Freddie Mac's performance improved relative to Fannie Mae in 1999-2000, because it increased the goal-qualifying shares of its single-family business and because it rebuilt its multifamily mortgage business after withdrawing from this

[22] Other minor factors were the slight increase in the multifamily share of its goal-eligible units, from 9 percent to 10 percent, and the increase in the low-mod share of its multifamily units, from 90 percent to 92 percent.

market in the early 1990s.[23] As a result, Freddie Mac has outperformed Fannie Mae in several areas in the last two years.

Fannie Mae's performance on the low- and moderate-income goal was consistently in the 44-46 percent range between 1996 and 1999, before jumping to more than 49 percent in 2000. Freddie Mac showed more gradual progress over the entire period, but also showed a spike in performance to nearly 50 percent in 2000. Similar patterns occurred with regard to the GSEs' performance on the special affordable goal.

There was no clear trend in Fannie Mae's performance on the geographically-targeted (underserved areas) goal between 1996 and 1999, while Freddie Mac's performance on this goal rose over this period, from 25.0 percent in 1996 to 27.5 percent in 1999. Both GSEs experienced significant gains and their best performance to date on this goal in 2000, with Freddie Mac's performance rising to 29.2 percent and Fannie Mae's performance rising from 26.8 percent in 1999 to 31.0 percent in 2000.

E. Comparison of GSEs' Goal Performance in 2000 by Property Type

In comparing the GSEs' goal performance, it is useful to break out the GSEs' mortgage purchases by property type, because the goal-qualifying shares differ between property types, and because the relative importance of various property types in the mortgage market varies over time.

Low- and Moderate-Income Goal. Analysis of data reported by the GSEs for 2000 indicates that Freddie Mac outperformed Fannie Mae by 2.3 percentage points in the share of its single-family business (including both owner-occupied and rental 1-4 unit properties) for low- and moderate-income families. Freddie Mac's overall advantage in low-mod goal performance was much smaller (0.5 percentage point) because of differences between the two GSEs in the breakdown of their business between single-family and multifamily mortgages. Specifically, although more than 90 percent of both GSEs' multifamily units qualified for the low-mod goal, such units accounted for 13 percent of Fannie Mae's goal-eligible business, but only 10 percent of Freddie Mac's business. Thus Fannie Mae's greater presence in the "goal-rich" multifamily market offset most of Freddie Mac's superior performance in the low-mod share of its single-family loans.

Special Affordable Goal. With regard to purchases of special affordable mortgages, Fannie Mae's greater role in the "goal-rich" multifamily market was not sufficient to offset the greater share of Freddie Mac's single-family loans qualifying for this goal. Specifically, Freddie Mac outperformed Fannie Mae by 3.3 percentage points in the share of its single-

[23] Multifamily units accounted for only 0.5 percent of total units financed by Freddie Mac in 1993 but 10 percent of the units it financed in 2000. Since 92 percent of these units qualified for the low-mod goal in 2000, the increase in the multifamily share accounted for a significant portion of Freddie Mac's overall gain in performance on this goal during the 1993-2000 period.

family business for special affordable families.[24] This was offset by the fact that multifamily units accounted for 13 percent of Fannie Mae's goal-eligible business, compared with only 10 percent of Freddie Mac's goal-eligible business. Fannie Mae also had a somewhat higher share of its multifamily units qualifying for the special affordable goal than Freddie Mac. But overall, Freddie Mac still outperformed Fannie Mae by 1.5 percentage points on the special affordable goal in 2000.

Underserved Areas Goal. The biggest gap between the GSEs in goal performance for 2000 was on the underserved areas goal, where Fannie Mae's performance exceeded Freddie Mac's performance by 1.8 percentage points. HUD has defined underserved areas as low-income and high-minority census tracts in metropolitan areas, with a similar county-based definition for nonmetro areas. HUD's research has shown that such areas have high mortgage denial rates and low mortgage origination rates, suggesting difficulty in obtaining access to mortgage credit.

The primary reason for Fannie Mae's superior performance on the underserved area goal in 2000 is that the underserved area share of its single-family purchases exceeded the corresponding share for Freddie Mac by 1.7 percentage points. The single-family/multifamily breakdowns of the GSEs' business were much less important for this goal than for the two income-based goals, because for both GSEs, the shares of multifamily units located in underserved areas were not much greater than the corresponding shares for single-family units.[25] This contrasts with the two income-based goals, where multifamily units were much more likely to qualify than single-family units.

F. Changes in the Housing Goals and Counting Rules for 2001-03

Levels of the Goals for 2001-03. On October 31, 2000, HUD published its final rule regarding the housing goals for the GSEs for the 2001-03 period. The structure of the goals is basically the same as that which prevailed for 1996-2000, but the levels of the goals have been increased substantially:

- The low- and moderate-income goal has been increased from 42 percent for 1997-2000 to 50 percent for 2001-03.

- The underserved areas goal has been increased from 24 percent for 1997-2000 to 31 percent for 2001-03.

[24] Fannie Mae reported that the special affordable share of its single-family loans was 16.8 percent; HUD's lower figure of 14.3 percent reflects the goal-counting provisions mentioned in Footnote 4.

[25] Specifically, 37 percent of Fannie Mae's multifamily units and 30 percent of its single-family units qualified for the low-mod goal in 2000; the corresponding figures for Freddie Mac were 36 percent and 28 percent. There are much greater disparities between the shares of multifamily and single-family units qualifying for this goal and for the special affordable goal.

- The special affordable goal has been increased from 14 percent for 1997-2000 to 20 percent for 2001-03; the special affordable multifamily subgoal for Fannie Mae has been increased from $1.29 billion annually for 1996-2000 to $2.85 billion annually for 2001-03; the special affordable multifamily subgoal for Freddie Mac has been increased from $0.99 billion annually for 1996-2000 to $2.11 billion annually for 2001-03.

These increases in the goals will move them closer to HUD's estimates of the shares of units financed in the conventional conforming primary mortgage market that qualify for the goals. Specifically, the low-mod goal of 50 percent is at the lower end of the estimated 50-55 percent of units financed in the primary market that qualify for this goal. The underserved areas goal of 31 percent is in the estimated range of 29-32 percent of units financed in the primary market that qualify for that goal. Only the special affordable goal, set at 20 percent (the highest percentage increase of any of the goals), is set below the estimated primary market range of 23-26 percent.

Changes in the Counting Rules for 2001-03. There are a number of changes in the counting rules underlying the calculation of goal performance that have been adopted for 2001-03:

- In the past, if a GSE lacked data on rent for rental units or on borrower income for owner-occupied units in properties whose mortgages it purchased, such units were included in the denominator, but not in the numerator, in calculating goal performance. Since some of these units likely would have qualified for one or more of the housing goals, this rule lowered goal performance. Under the new counting rules, the GSEs are allowed to exclude loans with missing borrower income from the denominator if the property is located in a below-median income census tract. This exclusion is subject to a ceiling of 1 percent of total owner-occupied units. They are also allowed to exclude rental units with missing rental information from the denominator in calculating goal performance. Alternatively, they can develop "proxy rents" for multifamily units, up to a maximum level, and use such rents in measuring goal performance. These modifications in the counting rules are referred to as *technical changes* below.

- In the past, the GSEs have played a minor role in financing certain types of properties, including 2-4 unit owner-occupied properties and 5-50 unit ("small") multifamily properties. To encourage the GSEs to step up their activities in these markets, each unit in a small multifamily property will count as two units in the numerator in calculating goal performance for 2001-03. And, above a threshold, each unit in a 2-4 unit owner-occupied property will also count as two units in the numerator. These modifications in the counting rules are referred to as *bonus points* below.

- As part of the Consolidated Appropriations Act of 2000, Congress required the

Department to award 1.35 units of credit for each unit financed in “large” multifamily properties (i.e., those with 51 or more units) in the numerator in calculating performance on the housing goals for Freddie Mac for 2001-03. This provision, which does not apply to goal performance for Fannie Mae, is referred to as the *temporary adjustment factor* below.

Performance in 2000 under Counting Rules in Effect for 2001-03. In order to provide comparability between goal performance which will be reported for 2001-03 and performance prior to 2001, HUD has estimated how the GSEs would have performed on the housing goals in 2000 if the current counting rules had been in effect in 2000.

- After taking into account technical changes and bonus points, Fannie Mae’s performance on the low- and moderate-income goal would have been 52.5 percent (rather than 49.4 percent) in 2000, and Freddie Mac’s performance would have been 51.8 percent (rather than 49.9 percent) in 2000. With the further advantage of the temporary adjustment factor, Freddie Mac’s performance would have been 55.1 percent.

- With regard to the special affordable goal, taking into account technical changes and bonus points, Fannie Mae’s performance would have been 22.2 percent (rather than 19.2 percent) in 2000, and Freddie Mac’s performance would have been 21.7 percent (rather than 20.7 percent) in 2000. With the further advantage of the temporary adjustment factor, Freddie Mac’s performance would have been 23.4 percent.

- On the underserved areas goal, taking into account technical factors and bonus points, Fannie Mae’s performance would have been 32.2 percent (rather than 31.0 percent) in 2000, and Freddie Mac’s performance would have been 30.1 percent (rather than 29.2 percent) in 2000. With the further advantage of the temporary adjustment factor, Freddie Mac’s performance would have been 31.4 percent in 2000.

G. Conclusions

Fannie Mae and Freddie Mac showed strong gains in performance and surpassed all of their housing goals for 2000 by wide margins. Both GSEs achieved the highest levels of goal performance since the 1996-2000 goals were established in 1995. The analysis in this section contains various disaggregations of performance by property type, loan purpose, and loan seasoning. The primary factor underlying the outstanding performance was the sharp gains in the goal-qualifying shares of the GSEs’ single-family mortgages in 2000. As discussed above, these gains may have resulted in part from an anticipated interim increase in HUD’s housing goals in 2000. Changes in multifamily volume and the goal-qualifying shares of multifamily loans also played some role in achieving record goal performance in 2000.

One question not analyzed in this report is whether or not the GSEs' performance on the housing goals in 2000 increased relative to the goal-qualifying shares of loans originated in the primary mortgage market. Such an analysis, based on data submitted on mortgage originations by primary market lenders in accordance with the Home Mortgage Disclosure Act (HMDA), was recently published by the Department.[26]

[26] Harold L. Bunce, *The GSEs' Funding of Affordable Loans: A 2000 Update*, Working Paper No. HF-013 (April 2002).

IV. Loan, Borrower, and Neighborhood Characteristics of Mortgages on One-Family Owner-Occupied Properties Purchased by the GSEs, 1998-2000

The GSEs have stepped up their presence in both the multifamily and single-family rental markets in recent years, but they still do the bulk of their business in loans on one-family owner-occupied housing. Such loans are generally less likely to qualify for the housing goals than loans on other types of properties, but they do account for the majority of units qualifying for each of the housing goals. Accordingly, this chapter analyzes trends in loan and borrower characteristics for these mortgages.

As reported above in Table 1, owner-occupied one-unit mortgages accounted for 82 percent and 75 percent of the total units in properties whose mortgages were purchased by Freddie Mac and Fannie Mae, respectively, in 2000. Because they play such an important role in the GSEs' activities, and because more data are available on these loans than on mortgages for rental properties, this section analyzes these purchases in some detail. It also compares the goal-qualifying shares of the GSEs' purchases of home purchase and refinance mortgages, seasoned mortgages, and mortgages on properties in metropolitan and nonmetro areas. In analyzing 1998-2000 trends, the analysis focuses on the GSEs' acquisitions of home purchase loans only, because of the importance of homeownership to American families.

This section analyzes a number of characteristics of the mortgages purchased by the GSEs on one-family owner-occupied properties. Section A presents information on the relationship between goal performance and various mortgage characteristics, including purpose of the mortgage, loan seasoning, type of seller, and property location. Since home purchase and refinance mortgages often have very different characteristics, the next section analyzes these two types of loans separately by borrower income and race and by loan-to-value (LTV) ratio. Section C continues this analysis, looking at neighborhood characteristics for home purchase and refinance loans. The next section presents trends in key characteristics of home purchase loans only, for 1993-2000.

Section E presents information about the impact of changes in mortgage rates on loan volume and demonstrates that despite these cycles, goal performance on the two income-based goals has generally improved steadily over the 1993-2000 period. The next section provides a cross-tabulation of home purchase mortgages by race and income, and Section G demonstrates that lower-income borrowers are less likely to refinance their mortgages when it is most advantageous to do so. A brief summary is provided in Section H.

A standard set of definitions is used to describe borrowers and the metropolitan area census tracts (or non-metro counties) where mortgaged properties are located. These definitions are provided in Table 3.

A. Goal Performance and Various Loan Characteristics

This section discusses relationships between goal performance and various characteristics of the GSEs' purchases of mortgages on one-family owner-occupied properties. Specifically, it analyzes the breakdowns between home purchase and refinance mortgages, between purchases of seasoned and current year mortgages, and between loans in metropolitan and nonmetropolitan areas.

1. Goal Performance and Loan Purpose. Almost all of the mortgages acquired by the GSEs are for the purchase of a home or the refinancing of an existing mortgage; second mortgages comprise a small percentage of their acquisitions[27]. Both GSEs' home purchase mortgage acquisitions remained fairly steady in 1998-2000, in the 1.2-1.3 million range for Fannie Mae and the 800,000-900,000 range for Freddie Mac, as shown in Table 4.

Each GSE's volume of refinance mortgages was much more cyclical than their acquisitions of home purchase mortgages, falling by about 70 percent between the record refinance year of 1998 and 2000. As a result of these developments, the share of the GSEs' purchases accounted for by refinance mortgages fell from about 60 percent in 1998 to approximately 30 percent in 2000.

Lending volume in the mortgage market varies significantly from year to year, primarily in response to changes in mortgage rates. Home purchase loan volume generally rises when interest rates fall, making housing more affordable. But the largest impact of interest rate declines on mortgage volume is a sharp increase in the number of mortgages taken out in order to refinance existing mortgages. Thus if refinance mortgages are more (or less) likely to qualify for the housing goals than home purchase mortgages, housing goal performance will increase (or decrease) in a heavy refinance year, other factors equal. As discussed next, the breakdown between home purchase and refinance loans had a significant impact on goal performance in 2000. A longer term analysis of this question is contained in Section E.

Loan purpose and special affordable goal performance in 2000. In the heavy refinance year of 1998, 11.5 percent of the GSEs' home purchase loans qualified for the special affordable goal, but only 9.5 percent of their refinance loans qualified. But this pattern does not necessarily apply in other years, because lower-income borrowers are more likely to refinance their mortgages in order to draw on some of their home equity ("cash-out refinancings") than higher-income borrowers, who are more likely to refinance to obtain

[27] Information provided in Table 9 of the GSEs' Annual Housing Activity Reports indicated that Fannie Mae purchased only 37 second mortgages in 1998, but such mortgages amounted to 1.7 percent of its purchases in 1999 and 1.2 percent of its purchases in 2000. Freddie Mac's purchases of second mortgages have consistently amounted to less than 1 percent of its total purchases.

lower interest rates or to shorten the term of their mortgages ("rate and term refinancings").[28] Thus refinancings by lower-income borrowers are not as concentrated in low-interest rate years as "rate-driven" refinancings by higher-income borrowers. This apparently explains the fact that in 2000, a higher-interest rate year, refinance loans were more likely to qualify for the special affordable goal than home purchase loans for both Fannie Mae (13.6 percent vs. 11.7 percent) and Freddie Mac (16.7 percent vs. 13.8 percent). Thus purchases of refinance loans increased both GSEs' performance on this goal in 2000.

A pattern similar to that for the special affordable goal prevailed with regard to the low- and moderate-income goal in 2000. Trends in the shares of single-family home purchase and refinance mortgages qualifying for the three housing goals over the 1993-2000 period are presented in Table 5, with the figure for the GSE with the higher percentage of its loans qualifying the goal shown in bold. As indicated, refinance loans had a greater positive impact on special affordable goal performance in 2000 than in any of the preceding years.

Loan purpose and underserved areas goal performance in 2000. The home purchase-refinance breakdown of the GSEs' mortgage purchases had an even greater effect on the GSEs' performance on the underserved areas goal in 2000. For Fannie Mae, 31 percent of its refinance mortgages qualified for this goal, but only 24 percent of its home purchase loans qualified. The difference between the shares of refinance and home purchase mortgages qualifying for this goal was even greater for Freddie Mac—32 percent of its refinance mortgages, but only 23 percent of its home purchase mortgages, were on properties located in underserved areas. This pattern also prevailed in all years between 1996 and 1999 for Freddie Mac and in all of these years except 1998 for Fannie Mae.

2. Goal Performance and Loan Seasoning. Some of the loans acquired by the GSEs in 2000 were originated in prior years. Such loans are referred to as "seasoned loans." There are several advantages to the GSEs from purchasing seasoned loans: principal payments and property appreciation may have reduced the effective loan-to-value ratio; some loans with large loan amounts which may have been ineligible for purchase in previous years are now eligible, due to the increase in the GSEs' conforming loan limit; and the borrower will have established a payment history. As shown in Table 4, the seasoned share of GSE loan purchases has varied in recent years, increasing from 12 percent in 1998 to 34 percent in 2000 for Freddie Mac, and from 17 percent in 1998 to 27 percent in 2000 for Fannie Mae.[29]

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[28] This conclusion has been supported by researchers at Freddie Mac, who have analyzed the characteristics of their refinance mortgages for which Freddie Mac also held the original mortgage.

[29] One disadvantage of this definition of "seasoned mortgages" is that it counts loans originated late in one year which are still "in the pipeline" until they are acquired by the GSEs early in the subsequent year as seasoned loans. Another definition of "seasoned mortgage" is a loan that was originated more than 365 days prior to acquisition by a GSE. This definition excludes this "pipeline effect," but the broad conclusions are essentially the same under either definition. (This paper does not use the alternative definition because the data on loan origination and acquisition dates have been designated as proprietary by the GSEs.)

Seasoned loans which meet HUD's income or location criteria count toward the GSEs' housing goals, because such purchases may provide funds for portfolio lenders to originate additional goal-qualifying loans. Earlier HUD analyses found that purchases of seasoned loans helped Fannie Mae's performance on the housing goals, especially in 1997 and 1998.[30]

Seasoned mortgages and special affordable goal performance in 2000. Purchases of seasoned loans had different effects on the two GSEs' performance under the special affordable goal in 2000. Specifically, 13 percent of each GSE's purchases of mortgages originated in 2000 on owner-occupied one-unit properties counted toward this goal. Seasoned mortgage purchases increased Freddie Mac's performance on this goal in 2000, but had no impact on Fannie Mae's performance. That is, because nearly 18 percent of Freddie Mac's purchases of pre-2000 loans qualified for this goal, its overall special affordable share of these loans exceeded 14 percent.   On the other hand, because only slightly more than 13 percent of Fannie Mae's seasoned mortgages qualified for this goal, its overall special affordable share was also 13 percent. A similar pattern prevailed for the low- and moderate-income goal.

Seasoned mortgages and underserved areas goal performance in 2000. Seasoned loan purchases increased both GSEs' performance on the underserved areas goal in 2000. For both enterprises, and especially for Fannie Mae, seasoned loans were somewhat more likely to have financed properties in underserved areas than current year loans in 2000. Thus seasoned loan purchases raised overall goal performance on this goal for both GSEs, but in both cases the net effect did not exceed one percentage point.

3. Goal Performance and Type of Seller. As also shown in Table 4, mortgage companies accounted for more than 50 percent of the loans sold to each of the GSEs in 2000. Fannie Mae has relied much more on mortgage companies than Freddie Mac (60 percent versus 53 percent in 2000). Fannie Mae also purchased a greater share of its loans from thrifts than did Freddie Mac (20 percent versus 5 percent). The difference is attributable to the much higher share of loans purchased from banks by Freddie Mac than Fannie Mae (35 percent versus 12 percent). For both enterprises, the share purchased from mortgage companies in 2000 was the lowest in the 1993-2000 period, perhaps due to acquisitions of independent mortgage companies by banks.

Overall, 39 percent of mortgages on owner-occupied one-unit properties sold to Fannie Mae qualified for the low- and moderate-income goal in 2000 and 12 percent qualified for the special affordable goal. The goal-qualifying shares were somewhat higher for mortgages sold by mortgage companies to Fannie Mae—41 percent and 14 percent, respectively. A different pattern prevailed for Freddie Mac, where FDIC-insured institutions

[30] As noted in the *Federal Register*, Volume 65, October 31, 2000, p. 65113, in 1998 only 12.1 percent of Fannie Mae's purchases of current year loans were for special affordable families, but 17.9 percent of its purchases of prior year loans were in this category. Similar discrepancies between the goal-qualifying shares for current and seasoned mortgages were noted for loans to borrowers with less than median incomes and loans to borrowers living in underserved areas.

(banks and thrifts) had somewhat higher shares of their loans qualifying for the low-mod goal than mortgage companies (44 percent vs. 39 percent, respectively). This was also true for Freddie Mac's performance on the special affordable goal, where the corresponding shares were 17 percent and 13 percent. For both enterprises, loans sold by banks were more likely to qualify for the underserved areas goal than loans sold by other lenders.[31]

4. Goal Performance and Property Location. Fannie Mae and Freddie Mac differ somewhat in the shares of their mortgage purchases for properties in various locations, as shown in Table 6. In 2000, non-metropolitan areas accounted for 14.6 percent of Freddie Mac's purchases, compared with 12.7 percent of Fannie Mae's purchases. The regional distributions of the GSEs' purchases reported in Table 6 largely reflect the distribution of primary market originations. Three Census regions accounted for about 55 percent of total business for both agencies in 2000: the East North Central, South Atlantic, and Pacific regions. The GSEs exhibited a mixed pattern of increases and declines in regional shares of business between 1998 and 2000: both increased their shares in the Middle Atlantic, South Atlantic, and West South Central regions, and both decreased their shares in the East North Central region.

Property location and low- and moderate-income goal performance in 2000. Somewhat different definitions apply in determining whether GSE mortgage purchases in metropolitan and nonmetropolitan areas qualify for the low- and moderate-income housing goal. A mortgage on an owner-occupied one-unit property in a metropolitan area qualifies for the low- and moderate-income goal if the income of the borrower is no greater than median income for the metropolitan area. The same definition applies for nonmetro areas, except that borrower income is compared with the greater of median family income for the county or the nonmetropolitan portion of the state.[32]

For both GSEs, mortgages on properties in metropolitan areas were more likely to qualify for the low- and moderate-income goal in 2000 than mortgages on properties in nonmetro areas. Specifically, 42 percent of Fannie Mae's mortgages on properties in metropolitan areas qualified for the low-mod goal, while only 36 percent of its mortgages on such properties outside metropolitan areas qualified. A similar disparity arose for Freddie Mac, with 43 percent of its metro mortgages qualifying for this goal, but only 37 percent of its nonmetro mortgages qualifying. This pattern was even more pronounced with regard to performance on the special affordable goal.

Property location and underserved areas goal performance in 2000. A mortgage on a property in a metropolitan area qualifies for the underserved areas goal if the property is

[31] Specifically, 30 percent of the units in one-family owner-occupied properties financed by banks and Fannie Mae in 2000 qualified for the underserved areas goal, exceeding the overall percentage for all lenders of 26 percent; the corresponding figures for Freddie Mac were 28 percent for banks and 26 percent for all lenders.
[32] Data on median family income for all metropolitan areas and for the nonmetropolitan portions of the states are published annually by the Department.

located in a low-income or high-minority census tract. Specifically, an underserved census tract is one in which tract median income is no greater than 90 percent of area median income, or one in which minorities comprise at least 30 percent of tract population and tract median income is no greater than 120 percent of area median income. The Department's research has found that such tracts generally have high mortgage denial rates and low loan origination rates, thus they are considered to be "underserved areas."

The Department adopted a county-based approach, rather than a tract-based approach, in defining underserved areas outside of metropolitan areas. The essence of the definition is the same—low-income and high-minority nonmetro counties are considered to be underserved—but the nonmetro definition of underserved areas is somewhat more inclusive.[33]

For both GSEs, mortgages in nonmetro areas were significantly more likely to qualify for the underserved areas goal in 2000 than mortgages on properties in metropolitan areas. Specifically, 40 percent of Fannie Mae's mortgages on such properties in nonmetropolitan areas qualified for this goal, but only 25 percent of Fannie Mae's mortgages on metropolitan properties qualified. The same pattern prevailed for Freddie Mac. These results are not surprising, in light of the fact that the definition of underserved areas for nonmetro counties is more inclusive than the definition for metro census tracts. Specifically, 66 percent of nonmetro counties, containing 54 percent of nonmetro population, are classified as underserved areas; the corresponding figures for metropolitan areas are 47 percent of census tracts, containing 44 percent of metro population.

B. Borrower and Loan-to-Value Characteristics by Loan Purpose, 1998-2000

As discussed in the preceding section, there are systematic differences between home purchasers and borrowers who are refinancing existing loans, and these differences may have significant effects on the performance of the GSEs relative to the housing goals. This section extends that analysis by presenting data separately for home purchase and refinance mortgages by loan and borrower characteristics. Data for 2000 is shown in Table 7; corresponding data for 1998 and 1999 is shown in Tables C.3 and C.4 in Appendix C. These update previous analyses prepared by HUD for 1993-97. Most of this discussion focuses on home purchase mortgages, but corresponding data for refinance mortgages in shown in all tables.

Borrower Income. Over the 1998-2000 period, about 60 percent of the GSEs' home purchase mortgages on owner-occupied one-unit properties went to borrowers with incomes

[33] Specifically, a nonmetro county is considered an underserved area if (1) county median income is no greater than 95 percent of the greater of state or national nonmetro median income, or (2) county median income is no greater than 120 percent of the greater of state or national nonmetro median income and minorities comprise at least 30 percent of county population. This more inclusive definition was adopted because nonmetro lenders in some areas may make loans on a county-wide basis, rather than looking at census tracts, and because reliable data is not readily available on mortgage denial rates in rural areas.

above area median income (AMI). This is somewhat below the average of approximately 65 percent in the 1993-97 period reported in two earlier studies.[34]

Since 1993, both GSEs have increased their purchases of loans from very low-income (VLI) borrowers. In 1998, 12 percent of Fannie Mae's home purchase loans went to VLI borrowers, up from less than 7 percent in 1993 and 10 percent in 1997. Its VLI share remained above 11 percent in 1999-2000. Freddie Mac's very low-income share was about 6 percent in 1993 and 7.5 percent in 1997, but it reached 10 percent in 1998 and continued to rise to 11 percent in 1999 and 12 percent in 2000. In 2000 was the first time that the VLI share of Freddie Mac's home purchase loans exceeded the corresponding share for Fannie Mae. However, through 1999 both GSEs' purchases of such loans were below the VLI shares of the primary conventional mortgage market.[35]

Race/Ethnicity. More than 80 percent of home purchase loans purchased by the GSEs in 1998-2000 were made to (non-Hispanic) white borrowers. In 1993, only 2-3 percent of the GSEs' home purchase mortgages went to African American borrowers; this share increased modestly, to about 3.5 percent for the GSEs in 1998-2000. This share was consistently somewhat higher for Fannie Mae than for Freddie Mac for 1993-99, but Freddie Mac closed this gap in 2000.[36]

The Hispanic shares of both GSEs' purchases have increased somewhat over time, and rose sharply to record levels for both enterprises in 2000. Fannie Mae continues to outdistance Freddie Mac in the Hispanic share of its home purchase loans. This may reflect differences in the shares of the GSEs' business in the Pacific and West South Central regions, which combined comprised 26.7 percent of Fannie Mae's loans, but only 20.7 percent of Freddie Mac's loans in 2000.[37] The differences between the GSEs in the geographical concentration of their business may partly reflect the GSEs' recent alliances with lenders.[38]

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[34] Paul B. Manchester, Sue George Neal, and Harold L. Bunce, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 1993-95*, Housing Finance Working Paper No. HF-003, March 1998, and Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996-97 Update,* Housing Finance Working Paper No. HF-006, August 1998.

[35] Comparisons between the primary market and the GSEs in 1992-99 are contained in Harold L. Bunce, *The GSEs' Funding of Affordable Loans: A 1999 Update,* Housing Finance Working Paper No. HF-012, December 2000.

[36] More information on the GSEs' purchases of loans made to African-Americans is contained in Harold L. Bunce, *An Analysis of GSE Purchases of Mortgages for African-American Borrowers and their Neighborhoods,* Housing Finance Working Paper No. HF-011, December 2000.

[37] The Pacific region (20.7 percent Hispanic population in 1990) includes California, Nevada, Oregon, and Washington; the West South Central region (17.0 percent Hispanic population in 1990) includes Texas, Oklahoma, Arkansas, and Louisiana.

[38] See "Alliances Reshaped 2000 Market," *Inside Mortgage Finance,* September 14, 2001.

First-time and Repeat Buyers. As housing has become more affordable, first-time homebuyers have played a more significant part in the mortgage market. These are typically people in the 25-34 year-old age group who purchase modestly-priced homes. Although the proportion of the population in this group decreased from 18 percent in 1985 to 15 percent in 1996, first-time homebuyers increased from about 40 percent of all buyers in the 1980s to 45 percent or more in recent years.[39] The GSEs lag the total mortgage market in support for first-time homebuyer loans, as many such buyers take out loans insured by the Federal Housing Administration (FHA). In 2000, approximately 27 percent of each GSE's home purchase loans were for first-time homebuyers, but this was well below the 80 percent of FHA-insured home purchase loans for first-time homebuyers in recent years.[40]

Loan-to-Value Ratios. In analyzing loan-to-value ratios (LTVs) on mortgages purchased by the GSEs, it is essential to distinguish between home purchase mortgages and refinance mortgages. As shown in Table 7, 84-85 percent of refinance mortgages had an LTV of 80 percent or less in 2000 (that is, these buyers made down payments of at least 20 percent), but only about 60 percent of home purchase mortgages had LTVs of 80 percent or less. The share of Freddie Mac's home purchase mortgages with high LTVs (those with ratios over 95 percent) rose from less than 3 percent in 1998 to 6 percent in 2000, while the corresponding share remained just over 4 percent for Fannie Mae in all three years.[41] But the shares of both GSEs' home purchase mortgages with low LTVs (80 percent or less) also rose over this period. Thus there were significant declines in the shares of the GSEs' home purchase mortgages with LTVs between 80 and 95 percent—from 42-43 percent in 1998 to 35 percent in 2000.[42]

In all years more than 83 percent of refinance mortgages had LTVs of 80 percent or less. By taking out loans with an equity position of at least 20 percent of the home's value, these borrowers save on monthly payments since they do not need to pay premiums for mortgage insurance.[43]

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[39] See Chicago Title, *Who's Buying Homes in America: 1999* for primary mortgage market data on first-time homebuyers. (This survey has not been published since 1999.)

[40] See "FHA's Impact on Increasing Homeownership Opportunities for Low-Income and Minority Families During the 1990s," *Issue Brief No. IV*, Office of Policy Development and Research, December 2000.

[41] Data for 1998-99 are presented in Tables C.3-C.4.

[42] The GSEs are required by their charter acts to have private mortgage insurance or some other form of credit enhancement on loans that they purchase with LTVs greater than 80 percent.

[43] HUD's GSE public use database contains information on LTVs in National File A, but this file does not currently separate home purchase and refinance loans. However, HUD determined in April 2001 that aggregations of data involving loan-to-value ratios, such as those in Table 7 and Tables C.3-C.4 containing breakdowns between home purchase and refinance mortgages, were not proprietary information.

Detailed Data on Loan-to-Value Ratios. Lower income households are constrained in two ways from becoming homeowners. Their incomes limit the monthly mortgage payment for which they can qualify, and they also make it more difficult for them to accumulate a down payment. Thus one would expect more high-LTV (low down payment) loans among lower income families. Comparisons of the distributions of LTVs in 2000 for home purchase mortgages qualifying for the three housing goals and for all home purchase mortgages are contained in Table 8. For both GSEs, special affordable mortgages had the highest shares of loans with LTVs over 95 percent. Loans qualifying for the low- and moderate-income goal and the underserved areas goal also have disproportionately large shares of high loan-to-value ratios.

Other analyses by the Department indicate that Black and Hispanic borrowers are more likely to take out high-LTV loans than Whites, and such loans are more common in higher minority census tracts. Low down payment loans are also more common in lower income census tracts.[44]

C. Census Tract Characteristics by Loan Purpose, 1998-2000

Extensive research has been conducted using Home Mortgage Disclosure Act (HMDA) data and other information on issues of redlining and the extent to which lenders are meeting the credit needs of underserved areas. Such studies show substantial disparities between mortgage flows in neighborhoods of varying income levels and minority percentages.[45] This section briefly examines the characteristics of the census tracts containing properties with home purchase and refinance mortgages sold to Fannie Mae and Freddie Mac in the 1998-2000 period.

[44] The analysis of LTVs by race combines data for home purchase and refinance mortgages; the Department has not publicly released these LTV distributions separately by race.

[45] These studies were reviewed in Appendix B of the Secretary's final rule establishing the GSEs' housing goals for 2001-03, contained on pp. 65144-65170 of the October 31, 2000 Federal Register.

Income Level and Minority Composition of Neighborhood. Most mortgages acquired by the GSEs are on properties in low-minority areas and in areas with above average incomes, as shown in Table 9 for 2000 and Tables C.5 and C.6 for 1998-99. Specifically, more than half of each GSE's loans in this period were for properties in census tracts in which minority residents comprised less than 10 percent of the population, and 10 percent or fewer were in low-income tracts in each year. In 1998, Fannie Mae purchased relatively more loans from both low- and high-income tracts than Freddie Mac, which had a higher share of its purchases from middle-income tracts (those with median incomes between 80 percent and 120 percent of area median income). But in 1999 and 2000, the shares of Freddie Mac's loans in low-income tracts (as well as middle-income tracts) exceeded the corresponding shares of Fannie Mae's loans. However, a greater share of Fannie Mae's loans was in high-minority neighborhoods.

Underserved Areas. HUD was directed by the 1992 GSE Act to expand and, as appropriate, modify the basis for the geographically-targeted goal from central cities, the focus during the 1993-95 transition period, to include rural areas and other underserved areas for subsequent years. After a considerable amount of research on access to mortgage credit, the Department determined that the definition most consonant with Congressional intent included low-income and high-minority metropolitan census tracts and nonmetro counties, because such neighborhoods generally have low mortgage origination rates and high loan denial rates—both are indicators of difficulty in obtaining mortgage credit. Thus the geographically-targeted goal was specified in this manner for 1996-2000, as noted in Table 5. The shares of home purchase and refinance mortgages in underserved areas are shown in Table 9 for 2000 and Tables C.5 and C.6 for 1998-99.

Although the goals were not established on this basis for 1993-95, sufficient information is available from the data supplied by the GSEs to measure their purchases in underserved areas during this period. The GSEs' acquisitions of home purchase loans on properties in underserved areas are shown in Table 10 for 1993-2000. Such loans rose from 21 percent of Fannie Mae's purchases in 1993 to a peak of 26 percent in 1998, before declining slightly to 25 percent in 1999. More gradual gains were made by Freddie Mac, with home purchase loans on properties in underserved areas rising from 19 percent in 1993 to a peak of 24 percent in 2000.

D. Additional Information on 1993-2000 Home Purchase Loans

In measuring goal compliance, mortgages for both rental and owner-occupied housing, whether for home purchase or refinancing, are taken into account. But given the importance placed on homeownership, this subsection provides further analyses of recent trends regarding home purchase loans for one-unit properties. Trends in key dimensions of the GSEs' acquisitions of such loans are summarized in Table 10 for the 1993-2000 period. Each statistic measures the shares of such loans for each borrower and neighborhood category, and ratios of Freddie Mac's shares to Fannie Mae's shares for each category are also presented. Seven general patterns emerge:

First, increases in purchases of mortgages from very low-income borrowers between 1993 and 1997 continued into 1998-2000, but the two GSEs exhibited different patterns. Most of the 1993-2000 increase in this group's share of Fannie Mae's loans occurred between 1993 and 1997, while most of the increase in their share of Freddie Mac's loans has taken place in the last three years. As a result, in 2000 the very low-income share of Freddie Mac's home purchase loans (12.2 percent) exceeded the corresponding share of Fannie Mae's loans (11.6 percent) for the first time.

Second, gains were made in various areas of targeted lending between 1999 and 2000, with records established for several lending categories. The share of Freddie Mac's home purchase mortgages reached record levels for African Americans, and Hispanics' shares of mortgages were at the highest levels on record for both GSEs. Freddie Mac also attained a new high in the share of its loans in high-minority tracts.

Third, African Americans' share of Fannie Mae's home purchase loans rose sharply between 1993 and 1995, but has leveled off since that time. However, as noted, the Hispanic share of Fannie Mae's loans reached a record in 2000. More gradual gains have been made in minority borrowers' share of Freddie Mac's loans, so that by 2000 African-American borrowers' shares of the two GSEs' home purchase loans were essentially identical. Hispanic borrowers' share of Freddie Mac's loans (5.9 percent) continues to lag their share of Fannie Mae's loans (7.2 percent), possibly due to differences between the GSEs in the geographic distribution of their loans, as discussed above.

Fourth, the first-time homebuyers' share of home purchase mortgages acquired by Freddie Mac has generally remained in the 25-29 percent range in recent years. First-time homebuyers' share of home purchase mortgages acquired by Fannie Mae has generally exceeded the corresponding share for Freddie Mac, but it fell slightly below the comparable figure for Freddie Mac in 2000.

Fifth, just as the disparities between Fannie Mae and Freddie Mac in the shares of their loans for lower-income and minority borrowers diminished between 1997 and 2000, a similar pattern held for geographic areas targeted by HUD's housing goals. That is, the share of Fannie Mae's home purchase loans for low-income census tracts was variable throughout this period, with a high reached in 1998, while the share of Freddie Mac's loans rose, to approximately the same level as Fannie Mae's share in 2000. The same general pattern prevailed for high-minority tracts, although Freddie Mac continued to lag behind Fannie Mae in this dimension in 2000.

Sixth, the share of Fannie Mae's mortgages on properties located in underserved areas in 2000 was essentially the same as that in 1995 and 1997, despite HUD's reformulation of its geographically-targeted goal to these underserved areas, effective in 1996. The share of Freddie Mac's loans in underserved areas rose from 21.2 percent in 1997 to 24.1 percent in

2000, closing most of the 1997 gap with Fannie Mae.[46]

Finally, clear patterns emerge for most of the categories of lending shown in Table 10, as shown by the "Freddie Mac/Fannie Mae ratios." The shares of Freddie Mac's loans for almost all categories were below the corresponding shares for Fannie Mae's loans in 1993. This divergence widened over the next four years, as shown by the decrease in these ratios for all categories between 1993 and 1997. But there was convergence between the GSEs in all areas between 1997 and 1999-2000. In fact, Freddie Mac essentially achieved parity with Fannie Mae in five of the seven categories listed, continuing to lag only in the shares of its loans for Hispanic borrowers and high-minority census tracts.

E. Interest Rate Cycles and Housing Goal Performance

Mortgage rates have often changed dramatically over the years. Rates rose in the late-1960s, from a low of 5.9 percent in 1965 to 8.4 percent in 1970. They then fell slightly in the early 1970s, before rising over the next decade to a record level of 15.3 percent in 1982. This was followed by a general decline in rates over the subsequent decade, to a low of 7.1 percent in 1993.[47]

Variations in mortgage rates have been fairly small in recent years in comparison with the swings in previous years, as shown in Table 11, but these changes have been sufficient to have major impacts on the mortgage market. Specifically, the average mortgage rate rose from 7.1 percent in 1993 to 7.9 percent in 1995, before declining to 7.1 percent in 1998. With the continued strong growth in the economy, the average rate rose to 8.0 percent in 2000.[48]

These swings in interest rates have caused major changes in primary mortgage market volume, especially the volume of refinance mortgages. Data compiled in accordance with the Home Mortgage Disclosure Act (HMDA) indicate that with the exception of a slight decline in 1995, conventional home purchase mortgage volume has risen steadily in recent years, from 2.4 million loans in 1993 to 3.6 million loans in 1998 and 3.8 million loans in 2000. However, refinance mortgage volume has varied widely, declining from 5.3 million loans in 1993 to 1.5 million loans in 1995, then rising to 6.2 million loans in 1998, when interest rates were relatively low, before decreasing again to 2.4 million loans in 2000, as interest rates rose

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[46] As shown in Table 4 of Bunce (2000b), the share of the conventional conforming market accounted for by underserved areas declined slightly between 1997 and 1998, but rose to the highest level recorded in 1999; data for 2000 will be published shortly.

[47] Interest rates reported in this study are based on the monthly Mortgage Interest Rate Survey (MIRS) conducted by the Federal Housing Finance Board. This provides the average effective rate for conventional home purchase mortgages for new and existing homes, where the effective rate is the average contract rate plus initial fees and charges, amortized over a 10-year period.

[48] The average effective rate has fallen in 2001, to 6.7 percent in October, with an average of 7.1 percent for the first 10 months of the year.

again. As a result, the refinance share of the mortgage market fell from 69 percent in 1993 to 36 percent in 1995, before rising to 63 percent in 1998, and falling again to 38 percent in 2000. Combining home purchase and refinance mortgages, total mortgage market volume fell between 1993 and 1995, rose between 1995 and 1998, and declined again between 1998 and 2000.

These primary mortgage market patterns have been reflected in loan volume for owner-occupied one-unit properties for Fannie Mae and Freddie Mac, as shown for each GSE in Table 11. The two GSEs combined funded 5.05 million loans ($519 billion) in 1993. Volume fell to 2.09 million loans ($216 billion) in 1995, rose to a peak of 5.43 million loans ($618 billion) in 1998, and then declined to 3.10 million loans ($395 billion) in 2000.[49]

Despite these changes in the volume of the GSEs' refinance and total home mortgages, the shares of both GSEs' total purchases of mortgages on owner-occupied one-unit properties qualifying for the special affordable goal increased steadily over the 1993-2000 period, as also shown in Table 11. Steady gains were also made in the low- and moderate-income share of Fannie Mae's loans for these properties, and with the exception of 1995, in the low-mod share of Freddie Mac's loans.

To a significant extent, this pattern of steady improvement in the shares of the GSEs' core business (mortgages on owner-occupied one-unit properties) for lower income borrowers reflects corresponding trends in the primary mortgage market. The primary market gains were due in part to more flexible underwriting and to stepped up activity by lenders under the Community Reinvestment Act (CRA), as well as to a sustained period of low interest rates and strong income growth. But in 2000 both GSEs showed continued increases in the shares of their mortgages qualifying for both the special affordable and low- and moderate-income goals, despite the fact that the corresponding shares of mortgages originated in the primary market remained approximately the same in 2000 as in 1999. This record indicates that in 2000 the enterprises responded to the income-based housing goals in affirmative ways, rather than simply reflecting primary mortgage market trends.

Despite these steady gains in the shares of the GSEs' core business qualifying for these two income-based goals, overall performance on these goals has varied somewhat more over the period. That is, in addition to the GSEs' core business involving loans on owner-occupied 1-unit properties, they also purchase many loans on rental properties, as discussed above. Overall performance on the housing goals depends on the mix of the GSEs' purchases by property type (owner-occupied one-unit properties, single-family rental properties, and multifamily properties), and on the goal-qualifying shares of all three types of properties.

F. Cross-tabulations of the GSEs' Home Purchase Mortgages by Race and Income

[49] As reported in Section II., the record home mortgage volume achieved in 1998 was surpassed in the first three quarters of 2001. Mortgage purchase volume for both GSEs will also reach record levels in 2001.

The tabulations in Table 10 indicate that the shares of the loans purchased by Freddie Mac for African-Americans, Hispanics, and very low-income borrowers were consistently below the corresponding shares of loans purchased by Fannie Mae through 1997, but that these patterns changed in 1998-2000. A more detailed analysis of these data is presented in Table 12, which provides a cross-tabulation of home purchase loans for the two GSEs by race/ethnicity and income for 2000. This table is useful for comparing the borrower income characteristics of the loans for minorities purchased by Fannie Mae and Freddie Mac.

An analysis similar to that contained in Table 12 of loans purchased by Freddie Mac and Fannie Mae in 1997 indicated the compounding effects of Freddie Mac's underrepresentation in lending for lower-income and minority families.[50] It found, for example, that Freddie Mac accounted for 40 percent of all loans purchased by the GSEs in that year, but only 34 percent of GSE loans to very low-income borrowers, 31 percent of GSE loans to African-Americans, and just 22 percent of GSE loans to very low-income African-Americans. On the other hand, it found that Freddie Mac accounted for 42 percent of GSE loans to Whites with above-median incomes—nearly twice its share of GSE loans for very low-income African-Americans.

As shown in Table 12, the wide disparities between the GSEs in support for lending to lower-income and minority borrowers were largely eliminated by 2000. Freddie Mac accounted for 46 percent of total GSE loans in 2000, up from 40 percent in 1997. But Freddie Mac also accounted for 46 percent of GSE loans to very low-income borrowers, 46 percent of loans to African-American borrowers, and 47 percent of loans to very low-income African-American borrowers. Freddie Mac accounted for a majority of GSE loans to very low-income Hispanic borrowers in 2000. This cross-tabulation confirms that there was a substantial convergence between the GSEs in lending for low-income and minority families over the past 2-3 years.

G. Refinance Loans By Income Level, 1998-2000

Borrowers typically refinance their mortgages in order to lower the interest rate on their loans, to change the term (duration) or the mortgage, or to undertake "cash-out refinancings," in which the new loan amount exceeds the unpaid principal balance on their previous loan. Thus under a "cash-out refi" a borrower taps into the equity on his home to finance other expenses, which may or may not be housing-related. Borrowers whose main goal is a rate reduction generally refinance in low interest rate periods, but "cash-out" refinancers may be less sensitive to interest rate changes. Higher-income borrowers are most likely to refinance their loans when interest rates are lowest, as shown in Table 13, which presents the distribution of refinance mortgages by income level for the 1998-2000 period. This table also presents average interest rates for this period, as reported by the Federal Housing Finance Board—these ranged from 7.10 percent in 1998 to 7.96 percent in 2000.

[50] Manchester (1998), Table 8, page 29.

Nearly 60 percent of refinancers with incomes in excess of area median income took out their new loans in 1998, when mortgage rates were at the lowest level of this period, but only 47 percent of very low-income refinancers took advantage of these lowest rates. In contrast, only about 10 percent of above-median income refinancers were in the market in the higher interest rate year of 2000, compared with 17 percent of very low-income refinancers.[51] Thus, higher-income borrowers tend to dominate the market during heavy refinance years such as 1998.

Data on the interest rates on individual loans is not available, but the timing of refinancings suggests that on average lower-income families paid higher rates on their refinancings than higher-income borrowers for the 1998-2000 period as a whole.[52] This may reflect better knowledge of the benefits of refinancing among higher-income borrowers, or it may be because lower-income borrowers are more likely to take out "cash-out refis." Whatever the case, it might be advantageous to better educate lower-income homeowners about the gains from refinancing their loans in low-interest rate periods.

H. GSE Purchases of Loans on One-Family Owner-Occupied Properties—A Summing Up

This section has described basic characteristics of the mortgages that the GSEs purchased in 1998-2000 and summarized some trends over the 1993-2000 period. Several points stand out:

First, gains between 1993 and 1997 in the shares of the GSEs' mortgages taken out by very low-income families continued between 1997 and 2000. The very low-income share of Fannie Mae's home purchase mortgages rose from 6.8 percent in 1993 to 10.1 percent in 1997 and 11.6 percent in 2000, although this share peaked at 13.8 percent in 1998. The increase was even greater for Freddie Mac--from 6.2 percent in 1993 to 7.5 percent in 1997 and 12.2 percent in 2000. As a result, the very low-income share of Freddie Mac's home purchase loans exceeded the corresponding share of Fannie Mae's loans for the first time in 2000.

Second, purchases of refinance loans may improve or worsen a GSE's performance on the income-based housing goals, as may be seen by comparing such purchases in recent years. For example, in 1998 interest rates were relatively low, and 11.5 percent of the GSEs' home purchase loans qualified for the special affordable goal, but only 9.5 percent of their refinance loans qualified. The opposite pattern prevailed in 2000, when interest rates were somewhat higher—the share of refinance loans qualifying for this goal exceeded the corresponding share of home purchase loans. One possible explanation for this pattern is that higher income-borrowers' refinancings may be more likely to be "rate-driven," while lower-income

[51] This updates an analysis in Manchester (1998), Table 10, page 32, which found the same pattern of disparities in the timing of refinancings over the 1993-97 period.

[52] Mortgage rates differ between borrowers for many reasons other than the time when they take out a mortgage, including borrower credit history, down payment, size of loan, amount of any mortgage insurance, and other factors.

borrowers' refinancings may be more likely to be motivated by a desire to tap into the equity on their homes.

Third, purchases of seasoned loans may have an impact on a GSE's goal performance. In 1998, for example, the shares of Fannie Mae's purchases of pre-1998 mortgages qualifying for each of the goals exceeded the corresponding shares of Fannie Mae's purchases of mortgages originated in that year. And in 2000 Freddie Mac increased its performance on the special affordable and low- and moderate-income goals by purchasing seasoned mortgages. No such pattern was evident for Fannie Mae's purchases of seasoned mortgages in 2000.

Fourth, the patterns of loans to minorities are somewhat mixed. African-Americans' share of Fannie Mae's home purchase loans rose from 2.7 percent in 1993 to 4.1 percent in 1997, and were essentially unchanged (4.0 percent) in 2000. More gradual gains were shown in African Americans' share of Freddie Mac's home purchase loans, which rose from 2.0 percent in 1993 to 2.7 percent in 1997 and a record 3.9 percent in 2000. Gains by Hispanics between 1993 and 1997 did continue over the last three years. Their share of Fannie Mae's home purchase loans rose from 3.8 percent in 1993 to 5.0 percent in 1997 and 7.2 percent in 2000; the corresponding figures for Freddie Mac were 3.1 percent in 1993, 3.9 percent in 1997, and 5.9 percent in 2000.

Fifth, recent gains in the homeownership rate reflect the increasing role in the mortgage market played by first-time homebuyers. Many first-time buyers take out loans insured by the Federal Housing Administration, but in 2000 approximately 27 percent of the GSEs' home purchase mortgages were for first-time homebuyers. Their share of Fannie Mae's home purchase mortgages has generally exceeded their share of Freddie Mac's home purchase mortgages, but this pattern was reversed in 2000.

Sixth, lack of a sufficient down payment is commonly cited as one of the biggest barriers to achieving homeownership, thus the GSEs' role in the high loan-to-value ratio (LTV) mortgage market plays an important role in enabling families to purchase homes. The majority of the GSEs' home purchase mortgages have LTVs of 80 percent or less (i.e., downpayments of 20 percent or more), but the share of Freddie Mac's purchase loans with LTVs over 95 percent rose from less than 3 percent in 1998 to 6 percent in 2000, while the corresponding share for Fannie Mae remained just over 4 percent in this period.

Seventh, the shares of the GSEs' home purchase mortgages for properties located in underserved areas generally trended upward over the 1993-98 period, when both enterprises attained their peak performance in this regard. These underserved areas shares fell significantly in 1999, but rebounded somewhat in 2000. Specifically, for Fannie Mae this share fell from 28.0 percent in 1998 to 23.1 percent in 1999, and then rose to 25.1 percent in 2000. The corresponding figures for Freddie Mac were 26.7 percent in 1998, 23.8 percent in 1999, and 24.1 percent in 2000, as Freddie Mac closed most of the gap that existed between Fannie Mae and itself in earlier years.

Eighth, despite changes in interest rates over the 1993-2000 period and the resulting impacts on home purchase and refinance mortgage volume, the shares of both GSEs' purchases of loans on one-family owner-occupied properties qualifying for the two income-based goals rose steadily between 1993 and 2000. Overall goal performance varied over this period due to changes in the shares of total business volume accounted for by rental properties and to changes in the goal-qualifying shares of mortgages on such rental properties.

Finally, the shares of Freddie Mac's loans for a number of categories of borrowers or locations were at record levels in 2000. As a result, and because peaks occurred for Fannie Mae in previous years for most categories, there was a substantial degree of convergence between the two GSEs in many categories of targeted lending between 1997 and 2000. In addition to loans for very low-income and minority families, Freddie Mac closed much of the gap with Fannie Mae in the shares of its home purchase loans for low-income tracts and underserved areas, and it narrowed this in the share of its loans for high-minority census tracts. However, Freddie Mac continued to lag behind Fannie Mae in the shares of its mortgages for Hispanics and high-minority census tracts.

Appendix A
GSEs' Housing Goals for 1993-95

In October 1993 the Secretary established three goals for Fannie Mae and Freddie Mac for the 1993-95 "transition period":[53]

- A *low- and moderate-income goal,* set at 28 percent for Freddie Mac and 30 percent for Fannie Mae in 1993, and at 30 percent for both GSEs for 1994-95. That is, for both 1994 and 1995 at least 30 percent of the total number of units financed by each GSE's mortgage purchases should have been (1) owner-occupied units for which the borrower's income was less than or equal to area median income or (2) rental units affordable at these income levels—specifically, with rents (adjusted for unit size) not in excess of 30 percent of area median income.

- A *geographically-targeted goal,* set at 26 percent for Freddie Mac and 28 percent for Fannie Mae for 1993, and at 30 percent for both GSEs for 1994-95. That is, for both 1994 and 1995, at least 30 percent of the total number of units financed by each GSE's mortgage purchases should have been for properties located in *central cities*, as defined periodically by the Office of Management and Budget.

- A *special affordable goal,* set as a two year goal for 1993-94 combined at $16.4 billion for Fannie Mae and at $11.9 billion for Freddie Mac, and as a one year goal of $4.6 billion for Fannie Mae and $3.4 billion for Freddie Mac for 1995. That is, at least these dollar amounts of units financed by the GSEs' mortgage purchases should have been owner-occupied units for which the borrower's income was less than or equal to (1) 60 percent of area median income (very low-income families) or (2) if located in a low-income census tract or nonmetropolitan county, 80 percent of area median income (low-income families in low-income areas), or rental units affordable at these income levels.

The performances of the GSEs on each goal between 1993 and 1995 are shown in Table A.1.[54] Both GSEs' performance exceeded their low- and moderate-income goals in every year during the transition period. For example, 43 percent of Fannie Mae's purchases and 39 percent of Freddie Mac's purchases qualified as low- and moderate-income purchases in 1995; these figures far surpassed HUD's 30 percent target for this goal. Fannie Mae surpassed the central cities goals in two of the three years (1994 and 1995), but Freddie Mac fell short of these goals in all three years. With regard to special affordable mortgages, both GSEs exceeded their aggregate dollar targets for 1993-94 and for 1995.

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[53] *Federal Register*, Volume 58, October 13, 1993, pp. 53047-53096; goals extended to 1995 in *Federal Register*, Volume 59, November 30, 1994, pp. 61504-61506.

[54] For a full discussion of the transition period housing goals, see Chapter 3 of HUD's privatization study, *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility, A HUD Report*, Office of Policy Development and Research, HUD, July 1996.

Appendix B
Missing Data for the GSEs' Loans

The GSEs have not collected sufficient data for some mortgages to determine whether or not the units financed qualify for the low- and moderate-income and special affordable goals established by the Secretary.[55] Information on the extent of this "missing data" is presented in Table B.1 for 1993-2000 for mortgages on owner-occupied units, where borrower income is needed in order to measure performance on these two goals, and for single-family and multifamily rental units, where tenant rent is needed. Also, although there is not a first-time homebuyer goal for the GSEs, there is a great deal of interest in the GSEs' provision of such financing, and the GSEs are required to provide HUD with data on home purchase mortgages to distinguish first-time buyers from repeat buyers. Thus "missing homebuyer status" is also included in Table B.1.[56]

The GSEs were not required to collect borrower income and tenant rent information for dwelling units financed by mortgages which were originated prior to 1993, since the 1992 GSE Act did not take effect until January 1, 1993.[57] This is the only situation where a GSE's responsibility to collect income and rent data for the units financed in 1993-2000 was waived by the Department. However, as discussed below, HUD has adopted new procedures regarding missing data for the 2001-03 housing goals.

Several points stand out in Table B.1:

- For every category in 1993-1997, Fannie Mae had substantially more missing data than Freddie Mac--e.g., in 1997, tenant rent was missing for nearly 28 percent of the single-family rental units financed by Fannie Mae, but for fewer than 2 percent of such units financed by Freddie Mac;

- Since 1997, the disparity between the GSEs in the extent of missing data has diminished, due to improvements in some of Fannie Mae's data, but also to

[55] All units in a property qualify for the underserved areas goal if the property is located in an underserved census tract in a metropolitan area or in an underserved county outside a metropolitan area. Property location is available for almost all mortgages purchased by the GSEs, thus the missing data issue is not significant for this goal.

[56] The GSEs define "first-time homebuyer" as a buyer who will reside in the mortgaged premises who had no ownership interest (sole or joint) in a residential property during the three-year period preceding the date of the purchase of the home.

[57] Purchases of pre-1993 mortgages with missing income or rent data have no effect on the GSEs' goal performance, since any such mortgages are excluded from the numerator and the denominator in calculating performance under the low- and moderate-income and special affordable goals. If a GSE obtains this data for pre-1993 mortgages, the units are included in the denominator and, if the units qualify for the goal, in the numerator in calculating goal performance.

deterioration in Freddie Mac's data--e.g., missing rent information fell from 10.9 percent in 1997 to 2.1 percent in 2000 for Fannie Mae's multifamily properties, while missing rent information rose from 1.8 percent in 1997 to 6.3 percent in 2000 for Freddie Mac's single-family rental properties.

- Despite the attention paid to first-time homebuyers, there has been a sharp increase in missing data for Freddie Mac on whether a home purchaser is a first-time buyer or a repeat buyer, and it now lags Fannie Mae in the availability of such information.

- Both GSEs could examine this issue to determine steps that might be taken to better address the problem of missing data. These analyses could examine the extent to which this problem is attributable to GSE purchases of seasoned loans and negotiated transactions, or to online mortgage applications.

In setting the housing goals for the post-2000 period, HUD has made several changes in the manner in which the GSEs can treat missing data in reporting goal performance in the future.[58] Specifically:

- For owner-occupied units, if a GSE lacks data on income of a borrower and the mortgaged property is located in a census tract with income less than or equal to area median income, such units can be excluded from the denominator (and the numerator) in calculating performance under the low- and moderate-income goal and the special affordable goal, up to a maximum of one percent of the total number of such units eligible to be counted toward such goal. Units beyond the ceiling must be included in the denominators of the goal ratios.

- For rental units in 1-4 unit properties, if a GSE lacks data on rent, such units can be excluded from the denominator (and the numerator) in calculating performance under the low- and moderate-income and special affordable goals.

- For multifamily units, if a GSE lacks data on rent, it may develop and apply, with the Department's approval, estimated or "proxy" rents, up to a ceiling. When application of proxy rents is not possible, units without rent information can be excluded from the denominator (and the numerator) in calculating performance under the low- and moderate-income goal and the special affordable goal.

[58] These changes and the reasons why they were adopted are discussed in the *Federal Register*, Volume 65, October 31, 2000, pages 65071-74, 65087-88. About 90 percent of rental units qualify for the low- and moderate-income goal and about 50 percent of rental units qualify for the special affordable goal. Since rental properties have substantial unmet credit needs, HUD did not want lack of data on affordability to act as a disincentive for the GSEs to purchase mortgages on these properties. A more restrictive approach has been applied to owner-occupied units with missing income data, which typically are not as affordable as rental units. Thus the Department allows exclusions only for such units in lower-income areas, and a cap on such exclusions is applied.

- No units can be excluded from the denominator in calculating performance under the underserved areas goal, even if a GSE lacks information on the census tract or nonmetro county in which such units are located.

Exclusion of units with missing borrower income or rent information, up to any levels allowed under the caps set by the Department, will raise the GSEs' performance on the low- and moderate-income and special affordable goals, since in the past all such units were included in the denominator, but not in the numerator, in calculating performance. If the new counting rules had been in place in 1998-2000, they would have had the following effects on goal performance:

Goal	1998	1999	2000
Low- and Moderate-income Goal:			
Fannie Mae	+0.9%	+0.8%	+1.7%
Freddie Mac	+0.3%	+0.4%	+0.6%
Special Affordable Goal:			
Fannie Mae	+0.3%	+0.3%	+0.7%
Freddie Mac	+0.1%	+0.2%	+0.3%

As indicated, in the past Fannie Mae would have benefited the most from the new treatment of units with missing information, since it has had more missing data than Freddie Mac.[59] The Department will closely monitor the effects of the new provisions regarding missing data over the 2001-03 period.

[59] However, as discussed in the text, Freddie Mac will benefit from the "temporary adjustment factor," which applies to Freddie Mac's goal performance, but not to Fannie Mae's performance, for 2001-03.

Appendix C
Additional Data on the GSEs' Mortgage Purchases in 1998-1999

This Appendix presents additional data on the GSEs' mortgage purchases in the most recent years prior to 2000.

- Tables C.1 and C.2 present information on the GSEs' mortgage purchase by property type in 1998 and 1999, and correspond to Table 1 of the text, which presents this information for 2000.

- Tables C.3 and C.4 present information on the loan and borrower characteristics of single-family mortgages purchased by the GSEs in 1998 and 1999, and correspond to Table 7 of the text, which presents this information for 2000.

- Tables C.5 and C.6 present information on the census tract characteristics of single-family mortgages purchased by the GSEs in 1998 and 1999, and correspond to Table 9 of the text, which presents this information for 2000.

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Housing Finance
WORKING PAPER SERIES[1]

HF-015 **GSE Performance and Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac,** *by Paul B. Manchester,* May 2002.

This paper (an update of HF-006) analyzes the performance of Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market, in meeting the housing goals established by HUD for 1998-2000. It also presents information on detailed borrower, locational, and loan characteristics of single-family mortgages purchased by the GSEs in this period. The report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that the GSEs passed all of their housing goals in 1998-2000 and generally achieved the highest levels of performance on the housing goals to date in 2000. It also finds that in most areas, by 2000 Freddie Mac had eliminated the performance gap with Fannie Mae that had existed in previous years.

HF-014 **Black and White Disparities in Subprime Mortgage Refinance Lending,** *by Randall Scheessele,* April 2002.

This paper examines patterns in Home Mortgage Disclosure Act (HMDA) data in an effort to understand the types of neighborhoods with high concentrations of subprime refinance lending and its disproportionate impact on low-income and predominantly black neighborhoods throughout the nation. Since home equity is typically the main source of wealth for borrowers in these neighborhoods have access to lower cost prime credit and weaker credit borrowers in these neighborhoods have access to subprime credit that is priced appropriately to their credit circumstances.

HF-013 **The GSEs' Funding of Affordable Loans: A 2000 Update,** *by Harold Bunce,* April 2002.

This study compares the borrower and neighborhood characteristics of single-family mortgages purchased by Fannie Mae and Freddie Mac between 1992 and 2000 with the characteristics of loans originated in the primary market during the same time period. The study finds that both Fannie Mae and Freddie Mac improved their affordable lending performance during the 1990s, but they continued in the year 2000 to underperform the conventional conforming market in funding mortgages for lower-income borrowers and for properties located in low-income and high-minority census tracts (i.e., underserved areas). Furthermore, the GSEs account for a significant share of the total market for home purchase loans, but their market share for each of the affordable lending categories is much less than their share of the overall market, and they contribute only a small share of funding in important market segments such as the market serving first-time minority homebuyers. The GSEs' small market share in the first-time homebuyer market could be due to the preponderance of high (over-20-percent) downpayment loans in their

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[1] For more information about any of the Housing Finance Working Paper Series, please contact the authors by calling (202) 401-0388 or (202) 708-1455 (TTY) or by writing to the author(s) at: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 451 7th Street, SW, Washington, DC 20410. Additional information on housing finance topics also may be found by visiting http://www.huduser.org.

mortgage purchases, although further study is needed to fully explain the reasons for their limited role in these markets.

HF-012 **The GSEs' Funding of Affordable Loans: A 1999 Update,** *by Harold Bunce*, December 2000.

This study examines the borrower and neighborhood characteristics of single-family mortgages purchased by Fannie Mae and Freddie Mac, the two major Government Sponsored Enterprises (GSEs) in the conventional secondary market. The purpose of the study is to determine whether Fannie Mae and Freddie Mac lead or lag the overall conventional conforming mortgage market in funding loans for low-income borrowers and other groups who historically have not been well served by the mortgage market. This study is the third in a series of working papers examining the affordable lending performance of the GSEs. There are two main findings. First, while both GSEs have improved their affordable lending performance since 1992, they continue to lag the conventional conforming market in funding mortgages for lower-income borrowers and for properties located in low-income and high-minority census tracts (i.e., underserved areas). Second, Fannie Mae has traditionally out-performed Freddie Mac in purchasing loans for lower-income borrowers and underserved neighborhoods; however, the relative performance of the two GSEs has recently shifted, as Freddie Mac's performance slightly surpassed Fannie Mae's during 1999.

HF-011 **An Analysis of GSE Purchases of Mortgages for African-American Borrowers and Their Neighborhoods,** *by Harold Bunce*, November 2000.

This study examines the record of Fannie Mae and Freddie Mac in providing mortgage funds for African-American borrowers and their neighborhoods. The study has four main findings. First, Fannie Mae has traditionally out-performed Freddie Mac in purchasing loans for African-American borrowers and their neighborhoods; however, between 1997 and 1999, there was a shift in the relative performance of the two GSEs, as Fannie Mae's performance declined and Freddie Mac's performance increased. Second, both GSEs lag the conventional conforming market in funding mortgages for African-American borrowers and their neighborhoods. Third, the GSEs' shares of mortgage originations for both upper-income and lower-income African-American borrowers appear low. The GSEs' market shares for loans to upper-income African-American borrowers are similar to their market shares for loans to very low-income White borrowers. Finally, the market share data reported in this paper illustrate the relatively small role that the GSEs play in funding loans for African-American borrowers in the overall (conventional and government) mortgage market.

HF-010 **The Property Owners and Managers Survey and the Multifamily Housing Finance System,** *by William Segal*, September 2000.

The HUD Property Owners and Managers Survey (POMS) can be utilized to analyze a number of policy issues relating to financing for rental properties. In this paper, adjustment techniques to correct for the effects of data truncation are developed and are applied to derive estimates of number of units per property, the size of the multifamily mortgage stock, and the magnitude of annual mortgage origination volume, a critical parameter for benchmarking the performance of Fannie Mae and Freddie Mac. Mortgage origination volume for 1995 is estimated using both a "hot-deck" and a regression-based imputation approach. Results from the internal POMS file at the Census Bureau as well from the public-use version of the file are included here. Advantages and shortcomings of POMS in relation to a number of other multifamily data sources are noted, as are possible directions for future research.

HF-009 **1998 HMDA Highlights,** *by Randall M. Scheessele,* October 1999.

This paper describes home purchase and refinance mortgage market trends at the national level using HMDA data on mortgage denials and originations from 1998 and earlier. An important contribution of the paper is the recognition of manufactured home and subprime lenders that report to HMDA and their effect on mortgage market trends. The paper provides a list of 21 lenders that specialize in manufactured home lending and 200 lenders that specialize in subprime lending. The paper finds that manufacture home loan applications and their increasing denial rates were the primary reason for the increasing conventional denial rat since 1993. The paper also finds that conventional prime home purchase lending to minority and lower-income borrowers increased substantially between 1993 and 1994 but growth in lending to these groups since 1994 was attributable to growth in FHA, manufactured home, and subprime lending.

HF-008 **Do FHA Multifamily Mortgage Insurance Programs Provide Affordable Housing and Serve Underserved Areas? An Analysis of FHA's Fiscal Year 1997 Book of Business and Comparison with the GSEs,** *by Edward J. Szymanoski and Susan J. Donahue,* October 1999.

This paper analyzes the rent affordability of about 67,500 unassisted multifamily units, which were insured by FHA during Fiscal Year 1997, and the proportion of these units located in *underserved areas*. In addition, the paper also compares FHA's 1997 multifamily loans purchased by Fannie Mae and Freddie Mac (the government-sponsored enterprises, or GSEs) in regard to rent affordability and proportion of units located in underserved areas. The analysis shows that FHA is providing a substantial amount of modest cost rental housing and serving underserved areas with its unassisted multifamily mortgage insurance programs. About 95 percent of the FHA units in this study (including new construction and existing housing) were affordable at 100 percent of area median income, and over 40 percent were affordable at 60 percent of area median income. About 40 percent of the FHA units in the study were located in underserved areas. In drawing comparison between FHA and the GSEs, the paper first notes the differences as well as similarities between the multifamily programs of these respective agencies- for example, FHA offers higher loan-to-value ratios, lower debt service coverage ratios, and longer fixed-rate mortgage terms than do the GSEs. These underwriting differences notwithstanding, FHA's affordability and underserved area percentages for FY 1997 were very similar to those of comparable Fannie Mae and Freddie Mac mortgage purchases.

HF-007 **HMDA Coverage of the Mortgage Market,** *by Randall M. Scheessele,* July 1998.

This paper examines the coverage of HMDA data by taking advantage of loan-level data reported to HUD on mortgages insured by FHA and mortgages purchased by the GSEs. The FHA and GSE databases provide an accurate standard against which HMDA data on FHA and GSE loans can be measured. The results of this paper provide background for using HMDA data to estimate the market share of loans for FHA and the GSEs by reporting HMDA coverage rates for FHA originations and GSE acquisitions of mortgages for 1993 through 1996. The paper finds that HMDA data under-reports GSE acquisitions mainly because a few large lenders fail to correctly report the sale of a significant number of their loans to the GSEs. Notwithstanding coverage issues, HMDA data continues to be the most comprehensive data base for measuring primary and secondary mortgage market activity.

HF-006 **Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996-97 Update,** *by Paul B. Manchester,* August 1998.

This paper (an update of HF-003) examines the mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. The analyses focus on detailed borrower, locational, and loan characteristics of such mortgages in the 1996-97 period. In general, the report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that the GSEs generally increased their performance on the goals established by HUD in 1995 and that they surpassed all of their 1996-97 goals, with Fannie Mae's performance exceeding Freddie Mac's performance on each of the goals in both years.

HF-005 **The GSEs' Funding of Affordable Loans: 1996 Update**, *by Harold L. Bunce and Randall M. Scheessele,* July 1998.

This paper (an update of HF-001) examines the borrower and neighborhood characteristics of (GSEs) in the conventional secondary mortgage market. The analysis is based on Home Mortgage Disclosure Act (HMDA) data on home purchase loans originated in metropolitan areas between 1992 and 1996. The GSEs' mortgage purchases are compared to all mortgages originated in the conventional conforming loan market, including originations retained in portfolio by banks and thrift institutions. The paper finds that there continues to be room for further increases in purchases of affordable loans by Fannie Mae and, especially, Freddie Mac.

HF-004 **The GSEs' Purchases of Single-Family Rental Property Mortgages**, *by Theresa R. DiVenti,* March 1998.

This paper examines the single-family rental mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. These properties are the "mom and pop shops" of the rental market, meaning they are small and largely individually owned and managed. To date there has been little research on this segment of the rental market. This analysis looks at neighborhood, affordability, borrower, and financial characteristics of the GSEs' mortgage purchases. The study finds that, while single-family rental properties are a small portion of the GSEs' overall business, they are a large and important segment of the rental stock for lower income families.

HF-003 **Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 1993-95,** *by Paul B. Manchester, Sue George Neal, and Harold L. Bunce,* March 1998.

This paper examines the mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. The analyses focus on detailed borrower, locational, and loan characteristics of such mortgages in the "1993-95 transition period," established by Congress in the Federal Housing Enterprises Financial Safety and Soundness Act of 1992. In general, the report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that although there were significant increases between 1993 and 1995 in the GSEs' funding of loans for groups traditionally underserved by the mortgage market, their support is generally less than that provided by portfolio lenders.

HF-002 **The Multifamily Secondary Mortgage Market: The Role of Government-Sponsored Enterprises**, *by William Segal and Edward J. Szymanoski,* March 1997.

This paper examines the performance of Fannie Mae and Freddie Mac in enhancing the liquidity and efficiency of the affordable segment of the multifamily mortgage market. The paper focuses specifically on the period since 1993, when HUD established affordable housing goals for these two Government-Sponsored Enterprises (GSEs). A private secondary mortgage market has developed to address the finance needs of higher end properties; yet a comparable market for mortgages on properties affordable to lower-income families lags in development. Placed within a wider market context, it is found that the GSEs have been cautious in their affordable multifamily transactions. It is concluded that the GSEs have the potential to do more to enhance the affordable segment of the multifamily mortgage market.

HF-001 **The GSEs' Funding of Affordable Loans**, *by Harold L. Bunce and Randall M. Scheessele,* December 1996.

This paper examines the borrower and neighborhood characteristics of mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. The GSEs' mortgage purchases are compared to all mortgages originated in the conventional conforming loan market, including originations retained in portfolio by banks and thrift institutions. The analysis is based on Home Mortgage Disclosure Act (HMDA) data on home purchase loans originated in metropolitan areas between 1992 and 1995. The paper finds that there is room for further increases in purchases of affordable loans by Fannie Mae and, especially, Freddie Mac.

Table 1

GSEs' Mortgage Purchases by Property Type For 2000

	2000 Purchases							
	Fannie Mae				Freddie Mac			
Property Type	UPB[1] ($Millions)	Percent of Total Dollars	Units	Percent of Total Units	UPB[1] ($Millions)	Percent of Total Dollars	Units	Percent of Total Units
One-Family Owner Properties	$207,031	88.1%	1,730,020	75.4%	$159,705	91.1%	1,374,894	82.0%
Other Single-Family Properties:								
2-4 Unit Owner-Occ. Properties	5,560	2.4%	84,628	3.7%	3,120	1.8%	51,632	3.1%
Renter-Occupied Units			47,359	2.1%			28,650	1.7%
Owner-Occupied Units			37,269	1.6%			22,982	1.4%
1-4 Unit Investor Properties	12,405	5.3%	188,858	8.2%	5,778	3.3%	87,188	5.2%
Total Single-Family Properties	224,996	95.7%	2,003,506	87.4%	168,603	96.1%	1,513,714	90.2%
Multifamily Properties	10,078	4.3%	289,891	12.6%	6,781	3.9%	163,580	9.8%
Total Business	$235,074	100.0%	2,293,397	100.0%	$175,384	100.0%	1,677,294	100.0%

Source: GSEs' Annual Housing Activities Reports. Corresponding data for 1998 and 1999 are presented in Tables C.1 and C.2.

[1] Unpaid principal balance of mortgages purchased.

Table 2

Overview of the GSEs' Housing Goals and Performance, 1993-2000[1]

Goal[2]	1993	1994	1995	1996	1997	1998	1999	2000	Ratio 2000 to 1993	1996 Goals	1997-2000 Goals
Low- and Moderate-Income:											
Fannie Mae	34.2%	44.8%	42.3%	45.6%	45.7%	44.1%	45.9%	49.4%	1.45	40%	42%
Freddie Mac	29.7%	37.4%	38.9%	41.1%	42.6%	42.9%	46.1%	49.9%	1.68		
Ratio	0.87	0.83	0.92	0.90	0.93	0.97	1.00+	1.01	1.16		
Geographically-Targeted:											
Fannie Mae	23.6%	29.5%	31.9%	28.1%	28.8%	27.0%	26.8%	31.0%	1.31	21%	24%
Freddie Mac	21.8%	25.2%	26.4%	25.0%	26.3%	26.1%	27.5%	29.2%	1.34		
Ratio	0.92	0.85	0.83	0.89	0.91	0.97	1.03	0.94	1.02		
Special Affordable:											
Fannie Mae	9.7%	15.2%	14.1%	15.4%	17.0%	14.3%	17.6%	19.2%	1.98	12%	14%
Freddie Mac	7.0%	11.3%	12.8%	14.0%	15.2%	15.9%	17.2%	20.7%	2.96		
Ratio	0.72	0.74	0.91	0.91	0.89	1.11	0.98	1.08	1.49		
Special Affordable Multifamily[3]:											
Fannie Mae	$1.64	$1.74	$1.34	$2.37	$3.19	$3.53	$4.06	$3.79	2.31	$1.29	$1.29
Freddie Mac	$0.14	$0.46	$0.69	$1.06	$1.21	$2.69	$2.26	$2.40	17.14	$0.99	$0.99
Ratio[4]	0.11	0.34	0.67	0.58	0.49	0.99	0.73	0.83	7.42	0.77	0.77

Source: HUD anlaysis of data submitted by the GSEs. Some results differ from performance reported by the GSEs in their Annual Housing Activities Reports (AHARs).

[1] Percentages of dwelling units in properties whose mortgages were purchased by the GSEs that qualified for each goal in 1993-2000, based on HUD's December 1995 rule, and goals for 1996-2000.

[2] Abbreviated definitions of goals:

Low- and Moderate-Income: Households with income less than or equal to area median income (AMI).

Geographically Targeted: Dwelling units in metropolitan census tracts with (1) tract median family income less than or equal to 90 percent of AMI or (2) minority concentration of at least 30 percent *and* tract median family income less than or equal to 120 percent of AMI; dwelling units in nonmetropolitan counties with (1) median family income less than or equal to 95 percent of the greater of state or national nonmetropolitan median income or (2) minority concentration of at least 30 percent *and* county median family income less than or equal to 120 percent of state nonmetropolitan median income.

Special Affordable: Households with income (1) less than or equal to 60 percent of AMI or (2) less than or equal to 80 percent of AMI and located in low-income areas.

For the low- and moderate-income and special affordable goals, AMI is median income for the MSA for borrowers in metropolitan areas, and the greater of county or state nonmetro median income for borrowers outside metropolitan areas.

[3] Goals, performance, and market estimates in billions of dollars; goals for 1996-2000 are 0.8 percent of each GSE's total mortgage purchases in 1994.

[4] Ratio of Freddie Mac's performance, relative to its 1996-2000 goal, to Fannie Mae's performance, relative to its 1996-2000 goal.

Table 3

Characteristics of Borrowers and Geographic Areas

Borrower and Tract Income Ranges:	Family (or tract median) income No greater than:
Very low-income	60 percent of Area Median Income (AMI[1])
Low-income	80 percent of AMI
Low- or moderate-income	100 percent of AMI
High-income	In excess of 120 percent of AMI
Geographic Area Minority Population:	Census tract or county where minorities account for --
Low-minority tract or county	No more than 10 percent of the population
High-minority tract or county	At least 30 percent of the population
Underserved Areas:	
In metropolitan areas	Census tract with median income at or below 90 percent of AMI[2] <u>or</u> high-minority tract with median income at or below 120 percent of AMI
Outside metropolitan areas	Counties[3] with median income at or below 95 percent of AMI[2] <u>or</u> high-minority county with median income at or below 120 percent of AMI

[1]For purposes of the borrower and census tract income range definitions, area median income (AMI) means the median income of the metropolitan area, or, for properties located outside of metropolitan areas, the greater of the median income of the county or the nonmetropolitan portion of the State.

[2]For purposes of the underserved areas definitions, area median income (AMI) means the median income of the metropolitan area, or, for properties located outside of metropolitan areas, the greater of the median income of the nonmetropolitan portion of the State or the nonmetropolitan portion of the Nation.

[3]For counties partially contained in a metropolitan area in New England, nonmetropolitan portions of counties.

Table 4

Loan Characteristics of GSE Purchases of Mortgages on One-Family Owner-Occupied Properties, 1998-2000

	Fannie Mae			Freddie Mac		
Loan Characteristics	1998	1999	2000	1998	1999	2000
Number of Loans	3,076,639	2,566,540	1,730,020	2,350,147	1,969,683	1,374,895
Home Purchase	1,304,800	1,181,159	1,204,792	849,320	848,612	923,095
Refinance/Other	1,771,839	1,385,381	525,228	1,500,827	1,121,071	451,800
Percent Home Purchase	42.4%	46.0%	69.6%	36.1%	43.1%	67.1%
Percent Refinance/Other	57.6%	54.0%	30.4%	63.9%	56.9%	32.9%
Year of Origination						
Current Year	83.2%	70.2%	72.8%	87.9%	72.4%	65.8%
Prior year	16.8%	29.8%	27.2%	12.1%	27.6%	34.2%
Type of Seller Institution						
Mortgage Company	68.2%	70.0%	60.2%	59.3%	66.1%	53.2%
Thrift	14.9%	15.1%	20.5%	14.6%	7.4%	5.5%
Bank	12.1%	9.5%	11.7%	23.1%	22.8%	34.7%
Other	4.9%	5.4%	7.6%	3.0%	3.7%	6.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: HUD analysis of GSE loan-level data. Other mortgages include second mortgages and mortgages for which loan purpose is not available.

Table 5

Shares of GSEs' Purchases of Mortgages on Owner-Occupied One-Family Properties Qualifying for Housing Goals

(Figures in bold indicate GSE with higher performance)

	Home Purchase		Refinance[1]		Total		
Year	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Ratio, Freddie Mac /Fannie Mae
Low and Moderate-Income							
1993	**31.8** %	30.6 %	**26.3** %	25.9 %	**28.1** %	27.1 %	0.96
1994	**37.0**	32.5	**32.1**	31.8	**34.5**	32.1	0.93
Purchases: 1995	**35.4**	30.8	**32.7**	32.6	**34.5**	31.5	0.91
1996	**35.6**	33.2	**35.1**	34.7	**35.4**	33.9	0.96
1997	**36.9**	33.8	35.3	**36.3**	**36.2**	34.9	0.96
1998	**39.7**	36.6	33.9	**35.1**	**36.3**	35.6	0.98
1999	**39.3**	38.3	36.8	**38.7**	37.9	**38.5**	1.02
2000	38.7	**40.7**	41.1	**43.2**	39.4	**41.6**	1.06
Special Affordable Purchases:							
1993	**7.7** %	6.9 %	**5.2** %	5.0 %	**6.0** %	5.5 %	0.92
1994	**10.1**	7.7	**7.7**	7.6	**8.9**	7.7	0.87
1995	**9.9**	7.7	8.1	**8.6**	**9.3**	8.0	0.86
1996	**9.5**	8.4	9.2	**9.4**	**9.4**	8.8	0.94
1997	**9.4**	8.8	9.7	**10.5**	9.5	9.5	1.00
1998	**11.5**	11.4	9.0	**10.2**	10.0	**10.6**	1.06
1999	12.1	**12.0**	10.9	**12.6**	11.5	**12.4**	1.08
2000	11.7	**13.8**	13.6	**16.7**	12.3	**14.8**	1.20
Underserved Areas:							
1993	**21.3** %	19.4 %	19.9 %	**20.1** %	**20.4** %	19.9 %	0.98
1994	**24.6**	20.6	**24.1**	23.3	**24.4**	22.1	0.91
1995	**25.2**	21.4	**26.2**	25.3	**25.6**	22.8	0.89
1996	**23.1**	21.0	**25.3**	24.3	**24.0**	22.4	0.93
1997	**24.2**	20.7	25.4	**25.5**	**24.7**	22.8	0.92
1998	**25.2**	22.3	21.3	**23.5**	22.9	**23.1**	1.01
1999	21.8	**22.6**	24.4	**26.6**	23.2	**24.9**	1.07
2000	**24.1**	23.1	30.8	**31.8**	**26.2**	26.0	0.99

[1] Refinance, second, and other mortgages.

Table 6

Locational Characteristics of GSE Purchases of Mortgages on One-Family Owner-Occupied Properties, 1998-2000

	Fannie Mae			Freddie Mac		
Geographic Location	1998	1999	2000	1998	1999	2000
Number of Mortgages	3,076,639	2,566,540	1,730,020	2,350,147	1,969,683	1,374,895
Location						
Metropolitan Areas	86.2%	87.2%	87.2%	83.1%	83.5%	85.0%
Non-Metropolitan Areas	13.7%	12.8%	12.7%	16.9%	15.7%	14.6%
Census Division						
New England	5.0%	5.3%	5.2%	5.7%	4.8%	4.2%
Middle Atlantic	8.5%	9.5%	10.3%	7.7%	8.8%	9.7%
East North Central	21.3%	20.8%	18.2%	22.3%	18.6%	19.0%
West North Central	7.5%	6.7%	6.0%	7.8%	7.7%	8.5%
South Atlantic	18.2%	18.0%	19.7%	19.7%	21.1%	24.4%
East South Central	4.3%	4.2%	4.3%	5.4%	4.8%	4.4%
West South Central	7.4%	8.2%	8.1%	6.1%	6.9%	8.0%
Mountain	9.7%	9.2%	8.8%	9.8%	9.3%	8.8%
Pacific	17.7%	17.7%	18.6%	14.9%	17.6%	12.7%
Puerto Rico	0.2%	0.4%	0.6%	0.5%	0.4%	0.3%
Other/Unknown	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: HUD analysis of GSE loan-level data.

Table 7

Borrower and Loan Characteristics of Mortgages Purchased by the GSEs on One-Family Owner-Occupied Properties, 2000

Loan and Borrower Characteristics	Home Purchase		Refinance/Other		Total	
	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac
Number of Loans	1,204,792	923,095	525,228	451,800	1,730,020	1,374,895
Loan-to-Value Ratio						
Over 95%	4.4% [1]	6.1%	1.1%	0.5%	3.4%	4.2%
91-95%	18.8%	20.2%	1.7%	2.3%	13.5%	14.3%
81-90%	16.1%	15.2%	12.2%	13.6%	14.9%	14.7%
80% or Less	60.7%	58.5%	84.9%	83.6%	68.2%	66.8%
Income of Borrower(s)						
60% of Area Median or Below	11.6%	12.2%	14.0%	15.2%	12.3%	13.1%
61-100% of Median	28.2%	28.8%	30.2%	30.3%	28.8%	29.3%
Below Area Median	39.8%	41.0%	44.2%	45.5%	41.1%	42.5%
Over 100% of Median	60.2%	59.0%	55.8%	54.5%	58.9%	57.5%
First-time Home Buyer[2]	26.9%	27.6%			14.8%	14.8%
Race/National Origin of Borrower						
White	81.5%	84.3%	84.7%	85.5%	82.5%	84.7%
African American	4.0%	3.9%	4.4%	4.8%	4.1%	4.2%
Hispanic	7.2%	5.9%	6.6%	5.7%	7.0%	5.9%
Asian or Pacific Islander	5.0%	4.1%	2.6%	2.3%	4.3%	3.6%
American Indian or Alaskan Native	0.4%	0.4%	0.4%	0.5%	0.4%	0.4%
Other	1.9%	1.4%	1.3%	1.2%	1.7%	1.3%
Age of Borrower						
Under 30	15.4%	14.0%	5.8%	4.7%	12.5%	10.9%
30-39	29.7%	25.9%	22.4%	17.7%	27.5%	23.2%
40 and Over	41.2%	34.7%	55.3%	40.5%	45.5%	36.6%
Unknown	13.7%	25.4%	16.4%	37.1%	14.6%	29.2%
Gender of Borrower(s)						
All Male	20.6%	20.0%	19.1%	15.5%	20.2%	18.5%
All Female	17.8%	17.8%	17.1%	14.1%	17.6%	16.6%
Male and Female	48.6%	50.5%	51.2%	48.9%	49.4%	50.0%
Unknown	12.9%	11.8%	12.6%	21.4%	12.8%	15.0%

Source: HUD analysis of GSEs' loan-level data. Corresponding data for 1998-99 are presented in Tables C.3 and C.4.

[1] Interpreted as follows: 4.4 percent of home purchase loans purchased by Fannie Mae in 2000 had loan-to-value ratios over 95 percent.

[2] From Table 9 of Fannie Mae's and Freddie Mac's Annual Housing Activities Reports.

Table 8

Loan-to-Value Characteristics of GSEs' Home Purchase Mortgages Meeting Housing Goals, 2000

GSE, Goal	Loan-to-Value Ratio					
	LTV > 95%	90% < LTV ≤ 95%	80% < LTV ≤ 90%	LTV ≤ 80%	Missing	Total
Fannie Mae						
	7.4%	20.4%	15.7%	56.3%	0.2%	100.0%
Low- and Moderate Income	7.2%	22.2%	17.4%	53.1%	0.1%	100.0%
Underserved Areas	8.4%	18.0%	13.2%	55.2%	5.1%	100.0%
Special Affordable	4.3%	18.3%	15.7%	59.0%	2.7%	100.0%
All Home Purchase Mortgages						
Freddie Mac						
	10.1%	20.1%	14.1%	52.4%	3.4%	100.0%
Low- and Moderate Income	9.4%	24.6%	15.7%	47.4%	2.9%	100.0%
Underserved Areas	12.6%	17.5%	12.3%	52.4%	5.2%	100.0%
Special Affordable	5.9%	19.7%	14.8%	56.9%	2.6%	100.0%
All Home Purchase Mortgages						
GSEs Combined						
	8.6%	20.2%	15.0%	54.5%	1.6%	100.0%
Low- and Moderate Income	8.1%	23.2%	16.6%	50.7%	1.3%	100.0%
Underserved Areas	10.4%	17.8%	12.8%	53.9%	5.1%	100.0%
Special Affordable	5.0%	18.9%	15.3%	58.1%	2.7%	100.0%
All Home Purchase Mortgages						

Table 9

Census Tract Characteristics of Mortgages on One-Family Owner-Occupied Properties Purchased by the GSEs, 2000

	Home Purchase Mortgages		Refinance Mortgages		Total	
Census Tract Characteristics	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac
Median Income of Tract						
80% of Area Median or Below	9.3% [1]	9.0%	11.7%	12.4%	10.0%	10.1%
81-120% of Median	52.8%	53.3%	58.2%	58.6%	54.5%	55.0%
Over 120% of Median	37.9%	37.7%	30.1%	29.0%	35.5%	34.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Minority Composition of Tract						
Less Than 10% Minority	54.6%	58.0%	56.6%	57.6%	55.2%	57.9%
10-30% Minority	30.6%	29.6%	26.4%	25.7%	29.3%	28.3%
Over 30% Minority	14.8%	12.4%	16.9%	16.6%	15.5%	13.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Percent in Low-income **and** High-minority Tracts	4.7%	4.1%	6.1%	6.3%	5.1%	4.8%
Underserved Areas	25.1%	24.1%	31.0%	32.1%	26.9%	26.7%

Source: HUD analysis of GSEs' loan-level data. Corresponding data for 1998-99 are presented in Tables C.5 and C.6.

[1] Interpreted as follows: 9.3 percent of home purchase loans purchased by Fannie Mae in 2000 were for properties in census tracts with median income no greater than 80 percent of area median income.

Table 10

Trends in the Characteristics of Home Purchase Loans Acquired by the GSEs, 1993-2000[1]

Characteristic	1993	1994	1995	1996	1997	1998	1999	2000
Very-Low-Income Borrowers								
Fannie Mae	6.8 %[2]	8.8 %	9.3 %	8.9 %	10.1 %	13.8 %	11.4 %	11.6 %
Freddie Mac	6.2	6.7	6.8	7.3	7.5	12.9	10.9	12.2
Freddie Mac/Fannie Mae	0.91	0.76	0.73	0.82	0.74	0.93	0.96	1.05
African-American Borrowers								
Fannie Mae	2.7	4.0	4.4	3.6	4.1	3.6	3.5	4.0
Freddie Mac	2.0	2.8	3.2	2.9	2.7	3.5	3.2	3.9
Freddie Mac/Fannie Mae	0.74	0.70	0.73	0.79	0.65	0.97	0.91	0.98
Hispanic Borrowers								
Fannie Mae	3.8	5.7	6.2	5.6	5.0	5.0	5.6	7.2
Freddie Mac	3.1	4.0	4.1	3.9	3.9	3.8	4.9	5.9
Freddie Mac/Fannie Mae	0.82	0.70	0.66	0.69	0.77	0.75	0.88	0.82
First-Time Homebuyers[3]								
Fannie Mae	24.0	31.1	31.9	33.1	30.1	25.1	26.2	26.9
Freddie Mac	27.3	29.5	28.7	28.5	27.0	19.8	24.9	27.6
Freddie Mac/Fannie Mae	1.14	0.95	0.90	0.86	0.90	0.79	0.95	1.03
Low-Income Tracts								
Fannie Mae	6.8	8.7	8.6	8.6	9.3	10.3	8.2	9.3
Freddie Mac	6.5	6.6	6.9	7.5	7.6	9.5	8.7	9.0
Freddie Mac/Fannie Mae	0.96	0.76	0.80	0.88	0.82	0.92	1.06	0.97
High-Minority Tracts								
Fannie Mae	13.1	15.7	16.2	14.0	14.9	14.7	13.0	14.8
Freddie Mac	11.1	11.6	10.9	10.8	10.7	12.3	12.2	12.4
Freddie Mac/Fannie Mae	0.85	0.74	0.67	0.77	0.72	0.84	0.94	0.84
Underserved Areas								
Fannie Mae	21.3	24.7	25.2	23.7	25.2	28.0	23.1	25.1
Freddie Mac	19.4	20.6	21.4	21.3	21.2	26.7	23.8	24.1
Freddie Mac/Fannie Mae	0.91	0.83	0.85	0.90	0.84	0.95	1.03	0.96

Source: HUD analysis of GSEs' loan-level data on home purchase mortgages on owner-occupied one-unit properties. From National File B, HUD's GSE Public Use Data Base.

[1] As a percentage of loans for which information was reported by the GSEs.

[2] I.e., 6.8% of the home purchase mortgages on owner-occupied one-unit properties purchased by Fannie Mae in 1993 were for very-low-income borrowers (those with income less than or equal to 60 percent of area median income).

[3] As reported by the GSEs in their Annual Housing Activities Reports, as a percentage of all home purchase loans, including those where first-time homebuyer status is unknown.

Table 11

Mortgage Rates, Home Purchase and Refinance Loan Volume, and Special Affordable Share Loans Purchased by Fannie Mae and Freddie Mac, 1993-2000

Year	Average Mortgage Rate	Number of Loans[1]						Special Affordable Share of Loans					
		Home Purchase		Refinance[2]		Total		Home Purchase		Refinance[2]		Total	
		Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac
1993	7.13%	1,010,000	600,000	1,810,000	1,630,000	2,820,000	2,230,000	7.7%	6.9%	5.2%	5.0%	6.0%	5.5%
1994	7.49%	780,000	520,000	760,000	670,000	1,540,000	1,190,000	10.7%	7.7%	7.7%	7.6%	8.9%	7.7%
1995	7.85%	820,000	570,000	390,000	310,000	1,210,000	880,000	9.9%	7.7%	8.1%	8.6%	9.3%	8.0%
1996	7.74%	910,000	670,000	660,000	510,000	1,570,000	1,180,000	9.5%	8.4%	9.2%	9.4%	9.4%	8.8%
1997	7.68%	950,000	600,000	560,000	440,000	1,510,000	1,040,000	9.4%	8.8%	9.7%	10.5%	9.5%	9.5%
1998	7.10%	1,300,000	850,000	1,780,000	1,500,000	3,080,000	2,350,000	11.5%	11.4%	9.0%	10.2%	10.0%	10.6%
1999	7.25%	1,180,000	850,000	1,390,000	1,120,000	2,570,000	1,970,000	12.1%	12.0%	10.9%	12.6%	11.5%	12.4%
2000	7.96%	1,200,000	920,000	530,000	450,000	1,730,000	1,370,000	11.7%	13.8%	13.6%	16.7%	12.3%	14.8%

[1] For loans on one-unit owner-occupied properties.

[2] Refinance and other mortgages (second mortgages, loans without purpose listed.)

Source: Average mortgage rate from the Federal Housing Finance Board; loan volume and special affordable shares calculated from data provided to HUD by the GSEs.

Table 12

Home Purchase Loans for Owner-Occupied One-Unit Properties, By Race and Income, 2000

	Borrower Income Relative to Area Median Income (AMI)			
Race/Ethnicity	< = 60% of AMI	61-100% of AMI	> 100% of AMI	Total[1]
African-American				
Freddie Mac	6,225	9,351	11,080	26,656
Fannie Mae	7,069	10,466	13,394	30,929
GSE Total	13,294	19,817	24,474	57,585
Freddie Mac's Share	46.8%	47.2%	45.3%	46.3%
Fannie Mae's Share	53.2%	52.8%	54.7%	53.7%
Hispanic				
Freddie Mac	9,095	13,907	16,242	39,244
Fannie Mae	8,705	17,346	26,402	52,453
GSE Total	17,800	31,253	42,644	91,697
Freddie Mac's Share	51.1%	44.5%	38.1%	42.8%
Fannie Mae's Share	48.9%	55.5%	61.9%	57.2%
American Indian/Alaskan Native				
Freddie Mac	365	642	1,104	2,111
Fannie Mae	420	749	1,194	2,363
GSE Total	785	1,391	2,298	4,474
Freddie Mac's Share	46.5%	46.2%	48.0%	47.2%
Fannie Mae's Share	53.5%	53.8%	52.0%	52.8%
Asian American				
Freddie Mac	3,474	9,419	15,724	28,617
Fannie Mae	4,344	12,906	22,734	39,984
GSE Total	7,818	22,325	38,458	68,601
Freddie Mac's Share	44.4%	42.2%	40.9%	41.7%
Fannie Mae's Share	55.6%	57.8%	59.1%	58.3%
White				
Freddie Mac	70,183	175,710	368,881	614,774
Fannie Mae	83,788	199,240	421,097	704,125
GSE Total	153,971	374,950	789,978	1,318,899
Freddie Mac's Share	45.6%	46.9%	46.7%	46.6%
Fannie Mae's Share	54.4%	53.1%	53.3%	53.4%
Total[2]				
Freddie Mac	91,374	215,596	431,813	738,783
Fannie Mae	106,800	249,346	508,163	864,309
GSE Total	198,174	464,942	939,976	1,603,092
Freddie Mac's Share	46.1%	46.4%	45.9%	46.1%
Fannie Mae's Share	53.9%	53.6%	54.1%	53.9%

Source: HUD's analysis of data from the GSEs' Public Use Data Base, National File B.

[1] Excludes units where borrower's income ratio cannot be determined due to missing annual income and/ or missing area median income.

[2] Includes other races, borrower and coborrower of different races; excludes not applicable.

Table 13

Current Year Refinance Loans Purchased by the GSEs, by Borrower Income, Owner-Occupied 1-Unit Properties, 1998-2000

	Year of Origination/Purchase			
Borrower Income Ratio [1]	1998	1999	2000	Total or Average, 1998-2000
<= 60% of AMI				
Number of Loans	244,160	188,200	89,674	522,034
Percent of 1998-2000 Total	46.8%	36.1%	17.2%	100.0%
60% to <= 100% of AMI				
Number of Loans	764,072	469,863	181,133	1,415,068
Percent of 1998-2000 Total	54.0%	33.2%	12.8%	100.0%
> 100% of AMI				
Number of Loans	1,900,288	963,528	306,668	3,170,484
Percent of 1998-2000 Total	59.9%	30.4%	9.7%	100.0%
Total [2]				
Number of Loans	2,908,520	1,621,591	577,475	5,107,586
Percent of 1998-2000 Total	56.9%	31.7%	11.3%	100.0%
Effective Mortgage Rate [3]	7.10%	7.25%	7.96%	7.44%

Source: HUD analysis of GSEs' loan-level data from National File B of the Public Use Data Base; Federal Housing Finance Board's Mortgage Interest Rate Survey.

[1] Borrower income relative to area median income (AMI)

[2] Excludes "not applicable" cases.

[3] The average yearly effective mortgage rate is the contract interest rate plus all fees, points, and charges amortized over a 10-year period, for new and existing homes.

Table A.1

GSEs' Activity and Goals for the 1993-95 Transition Period [1]

Goal [2]	Activity 1993	Activity 1994	Activity 1995	Goals 1993	Goals 1994	Goals 1995
Low- and Moderate-Income:						
Fannie Mae	34.4%	45.0%	43.2%	30%	30%	30%
Freddie Mac	29.2%	37.5%	39.0%	28%	30%	30%
Central Cities:						
Fannie Mae	26.3%	31.5%	30.4%	28%	30%	30%
Freddie Mac	24.3%	25.3%	23.4%	26%	30%	30%
Special Affordable ($ billions):						
Fannie Mae	$21.4 (1993-94)		$8.4	$16.4 (1993-94)		$4.6
Freddie Mac	$12.7 (1993-94)		$5.5	$11.9 (1993-94)		$3.4

[1] For low- and moderate-income and central cities, activity and goals are measured as percentages of dwelling units in properties whose mortgages were purchased by the GSEs in each year. For special affordable, activity and goals are measured in billions of dollars in 1993-94 (two-year goal) and 1995.

[2] ~~Abbreviated definitions of goals~~:

Low- and Moderate-Income: Households with income less than or equal to area median income.

Central Cities: Units in properties located in central cities, as defined by the Office of Management and Budget.

Special Affordable: Single-family units affordable to very low-income families and low-income families in low-income areas; multifamily units affordable to low-income families and very low-income families.

Source: As reported by Fannie Mae and Freddie Mac in their Annual Housing Activities Reports, adjusted by HUD for missing data, as described in "Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility," HUD Report, July 1996, Chapter III.

Table B.1

GSEs' Mortgages with Missing Information, 1993-2000

	Year of Acquisition							
	1993	1994	1995	1996	1997	1998	1999	2000
Percent of Owner-Occupied Units Financed with Missing Borrower Income								
Fannie Mae	11.7%	5.5%	9.5%	6.6%	6.8%	5.2%	3.7%	9.1%
Freddie Mac	10.4%	2.8%	7.2%	3.2%	1.4%	1.7%	5.5%	6.9%
Percent of Single-Family Rental Units Financed with Missing Tenant Rent								
Fannie Mae	31.2%	31.5%	46.4%	18.9%	27.9%	22.5%	21.4%	33.7%
Freddie Mac	15.0%	5.0%	25.1%	4.7%	1.8%	1.9%	2.2%	6.3%
Percent of Multifamily Rental Units Financed with Missing Tenant Rent								
Fannie Mae	1.8%	5.4%	31.6%	6.8%	10.9%	4.2%	2.0%	2.1%
Freddie Mac	0.0%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Percent of Conventional Home Purchase Mortgages with Missing Homebuyer Status[1]								
Fannie Mae	19.2%	5.7%	9.0%	4.7%	12.7%	16.4%	3.9%	8.7%
Freddie Mac	13.2%	1.2%	4.9%	3.8%	4.9%	21.7%	11.9%	10.1%

[1] Homebuyer status should be reported as "first-time homebuyer" or "repeat homebuyer".

Source: GSEs' Annual Housing Activities Reports, Tables 2, 3, 4, and 9.

Table C.1

GSEs' Mortgage Purchases by Property Type
For 1998

	1998 Purchases							
	Fannie Mae				Freddie Mac			
Property Type	UPB[1] ($Millions)	Percent of Total Dollars	Units	Percent of Total Units	UPB[1] ($Millions)	Percent of Total Dollars	Units	Percent of Total Units
One-Family Owner Properties	$340,136	92.5%	3,076,639	83.0%	$258,063	94.4%	2,350,147	86.1%
Other Single-Family Properties:								
2-4 Unit Owner-Occ. Properties	6,705	1.8%	112,394	3.0%	4,047	1.5%	75,293	2.8%
Renter-Occupied Units			62,633	1.7%			36,270	1.3%
Owner-Occupied Units			49,761	1.3%			39,023	1.4%
1-4 Investor Properties	8,245	2.2%	124,461	3.4%	4,542	1.7%	71,806	2.6%
Total Single-Family Properties	355,086	96.6%	3,313,494	89.4%	266,652	97.6%	2,497,246	91.5%
Multifamily Properties	12,503	3.4%	394,345	10.6%	6,578	2.4%	231,319	8.5%
Total Business	$367,589	100.0%	3,707,839	100.0%	$273,230	100.0%	2,728,565	100.0%

Source: GSEs' Annual Housing Activities Reports. Corresponding data for 2000 is presented in Table 1.

[1] Unpaid principal balance of mortgages purchased.

Table C.2

GSEs' Mortgage Purchases by Property Type
For 1999

	1999 Purchases							
	Fannie Mae				Freddie Mac			
Property Type	UPB[1] ($Millions)	Percent of Total Dollars	Units	Percent of Total Units	UPB[1] ($Millions)	Percent of Total Dollars	Units	Percent of Total Units
One-Family Owner Properties	$297,277	92.0%	2,566,540	82.5%	$222,361	92.4%	1,969,683	84.6%
Other Single-Family Properties:								
2-4 Unit Owner-Occ. Properties	6,726	2.1%	105,763	3.4%	4,056	1.7%	67,769	2.9%
Renter-Occupied Units			58,843	1.9%			37,094	1.6%
Owner-Occupied Units			46,920	1.5%			30,675	1.3%
1-4 Investor Properties	9,641	3.0%	143,396	4.6%	6,627	2.8%	99,856	4.3%
Total Single-Family Properties	313,644	97.1%	2,815,699	90.5%	233,044	96.8%	2,137,308	91.8%
Multifamily Properties	9,393	2.9%	294,186	9.5%	7,621	3.2%	191,492	8.2%
Total Business	$323,037	100.0%	3,109,885	100.0%	$240,665	100.0%	2,328,800	100.0%

Source: GSEs' Annual Housing Activities Reports. Corresponding data for 2000 is presented in Table 1.

[1] Unpaid principal balance of mortgages purchased.

[2] Unit counts include the owner-occupied unit.

Table C.3

Borrower and Loan Characteristics of Mortgages Purchased by the GSEs on One-Family Owner-Occupied Properties, 1998

Loan and Borrower Characteristics	Home Purchase		Refinance/Other		Total	
	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac
Number of Loans	1,304,800	849,320	1,771,839	1,500,827	3,076,639	2,350,147
Loan-to-Value Ratio						
Over 95%	4.2% [1]	2.6%	0.1%	0.1%	1.8%	1.0%
91-95%	22.9%	24.4%	1.1%	0.9%	10.3%	9.4%
81-90%	18.9%	18.4%	11.0%	11.1%	14.3%	13.7%
80% or Less	53.9%	54.5%	87.8%	88.0%	73.6%	75.9%
Income of Borrower(s)						
60% of Area Median or Below	12.2%	10.0%	8.0%	8.9%	9.7%	9.3%
61-100% of Median	28.9%	26.7%	26.1%	26.3%	27.2%	26.4%
Below Area Median	41.1%	36.7%	34.2%	35.1%	37.0%	35.7%
Over 100% of Median	58.9%	63.3%	65.8%	64.9%	63.0%	64.3%
First-time Home Buyer[2]	34.5%	25.3%			9.6%	7.3%
Race/National Origin of Borrower						
White	84.9%	87.9%	89.0%	89.9%	87.3%	89.2%
African American	4.0%	3.2%	2.4%	2.5%	3.0%	2.8%
Hispanic	5.5%	4.2%	3.6%	3.6%	4.4%	3.8%
Asian or Pacific Islander	4.0%	3.2%	3.5%	2.8%	3.7%	2.9%
American Indian or Alaskan Native	0.4%	0.4%	0.4%	0.3%	0.4%	0.3%
Other	1.2%	1.0%	1.1%	0.9%	1.2%	1.0%
Age of Borrower						
Under 30	14.7%	14.3%	5.5%	5.1%	9.4%	8.4%
30-39	28.0%	29.3%	28.6%	26.0%	28.3%	27.2%
40 and Over	36.7%	37.9%	55.0%	50.9%	47.2%	46.2%
Unknown	20.6%	18.5%	10.9%	18.0%	15.1%	18.2%
Gender of Borrower(s)						
All Male	16.4%	18.0%	13.8%	13.2%	14.9%	14.9%
All Female	14.6%	15.9%	13.3%	13.1%	13.9%	14.1%
Male and Female	49.9%	57.5%	67.9%	66.8%	60.3%	63.4%
Unknown	19.1%	8.6%	5.0%	6.9%	11.0%	7.5%

Source: HUD analysis of GSEs' loan-level data. Corresponding data for 2000 is presented in Table 7.

[1] Interpreted as follows: 4.2 percent of home purchase loans purchased by Fannie Mae in 1998 had loan-to-value ratios over 95 percent.

[2] From Table 9 of Fannie Mae's and Freddie Mac's Annual Housing Activities Reports.

Table C.4

Borrower and Characteristics of Mortgages Purchased by the GSEs on One-Family Owner-Occupied Properties, 1999

Loan and Borrower Characteristics	Home Purchase		Refinance/Other		Total	
	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac
Number of Loans	1,181,159	848,612	1,385,381	1,121,071	2,566,540	1,969,683
Loan-to-Value Ratio						
Over 95%	4.3% [1]	5.2%	1.3%	0.0%	2.7%	2.2%
91-95%	22.6%	22.0%	1.5%	1.1%	11.0%	10.1%
81-90%	16.9%	16.3%	11.4%	11.2%	13.9%	13.4%
80% or Less	56.2%	56.5%	85.8%	87.6%	72.5%	74.3%
Income of Borrower(s)						
60% of Area Median or Below	11.4%	10.9%	10.1%	11.3%	10.7%	11.1%
61-100% of Median	28.5%	28.7%	27.4%	28.7%	27.9%	28.7%
Below Area Median	39.9%	39.5%	37.5%	39.9%	38.6%	39.8%
Over 100% of Median	60.1%	60.5%	62.5%	60.1%	61.4%	60.2%
First-time Home Buyer[2]	26.2%	24.9%			10.1%	8.5%
Race/National Origin of Borrower						
White	83.8%	86.7%	86.2%	87.0%	85.1%	86.9%
African American	3.5%	3.2%	3.1%	3.3%	3.3%	3.2%
Hispanic	5.6%	4.9%	4.6%	4.9%	5.1%	4.9%
Asian or Pacific Islander	4.5%	3.8%	3.4%	3.3%	3.9%	3.5%
American Indian or Alaskan Native	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Other	2.2%	1.1%	2.2%	1.2%	2.2%	1.1%
Age of Borrower						
Under 30	16.3%	14.2%	5.4%	4.6%	10.4%	8.7%
30-39	31.7%	28.0%	26.7%	23.1%	29.0%	25.2%
40 and Over	41.9%	38.5%	57.8%	52.3%	50.5%	46.3%
Unknown	10.1%	19.4%	10.0%	20.0%	10.1%	19.7%
Gender of Borrower(s)						
All Male	19.5%	18.4%	16.7%	14.2%	18.0%	16.0%
All Female	16.7%	16.0%	14.7%	14.9%	15.7%	15.4%
Male and Female	53.3%	52.6%	60.6%	59.7%	57.2%	56.6%
Unknown	10.5%	13.0%	8.0%	11.2%	9.2%	12.0%

Source: HUD analysis of GSEs' loan-level data. Corresponding data for 2000 is presented in Table 7.

[1] Interpreted as follows: 4.3 percent of home purchase loans purchased by Fannie Mae in 1999 had loan-to-value ratios over 95 percent.

[2] From Table 9 of Fannie Mae's and Freddie Mac's Annual Housing Activities Reports.

Table C.5

Census Tract Characteristics of Mortgages on One-Family Owner-Occupied Properties Purchased by the GSEs, 1998

	Home Purchase Mortgages		Refinance Mortgages		Total	
Census Tract Characteristics	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac
Median Income of Tract						
80% of Area Median or Below	9.6% [1]	8.0%	7.1%	8.0%	8.2%	8.0%
81-120% of Median	52.8%	53.2%	53.7%	56.4%	53.3%	55.3%
Over 120% of Median	37.6%	38.8%	39.2%	35.5%	38.5%	36.7%
Minority Composition of Tract						
Less Than 10% Minority	55.8%	61.2%	61.1%	63.5%	58.9%	62.7%
10-30% Minority	30.0%	28.0%	27.2%	25.0%	28.4%	26.1%
Over 30% Minority	14.2%	10.8%	11.6%	11.6%	12.7%	11.3%
Percent in Low-income **and** High-minority Tracts	4.7%	3.3%	3.1%	3.4%	3.8%	3.4%
Underserved Areas	26.0%	22.8%	21.8%	23.7%	23.5%	23.3%

Source: HUD analysis of GSEs' loan-level data. Corresponding data for 2000 is presented in Table 9.

[1] Interpreted as follows: 9.6 percent of home purchase loans pur

income no greater than 80 percent of area median income.

Table C.6

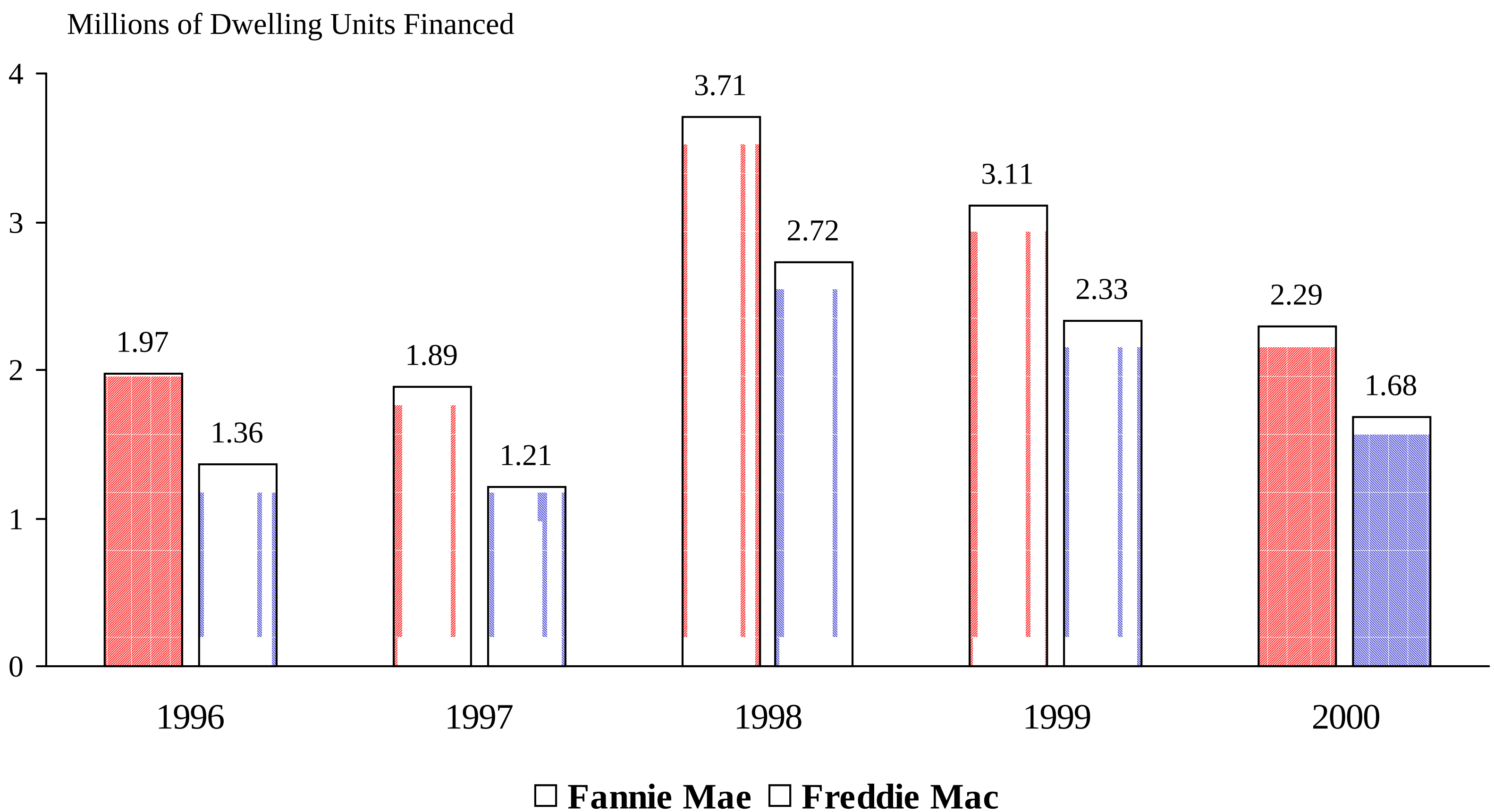
Census Tract Characteristics of Mortgages on One-Family Owner-Occupied Properties Purchased by the GSEs, 1999

	Home Purchase Mortgages		Refinance Mortgages		Total	
Census Tract Characteristics	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac	Fannie Mae	Freddie Mac
Median Income of Tract						
80% of Area Median or Below	8.2% [1]	8.7%	8.5%	9.4%	8.4%	9.1%
81-120% of Median	52.0%	53.2%	54.7%	56.7%	53.4%	55.2%
Over 120% of Median	39.8%	38.1%	36.8%	33.9%	38.2%	35.7%
Minority Composition of Tract						
Less Than 10% Minority	57.0%	58.3%	58.5%	58.2%	57.8%	58.2%
10-30% Minority	30.0%	29.6%	27.7%	27.2%	28.8%	28.2%
Over 30% Minority	13.0%	12.2%	13.8%	14.5%	13.4%	13.5%
Percent in Low-income **and** High-minority Tracts	3.9%	3.8%	4.1%	4.3%	4.0%	4.1%
Underserved Areas	23.1%	23.8%	24.7%	26.8%	23.9%	25.5%

Source: HUD analysis of GSEs' loan-level data. Corresponding data for 2000 is presented in Table 9.

[1] Interpreted as follows: 8.2 percent of home purchase loans pur
income no greater than 80 percent of area median income.

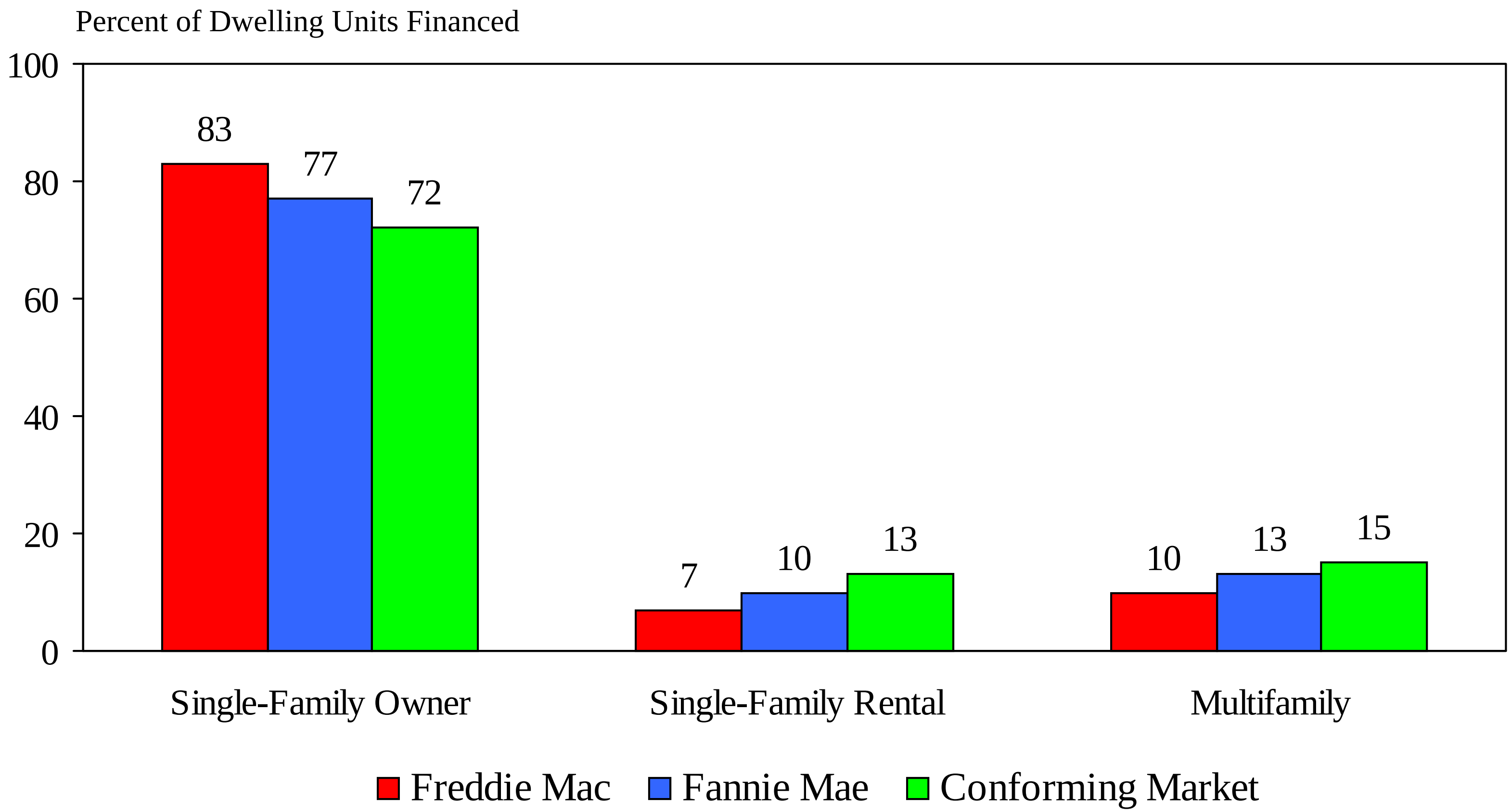
Figure 1
GSEs' Total Mortgage Purchases,
1996-2000



Source: Table 1 of the GSEs' Annual Housing Activities Reports.

Figure 2

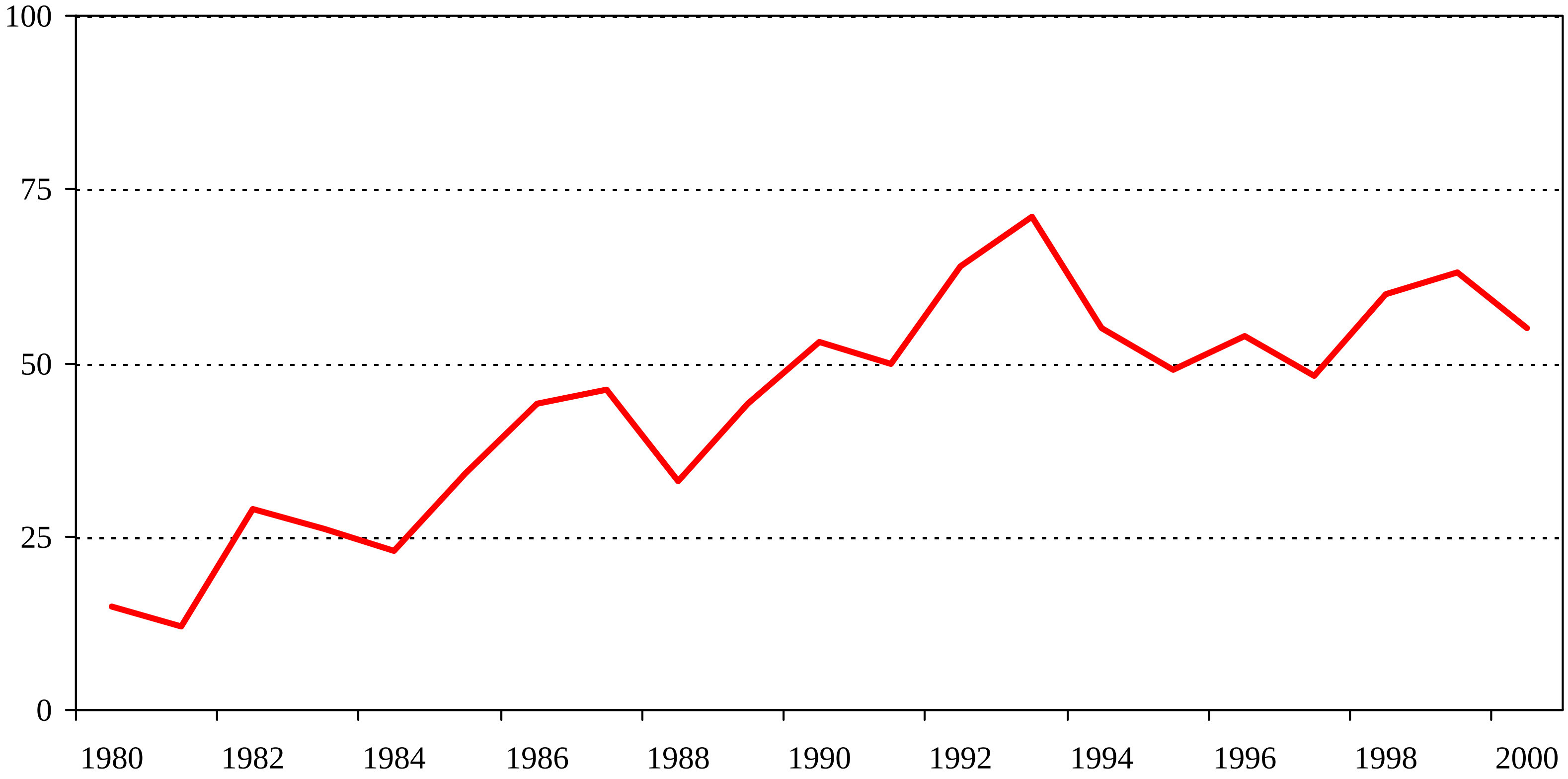
Distribution of Mortgage Business by Major Property Type, 2000



Source: HUD's analysis from Table 1 and *Federal Register*, October 31, 2000, p. 65204.

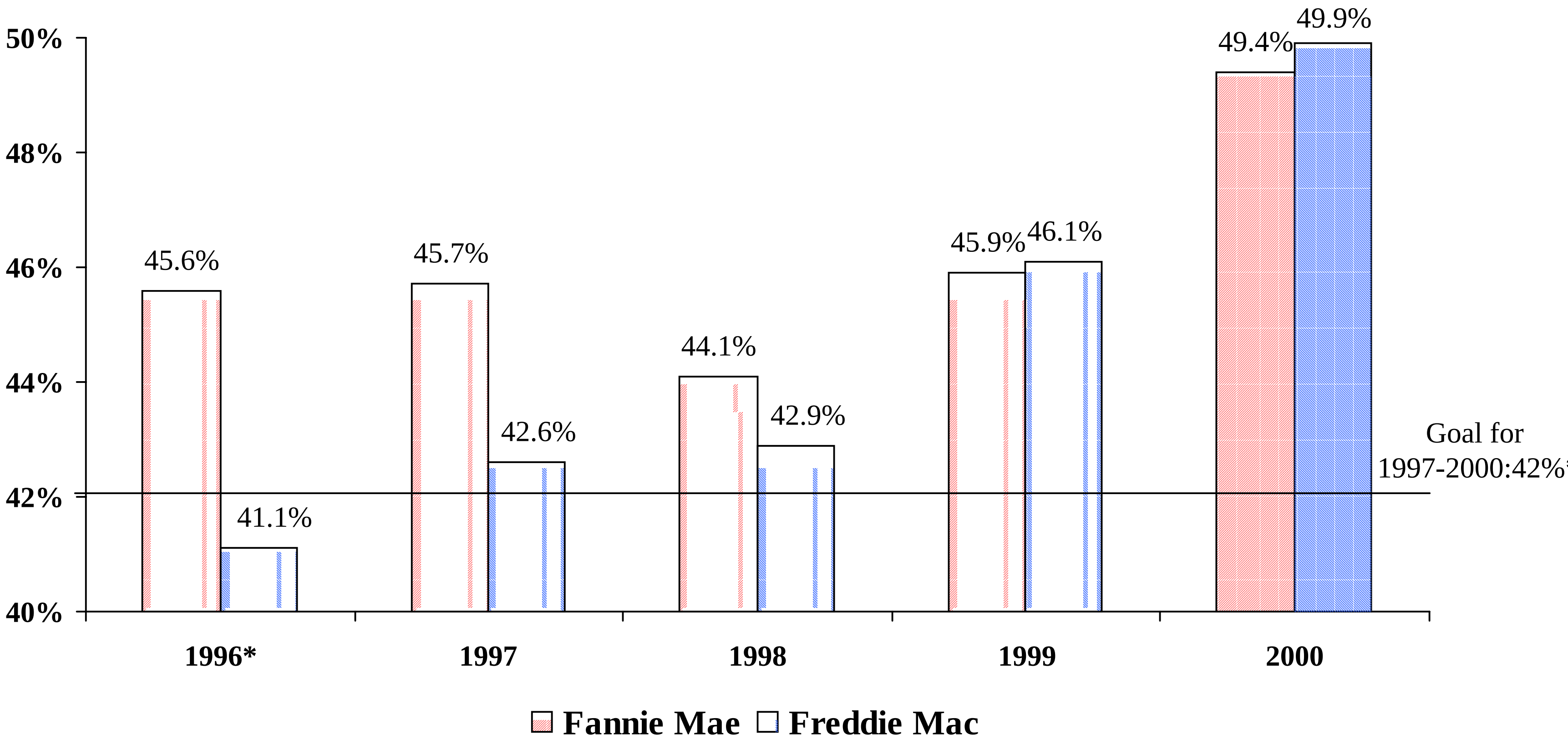
Figure 3

GSEs' Purchases as Share of Conventional Conforming Single-Family Market, 1998-2000



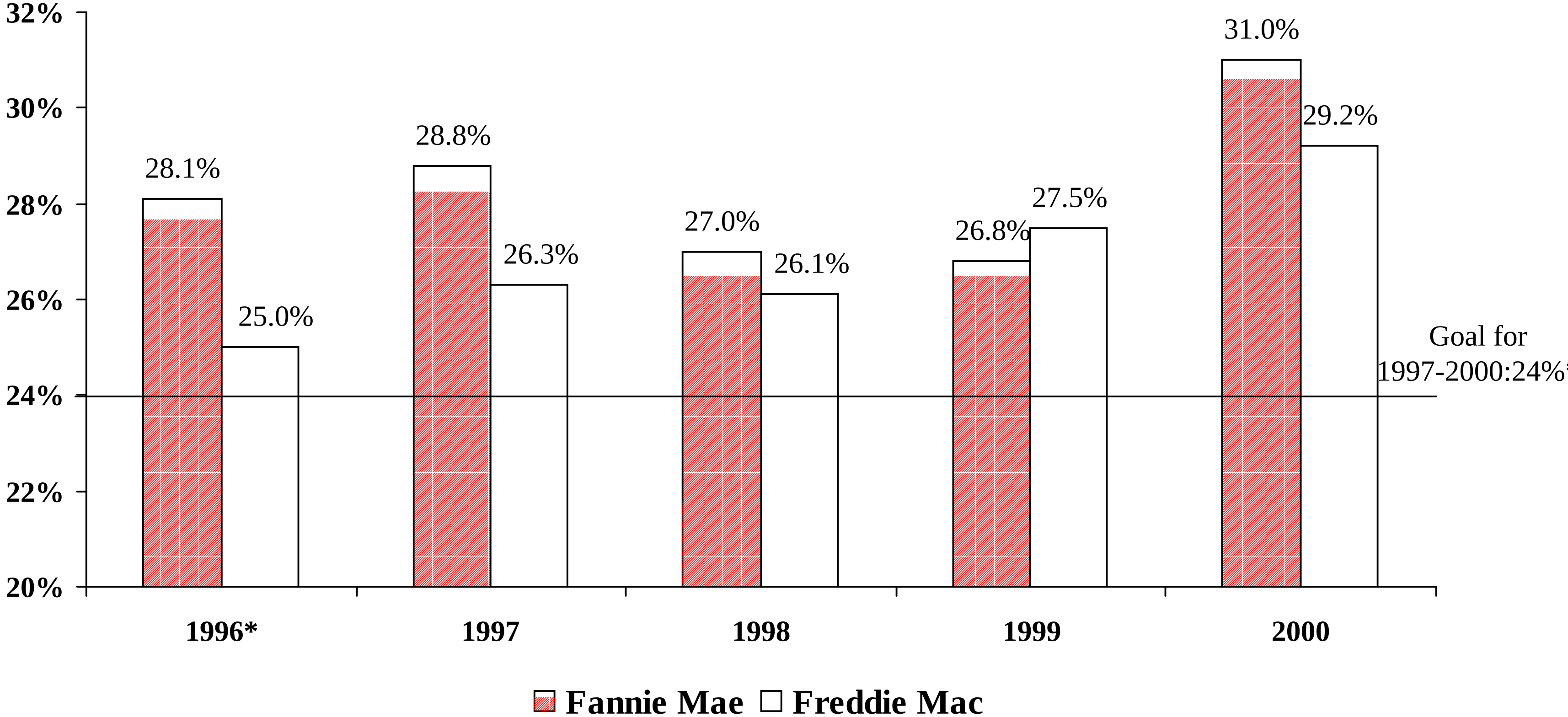
Source: Fannie Mae Economics Department and HUD.

Figure 4
GSEs' Performance on HUD's Low- and Moderate-Income Goal, 1996-2000



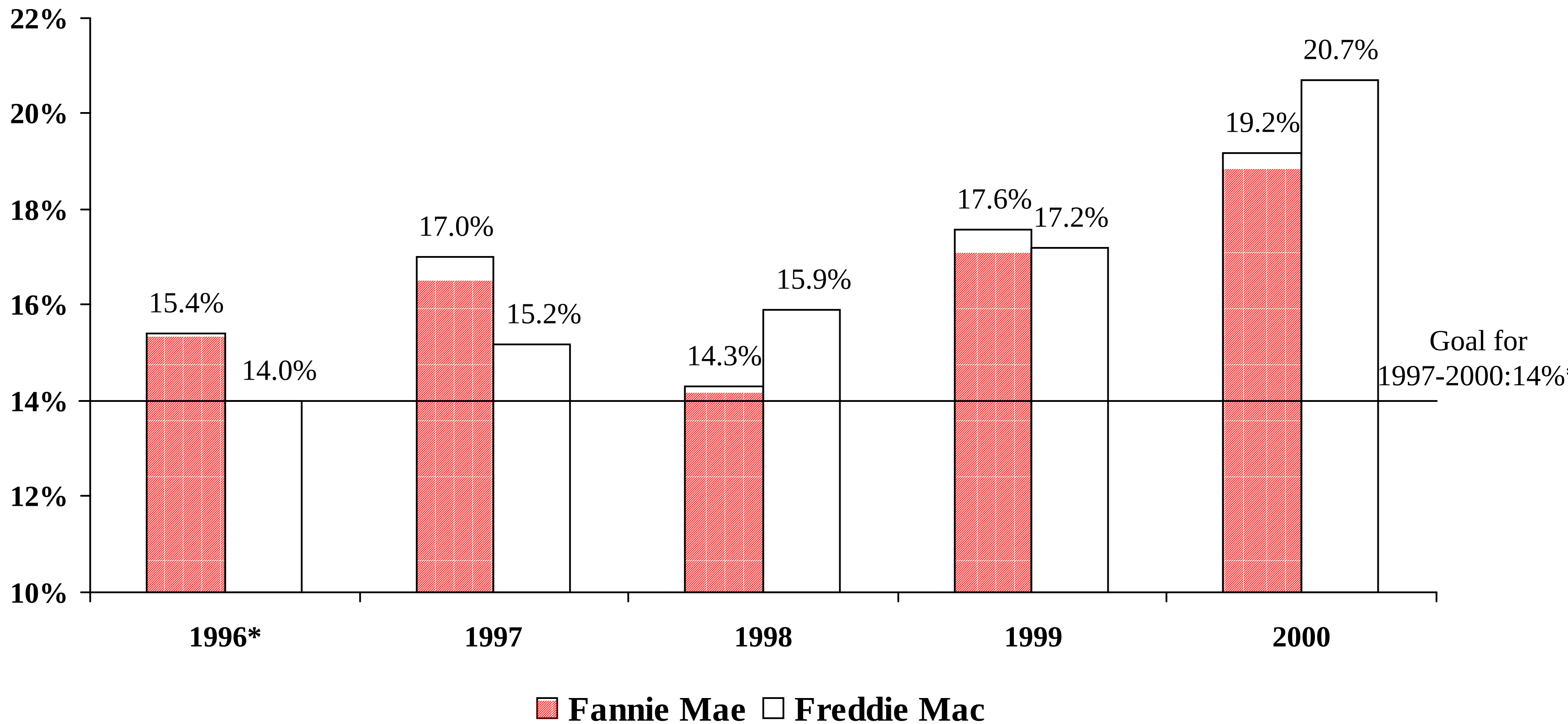
* Goal for 1996:40%

Figure 5
GSEs' Performance on HUD's Geographically Targeted Goal, 1996-2000



* Goal for 1996:21%

Figure 6
GSEs' Performance on HUD's Special Affordable Goal, 1996-2000



* Goal for 1996:12%