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THE GSEs' FUNDING OF AFFORDABLE LOANS: A 2000 UPDATE

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Comments Welcome

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ABSTRACT

The main purpose of this study is to assess the extent to which Fannie Mae and Freddie Mac are funding loans for low-income borrowers and others who historically have not been well served by the mortgage market. The study is the fourth in a series of working papers examining the affordable lending performance of these two Government Sponsored Enterprises (GSEs) in the secondary mortgage market. This study, which updates the earlier analyses to include year 2000 data, 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. There are five main findings. First, while both GSEs improved their affordable lending performance during the 1990s, 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). Second, the GSEs' performance improved markedly between 1999 and 2000, allowing them to partially close their performance gap relative to the market. Third, during most of the 1990s, Fannie Mae's purchases were more targeted to low-income borrowers and underserved areas than Freddie Mac's purchases; however, the relative performance of the two GSEs has been rather similar during the past two years. Fourth, while the GSEs account for a significant share of the total market for home purchase loans (government-backed and all conventional conforming home loans), 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. And finally, 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 mortgage purchases, although further study is needed to fully explain the reasons for the GSEs' limited role in these markets.

The GSEs' Funding of Affordable Loans: A 2000 Update[1]

I. Introduction and Main Findings[2]

This is the fourth in a series of studies that examine whether Fannie Mae and Freddie Mac lead or lag the overall mortgage market in funding affordable loans for low-income borrowers and other groups who historically have not been well served by the mortgage market.[3] This issue has been highlighted by the new affordable housing regulations that the Department of Housing and Urban Development (HUD) recently issued for Fannie Mae and Freddie Mac, discussions of the desirability of privatizing these two government-sponsored enterprises (GSEs), and a report by the Congressional Budget Office concluding that the GSEs pass only a portion of the Federal benefits they receive to homeowners.[4] Fannie Mae and Freddie Mac receive substantial benefits from their Federal charters, mainly in the form of lower funding costs due to their "agency status". In exchange for their Federal benefits, they are required by Congress to promote access to mortgage credit for underserved families and their communities, as well as promote stability in the overall secondary market.

This paper examines how well the GSEs are providing mortgage funding for low-income and other underserved families. The characteristics (e.g., borrower income and race, location in low-income census tracts) of mortgages purchased by the GSEs are compared with those of mortgages originated in the conventional conforming market and mortgages originated and retained by banks and thrift institutions. The GSEs' performance is measured from loan-level data that they report to HUD, while information about the mortgage market is drawn from Home Mortgage Disclosure Act (HMDA) data. Following earlier HUD research, this paper focuses on home purchase loans, which are important for homeownership opportunities. However, to provide a complete picture of the GSEs' mortgage activity, much of the home purchase analysis is reproduced for total loans, which include refinance as well as home purchase loans.

This study updates to the year 2000 the author's earlier study, which examined the GSEs' affordable lending performance between 1992 and 1999 (Bunce, 2000b). That study had two main findings: (1) Fannie Mae and Freddie Mac improved their affordable lending

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[1] The author would like to thank Nana Farshad and Ian Keith from CBSI for their assistance in this project. The author also appreciates the advice and comments of Randall M. Scheessele of the Office of Policy Development and Research and the comments of John Gardner, Paul Manchester, and Nandinee Kutty of the same office, as well as the comments of Sandy Fostek of the Office of Housing and Phyllis Armstrong of the Office of Fair Housing and Equal Opportunity.

[2] The paper's main findings are reported on page 5, followed by 16 specific findings.

[3] The two papers by Bunce and Scheessele (1996, 1998) examine the GSEs' performance through 1997; Bunce (2000b) updates their results through 1999.

[4] The Congressional Budget Office (2000) recently estimated that the GSEs retained 37 percent of the $10.6 billion in benefits that accrue to them due to their agency status. The remaining 63 percent is passed through to homeowners in terms of lower interest rates.

performance between 1992 and 1999, but throughout that period they lagged the conventional conforming market in funding mortgages for lower-income and minority borrowers and their neighborhoods; and (2) Freddie Mac's performance slightly surpassed Fannie Mae's during 1999, which was significant given that in the previous six years Fannie Mae had out-performed Freddie Mac in purchasing home loans for lower-income borrowers and underserved neighborhoods. This study extends the 1992-99 analysis by including GSE and HMDA data for the year 2000. To provide continuity, the analysis and data tables in this paper are in the same format as the earlier study (hereafter "the 1999 Study"). One difference between the two studies is that this study includes an expanded "market share" analysis that examines the role of the GSEs in important market segments such as the first-time homebuyer portion of the housing market (see Section V).

The next part of this introductory section provides background on the affordable lending market and the GSEs' mandate to improve their purchases of loans for targeted borrowers.[5] Then, the paper's main findings concerning the GSEs' performance are reported, followed by an outline of the topics discussed in the main text and technical appendices.

A. Background

The 1990s were years of increased affordable lending for low-income and minority families in the conventional mortgage market. Lenders introduced and marketed special lending programs to low-income families and their neighborhoods, they revamped their underwriting standards to deal with the special circumstances of these families, and they attempted to prevent mortgage defaults by offering borrower counseling programs and developing innovative loss mitigation programs. Other actors in the conventional market, including Fannie Mae and Freddie Mac, also played an important role in what one study termed a revolution in affordable lending (Rutgers University, 1998). HMDA data show substantial growth in conventional lending to low-income and minority borrowers during the 1990s, which suggests that these new affordable lending initiatives had an impact. Between 1993 and 1999, the number of conventional loans to low-income and minority borrowers more than doubled. Most observers generally agree that in addition to low interest rates and economic expansion, enhanced regulation of depositories' Community Reinvestment Act (CRA) obligations and the affordable housing goals (discussed below) that HUD established for Fannie Mae and Freddie Mac also contributed to a renewed emphasis on low-income and minority lending in the conventional market (Litan *et al.*, 2000).[6]

[5] The term "affordable lending" is used generically here to refer to lending for lower-income families and neighborhoods that have historically been underserved by the mortgage market.

[6] Evidence is also growing that lending to low-income families can be profitable, particularly when combined with intensive loss mitigation efforts to control credit risk. While there is limited information on borrower defaults associated with the new affordable lending programs, there are some encouraging signs. For example, in a recent survey conducted by the Federal Reserve, lenders reported that most CRA loans are profitable although not as profitable as the lenders' standard products (Board of Governors, 2000). For an overview of the early default performance of the new affordable programs and of industry efforts to control default risk, see U.S. Department of Housing and Urban Development (2000a,b).

This study examines the record of Fannie Mae and Freddie Mac in providing mortgage funds for low-income borrowers and underserved neighborhoods. Fannie Mae and Freddie Mac are two major government-sponsored enterprises (GSEs) in the secondary mortgage market. They purchase mortgages from primary lenders and either hold the mortgages in portfolio or sell them to other investors as mortgage-backed securities, with a guarantee that the investors will receive full and timely payment of principal and interest.[7] Several studies have documented the dominant role that the GSEs' purchase guidelines and underwriting standards play in determining the types of loans that primary lenders will originate in the conventional conforming market.[8]

In 1992, Congress expressed concern about the GSEs' funding of affordable loans for low-income families, particularly those living in inner-city neighborhoods that had been "redlined" by prime lenders.[9] Because of this concern, Congress called for HUD to establish three affordable housing goals that the GSEs must meet:

1. **Low- and Moderate-Income Goal**, which targets borrowers with income no greater than area median income (AMI);

2. **Special Affordable Goal**, which targets very low-income borrowers and low-income borrowers living in low-income census tracts; and;

3. **Geographically-Targeted or Underserved Areas Goal**, which targets low-income and high-minority neighborhoods.[10]

The main objective of the housing goals is to encourage Fannie Mae and Freddie Mac to introduce new affordable lending programs in underserved areas and to make prudent adjustments in their mortgage purchase standards that recognize the special circumstances of low-income families and others who have found it difficult to access credit in the conventional mortgage market. HUD, which has general regulatory authority over the GSEs, was tasked to establish specific targets for these three goals. Explanations of the goals are provided in HUD's October 2000 GSE rule, which called for increases in the

[7] For explanations of the overall role of Fannie Mae and Freddie Mac in the secondary mortgage market, see the recent study by the Congressional Budget Office (2000) and the four Congressionally-mandated privatization studies conducted during 1996 by the Congressional Budget Office (1996), U.S. General Accounting Office (1996), U.S. Department of Housing and Urban Development (1996), and U.S. Department of Treasury (1996).

[8] For a discussion of the GSEs' underwriting standards, see Rutgers University (1998), The Urban Institute (1999), and Van Order and Schnare (1994).

[9] 102d Congress, S. Rep. No. 282, pages 31, 33, and 42-43.

[10] Within metropolitan areas, underserved areas are census tracts where (1) median income of families in the tract does not exceed 90 percent of the metropolitan area median income or (2) minorities comprise 30 percent or more of the residents and the median income of families in the tract does not exceed 120 of area median income.

levels of the housing goals beginning in year 2001. For example, beginning in 2001, HUD requires that 20 percent of the GSEs' mortgage purchases serve special affordable borrowers, a substantial increase from the special affordable goal of 14 percent that was in place between 1997 and 2000.[11]

There have been several studies by HUD staff and other researchers concerning the GSEs' performance in providing affordable lending under the housing goals.[12] These studies focus on whether or not the GSEs are "leading the market" in funding affordable loans. "Leading the market" is typically determined by comparing (a) the percentage of the GSEs' purchases accounted for by a particular affordable lending category (say loans for low-income families) with (b) the corresponding percentage for loans originated in the overall conventional conforming market. Most of these studies conclude that while the GSEs have significantly improved their affordable loan purchases under the housing goals, their performance lags that of primary lenders (such as banks and thrifts) in the overall conventional market.[13]

This study contributes to this discussion by comparing the borrower and neighborhood characteristics of the GSEs' acquisition of home purchase mortgages with home loans originated in the market in 2000. This study utilizes the loan-level data that the GSEs report to HUD on the characteristics of loans that they purchase. In order to fully characterize the loans that the GSEs purchase, several analyses of these data are presented, either in the main body of the paper or in two appendices. Following earlier papers in this series, this analysis is conducted at a very aggregate level, as the GSEs' purchases are reported for all metropolitan areas combined.[14]

B. Study Findings

[11] HUD also increased the low-mod goal from 42 percent to 50 percent and the underserved areas goal from 24 percent to 31 percent. For a discussion of the housing goals and the GSEs' performance under the goals, see U.S. Department of Housing and Urban Development (2002b).

[12] See Bunce and Scheessele (1996, 1998), Canner and Gabriel (1992), Lind (1996a,b; 2000), Manchester (1998, 2002), Manchester *et al*. (1998), and U.S. Department of HUD (1996; 2000a,b). The GSE grant studies that HUD's Office of Policy Development and Research (PD&R) recently funded used a variety of data bases and analytical techniques to examine the GSEs' affordable lending performance. Five of the eleven grant studies are presented in a special 2001 issue -- entitled *Fannie Mae and Freddie Mac in the Housing Finance System: I* -- of PD&R's *Cityscape: A Journal of Policy Development and Research*. In that publication, see the overview of the studies by Gardner, *et al.* (2001) as well as the specific studies by Williams, McConnell and Nesiba (2001), McClure (2001), Boxall and Silver (2001), MacDonald (2001), and Pearce (2001). Also see Bradford (2000b) and Case and Gillen (2000)

[13] Fannie Mae and Freddie Mac each conduct similar analyses but reach different conclusions -- they conclude that they match or exceed the primary market in funding affordable loans for lower-income families. Their analyses are reported in their comments on HUD's proposed GSE rule; see Fannie Mae (2000) and Freddie Mac (2000). See U.S. Department of Housing and Urban Development (2000b) for HUD's response to the GSEs' comments.

[14] Other studies are beginning to examine the GSEs' mortgage purchases in individual metropolitan areas. For examples, see the 2001 issue of *Cityscape* referenced above and Bradford (2000b).

Main Findings. There are five main findings from this study concerning the GSEs' purchases of single-family mortgages:

- Fannie Mae and Freddie Mac have each improved their affordable lending performance since 1992, but during 2000 they continued to underperform the conventional conforming market in funding affordable home purchase loans for borrowers and neighborhoods targeted by the housing goals.[15]

- The GSEs markedly improved their performance between 1999 and 2000, allowing them to partially close their gap relative to the market.

- Shifts in the relative performance of Fannie Mae and Freddie Mac continued in 2000 – as noted in the 1999 study, Freddie Mac exhibited poorer performance than Fannie Mae during most of the 1990s but, during 1999, the goals-qualifying share of Freddie Mac's single-family purchases was slightly higher than the corresponding share for Fannie Mae on each of the three housing goal categories: special affordable, low- and moderate-income, and underserved areas.[16] This study finds that Freddie Mac continued to out-perform Fannie Mae on the two borrower-income categories (special affordable and low-mod) but during 2000 Fannie Mae caught and slightly out-performed Freddie Mac on the underserved areas goal.

- The GSEs account for a significant share of the total (government as well as conventional conforming) market for home purchase loans, but their market share for each of the affordable lending categories is less than their share of the overall market; and they account for a very small share of the market for important groups such as minority first-time homebuyers.

- The GSEs’ small market share in the first-time homebuyer market could be due to the preponderance of high downpayment loans in their mortgage purchases, although further study is needed to fully explain the reasons for the GSEs’ limited role in the first-time homebuyer market.

Specific Findings. There are 16 specific findings from this study, organized under the following five topics:

(B.1) Longer-term Performance of the GSEs;

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[15] In this paper, the “affordable lending performance” of Fannie Mae and Freddie Mac refers to the performance of the GSEs in funding loans for low-income and underserved borrowers through their purchase (or guarantee) of loans originated by primary lenders. It does not, of course, imply that the GSEs themselves are lenders originating loans in the primary market.

[16] Throughout this paper, the term “goals-qualifying” refers to loans that qualify under the three GSE housing goals. The term “targeted borrowers” or “targeted groups” will refer to lower-income borrowers and others who have not been well-served by the mortgage market.

(B.2) Performance of the GSEs during 2000 and Recent Years;

(B.3) Performance of the GSEs Based on Total (Home Purchase and Refinance) Loans;

(B.4) GSE Market Shares; and,

(B.5) Additional Findings.

B.1 Longer-term Performance of the GSEs

(1) Since the early nineties, the mortgage industry has introduced new affordable lending programs and has allowed greater flexibility in underwriting lower-income loans. There is evidence that these programs are paying off in terms of more mortgages for low-income and minority borrowers. Fannie Mae and Freddie Mac have played an active role in this upsurge of affordable lending, as indicated by the high growth rates of their goals-qualifying business.

Between 1993 and 2000, the GSEs' purchases of home loans in metropolitan areas increased by 32 percent.[17] Their purchases of home loans for the three housing goals increased at much higher rates -- 157 percent for special affordable loans, 84 percent for low- and moderate-income loans, and 55 percent for loans in underserved census tracts.

(2) Both Fannie Mae and Freddie Mac improved their purchases of affordable loans during the 1990s, as indicated by the increasing share of their business going to the three goals-qualifying categories.[18]

Between 1992 and 2000, the special affordable share of Fannie Mae's business more than doubled, rising from 6.3 percent to 13.0 percent, while the underserved areas share increased more modestly, from 18.3 percent to 23.6 percent (see Table A). The figures for Freddie Mac are similar. The special affordable share of Freddie Mac's business rose from 6.5 percent to 14.3 percent, while the underserved areas share also increased more modestly, from 18.6 percent to 22.2 percent.

[17] Throughout this paper, the terms "home loan" and "home mortgage" will refer to a "home purchase loan," as opposed to a "refinance loan." As noted earlier, the mortgage data reported in this paper are for metropolitan areas, unless stated otherwise. Restricting the GSE data to metropolitan areas is necessary to make it comparable with the HMDA-reported conventional primary market data, which is more reliable for metropolitan areas. The GSE and American Housing Survey data reported in Section V cover both metropolitan and non-metropolitan areas.

[18] Of the two borrower-income goals, this analysis will typically focus on the special affordable category, which is a much more targeted category than the rather broadly defined low- and moderate-income (less-than-median-income) category.

(3) While both GSEs improved their performance during the 1990s, they lagged the market in providing affordable loans to low-income borrowers and underserved neighborhoods. Freddie Mac's average performance, in particular, fell far short of market performance during the 1990s. Fannie Mae's average performance was better than Freddie Mac's during the 1993-2000 period as well as during the 1996-2000 period, which covers the period under HUD's currently-defined housing goals.[19]

> Between 1993 and 2000, 8.9 percent of Freddie Mac's mortgage purchases were for very low-income borrowers, compared with 9.8 percent of Fannie Mae's purchases, 12.9 percent of loans originated by depositories, and 13.0 percent of loans originated in the conventional conforming market (without estimated B&C loans).[20]
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> Considering the underserved areas category for the 1996-2000 period, 20.7 percent of Freddie Mac's purchases financed properties in underserved neighborhoods, compared with 22.6 percent of Fannie Mae's purchases, 24.4 percent of loans originated by depositories, and 25.2 percent of loans originated in the conventional conforming market.

B.2 Performance of the GSEs During 2000 and Recent Years

(4) In 2000, both Fannie Mae and Freddie Mac fell significantly below the market in funding affordable loans.

> In 2000, special affordable loans accounted for 13.0 percent of Fannie Mae's purchases, 14.3 percent of Freddie Mac's purchases, and 16.8 percent of loans

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[19] HUD first implemented the current definitions of the special affordable and underserved areas goals in 1996; until 2000, the targets for these two goals were 14 percent and 24 percent, respectively. See Manchester (1998) for the definitions of these two goals during the 1993-95 period. The low-mod goal has had the same definition since 1993, focusing on less-than-median income families; however, in 1995, HUD increased the percentage target for the low-mod goal from 30 percent to 40 percent for 1996 and 42 percent for 1997-2000. As noted earlier, HUD established even higher targets for all three housing goals beginning in 2001 -- special affordable (20 percent), low-mod (50 percent) and underserved areas (31 percent). The reader should note that these overall goal targets are much higher than the performance percentages reported in this paper for the GSEs' purchases of single-family-owner mortgages. Each GSE's overall goals performance also incorporates their purchases of mortgages for multifamily and single-family-rental properties, which have much higher goals-qualifying percentages than do mortgages for single-family owner properties. For analysis of the GSEs' overall performance on the housing goals, see U.S. Department of Housing and Urban Development (2000b).

[20] Unless otherwise noted, the conventional market data reported in this section exclude an estimate of B&C loans; the less-risky A-minus portion of the subprime market is included in the market definition. See Section III for a discussion of primary market definitions and the uncertainty surrounding estimates of the number of B&C loans in HMDA data. As noted there, B&C loans are much more likely to be refinance loans rather than home purchase loans.

originated in the market; thus, the "Fannie-Mae-to-market" ratio was 0.77 and the "Freddie-Mac-to-market" ratio was 0.85. (See Table A.) [21]

(5) After experiencing declines from 1997 to 1999, Fannie Mae's affordable lending performance increased during 2000, particularly in the underserved areas category. (See Figure A.)

Fannie Mae's purchases of loans in underserved areas declined (as a percentage share of its total home loan purchases) throughout the 1997 to 1999 period, falling from 23.5 percent in 1997 to 20.6 percent in 1999. But, in 2000, Fannie Mae's underserved areas percentage jumped by three percentage points to 23.6 percent, which was similar to its level in 1997.[22]

The share of Fannie Mae's single-family-owner business going to special affordable home loans increased from 11.7 percent in 1997 to a peak of 13.2 percent in 1998 before declining to 12.3 percent in 1999 and then rebounding to 13.0 percent in 2000.

(6) In 2000, Freddie Mac continued improving its affordable lending performance, particularly in the special affordable category. (See Figure A.)

The share of Freddie Mac's single-family-owner business going to special affordable home loans increased from 9.0 in 1997 to 12.5 in 1999, and then to 14.3 percent in 2000.

Freddie Mac's purchases of underserved areas loans also increased between 1997 and 2000 but at a more modest rate -- from 19.9 percent in 1997 to 21.2 percent in 1999 before increasing further to 22.2 percent in 2000.

(7) The 1999 and 2000 shifts have reversed the long-standing pattern of Fannie Mae outperforming Freddie Mac. Freddie Mac's performance in 1999 matched (in fact, slightly surpassed) Fannie Mae's performance on all three housing goal categories, for the first time since 1992. In year 2000, Freddie Mac continued to out-perform Fannie Mae on the borrower-income categories while Fannie Mae surpassed Freddie Mac on the underserved areas category.

Fannie Mae and Freddie Mac had practically the same performance in 1992 on the three housing goal categories -- special affordable loans accounted for 6.3 percent of Fannie Mae's purchases and 6.5 percent of Freddie Mac's purchases,

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[21] The fact that Freddie Mac's performance during 2000 was slightly better than Fannie Mae's performance seems at odds with the results reported in (3) above; the recent shift in performance between the two GSEs is explained in (7) below.

[22] As shown in Table 4 of Section III, the year 2000 underserved areas percentage of 23.6 percent was below Fannie Mae's peak performances of 24-25 percent during 1994 and 1995.

for a "Fannie-Mae-to-Freddie-Mac" ratio of 0.97; the 1992 ratio for underserved areas was also 0.98 and that for low-mod, 1.02. (See Table A.) Reflecting Fannie Mae's much better performance, the special affordable "Fannie-Mae-to-Freddie-Mac" ratio had risen to 1.30 by 1997, the underserved areas ratio to 1.18, and the low-mod ratio to 1.10.

However, in 1999, the "Fannie-Mae-to-Freddie-Mac" ratio for each of the three goals-qualifying categories fell to slightly below one. 1999 was the first year since 1992 that Freddie Mac had outperformed Fannie Mae in purchasing affordable home loans (although only by a very slight margin).

In 2000, Freddie Mac's sharper increases in special affordable and low-mod funding further reduced the "Fannie-Mae-to-Freddie-Mac" ratios for these two categories to 0.91 and 0.96, respectively. On the other hand, Fannie Mae's sharper increase in underserved areas funding during 2000 resulted in the "Fannie-Mae-to-Freddie-Mac" ratio rising from slightly below one (0.97) in 1999 to 1.06 in 2000.

(8) Through 1998, Fannie Mae had significantly improved its performance relative to the market. But as a result of recent shifts in its purchases of affordable loans, Fannie Mae lagged the market even further in 2000 than it had in some earlier years.

Through 1998, Fannie Mae had made progress closing its gap with the market. The "Fannie-Mae-to-market" ratio increased from 0.61 in 1992 to 0.86 in 1998 for the special affordable category and from 0.82 to 0.95 for the underserved areas category. (See Table A.)

However, Fannie Mae's decline in performance during 1999 resulted in the "Fannie-Mae-to-market" ratio falling sharply to 0.72 for special affordable and to 0.82 for underserved areas.

In 2000, Fannie Mae improved and reversed its declining trend, as the "Fannie-Mae-to-market" ratios increased to 0.77 for special affordable purchases and to 0.89 for underserved areas purchases. While higher than the 1999 ratios, these 2000 "Fannie-Mae-to-market" ratios remained lower than Fannie Mae's special affordable (0.86) and underserved areas (0.95) market ratios in 1998.

(9) Freddie Mac's performance relative to the market has consistently improved as a result of the recent shifts in its purchases of affordable loans. Still, in 2000, Freddie Mac continued to lag the market in funding affordable loans.

Unlike Fannie Mae, Freddie Mac had not made any progress through 1997 in closing its gap with the market. As shown in Table A, the "Freddie Mac-to-market" ratio for the special affordable category actually declined from 0.63 in 1992 to 0.59 in 1997. But Freddie Mac's sharp improvement in special affordable purchases during 1998 and 1999 resulted in the "Freddie-Mac-to-market" ratio rising to 0.74, before increasing even further to 0.85 in 2000. After declining from 0.84 in 1992 to 0.80 in 1997, the "Freddie-Mac-to-market" ratio for underserved areas had risen only modestly to 0.84 by the year 2000.

Thus, Freddie Mac's recent improvements have allowed it to close its gap with the market, mainly for the special affordable category where its gap had been the widest. In 2000, Freddie Mac continued to fall short of the market on all goals-qualifying categories.

B.3 Performance of the GSEs Based on Total (Home Purchase and Refinance) Loans

(10) Section IV examines the GSEs' acquisitions of total loans (including refinance loans as well as home purchase loans). The main results, which are summarized in Table B, are similar to those discussed above for home purchase loans, with some minor differences.

With respect to total loans, the recent shifts in performance between Fannie Mae and Freddie Mac occurred about one year earlier than those described above for home purchase loans. Freddie Mac essentially matched Fannie Mae in funding affordable loans during 1998; out-performed Fannie Mae during 1999 on all three goals-qualifying categories; and, in 2000, out-performed Fannie Mae on the borrower income categories but not on the underserved areas category.

With respect to "leading the market", the findings for total (home purchase and refinance) loans are similar to those discussed earlier for home purchase loans -- while both GSEs improved their performance during 2000, their performance continued to fall short of the market. (See the "GSE-to-market" ratios in Table B.)[23]

B.4 GSE Market Shares

This study includes an expanded "market share" analysis that documents the size of the GSEs' contribution to important segments of the home purchase and first-time homebuyer markets. In this section, the market includes *all* home loans (both government and conventional) below the conforming loan limit. The main findings are as follows:

(11) The GSEs account for a significant share of the total (government as well as

[23] As explained in Section IV, deducting B&C loans from the market totals has more impact on the market percentages for total (both home purchase and refinance) loans than for only home purchase loans. The effects of excluding B&C loans from the total market can be seen by comparing the third and eighth columns of data in Table 7.

conventional conforming) market for home purchase loans. However, their market share for each of the affordable lending categories is much less than their share of the overall market.

The GSEs' purchases were estimated to be 46-48 percent of all home loans originated in metropolitan areas during 2000 but only 24-29 percent of loans originated for African-American and Hispanic borrowers and approximately 35-37 percent of loans originated for low-income borrowers and for properties in underserved areas.

A study by staff from the Federal Reserve Board suggests that the GSEs have a much more limited role in the affordable lending market than is suggested by the data presented above.[24] The Fed study, which combined market share, downpayment, and default data, concluded that the GSEs play a very minimal role in providing credit support and assuming credit risk for low-income and minority borrowers; for example, the study concluded that in 1995 the GSEs provided only four percent of the credit support going to African-Americans and Hispanic borrowers.

Section V of this study begins to reconcile these different results by examining the role of the GSEs in the first-time homebuyer market and the downpayment characteristics of mortgages purchased by the GSEs.

(12) The market role of the GSEs appears to be particularly low in important market segments such as minority first-time homebuyers.

Using American Housing Survey data on home purchases from 1997 to 1999, Section V estimates that the GSEs' share of the market for first-time African-American and Hispanic homebuyers was only 10-11 percent, or less than one-third of their share (36 percent) of all home purchases during that period. (See Figure B.)[25]

(13) A noticeable pattern among the lower-income-borrower loans purchased by the GSEs is the predominance of loans with high downpayments. This pattern of purchasing mainly high downpayment loans is one factor explaining why the Fed study found such a small market role for the GSEs. It may be the explanation for the small role of Fannie Mae and Freddie Mac in the first-time homebuyer market.

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[24] See Glenn B. Canner, Wayne Passmore, and Brian J. Surette, "Distribution of Credit Risk Among Providers of Mortgages to Lower-Income and Minority Homebuyers" in *Federal Reserve Bulletin,* 82(12): 1077-1102, December, 1996.

[25] HMDA market data were not used because HMDA does not require lenders to report information on first-time homebuyers. As explained in Section V, the American Housing Survey data include both financed home purchases and homes purchased with cash. If only financed home purchases were used, the GSEs' market shares would have been slightly higher but the various patterns discussed in the text would remain the same.

Further study of this issue is needed.

> During 2000, approximately 55 percent of Fannie Mae's special affordable, low-mod, and underserved areas loans had downpayments of at least 20 percent, a percentage only slightly smaller that the corresponding percentage (59.0 percent) for all Fannie Mae's home loan purchases. Similar patterns of high downpayments on the goals-qualifying loans were evident in Freddie Mac's 2000 purchases, as well as in prior years for both GSEs.

<u>B.5 Additional Findings</u>

Following the 1999 study, this update analysis examined additional topics such as the funding of loans for different racial and ethnic groups, the affordable lending performance of other major industry sectors (such as FHA and depositories), and the use of HMDA data for measuring the characteristics of loans originated in the conventional conforming market.

(14) The share of Fannie Mae's and Freddie Mac's purchases of home loans for African-American borrowers exhibited different trends between 1997 and 2000, with Fannie Mae's share declining and Freddie Mac's share slightly increasing. In 2000, both GSEs' purchases of loans for African Americans fell significantly below the market. (See Figure C.)

> Loans for African-American borrowers declined from 4.5 percent of Fannie Mae's purchases in 1997 to 3.4 percent in 1999 before partially rebounding to 4.1 percent in 2000. Fannie Mae's performance during 2000 was 76 percent of the performance of the conventional conforming market (which was 5.4 percent in 2000).
>
> The share of African-American borrowers in Freddie Mac's purchases increased from a low 3.2 percent in 1997 and 1998 to 4.3 percent in 2000. Thus, Freddie Mac's performance during 2000 was 80 percent of market performance.

(15) The 1999 paper raised questions about the overall performance of the conventional conforming market in financing homeownership for African-American and Hispanic borrowers. For these two groups of minority borrowers, the conventional conforming market may set a low standard for evaluating the performance of the GSEs. This update paper reaches the same conclusion. (See Figure D.)

> In 2000, African-American and Hispanic borrowers accounted for 13.5 percent of the home loans originated in the conventional conforming market, compared with 36.2 percent of loans insured by FHA, and 19.2 percent of loans originated in the total (government and conventional conforming combined) market. FHA-insured loans totaled only 19-20 percent of all home loans originated during 2000, but accounted for almost 40 percent of home loans going to African-American and Hispanic borrowers. There is evidence that some FHA borrowers might qualify for a

conventional or GSE loan. In addition, some studies conclude that conventional lenders steer minority borrowers to higher-cost FHA loans. However, as the 1999 study noted, more research is needed before definitive conclusions can be reached about mortgage steering and the overlap between FHA and conventional loans.

(16) Some studies have concluded that HMDA data overstate the share of market loans going to low-income borrowers and underserved areas. Appendix A reports data that do not support this conclusion.

Appendix A compares the low-income and underserved areas characteristics of the GSEs' purchases of newly-originated ("current-year") loans as reported both by the GSEs' own data and by HMDA data.[26] For recent years, HMDA data on loans sold to the GSEs do not always have higher percentages of low-income and underserved areas loans than the GSEs' own data on their purchases of newly-originated mortgages. For example, from 1996-2000, both HMDA and Fannie Mae reported that special affordable loans accounted for 11.7 percent of Fannie Mae’s purchases of newly-originated loans. HMDA reported a 21.0 underserved areas percentage for Fannie Mae, which was practically the same as the underserved areas percentage (21.3 percent) reported by Fannie Mae itself. Given that similar patterns were observed for Freddie Mac’s mortgage purchases, it appears that there is no bias in the HMDA-based market benchmarks used in this study.

C. Organization of the Remainder of the Paper

Section II summarizes the growth in affordable lending during the 1990s and briefly examines the performance of major segments of the mortgage market, such as FHA, the GSEs and depositories (banks and thrifts). Sections III and IV provide a detailed analysis of the affordable lending performance of Fannie Mae and Freddie Mac relative to each other and relative to the conventional conforming market. Section III focuses on home purchase loans, which are linked to changes in homeownership, while Section IV reports results for total loans (that is, refinance as well as home purchase loans). Section V presents a market share analysis that estimates the contribution of the GSEs to the overall funding of mortgages for various targeted groups, such as low-income and minority borrowers as well as first-time homebuyers. In addition to reporting findings about relative performance, this paper necessarily addresses several data and technical issues that arise when comparing the GSEs with the market. Appendix A covers several of the technical issues.

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[26] In this comparison, a higher special affordable percentage for HMDA-reported mortgage originations that lenders report as also being sold to the GSEs -- as compared with the special affordable percentage for newly-originated mortgages that the GSEs report as being actually purchased by them -- would suggest that HMDA market data are biased; that is, in this situation, the special affordable percentage for all mortgage originations reported in HMDA would likely be larger than the special affordable percentage for all new mortgage originations, including those not reported in HMDA as well as those reported in HMDA.

II. Affordable Lending in the Mortgage Market[27]

During the last decade, lenders, private mortgage insurers and the GSEs implemented numerous changes in their business practices to extend homeownership opportunities to lower-income and historically underserved households. The industry started offering more customized products, more flexible underwriting, and expanded outreach so that the benefits of the mortgage market could be extended to those who have not been adequately served through traditional products, underwriting, and marketing. Following the 1999 paper, subsection A briefly summarizes the various initiatives undertaken by the industry and the GSEs to expand affordable housing.

Subsection B then compares the major market sectors in terms of their focus on affordable lending. To place the GSEs in the context of the overall market, this section examines data for government (FHA, VA) loans as well as conventional conforming loans. The important role of FHA in the affordable lending market is highlighted and questions are raised about whether the conventional conforming market could be doing a better job helping low-income and minority borrowers obtain access to mortgage credit. With this general background, Sections III and IV will evaluate the GSEs' performance within the conventional conforming market.

A. Trends in Affordable Lending During the Last Decade

During the 1990s, the mortgage industry began offering a wide range of affordable lending programs designed to attract those who had not been adequately served through traditional programs. While the details of these affordable loan programs vary, they generally have four distinct elements: targeted groups, special marketing and outreach, the application of flexible underwriting, and the use of risk mitigation activities.[28] Targeted groups are usually defined with eligibility criteria tied to borrower or neighborhood income, loan-to-value ratios, homebuyer status (e.g., first-time homebuyers), and other factors. Borrower or neighborhood income is typically the most important eligibility criteria, with eligibility restricted to lower-income families or census tracts.

Special marketing typically includes homebuyer education programs and outreach through nonprofit and community groups that are active in targeted neighborhoods. In fact, partnership efforts are quite common with local community groups often responsible for screening the applicants and making recommendations to lenders. In addition,

[27] Readers not interested in this background section on affordable lending may want to proceed to Section III, which compares the GSEs and the primary conventional conforming market in terms of the three goals-qualifying categories.

[28] This description of affordable lending programs is taken from Avery *et al.* (1996). Also see Rutgers University (1998), The Urban Institute (1999), and HUD (2000a,b) for other descriptions of the rise in affordable lending during the 1990s.

lenders sometimes pool their resources and operate their affordable programs through lender consortia.

Flexible underwriting is perhaps the most important attribute of special lending programs. Flexible underwriting can have the following characteristics: low-down-payment loans, high debt-to-income ratios, reduced cash reserve requirements, and use of alternative credit history (such as payment of rent and utilities). To reduce the applicant's costs, lenders sometimes offer below-market interest rates and waive private mortgage insurance requirements. As noted above, these underwriting changes are often accompanied by homeownership and credit counseling to ensure homeowners are ready for the responsibilities of homeownership. A recent study by Freddie Mac suggests that homeownership counseling can reduce delinquent mortgage payments (Hirad and Zorn, 2001).

The industry has also engaged in intensive loss mitigation to control any extra default risks associated with their special lending programs. This can include quick follow-up calls to borrowers who miss a monthly payments as well as use of automated models that assist servicers in determining which loss mitigation strategy should be pursued for different situations involving a delinquent borrower. The industry's efforts to control the default risks of their special lending programs and the early default performance of these programs are both discussed in HUD (2000a).

GSE Initiatives.[29] Fannie Mae and Freddie Mac have each been playing an active role in these market initiatives. During 1998, Fannie Mae introduced its "Flexible 97" and Freddie Mac introduced its "Alt 97" low downpayment lending programs. Under these programs borrowers are required to put down only 3 percent of the purchase price. The downpayment, as well as closing costs, can be obtained from a variety of sources, including gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets. The GSEs have recently started programs for "A-minus" borrowers (i.e., those with blemished credit) that offer interest rate reductions for those borrowers who are not delinquent on their mortgage payments for a period of two years.

In addition to developing new affordable products, the GSEs and lenders have been entering into partnerships with local governments and nonprofit organizations to increase mortgage access to underserved borrowers. Fannie Mae's partnership offices in 50 central cities, serving to coordinate Fannie Mae's programs with local lenders and affordable housing groups, are an example of this initiative.[30] Freddie Mac does not have a partnership office structure similar to Fannie Mae's, but it has undertaken a number of initiatives in specific metropolitan areas.

[29] For information on the GSEs' affordable lending initiatives, see the various Annual Housing Activities Reports that they have submitted to HUD since 1993. Examples include Fannie Mae (2001) and Freddie Mac (2001).

[30] See Boxall and Silver (2001) for the functions of Fannie Mae's partnership offices.

The GSEs have also been modifying their underwriting standards to attempt to address the needs of families who find qualifying under traditional guidelines difficult. The changes to underwriting standards include, for example: using a stable income standard rather than a stable job standard, which particularly benefits low-skilled applicants who have successfully remained employed, even with frequent job changes; and allowing pooling of funds for qualification purposes, which benefits applicants with extended family members. In conjunction with changes in their underwriting standards, the GSEs have encouraged homeownership counseling to ensure homeowners are ready for the responsibilities of homeownership and loss mitigation programs to keep families in dtheir homes and to control their own credit risks.

1993-2000 Trends. HMDA data suggest that the industry and GSE initiatives are increasing the flow of credit to underserved borrowers. Between 1993 and 2000, conventional loans to low-income and minority families increased at much faster rates than loans to higher income and non-minority families. As shown below, conventional home purchase originations to African-American and Hispanic borrowers more than doubled between 1993 and 2000 and home loans for low-income borrowers and census tracts almost doubled during this period.

	1993-2000 Growth Rate All Home Loans	1993-2000 Growth Rate Conventional Home Loans
African-American Borrowers	89%	122%
Hispanic Borrowers	138%	147%
White Borrowers	25%	35%
Low-Income Borrower (Less Than 80% AMI)	79%	97%
Upper-Income Borrower (Greater Than 120% AMI)	56%	66%
Low-Income Census Tract	87%	113%
Upper-Income Census Tract	52%	60%

The increase in GSE purchases for lower-income borrowers has shown a similar pattern -- while their annual purchases of all home loans increased by 32 percent between 1993 and 2000, their special affordable purchases increased by 157 percent, their low-mod purchases increased by 84 percent, and their purchases in underserved areas increased by 55 percent during this period.

While low interest rates and economic expansion certainly played an important role in the substantial increase in conventional affordable lending in recent years, most observers believe that the GSE housing goals and the Community Reinvestment Act (discussed later) were important contributors.

B. Affordable Lending Shares by Major Market Segment

Before comparing the GSEs' performance with primary lenders in the conventional conforming market, it is useful to examine the role of the conventional conforming market in funding affordable loans. Therefore, Table 1 reports borrower and neighborhood characteristics for home purchase mortgages insured by FHA, purchased by the GSEs, originated by depository (mainly banks and thrift) institutions, and originated in the conventional conforming market and in the total market for owner-occupied properties in metropolitan areas.[31] In this case, the "total" market consists of both the conventional conforming market and the government (mainly FHA and VA loans) market; "jumbo" loans above the conventional conforming loan limit are excluded from this analysis.[32]

HMDA is the source of the FHA, depository, and market data, while the GSE data is their own data. Data for low-income, African-American, Hispanic, and minority borrowers are provided as well as data for four types of neighborhoods – low-income census tracts, tracts where minorities (or African-Americans) account for more than 30 percent of the census tract population, and underserved areas as defined by HUD. Thus, Table 1 offers a good summary of lending to low-income and minority borrowers and their communities for the years 1997 to 2000.[33] The discussion below will focus on the year 2000.

The focus of different market sectors on affordable lending is summarized by the "distribution of business" percentages reported in Table 1, which are defined as the share of loans originated (or, for the GSEs, purchased) that had a particular borrower or neighborhood characteristic. The interpretation of the "distribution of business" percentages can be illustrated using the FHA percentage for low-income borrowers: during 2000, 48.7 percent of all FHA-insured home purchase loans in metropolitan areas

[31] Table 2 provides the same information as Table 1 but for total (both home purchase and refinance) loans. Thus, it provides a complete picture of overall mortgage activity.

[32] The "Total Market" is defined as all loans (including both government and conventional) below the conforming loan limit of $214,600 in 1997, $227,150 in 1998, $240,000 in 1999, and $252,700 in 2000.

[33] The affordable market shares reported in Table 1 for the "Conventional Conforming Market W/O B&C" were derived by excluding the estimated number of B&C loans from the HMDA data. Because B&C lenders operate mainly in the refinance sector, excluding these loans from the conforming market has little impact on the home purchase percentages reported in Table 1. HUD's method for excluding B&C loans is explained in Section III.

were originated for borrowers with an income less than 80 percent of the local area median income. These percentages are to be contrasted with "market share" percentages, which are presented later in Section V. A "market share" percentage is the share of loans with a particular borrower or neighborhood characteristic that was funded by a particular market sector (e.g., FHA-insured, originated or held by a depository, purchased by the GSEs, etc.). As will be discussed later, FHA's "market share" for low-income borrowers is 28 percent which is interpreted as follows: of all home purchase loans originated for low-income borrowers in metropolitan areas during 2000, 28 percent were FHA-insured loans. Thus, in this example, the "distribution of business" percentage measures the importance (or concentration) of low-income borrowers in FHA's overall business while the "market share" percentage measures the importance of FHA to the market's overall funding of loans for low-income borrowers.

Both concepts are important for evaluating performance – for an industry sector such as FHA or the GSEs to have a significant impact on lending to a targeted group, that sector's business must be concentrated on the targeted group and that sector must be of some size. The discussion below and in Sections III-IV will focus on the degree to which different mortgage sectors concentrate on targeted groups, while Section V will provide estimates of market shares.

The main insights from the "distribution of business" percentages in Table 1 pertain to four topics.

(1) FHA-Insured Loans. FHA has traditionally been the mechanism used by borrowers who have difficulty obtaining mortgage financing in the private conventional market. FHA has long been recognized as the major source of funding for first-time, low-income and minority homebuyers who have not been able to raise cash for large downpayments.[34] Table 1 shows that FHA places much more emphasis on affordable lending than the other market sectors. Low-income borrowers accounted for 48.7 percent of FHA-insured loans during 2000, compared with 25.9 percent of the home loans purchased by the GSEs, 29.7 percent of home loans originated by depositories, and 29.8 percent of conventional conforming loans. Likewise, 42.1 percent of FHA-insured loans were originated in underserved census tracts, while only 23.0 percent of the GSE-purchased loans and 27.1 percent of conventional conforming loans were originated in these tracts.[35] As will be discussed in Section V, FHA's share of the minority lending market is particularly high -- while FHA insured only 19-20 percent of all home purchase

[34] Almost two-thirds of the borrowers with an FHA-insured home purchase loan make a downpayment less than five percent and over 80 percent are first-time home buyers. For discussions of the role of FHA in the mortgage market, see Bunce *et al.* (1995), U.S. General Accounting Office (1998), and Office of Policy Development and Research (2000). See Bunce, Reeder and Scheessele (1999) for data on the credit characteristics of FHA borrowers.

[35] FHA, which focuses on first-time homebuyers and low downpayment loans, experiences higher mortgage defaults than conventional lenders and the GSEs. Still, the FHA system is actuarially sound because it charges an insurance premium that covers the higher default costs. See Deloitte & Touche (2001) for the results of FHA's latest actuarial analysis.

mortgages originated in metropolitan areas during 2000, it is estimated that FHA insured 37-38 percent of all home loans originated for African-American and Hispanic borrowers.

(2) Conventional Minority Lending. The affordable lending shares for the conventional conforming sector are low for minority borrowers, particularly African-American and Hispanic borrowers. These borrowers accounted for only 14.2 percent of all conventional conforming loans originated during 2000, compared with 36.2 percent of FHA-insured loans and 19.2 percent of all loans originated in the total market. The African-American and Hispanic share of the GSEs' purchases is even lower than the corresponding share for the conventional conforming market.[36] In 2000, home purchase loans to African-American and Hispanic borrowers accounted for 10.9 percent of Freddie Mac's purchases, 12.1 percent of Fannie Mae's purchases, and 13.5 percent of loans originated in the conventional conforming market (with B&C loans excluded from the market definition).[37] Not surprisingly, the minority lending performance of conventional lenders has been subject to much criticism. Recent studies contend that primary lenders in the conventional market are not doing their fair share of minority lending which forces minorities, particularly African-American and Hispanic borrowers, to rely on more costly FHA and subprime loans.[38]

(3) Fannie Mae and Freddie Mac. During the 1997-2000 period, the GSEs lagged the conventional conforming market (defined without B&C loans) in funding affordable loans for low-income families and their neighborhoods – in 2000, for example, low-income census tracts accounted for 9.1 percent of Freddie Mac's purchases, 9.6 percent of Fannie Mae's purchases, 11.9 percent of loans originated by depositories, and 11.5 percent of home loans originated by conventional conforming lenders. Fannie Mae's performance between 1997 and 2000 has consistently been higher than Freddie Mac's for Hispanic and minority borrowers and high-minority census tracts. However, as the 1997-2000 annual percentages indicate, the relative performance of the two GSEs has recently shifted back and forth on the remaining categories listed in Table 1. For example, during both 1997 and 1998, low-income census tracts accounted for 7.9 percent of Freddie Mac's purchases, compared with about 9.5 percent of Fannie Mae's purchases.

[36] For a comprehensive analysis of the GSEs' purchases of minority loans, see Harold L. Bunce, *An Analysis of GSE Purchases of Mortgages for African-American Borrowers and their Neighborhoods*, December, 2000.

[37] As shown in Table 1, the results change somewhat when other minority borrowers are considered. During 1997 and 1998, Fannie Mae purchased mortgages for minority borrowers and their neighborhoods at higher rates than these loans were originated by primary lenders in the conventional conforming market. For example, 17.7 percent of Fannie Mae's 1997 purchases were mortgages for minority borrowers, compared with 16.3 percent of conventional conforming loans (without B&C). However, during 1999 and 2000, Fannie Mae was slightly below the market for these groups.

[38] See Green and Associates. *Fair Lending in Montgomery County: A Home Mortgage Lending Study*, a report prepared for the Montgomery County Human Relations Commission, (March 1998). Also see Bradford (2000a,b). In addition, Pennington-Cross, *et al*. (2000) suggest that some minorities receiving FHA loans could qualify for conventional loans.

Between 1998 and 1999, Freddie Mac's performance improved while Fannie Mae's declined with the result that Freddie Mac surpassed Fannie Mae. But during 2000, Fannie Mae's low-income-tract percentage increased to 9.6 percent, while Freddie Mac's increased to only 9.1 percent, thus re-establishing Fannie Mae's higher performance in this category. A different pattern occurred for low-income borrowers. Freddie Mac, which in 1997 fell behind Fannie Mae, sharply increased its low-income-borrower percentage from 19.2 percent in 1997 to 27.1 percent in 2000 while Fannie Mae more modestly increased its initially higher low-income-borrower percentage of 22.6 percent in 1997, to only 24.9 percent by 2000. A more complete analysis of these trends for the GSEs' purchases of mortgages qualifying for the housing goals is provided below in Sections III and IV.

(4) Depositories. Finally, within the conventional conforming market, depository institutions are important providers of affordable lending for lower-income families and their neighborhoods.[39] As shown in Table 1, underserved areas accounted for 26.7 percent of all depository originations during 2000, which was almost the same as the underserved areas percentage (27.1 percent) for the overall conventional conforming market.[40] Depository lenders have extensive knowledge of their communities and direct interactions with their borrowers, which may enable them to introduce flexibility into their underwriting standards without unduly increasing their credit risk (see Avery *et al.*, 1996). Another important factor influencing the types of loans held by depository lenders is the Community Reinvestment Act (CRA), which requires depository institutions to help meet the credit needs of their communities. CRA provides an incentive for lenders to initiate affordable lending programs with underwriting flexibility.[41] CRA loans are typically made to low- and moderate-income borrowers earning less than 80 percent of median income for their area, and in moderate-income neighborhoods. A recent report by the Department of Treasury indicates that CRA lending has been somewhat effective in stimulating lending to low- and moderate-income (LMI) borrowers and areas.[42]

[39] Table 1 includes data for all loans originated by depositories as well as for the subset of loans originated but not sold, the latter being a proxy for depository portfolio lending. (See the notes to Table 1 for definitions of the depository data.)

[40] As shown in Table 1, depository institutions resemble other conventional lenders in their relatively low level of originating loans for African-American, Hispanic and minority borrowers.

[41] For an analysis of the impact of CRA agreements signed by lending institutions, see Alex Schwartz, "From Confrontation to Collaboration? Banks, Community Groups, and the Implementation of Community Reinvestment Agreements", *Housing Policy Debate*, 9(3), (1998), pp. 631-662.

[42] See Robert E. Litan, Nicolas P. Retsinas, Eric S. Belsky, and Susan White Haag, *The Community Reinvestment Act After Financial Modernization: A Baseline Report*, U.S. Department of Treasury, April 2000.

III. GSEs Compared with the Primary Conventional Conforming Mortgage Market

This section provides a more detailed analysis of the extent to which the GSEs' loan purchases mirror or depart from the patterns found in the primary mortgage market. As in the previous section, the GSEs' affordable lending performance is also compared with the performance of depository lenders such as commercial banks and thrift institutions. Dimensions of lending considered include the borrower income and underserved areas dimensions covered by the three housing goals -- the "goals-qualifying" categories examined here include very low-income, special affordable, and less-than-median income borrowers and underserved areas. Subsection A defines the primary mortgage market and discusses some technical issues related to the use of GSE and HMDA data; subsection B presents the results.

A. Definition of Primary Market and Some Technical Issues

The market analysis in this section is based mainly on HMDA data for home purchase loans originated in the conventional conforming market of metropolitan areas during the years 1992 to 2000. The conventional conforming market is used as the benchmark against which to evaluate the GSEs because that is the market definition Congress requires that HUD consider when setting the affordable housing goals. However, as discussed in Section II, some have questioned whether conventional conforming lenders are doing an adequate job meeting the credit needs of minority borrowers which suggests that this market may be a low benchmark.[43]

Manufactured Housing Loans. Questions have arisen about whether loans on manufactured housing should be excluded when comparing the primary market with the GSEs (Fannie Mae, 2000; Freddie Mac, 2000). While the GSEs have not played a significant role in the manufactured housing loan market in the past, they have been looking for ways to increase their purchases of these loans. But more importantly, the manufactured housing sector is one of the most important providers of affordable housing, which makes it appropriate to include this sector in the market definition. As discussed in HUD's final GSE rule (HUD, 2000b), HUD believes that the manufactured housing market is an important source of low-income loans and for that reason, includes this market in most of its affordable lending analyses. However, for comparison purposes, data are presented for the primary market defined both to include and exclude mortgages originated by manufactured housing lenders. It should also be noted that because this analysis focuses on metropolitan areas, it does not include the substantial number of manufactured housing loans originated in non-metropolitan areas.

[43] The market definition in this section is narrower than the data presented earlier in Section II and Tables 1 and 2, which covered all loans (both government and conventional) less than or equal to the conforming loan limit. As in that section, only the GSEs' purchases of conventional conforming loans are considered; their purchases of FHA-insured, VA-guaranteed, and Rural Housing Service loans are excluded from this analysis.

Subprime Loans. Questions have also arisen about whether subprime loans should be excluded when comparing the primary market with the GSEs (Fannie Mae, 2000; Freddie Mac, 2000). In its final GSE rule, HUD argued that the low-income and minority borrowers in the A-minus portion of the subprime market could benefit from the standardization and lower interest rates that typically accompany an active secondary market effort by the GSEs. A-minus loans are not nearly as risky as B&C loans and the GSEs have already started purchasing these loans. Thus, HUD concludes that A-minus loans should be included in the market benchmark. With respect to the remaining B&C portion of the subprime market, HUD's final GSE rule estimated the effects of excluding the B&C loans from the market definition (see HUD, 2000b).

Unfortunately, HMDA does not identify subprime loans, much less separate them into their A-minus and B&C components.[44] Thus, it is not possible to exclude B&C loans from the HMDA market data. However, Randall M. Scheessele at HUD has identified HMDA reporters that primarily originate subprime loans.[45] Scheessele has identified approximately 300 lenders that probably account for about 60-70 percent of the subprime market. To adjust HMDA data for B&C loans, this analysis follows HUD (2000b) which assumes that the B&C portion of the subprime market is equal to one-half of the loans originated by the subprime lenders included in Scheessele's list.[46] As shown below, the effects of adjusting the various market percentages for B&C loans are minor mostly because the analysis in this section focuses on home purchase loans, which historically have accounted for less than one quarter of the mortgages originated by subprime lenders -- the subprime market is mainly a refinance market.[47]

Lender-Purchased Loans in HMDA. When analyzing HMDA data, Fannie Mae includes in its market totals those HMDA loans identified as having been *purchased* by the reporting lender, above and beyond loans that were *originated* by the reporting lender (Fannie Mae, 2000).[48] Fannie Mae contends that there are a subset of loans

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[44] And there is some evidence that many subprime loans are not even reported to HMDA, although there is nothing conclusive on this issue. See *Fair Lending/CRA Compass*, (June 1999), p. 3.

[45] The list of subprime lenders as well as Scheessele's list of manufactured housing lenders are available at http://www.huduser.org/publications/hsgfin.html.

[46] The one-half estimate may be too conservative as some observers estimate that B&C loans account for only 30-40 percent of the subprime market. However, varying the B&C share from 50 percent to 30 percent does not significantly change the following analysis of home purchase loans because subprime loans are mainly for refinance purposes.

[47] The reductions in the market shares are more significant for total loans, which include refinance as well as home purchase loans; for data on total loans, see Tables 6 and 7 in Section IV. It should be noted that subprime lenders have been focusing more on home purchase loans recently. The home purchase share of loans originated by the subprime lenders in Scheessele's list increased from 20 percent in 1998 to 25 percent in 1999 to 33 percent in 2000.

[48] In 2000, lenders reported in HMDA that they *purchased* 806,393 conventional conforming, home purchase loans in metropolitan areas; this compares with 2,605,400 loans that these same lenders reported

originated by brokers and subsequently purchased by wholesale lenders that are neither reported by the brokers nor the wholesale lenders as originations but are reported by the wholesale lenders as purchased loans. According to Fannie Mae, these HMDA-reported purchased loans should be added to HMDA-reported originated loans to arrive at an estimate of total mortgage originations.

This paper's market definition includes only HMDA-reported originations; purchased loans are excluded from the market definition. While some purchased loans may not be reported as originations in HMDA (the Fannie Mae argument), there are several reasons for assuming that most HMDA-reported purchased loans are also reported in HMDA as market originations. First, Fed staff has told HUD that including purchased loans would result in double counting mortgage originations (Scheessele, 1998). Second, comparisons of HMDA-reported FHA data with data reported by FHA supports the Fed's conclusion. For instance, FHA's own data indicate that during 1999 FHA insured 946,000 home purchase loans (covering both metropolitan and non-metropolitan areas); the sum of HMDA-reported purchased home loans and HMDA-reported originated home loans in metropolitan areas alone yields a much higher figure of 1,157,000 FHA-insured loans during 1999.[49] While these calculations are for the FHA market (rather than the conventional market), they suggest that including HMDA-reported purchased loans in the market definition would overstate mortgage origination totals. Third, Abt Associates surveyed nine wholesale lenders and questioned them concerning their guidelines for reporting in HMDA loans purchased from brokers. Most of these lenders said brokered loans were reported as originations if they [the wholesale lender] make the credit decision; this policy is consistent with the Fed's guidelines for HMDA reporting. Abt Associates concluded that "brokered loans do seem more likely to be reported as originations…"[50]

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that they *originated* in metropolitan areas.

[49] A more sophisticated analysis utilizing metropolitan area data for year 2000 yielded the same results as the simple example in the text. A matching procedure was developed for identifying FHA-insured purchased loans as reported in HMDA that were equivalent to FHA-insured loans as reported by FHA. These two sets of loans were matched in terms of their census tract location, loan amount, and borrower income, gender, and race or ethnicity. Based on this matching analysis, 138,344 HMDA-reported purchased loans were estimated to be duplicates of FHA-reported originations; subtracting these 138,344 loans from the total number (386,653) of HMDA-reported purchased loans yielded a net of 248,308 HMDA-reported purchased loans that were not considered duplicates of FHA-reported originations. In this example, implementing the Fannie Mae approach for estimating the HMDA-based volume of FHA-insured mortgage originations involves adding the 248,308 HMDA-reported purchased loans to 700,938 HMDA-reported, FHA-insured originations; following this approach suggests that FHA-insured 949,246 newly-originated home mortgages in metropolitan areas during 2000. However, FHA's own data show that there were only 761,027 FHA-insured home loans originated in metropolitan areas during 2000. Again, this large discrepancy suggests that a market estimate based on adding HMDA-reported purchased loans to HMDA-reported originations would substantially overstate the volume of mortgage originations in metropolitan areas.

[50] See Chapter III, "Reporting of Brokered and Correspondent Loans under HMDA", in *Exploratory Study of the Accuracy of HMDA Data*, by Abt Associates Inc. under contract for the Office of Policy Development and Research, HUD, February 12, 1999 (page 18).

Finally, it should be noted that including purchased loans in the market definition does not significantly change the goals-qualifying shares of the market, mostly because borrower income data are missing for about 60 percent of purchased loans. In 2000, the following goals-qualifying shares for the conventional conforming home purchase market are obtained when both purchased and originated loans are included in the market definition: special affordable (16.8 percent), low-mod (44.5 percent), and underserved areas (27.4 percent). Defining the market to include only originated loans yields similar goals-qualifying shares: special affordable (17.1 percent), low-mod (44.8 percent), and underserved areas (27.1 percent)

GSE-HMDA Data Issues. The GSE figures reported in this section are based on mortgage purchase data that Fannie Mae and Freddie Mac report annually to HUD; the market figures are taken from HMDA data. For any particular calendar year, the GSE data that are reported to HUD include their purchases of mortgages originated in prior years as well as their purchases of mortgages originated during the current year.[51] The market data reported by HMDA include only mortgages originated in the current year. This means that the GSE-versus-market comparisons are defined somewhat inconsistently for any particular calendar year. Each year, the GSEs have newly-originated loans available for purchase, but they can also purchase loans from a large stock of seasoned (prior-year) loans currently being held in the portfolios of depository lenders. One method for making the data more consistent is to aggregate the data over several years, instead of focusing on annual data. This provides a clearer picture of the types of loans that have been originated and are available for purchase by the GSEs. This approach is taken in Table 3, which is discussed below.

The approach of including the GSEs' purchases of both "current-year" and "prior-year" mortgages was chosen in order to give the GSEs full credit for their mortgage purchase activity in any particular year; this approach is also consistent with the statutory requirement for measuring GSE performance under the housing goals. Appendix A to this paper shows the effects on the analysis of restricting the GSEs' data to their purchases of only "current year" mortgages. That appendix also addresses other issues including the GSEs' criticisms of HUD's past use of HMDA data to measure their performance and the GSEs' assertion that HMDA data overstate the low-income and underserved areas portion of the mortgage market.

B. Affordable Lending by the GSEs and the Market

Overall Performance, 1993-2000. Table 3 summarizes goals-qualifying lending by the GSEs, depositories and the conforming market for the eight-year period between 1993 and 2000 and for the more recent 1996-2000 period, when the current definitions of the housing goals were in effect. As noted above, the data are aggregated over time to

[51] In general, about one-fourth of the GSEs' purchases are prior-year loans. A significant portion of their prior-year purchases are "pipeline" loans, that is, they were originated in the last few months of the calendar year prior to GSE purchase.

provide a clear picture of how the GSEs' purchases of both current-year and prior-year loans compare with the types of mortgages that have been originated during the past few years. Given the importance of the GSEs for expanding homeownership, this section focuses on home purchase mortgages; Section IV will more briefly discuss the GSEs' overall performance, including refinance as well as home purchase loans. Several points stand out concerning the affordable lending performance of Freddie Mac and Fannie Mae through 2000.

Freddie Mac lagged both Fannie Mae and the primary market in funding affordable home loans in metropolitan areas between 1993 and 2000. During that period, 8.9 percent of Freddie Mac's mortgage purchases were for very low-income borrowers, compared with 9.8 percent of Fannie Mae's purchases, 12.9 percent of loans originated by depositories,[52] and 13.0 percent of loans originated in the conforming market without B&C loans (or 11.4 percent if manufactured home loans are excluded from the conforming market definition).[53]

A similar pattern characterized the more recent 1996-2000 period. Between 1996 and 2000, 37.6 percent of Freddie Mac's purchases were for low- and moderate-income borrowers, compared with 39.0 percent of Fannie Mae's purchases, 42.6 percent of loans originated by depositories and 43.4 percent of loans originated in the primary market. Over the same period, 20.7 percent of Freddie Mac's purchases financed properties in underserved neighborhoods, compared with 22.6 percent of Fannie Mae's purchases, 24.4 percent of depository originations, and 25.2 percent of loans originated in the conventional conforming market.[54]

Thus, Fannie Mae's affordable lending performance has been better than Freddie Mac's over the 1993 to 2000 period as well as during the more recent 1996 to 2000 period. During these two periods, both Fannie Mae and Freddie Mac lagged depositories and the overall market in funding affordable loans. However, as the above comparisons indicate, Fannie Mae's performance has been closer to the market than Freddie Mac's.

The remainder of this section focuses on the annual data reported in Tables 4 and 5. As explained below, there was a change in the relative positions of Fannie Mae and Freddie Mac during 1999, and again in 2000. Between 1993 and 1998, Freddie Mac's performance fell below Fannie Mae's, but a sharp improvement in Freddie Mac's performance during 1999 pushed it pass Fannie Mae on all the goals-qualifying categories (i.e., borrower-income categories and the underserved areas category). But in

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[52] As shown in Table 3, the depository percentage is slightly higher (14.3 percent) if the analysis is restricted to those newly-originated loans that depositories do not sell (the latter being a proxy for depository portfolio lending).

[53] The "market without manufactured housing" in Table 3 excludes loans less than $15,000 as well as all loans originated by lenders that primarily originate manufactured housing loans. See Table 5 for market definitions that show the separate effects of excluding small loans and manufactured housing loans.

[54] Unless stated otherwise, the market in Sections III and IV is defined as the conventional conforming market *without estimated B&C loans.*

2000, Fannie Mae improved its underserved areas performance enough to surpass Freddie Mac in this category, while Freddie Mac continued to out-perform Fannie Mae on the borrower-income categories (very-low income, special affordable, and low-mod). In 2000, both GSEs remained significantly behind depositories and the overall market in funding affordable loans.

Freddie Mac Performance – Annual Data. As shown by the annual data reported in Table 4, Freddie Mac improved its purchases of goals-qualifying loans during the 1990s. For example, its purchases of loans for very low-income borrowers increased from 5.3 percent of its business in 1992 to 7.6 percent in 1997, before jumping to 9.9 percent in 1998, 11.0 percent in 1999, and 12.5 percent in 2000. Freddie Mac's purchases in underserved areas increased at a more modest rate, rising from 18.6 percent in 1992 to 19.9 percent in 1997 and then to 22.2 percent in 2000.[55]

Despite its improved performance between 1997 and 2000, Freddie Mac continued to lag the market in funding goals-qualifying loans. In 2000, special affordable loans accounted for 14.3 percent of Freddie Mac's purchases and 16.8 percent of loans originated in the conventional conforming market, which produces a "Freddie-Mac-to-market" ratio of 0.85 (14.3 divided by 16.8).[56] Table 4 shows the trend in the "Freddie-Mac-to-market" ratio from 1992 to 2000 for each of the goals-qualifying categories. For the special affordable and low-mod categories, Freddie Mac's performance relative to the market remained flat (at approximately 0.60 and 0.80, respectively) through 1997; by 1999, the ratio had risen to 0.74 for the special affordable category and 0.89 for the low-mod category. Freddie Mac continued to improve its performance during 2000, further closing its gap with the market -- the "Freddie-Mac-to-market" ratio rose to 0.85 for the special affordable category and to 0.94 for the low-mod category.

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[55] HMDA is the source of the GSE data reported in Table 4 for the year 1992; the loan-level data that the GSEs report to HUD are available only since 1993. The 1992 HMDA data on loans sold to the GSEs are reported in order to include a measure of GSE activity prior to the housing goals taking effect in 1993. As discussed in Scheessele (1998), HMDA data on loans sold to the GSEs typically account for only about four-fifths of their purchases. However, the undercoverage of GSE purchases was greater during 1992 as several mortgage bankers were not required to report under HMDA until 1993. Thus, the 1992 data (for the market as well as the GSEs) should be interpreted with some caution. Scheessele reported the following HMDA coverage rates for GSE purchases of home loans between 1993 and 1996: 75.3 percent for 1993, 80.4 percent for 1994, 85.7 percent for 1996, and 81.6 percent for 1996. He found that HMDA covered higher percentages of FHA-insured loans during this period: 87.8 percent for 1993, 88.0 percent for 1994, 89.5 percent for 1995, and 93.3 percent for 1996.

[56] Table 5 reports annual market percentages that exclude the effects of manufactured housing and subprime loans. The market percentage for 2000 drops slightly to 16.4 percent when all subprime loans are excluded from the market definition, thus not significantly changing Freddie Mac's performance relative to the market. Excluding manufactured housing and small loans, on the other hand, reduces the special affordable market figure to 15.3 percent, which has the effect of raising the "Freddie-Mac-to-market" ratio to 0.94.

Given these gains on the borrower-income categories, it is somewhat surprising that Freddie Mac did not make any progress closing its market gap in the underserved areas category; the “Freddie-Mac-to-market” ratio for underserved areas was the same in 2000 (0.84) as it was in 1992 (0.84).[57]

Fannie Mae Performance – Annual Data. With respect to purchasing affordable loans, Fannie Mae followed a different path during the 1990s than Freddie Mac. Fannie Mae improved its performance between 1992 and 1998 and made much more progress than Freddie Mac in closing the gap between its performance and the market's performance on the goal-qualifying categories examined here. In fact, by 1998, Fannie Mae's performance was close to that of the primary market for some important components of affordable lending. For example, in 1992, special affordable loans accounted for 6.3 percent of Fannie Mae's purchases and 10.4 percent of all loans originated in the conforming market, giving a "Fannie Mae-to-market" ratio of 0.61. By 1998, this ratio had risen to 0.86, as special affordable loans had increased to 13.2 percent of Fannie Mae's purchases and to 15.4 percent of market originations.

A similar trend in market ratios can be observed for Fannie Mae on the underserved areas category. In 1992, underserved areas accounted for 18.3 percent of Fannie Mae's purchases and 22.2 percent of market originations, for a "Fannie Mae-to-market" ratio of 0.82. By 1998, underserved areas accounted for 22.9 percent of Fannie Mae's purchases and 24.2 percent of market originations, for a higher "Fannie Mae-to-market" ratio of 0.95. Freddie Mac, on the other hand, fell further behind the market during this period. In 1992, Freddie Mac had a slightly higher underserved areas percentage (18.6 percent) than Fannie Mae (18.3 percent). However, Freddie Mac's underserved areas percentage had only increased to 20.0 percent by 1998 (versus 22.9 percent for Fannie Mae). Thus, the "Freddie Mac-to-market" ratio fell slightly from 0.84 in 1992 to 0.83 in 1998.

The year 1999 saw a shift in the above patterns, with Fannie Mae declining in overall performance while the share of goals-qualifying loans in the market increased. Between 1998 and 1999, the special affordable share of Fannie Mae’s business declined from 13.2 percent to 12.3 percent while this type of lending in the market increased from 15.4 percent to 17.0 percent. Thus, the “Fannie-Mae-to-market” ratio for special affordable loans declined sharply from 0.86 in 1998 to 0.72 in 1999.[58] The share of Fannie Mae’s purchases in underserved areas also declined, from 22.9 percent in 1998 to 20.6 percent in 1999, which lowered the “Fannie-Mae-to-market” ratio from 0.95 to 0.82.

After declining in 1999, Fannie Mae’s performance rebounded in 2000, particularly in the underserved areas category. Fannie Mae’s underserved areas percentage

[57] If manufactured housing and small loans are excluded from the market definition, the ratio was 0.87 in 1992 and 0.86 in 2000 (see Table 5).

[58] If manufactured housing and small loans are excluded from the market definition, the ratio would be 0.85 in 2000 (see Table 5).

jumped by three percentage points from 20.6 percent in 1999 to 23.6 percent in 2000. The 2000 figure was similar to its level in 1997 but below Fannie Mae's peak performances of 24-25 percent during 1994 and 1995. Between 1999 and 2000, the "Fannie-Mae-to-market" ratio for underserved areas also increased, from 0.82 to 0.89. As shown in Table 4, the 2000 market ratio was below Fannie Mae's market ratio in several earlier years, indicating that while Fannie Mae had closed its gap with the market during 2000, it remained with a larger market gap than in some earlier years (such as 1994-5 and 1997-8).

During 2000, Fannie Mae also improved its performance on the special affordable goal. Fannie Mae's special affordable percentage increased by 0.7 percentage points from 12.3 percent in 1999 to 13.0 percent in 2000. The 2000 figure was similar to its previous peak level (13.2 percent) in 1997. The "Fannie-Mae-to-market" ratio for special affordable loans increased from 0.73 in 1999 to 0.78 in 2000, with the latter figure remaining below Fannie Mae's peak market ratio (0.86) in 1997.

Changes in the "Fannie-Mae-to-Freddie-Mac" Performance Ratio. The above discussion documents shifts in the relative performance of Fannie Mae and Freddie Mac over the past few years. To highlight these changing patterns, Table 4 reports the ratio of Fannie Mae's performance to Freddie Mac's performance for each goals category for the years 1992 to 2000. As shown there, the "Fannie-Mae-to-Freddie-Mac" ratio for the special affordable category increased from approximately one in 1992 (indicating equal performance) to over 1.3 during the 1994-97 period, indicating that Fannie Mae clearly out-performed Freddie Mac during this period. Between 1997 and 2000, Freddie Mac substantially increased its special affordable share (from 9.0 percent to 14.3 percent), causing the "Fannie-Mae-to-Freddie-Mac" ratio to fall from 1.30 in 1997 to 0.90 in 2000 (indicating Freddie Mac had by-passed Fannie Mae).

Prior to 2000, the "Fannie-Mae-to-Freddie-Mac" ratio for underserved areas followed a similar pattern to that outlined above for special affordable loans, but at a lower overall level – rising from about one in 1992 (indicating equal performance) to approximately 1.2 during the 1994-97 period, before dropping to slightly below one (0.97) in 1999. However, as discussed earlier, Fannie Mae increased its underserved areas percentage from 20.6 percent in 1999 to 23.6 percent in 2000; this raised the "Fannie-Mae-to-Freddie-Mac" ratio to 1.06.

To conclude, the 1990s ended on a more encouraging note for Freddie Mac than for Fannie Mae. Fannie Mae ended the 1990s with a decline in affordable lending performance at the same time that Freddie Mac was improving and the share of goals-qualifying loans was increasing in the market. An encouraging sign for Freddie Mac was that its shares of special affordable and low-mod loans showed rather large increases between 1998 and 1999, while its underserved areas purchases showed modest increases. Fannie Mae, on the other hand, had experienced declines in all goals-qualifying categories between 1998 and 1999.

Both GSEs' performance during 2000 was encouraging – Freddie Mac continued to improve, particularly with respect to the borrower-income categories, while Fannie Mae reversed its declining performance, particularly with respect to underserved areas. During 2000, Freddie Mac outperformed Fannie Mae on the special affordable and low-mod categories, while Fannie Mae purchased a higher percentage of loans in underserved areas.

GSE Purchases of Seasoned Loans. One factor discussed in Appendix A which may partially account for the various shifts in performance between the GSEs is their purchases of seasoned (prior-year) loans. As shown in Table A.1 of that appendix, Fannie Mae followed a strategy of purchasing targeted seasoned loans between 1996 and 1998, and again in 2000 – all years when Fannie Mae improved its overall affordable lending performance. For example, consider Fannie Mae's underserved areas performance during 2000, which was helped by its increased purchases of seasoned mortgages on properties located in underserved neighborhoods. Overall, the share of Fannie Mae's purchases of home loans in underserved areas increased from 20.6 percent in 1999 to 23.6 percent in 2000. The underserved areas percentage for Fannie Mae's purchases of newly-originated mortgages was 22.6 percent in 2000; Fannie Mae obtained the higher overall percentage (23.6 percent) by purchasing seasoned loans with a particularly high concentration (26.7 percent) in underserved areas. Thus, Fannie Mae improved its overall performance in 2000 by supplementing its purchases of newly-originated mortgages with purchases of seasoned mortgages targeted to underserved neighborhoods. Fannie Mae followed such a seasoned loan strategy in 1997 and 1998 for both special affordable and underserved areas loans.

As shown in Table A.1 of Appendix A, Freddie Mac also followed a strategy of purchasing seasoned special affordable loans during 2000. Freddie Mac's improvement in special affordable purchases between 1999 and 2000 was partially due to its seasoned loan purchases, which had a high concentration of special affordable borrowers (17.6 percent for prior-year loans versus 13.0 percent for Freddie Mac's year 2000 purchases of current-year loans). Prior to 2000, Freddie Mac had not pursued such a strategy, or at least not to the same degree as Fannie Mae. During the 1997-99 period, Freddie Mac's purchases of prior-year mortgages and newly-originated mortgages had similar percentages of special affordable (and low-mod) borrowers.[59]

[59]Over time, there have been small differentials between Freddie Mac's prior-year and newly-originated mortgages for the underserved areas category but they have been much smaller than the differentials for Fannie Mae. See Table A.1 in Appendix A.

IV. GSE Purchases of Total (Home Purchase and Refinance) Loans

Section III examined the GSEs' acquisitions of home purchase loans, which is appropriate given the importance of the GSEs for expanding homeownership opportunities. To provide a complete picture of the GSEs' mortgage purchases in metropolitan areas, Tables 6 and 7 report the GSEs' purchases of all single-family-owner mortgages, including both home purchase loans and refinance loans. Shifting the analysis to consider total mortgages does not change the basic findings that both GSEs have improved their performance but they continue to lag the primary market in serving low-income borrowers and underserved neighborhoods.

Table 6 provides a long-run perspective on the GSEs' performance. Between 1993 and 2000, as well as during the more recent 1996-2000 period, each GSE's performance has been about three-fourths of market performance for the special affordable category and eighty-five percent of market performance for the underserved areas category. For example, between 1993 and 2000, underserved areas accounted for 22.7 percent of Fannie Mae's purchases and 22.3 percent of Freddie Mac's purchases, compared with 26.1 percent for the conventional conforming market (without B&C loans). In the earlier discussion of home purchase loans, it was noted that Fannie Mae had outperformed Freddie Mac over the more recent 1996-2000; in the case of total loans, the performance of the two GSEs during this period is the same for special affordable loans and almost the same for underserved areas loans (22.7 percent for Fannie Mae versus 22.3 percent for Freddie Mac).

Table 7 shows that both GSEs improved their overall performance between 1999 and 2000. Freddie Mac increased its special affordable purchases from 13.3 percent of its single-family business in 1999 to 15.7 percent in 2000, thus continuing its high rate of improvement that started in 1997. While Fannie Mae also increased its special affordable purchases, its greatest improvement came in the underserved areas category, where it jumped from 21.8 percent in 1999 to 25.3 percent in 2000. In 2000, Freddie Mac's performance was higher than Fannie Mae's on the two-borrower income categories while Fannie Mae had a small advantage over Freddie Mac on the underserved areas category.

Findings concerning the GSEs' performance during the year 2000 relative to the overall (home purchase and refinance) market are similar to those discussed earlier for home purchase loans. Both Fannie Mae and Freddie Mac continue to lag the conventional conforming market in funding goals-qualifying loans. This can be seen from the "GSE-to-market (without B&C loans)" ratios reported in Table 7. In 2000, underserved areas accounted for 25.3 percent of Fannie Mae's purchases and 28.9 percent of loans originated in the non-B&C portion of the conventional conforming market, yielding a "Fannie-Mae-to-market" ratio of 0.88. As noted above, Fannie Mae's year 2000 performance was much better than its 1999 performance, which explains the sharp increase in its market ratio for underserved areas, from 0.81 in 1999 to 0.88 in 2000. The "Freddie-Mac-to-market" ratio (0.85) for underserved areas was significantly below one in 2000 and slightly below Fannie Mae's market ratio.

In 2000, both GSEs also had market ratios below one in the special affordable category. The "Fannie-Mae-to-market" ratio for special affordable loans was 0.78, which was an increase from its 1999 market ratio (0.71), indicating that during 2000 Fannie Mae partially closed its performance gap relative to the market. However, Fannie Mae's year 2000 market ratio remained below its peak ratio of 0.82 in 1997, indicating that Fannie Mae had fallen further behind the market between 1997 and 2000. The "Freddie-Mac-to-market" ratio (0.86) for special affordable loans was also below one but significantly higher than Fannie Mae's special affordable market ratio.

Subprime Loans. Table 5 in Section III showed that the goals-qualifying shares of the home purchase market do not change much when originations by subprime lenders are excluded from the analysis; the reason is that subprime lenders operate primarily in the refinance market. Therefore, in this section's analysis of the total market (including refinance loans), one would expect the treatment of subprime lenders to significantly affect the market estimates and, indeed, that is the case. As shown in Table 7, excluding over 300 HMDA reporters that specialize in subprime lending reduced the goal-qualifying shares of the total market during 2000 as follows: special affordable, from 19.3 to 17.1 percent; low-mod, from 47.4 to 44.9 percent; and underserved areas, from 30.3 to 27.3 percent.

As explained earlier, the comparisons in this paper defined the market without the B&C portion of the subprime market. Industry observers estimate that A-minus loans account for 50-70 percent of all subprime loans while the more risky B&C loans account for the remaining 30-50 percent. Thus, one proxy (and the one used here) for excluding B&C loans originated by the specialized subprime lenders from the overall market benchmark might be to reduce the goal-qualifying percentages from the HMDA data by half the above differentials. As shown in Table 7, accounting for B&C loans in this manner reduces the year 2000 HMDA-reported goal-qualifying shares of the total conforming market as follows: special affordable, from 19.3 to 18.3 percent; low-mod, from 47.4 to 46.3 percent; and underserved areas, from 30.3 to 28.9 percent.[60]

Obviously, the GSEs' performance relative to the market will depend on which market definition is used. While this decision did not much impact the earlier analysis based on home purchase loans, it does affect the findings for this section's analysis of total loans. For instance, defining the conventional conforming market in 2000 to exclude subprime loans, rather than only B&C loans, would increase Fannie Mae's special affordable (underserved area) market ratio from 0.78 to 0.84 (0.88 to 0.93). Similarly, it would increase Freddie Mac's special affordable (underserved areas) market ratio from 0.86 to 0.92 (0.85 to 0.91). Thus, except for Fannie Mae's special affordable ratio, the market definition without subprime loans would increase the GSEs' market ratios for the special affordable and underserved areas categories above 0.90, which is

[60] However, as discussed in Appendix D of HUD (2000b), much uncertainty exists about the size of the subprime market and its different components. More data and research are obviously needed on this growing sector of the mortgage market.

slightly higher than the 0.85 to 0.88 range of GSE-to-market ratios reported in Table 7 for the market without B&C loans. For the broader-defined low-mod category, redefining the market to exclude subprime loans, rather than only B&C loans, would increase Fannie Mae's (Freddie Mac's) market ratio from 0.90 to 0.93 (0.94 to 0.97).

V. GSE Market Shares: Home Purchase Loans

Section II drew a distinction between “distribution of business” and “market share” percentages. A "distribution of business" percentage measures the extent to which a mortgage industry sector focuses its business on a particular targeted group – that was the subject of Sections II-III. A “market share” percentage measures the share of loans with a particular borrower or neighborhood characteristic that is funded by a particular market sector (such as FHA or the GSEs). In other words, a “market share” percentage measures a sector’s share of all home loans originated for a particular targeted group. The “market share” of a sector depends not only on the degree to which that sector concentrates its business on a targeted group but also on the size (or overall mortgage volume) of the sector. If an industry sector has a large “market share” for a targeted group, then that sector is making an important contribution to meeting the credit needs of the group.

Both “distribution of business” and “market share” data are important for evaluating the GSEs’ performance. In fact, given the large size of the GSEs, one would expect that a “market share” analysis would highlight their importance to the affordable lending market. As this section will document, the GSEs account for a significant share of the total (government as well as conventional conforming) market for home purchase loans. However, their market share for each of the affordable lending categories is much less than their share of the overall market, and they account for a very small share of the market for important groups such as minority first-time homebuyers.

Subsection A uses HMDA and GSE data to estimate the GSEs’ share of home loans originated for low-income and minority borrowers and their neighborhoods. Subsection B summarizes other research that suggests the GSEs play a much smaller role in the affordable lending market than is suggested by subsection A’s analysis. The attempt to reconcile these different findings leads to an analysis of the downpayment characteristics of home loans purchased by the GSEs, followed in subsection C by a brief examination of the GSEs’ role in the important, first-time homebuyer market. While providing some interesting new findings, subsection C concludes that more work is needed in order to fully understand and assess the GSEs’ role in funding families who find it difficult to access mortgage credit.

A. GSEs’ Share of Home Purchase Lending

Table 8 reports market share estimates derived by combining HMDA and GSE loan-level data. To understand these estimates, first consider the GSE market share percentage for “All Home Purchase Loans” at the bottom of the table, which is 46-48 percent. That market share percentage is interpreted as follows:

> It is estimated that home loans acquired by Fannie Mae and Freddie Mac during the year 2000 totaled 46-48 percent of all home loans originated in metropolitan areas during 2000.

It should be noted that "all home loans" refers to all government (FHA and VA) loans plus all conventional loans less than the conforming loan limit of $252,700; in other words, only "jumbo loans" are excluded from this analysis. The analysis is restricted to metropolitan areas because HMDA data (the source of the market estimates) are reliable only for metropolitan areas. B&C originations are included in the market data, since the purpose here is to gauge the GSEs' role in the overall mortgage market. As discussed in Section III, excluding B&C loans, or even all subprime loans, would not materially affect this analysis of the home loan market since subprime loans are mainly for refinance purposes. Following the approach used in Section III, the GSE purchase data include their acquisitions of "prior-year" as well as "current-year" (i.e., 2000) mortgages, while the market data include only mortgages that were originated during 2000. Including all the GSE purchases, rather than just their purchases of "current-year" mortgages, provides a more comprehensive measure of the GSEs' importance to the various market segments. This analysis below frequently combines purchases by Fannie Mae and Freddie Mac since previous sections have compared their performance relative to each other.

The GSE market share percentage for "Low-Income Borrowers" at the top of Table 8 has a similar interpretation to that of "All Home Purchase Loans":

> It is estimated that home loans for low-income borrowers acquired by Fannie Mae and Freddie Mac during the year 2000 totaled 34-37 percent of all home loans originated for low-income borrowers originated in metropolitan areas during 2000.

According to the data in Table 8, the GSEs play an important role in the market for home loans. In addition to accounting for 46-48 percent of all newly-originated home loans during 2000, they accounted for a major portion of the market for the low-income and minority groups listed in Table 8. For example, purchases by Fannie Mae and Freddie Mac represented 34-37 percent of the low-income-borrower market and 35-37 percent of the markets in high-minority census tracts and underserved areas. Thus, access to credit in these historically underserved markets depends importantly on the purchase activities of Fannie Mae and Freddie Mac.

The data in Table 8 also show that the GSEs' role in low-income and minority markets is significantly less than their role in the overall home loan market. As noted above, Fannie Mae and Freddie Mac account for 46-48 percent of all home loans but only 35-37 percent of the loans financing properties in underserved areas. Their market share was even lower for loans to African-American and Hispanic borrowers -- 24-29 percent, which is approximately twenty percentage points less than their overall market share.

To provide some perspective, Table 8 includes market share estimates for FHA.[61] In 2000, FHA's overall market share was less than half of the GSEs' market share, as FHA insured only 19-20 percent of all home mortgages originated that year in metropolitan areas. However, FHA's share of the underserved segments of the market is almost as high as the GSEs' share, and in one case is actually higher by a rather wide margin. For instance, during 2000, FHA insured 28-30 percent of all mortgages originated in low-income census tracts, which is only four percentage points less than the GSEs' market share in low-income census tracts. FHA's share of the market is particularly high for African-American and Hispanic borrowers. As shown in Table 8, it is estimated that FHA insured 37-38 percent of all home loans originated for these borrowers during 2000 – a figure much higher than the GSEs' share of 24-29 percent.[62] While FHA's overall market share was only two-fifths of the GSEs' combined market share, FHA's share of the market for loans to African-Americans and Hispanics was about 30-40 percent larger than the GSEs' share of that market.

B. Other Analyses of the GSEs' Market Share

There have been other analyses of the role of Fannie Mae and Freddie Mac in underserved markets. A 1996 Federal Reserve study went beyond the rather straightforward market share analysis described above to examine the degree to which different mortgage market institutions – depositories, private mortgage insurers, the GSEs and FHA – are taking on the *credit risk* associated with funding affordable mortgages.[63] The authors of the study combined market share data of the type discussed above with downpayment information and data on projected foreclosure losses to arrive at an estimate of the credit risk assumed by each institution for several borrower groups. The Fed's measure of credit support depends importantly on the provision of low downpayment loans to cash-constrained families. The Fed study found that conventional lenders provided only 22 percent of the credit support for African-American and Hispanic borrowers, compared with 11 percent for the Veterans Administration and 67 percent for FHA. The dominant share for FHA reflects both FHA's focus on insuring

[61] As explained in Section III, the GSEs' affordable lending performance is evaluated relative to the conventional conforming market, as required by Congress in the 1992 GSE Act that established the housing goals. However, in this section examining the role of Fannie Mae and Freddie Mac in the overall market for home loans, it is insightful to contrast them with other major sectors of the market such as FHA. There is no intention here to imply that the GSEs should purchase the same types of loans that FHA insures.

[62] As explained in the notes to Table 8, this analysis uses HMDA data for the market and FHA figures. It is assumed that HMDA data cover 85-90 percent of all mortgage originations in metropolitan areas, and 90-95 percent of FHA-insured loans in metropolitan areas. If it were assumed that HMDA data covered higher (lower) percentages of market and FHA loans, then the GSE market shares would increase (decline). Assuming that HMDA data cover more FHA loans than non-FHA loans tends to reduce the FHA market share.

[63] See Glenn B. Canner, Wayne Passmore, and Brian J. Surette, "Distribution of Credit Risk among Providers of Mortgages to Lower-Income and Minority Homebuyers" in *Federal Reserve Bulletin*, 82(12): 1077-1102, December, 1996.

mortgages for these borrowers (see Tables 1 and 8) and the fact that most FHA-insured loans have less-than-five-percent downpayments. The shares of credit support for African-American and Hispanic borrowers provided by different conventional sectors were as follows: depositories (7 percent), private mortgage insurers (6 percent), and the GSEs (4 percent). The Fed study also reported very small credit-support roles for the GSEs in other market segments: lower-income borrowers (4 percent); lower-income census tracts (4 percent); and predominantly minority census tracts (5 percent)

The conclusion of the Fed study concerning the minimal market role of Fannie Mae and Freddie Mac differs markedly from the findings presented in subsection A above. The Fed study reports a very minimal GSE role in targeted markets while our analysis reports a significant GSE role in targeted markets (although smaller than their role in the overall home loan market). The different findings are due to different methodologies. This paper focuses on purchase patterns while the earlier Fed study weighted other variables such as down payment and default characteristics in making their determinations.[64] For instance, the small credit support role of the GSEs (4 percent for African-American and Hispanic borrowers) estimated by the Fed researchers is due to the GSEs' low level of purchases of loans originated for African-American and Hispanic borrowers and to the fact that the GSEs mainly purchased high downpayment loans with little associated credit risk. For this reason, the GSEs' purchases received little weight in the Fed's methodology.[65]

Downpayment Data. While this paper will not attempt to update the Fed study, information can be presented on the downpayment characteristics of the GSEs' mortgage purchases, which will partially explain why the Fed's analysis reaches different conclusions about the market role of the GSEs than those presented earlier in subsection A. Tables 9a and 9b report the loan-to-value (LTV) distribution of home purchase mortgages acquired by the GSEs between 1997 and 2000 – Table 9a presents summary data for the years, 1997 to 2000, while Table 9b presents more detailed information for the year 2000. In Table 9b, LTV data are provided for all home loans as well as for the three goals-qualifying categories (special affordable, low-mod, and underserved areas). Three points stand out.

First, the GSEs (and particularly Freddie Mac) have recently been increasing their purchases of less-than-five-percent downpayment mortgages. Between 1997 and 2000, over-95-percent-LTV loans increased from 1.1 percent to 5.9 percent of Freddie Mac's

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[64] It should also be noted that the earlier Fed study was based on data compiled through 1995 while this paper updates GSE and market performance through 2000 and thus covers a period when the industry as a whole showed a greater emphasis on affordable lending programs. However, a repeat of the Fed study using 2000 data would probably yield the same overall patterns found by the Fed researchers using 1995 data.

[65] FHA, on the other hand, insures mainly low downpayment mortgages and, as discussed earlier, accounts for a large share of the loans originated for African-American and Hispanic borrowers; thus, in the Fed's methodology, FHA is recognized as providing most of the credit support for these borrowers.

purchases of home loans.[66] High LTV loans increased at a more modest rate in Fannie Mae's business, from 3.3 percent in 1997 to 4.3 percent in 2000. Second, the low downpayment share of goals-qualifying loans is even higher. In 2000, over-95-percent-LTV loans accounted for 12.6 percent of Freddie Mac's purchases of special affordable loans, 10.1 percent of low-mod loans, and 9.4 percent of underserved areas loans, compared with 5.9 percent of Freddie Mac's purchases of all home loans. Third, and somewhat surprising, a noticeable pattern among goals-qualifying home loans purchased by the GSEs is the predominance of loans with high downpayments. For example, 55.2 percent of special affordable home loans purchased by Fannie Mae during 2000 had a downpayment of at least 20 percent, a percentage that was only slightly lower that than the low-downpayment share (59.0 percent) of all Fannie Mae's home loan purchases. Similarly, 53.1 percent of the home loans purchased by Fannie Mae in underserved areas during 2000 had a more than twenty percent downpayment, compared with 59.0 percent of all home loans purchased by Fannie Mae.

The data in Tables 9a and 9b show a preponderance of high downpayment loans, even among lower-income borrowers and borrowers financing properties in underserved areas. This focus of the GSEs on high downpayment loans is one reason the Fed study concluded that they provide little credit support to the lower end of the mortgage market. Essentially, the rather significant low-income market shares reported for the GSEs in subsection A (see Table 8) would not receive much weight in the Fed's analysis because the majority of the low-income loans purchased by the GSEs have a downpayment of over twenty percent. This tendency of the GSEs to purchase mainly high downpayment loans raises a question of their role in the first-time homebuyer market, a topic examined next.

C. The GSEs' Share of the First-Time Homebuyer Market

The level of downpayment is particularly important for young families seeking their first homes. Given the high downpayments associated with GSE-purchased loans, it is informative to examine the GSEs' role in the first-time homebuyer market, particularly in those market segments that serve families who find it difficult to raise cash for a large downpayment. This section uses data on homebuyers from the American Housing Survey to examine the GSEs' role in the first-time homebuyer market for minorities.

Table 10 provides data on the number of homebuyers between 1997 and 1999. The homebuyer data is taken from a study by Vandenbroucke, Neal, and Bunce (VNB).[67]

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[66] Notice that the 90-95 percent LTV category experienced a decline during this period, from 24.2 percent to 19.7 percent. Thus, the share for over-ten-percent downpayment loans in Freddie Mac's purchases of home loans remained unchanged between 1997 and 2000 at approximately 25 percent. The share for over-ten-percent downpayment loans in Fannie Mae's purchases actually declined between 1997 and 2000, from 23.2 percent to 22.6 percent.

[67] David A. Vandenbroucke, Sue G. Neal, and Harold L. Bunce, "First-Time Homebuyers: Trends from the American Housing Survey", November 2001, *U.S. Housing Market Conditions*, a quarterly publication of the Office of Policy Development and Research at HUD, pages 4-10. The American Housing Survey defines first-time homebuyers as buyers who have never owned a home. The FHA and GSE first-time

Using data on recent movers (i.e., families who have changed residence in the past year) from the American Housing Survey, VNB estimate that there were 15,812,888 purchases of homes between 1997 and 1999; approximately 41 percent (or 6,453,695) of these involved a first-time homebuyer.[68] Also presented in Table 10 are the numbers of home purchase loans and first-time homebuyer loans acquired by Fannie Mae and Freddie Mac between 1997 and 1999.[69] During this period, Fannie Mae acquired 3,369,239 home loans, representing 21.3 percent of all AHS-reported home purchases; and Freddie Mac acquired 2,309,650 home loans, representing 14.6 percent of all home purchases. Combined, the two GSEs' mortgage acquisitions represented 35.9 percent of the home purchase market between 1997 and 1999.[70]

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homebuyer data discussed below are based on a more expansive definition – buyers who have not owned a home in the past three years.

[68] VNB present annual data on total home purchases and home purchases by first-time buyers for the years 1991 to 1999. They discuss several caveats with the AHS estimates – for instance, in some years, home purchases as measured by the AHS declined while home purchases as measured by other data sources (e.g., HMDA) increased. In addition, the AHS home purchase data for separate minority groups (e.g., African-Americans, Hispanics) sometimes exhibited shifts inconsistent with other sources. VNB, however, conclude that the homebuyer numbers are generally consistent with other data sources, particularly if the data are combined across categories and years, such as displayed in Table 10. Thus, the AHS data provide reasonable estimates of overall homebuyer activity.

[69] The GSE data reported in Table 10 were derived in several steps: (1) the home purchase numbers were obtained by adjusting the GSEs' acquisitions of conventional home purchase loans originated for owner-occupied properties to reflect the GSEs' share of any participations, so that the home purchase numbers reflect the amounts that the GSEs actually purchased; (2) the minority home purchase numbers were derived by re-allocating loans with missing race and ethnicity based on the race and ethnicity distribution of home purchase loans with non-missing race and ethnicity; (3) the overall first-time homebuyer numbers were obtained from the Census Tract File of the GSE Public Use Data Base; and (4) the minority first-time homebuyer numbers were obtained by multiplying (a) the race and ethnicity distribution of first-time homebuyer loans with non-missing race and ethnicity information, obtained from the Census Tract File of the Public Use Data Base (PUDB), by (b) the number of first-time homebuyer loans derived in (3). Because the first-time homebuyer data in (3) and (4) are obtained from the GSE PUDB, the data have not been adjusted for the GSEs' participation shares and include any government (FHA) loans purchased by the GSEs between 1997 and 1999. In step (2), about 8 percent of the GSE purchases between 1997 and 1999 had missing race and ethnicity data. It should also be noted that Table 10 follows the practice discussed in Section III of including the GSEs' purchases of prior-year loans – thus, the GSE data in Table 10 include their purchases during the 1997 to 1999 period of mortgages originated prior to 1997. As discussed later, Table 11 makes further adjustments in the GSE data to account for home purchase loans with missing first-time homebuyer information.

[70] Using market data from HMDA, HUD (2000b) estimated the GSEs' share of the 1997 home loan market (below the conforming loan limit) in metropolitan areas to be 44 percent while Bunce (2000b) estimated the GSEs' share of the 1999 market to be 41 percent. The AHS market data reported here differ from the HMDA market data in three important respects. First, the AHS data in Table 10 cover both metropolitan and non-metropolitan areas while the HMDA data covered only metropolitan areas. (Of course, in Table 10, the GSE and FHA data also cover both metropolitan and non-metropolitan areas.) Second, the AHS data are drawn from a much smaller sample of recent movers than are HMDA data, which cover most mortgage transactions; the small size of the AHS sample is probably the reason for the inconsistencies noted by VNB. Third, and perhaps most importantly, the AHS data in Table 10 cover all home purchases including both those financed with a mortgage and those paid in cash. The GSEs' market share would be larger if the AHS data included only those home purchases financed with a mortgage. VNB chose to

Between 1997 and 1999, Fannie Mae acquired 899,462 first-time homebuyer loans, representing 13.9 percent of the total first-time market; Freddie Mac acquired 530,156 first-time homebuyer loans, representing 8.2 percent of that market. The GSEs' combined purchases of first-time homebuyer loans represented 22.2 percent of all home purchases by first-timers – a market share significantly lower than their 35.9 percent share of all home purchases (both by first-time homebuyers and repeat homebuyers). Contrasting the first-time market with the repeat-buyer market further clarifies the nature of the GSEs' purchases. As shown in Table 10, the GSEs' purchases of repeat-homebuyer loans represented 45.4 percent of all home purchases by repeat homebuyers between 1997 and 1999. Thus, the GSEs' share of the repeat-homebuyer market was twice their share (22.2 percent) of the first-time homebuyer market.

Table 10 reports the same information for FHA. First, one can calculate from Table 10 that first-time-homebuyer loans accounted for 81 percent of all home purchase loans insured by FHA, which is not surprising given FHA's low downpayment requirements. By comparison, first-time-homebuyer loans accounted for only 25 percent of all home loans purchased by the GSEs.[71] FHA's greater focus on first-time homebuyers is also reflected in the market share data. While FHA-insured home loans represented only 15.5 percent of AHS-reported home purchases between 1997 and 1999, FHA-insured first-time-homebuyer loans represented 30.7 percent of AHS-reported home purchases by first-time homebuyers.[72] The GSEs, on the other hand, accounted for a larger share (35.9 percent) of the overall home purchase market but a smaller share (22.2 percent) of the first-time homebuyer market.[73]

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analyze total home purchases because they found some inconsistencies in the AHS data for homes purchased with a mortgage. Therefore, without further investigation, it would be problematic to use the AHS data on mortgaged home purchases. Still, expressing the GSE data as portion of all home purchases – both financed and not financed -- provides a reasonable measure of their role in funding the homebuyer market. It should be noted that the GSE and FHA data include Puerto Rico while the AHS data do not.

[71] As shown in Table 10, first-time homebuyers accounted for a larger percentage of Fannie Mae's acquisitions of home loans than of Freddie Mac's (26.7 percent versus 23.0 percent). Excluding GSE-purchased home loans with missing first-time homebuyer information increases the GSEs' first-time homebuyer percentages by approximately three percentage points – Fannie Mae (30.0 percent), Freddie Mac (26.0 percent), and both GSEs (28.3 percent).

[72] The FHA numbers reported in Table 10 for 1997-99 are slightly higher than those reported by VNB; re-analyzing the data showed that FHA insured 2,458,889 home purchase loans between 1997 and 1999, rather than the 2,380,600 reported by VNB. Similar adjustments were found for the various sub-categories of FHA-insured loans.

[73] Because the AHS-reported market data in Table 10 include non-metropolitan areas, which have a large number of manufactured homes, the market data were recomputed excluding manufactured housing. The results are presented in Table B.1 of Appendix B. As shown there, the market shares for FHA and the GSEs increase when buyers of manufactured housing are excluded from the AHS data. For instance, the GSEs' purchases represent 41.2 percent of all home purchases (instead of 35.9 percent) and 25.8 percent of home purchases by first-time homebuyers (instead of 22.1 percent).

Table 10 also reports home purchase and first-time homebuyer information for minorities. The low market shares for Fannie Mae and Freddie Mac in the minority first-time homebuyer market are consistent with findings of the Fed study that the GSEs' have played a limited role in providing credit support to certain segments of the underserved population. For instance, Fannie Mae's loan acquisitions between 1997 and 1999 represented 21.3 percent of all home purchases but only 11.6 percent of home purchases by African-American and Hispanic families, and just 6.9 percent of home purchases by African-American and Hispanic first-time homebuyers. Fannie Mae's role in the market for first-time African-American and Hispanic homebuyers has been only one-third of its role in the overall home purchase market (6.9 percent versus 21.3 percent). Freddie Mac's role in the market for first-time African-American and Hispanic homebuyers has been only one-fifth of its role in the overall home purchase market -- 2.9 percent for the African-American and Hispanic first-time market versus 14.6 percent for the overall home purchase market. The GSEs' combined share of the market for first-time African-American and Hispanic homebuyers was 9.9 percent, or only about one-fourth of their combined share (35.9 percent) of all home purchases.

FHA, on the other hand, accounted for a much larger share of the minority first-time homebuyer market than it did of the overall homebuyer market. The 663,559 loans insured by FHA between 1997 and 1999 for African-American and Hispanic first-time homebuyers were 38.4 percent of the 1,729,043 first-time African-American and Hispanic homebuyers during that period – a figure more than twice FHA's share (15.5 percent) of the overall homebuyer market.[74] While FHA's market share was about two-fifths of the GSEs' share of the overall home purchase market (15.5 percent versus 35.9 percent), FHA's market share was four times the GSEs' share of the market for first-time African-American and Hispanic homebuyers (38.4 percent versus 9.9 percent). As noted above, this finding of a minor role of the GSEs in the first-time minority market is similar to the conclusion reached by the Fed researchers that the GSEs have provided little credit support to underserved borrower groups. Minority first-time homebuyers experience the most difficulty raising cash for a large downpayment; it appears that the GSEs' focus on high downpayment loans may be limiting their role in serving this market. This is a topic that needs further study.

Adjustments to the GSEs' First-time Homebuyer Data. First-time homebuyer information was not available for about 12 percent of the GSE loans purchased between 1997 and 1999. It is possible that a portion of these loans with missing information may be first-time homebuyer loans. In this case, the data reported in Table 10 would underestimate the GSEs' role in the first-time homebuyer market. Unfortunately, without further analysis of the characteristics of these loans, it is not clear if any confidence could

[74] Similar comparisons have been obtained using FHA and market data from HMDA. HUD (2000b) estimated FHA's share of the 1997 home loan market (below the conforming loan limit) in metropolitan areas to be 44 percent for African-American and Hispanic loans compared with 23 percent for all home loans. Bunce (2000b) estimated FHA's share of the 1999 market to be 41-42 percent for African-American and Hispanic loans compared with 21 percent for all home loans. See the earlier footnote for differences between the HMDA market data for mortgages and the AHS market data for homebuyers.

be placed in any procedure for designating the various loans as either a first-time or a repeat homebuyer loan. However, to gauge the potential effects on the GSE market shares, the loans with a missing first-time homebuyer indicator were re-allocated based on the first-time and repeat homebuyer percentages for the non-missing data. The results are reported in Table 11, which is the same as Table 10 except for higher first-time homebuyer numbers for Fannie Mae and Freddie Mac. While it is unclear whether this is a reasonable estimation method, Table 11 does highlight changes in the GSEs' market shares under one method for estimating their total purchases of first-time homebuyer loans.[75]

The combined GSE share of the first-time homebuyer market increases from 22.2 percent (Table 10 without re-allocation) to 24.9 percent (Table 11 with re-allocation). The GSEs' share of the African-American and Hispanic first-time homebuyer market increases from 9.9 percent in Table 10 to 11.1 percent in Table 11. While the GSEs' market share is slightly higher, the findings noted above concerning the GSEs' limited role in the minority first-time homebuyer market do not change as a result of re-allocating the GSE data with missing first-time homebuyer status. [76]

[75] The GSE data reported in Table 11 were derived in several steps: (1) and (2) are the same steps as explained earlier for Table 10; (3) the overall first-time homebuyer numbers were obtained by multiplying (a) the first-time homebuyer percentage (computed without missing data) reported by the GSEs in Table 9 of their Annual Housing Activities Report by (b) the number of home purchase loans derived in step (1); and (4) the minority first-time homebuyer numbers were obtained by multiplying (a) the race and ethnicity distribution of first-time homebuyer loans with non-missing race and ethnicity information, obtained from the Census Tract File of the Public Use Data Base (PUDB), by (b) the number of first-time homebuyer loans derived in (3).

[76] Table B.1 in Appendix B reports the GSEs' shares of the home purchase and first-time homebuyer markets when manufactured housing is excluded from the market definition. In this case, GSE purchases represent 25.8 percent (or 29.0 percent with re-allocation) of the overall first-time homebuyer market and 11.4 percent (or 12.8 percent with re-allocation) of the first-time homebuyer market for African-American and Hispanic homebuyers.

Appendix A

Technical Issues: Using HMDA Data to Measure the Characteristics of GSE Purchases and Mortgage Market Originations

A. Two HMDA Issues

This appendix discusses two issues concerning the use of HMDA data for measuring the GSEs' performance relative to the characteristics of mortgages originated in the primary market.[77] The first issue concerns the reliability of HMDA data for measuring the borrower income and census tract characteristics of loans sold to the GSEs.[78] Fannie Mae, in particular, contends that HMDA data understates the percentages of its business that qualify for the three housing goals. For this reason, Fannie Mae has questioned HUD's reliance on HMDA data for measuring its performance (Fannie Mae, 2000). As discussed below, HMDA data on loans sold to the GSEs do not include prior-year (seasoned) loans that are sold to the GSEs; since about one-fourth of GSE purchases involve seasoned loans, HMDA data will not provide an accurate measure of the goals-qualifying characteristics of the GSEs' total purchases when the characteristics of prior-year loans differ from those of current-year loans.

A second issue concerns the reliability of HMDA for measuring the percentage of goals-qualifying loans in the primary market. Both GSEs refer to findings from a study by Jim Berkovec and Peter Zorn concerning potential bias in HMDA data.[79] Based on a comparison of the borrower and census tract characteristics between Freddie Mac-purchased loans (from Freddie Mac's own data) and loans identified in 1993 HMDA data as sold to Freddie Mac, Berkovec and Zorn conclude that HMDA data overstates the percentage of conventional conforming loans originated for lower-income borrowers and for properties located in underserved census tracts. If HMDA data overstates the percentage of goals-qualifying loans, then this paper's market benchmarks (which are based on HMDA data) will also be overstated. The analysis below does not support the Berkovec and Zorn findings -- it appears that HMDA data do not overstate the share of goals-qualifying loans in the market, although more research on this issue is needed.

The discussion in this appendix of the GSEs' purchases of prior-year and current-

[77] The 1999 paper examined these issues using data between 1992 and 1999; this appendix updates that analysis to include 2000 data and incorporates some new analyses as well.

[78] It is important to emphasize that this appendix's analysis of the reliability of HMDA data is being conducted at the <u>nationwide</u> level for metropolitan areas. HMDA's reliability at the individual metropolitan area level is beyond the scope of this study.

[79] See Jim Berkovec and Peter Zorn, "How Complete is HMDA? HMDA Coverage of Freddie Mac Purchases," *The Journal of Real Estate Research*, Vol. II, No. 1, Nov. 1, 1996. Also see Freddie Mac (2000) and Fannie Mae (2000).

year loans also highlights the strategy of purchasing goals-qualifying seasoned loans. The implications of this strategy for understanding recent shifts in the relative performance of Fannie Mae and Freddie Mac are discussed in Section D of this appendix.

B. GSEs' Purchases of "Prior-Year" and "Current-Year" Mortgages

Overview. As explained in Section III, there are two sources of loan-level information about the characteristics of mortgages purchased by the GSEs -- the GSEs themselves and HMDA data. The GSEs provide detailed data on their mortgage purchases to HUD on an annual basis. As part of their annual HMDA reporting responsibilities, lenders are required to indicate whether their new mortgage originations or the loans that they purchase (from affiliates and other institutions) are sold to Fannie Mae, Freddie Mac or some other entity. There have been numerous studies by HUD staff and other researchers that use HMDA data to compare the borrower and neighborhood characteristics of loans sold to the GSEs with the characteristics of all loans originated in the market (see Section I). One question is whether HMDA data, which is widely available to the public, provides an accurate measure of GSE performance, as compared with the GSEs' own data.[80] Fannie Mae has argued that HMDA data understate its past performance, where performance is defined as the percentage of Fannie Mae's mortgage purchases accounted for by one of the goal-qualifying categories such as underserved areas. As explained below, over the past five years, HMDA has provided rather reliable national-level information on the goals-qualifying percentages for the GSEs' purchases of "current-year" (i.e., newly-originated) loans, but not for their purchases of "prior-year" loans.[81]

Discussion. In any given calendar year, the GSEs can purchase mortgages originated in that calendar year or mortgages originated in a prior calendar year. In 2000, for example, purchases of prior-year mortgages accounted for 30.4 percent of the single-family units financed by Fannie Mae's mortgage purchases and 32.9 percent of the single-family units financed by Freddie Mac's mortgage purchases.[82] HMDA data provide information mainly on newly-originated mortgages that are sold to the GSEs—that is,

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[80] For another discussion of this issue, see Randall M. Scheessele, *HMDA Coverage of the Mortgage Market*, Housing Finance Working Paper HF-007, Office of Policy Development and Research, Department of Housing and Urban Development, July 1998. Scheessele reports that HMDA data covered 81.6 percent of the loans acquired by Fannie Mae and Freddie Mac in 1996. The main reason for the under-reporting of GSE acquisitions is a few large lenders failed to report the sale of a significant portion of their loan originations to the GSEs. Also see the analysis of HMDA coverage by Jim Berkovec and Peter Zorn. "Measuring the Market: Easier Said than Done," *Secondary Mortgage Markets*. McLean VA: Freddie Mac (Winter 1996), pp. 18-21; as well as the Berkovec and Zorn study cited in the above footnote.

[81] Between 1993 and 1996, the GSEs' purchases of prior-year loans were not as targeted as they were after 1996; thus, during this period, HMDA provided reasonable estimates of the goals-qualifying percentages of the GSEs' purchases of all (both current-year and prior-year) loans, with a few exceptions.

[82] Since 1993, the GSEs have increased their purchases of seasoned loans. See Manchester (August 1998 and 2001).

HMDA data on loans sold to the GSEs will not include many of their purchases of prior-year loans.[83] The implications of this for measuring GSE performance can be seen in Table A.1, which provides annual data on the borrower and census tract characteristics of GSE purchases, as measured by HMDA data and the GSEs' own data. Table A.1 is similar to Table 4 in the text except that it divides each of the GSEs' goals-qualifying percentages for a particular acquisition year into two components, the percentage for "prior-year" loans and the percentage for "current-year" loans.

According to Fannie Mae's own data, 23.6 percent of its purchases during 2000 were loans financing properties in underserved areas (see Table A.1). According to HMDA data (also reported in Table A.1), only 22.5 percent of Fannie Mae's purchases fell into the underserved areas category. In this case, the HMDA data underestimate the share of Fannie Mae's mortgage purchases in underserved areas. Similarly, Freddie Mac reports a very-low-income (VLI) percentage of 12.5 percent for its year 2000 purchases while HMDA reports only 11.6 percent. However, in the previous year, Freddie Mac reports a VLI percentage of 11.0 percent for its 1999 purchases while HMDA reports practically the same percentage, 11.2 percent. What explains these different patterns in the GSE and HMDA data?

The reason that HMDA data underestimate the underserved areas percentage of Fannie Mae's 2000 purchases can be seen by disaggregating Fannie Mae's purchases during 2000 into their prior-year and current-year components. Table A.1 shows that the overall figure of 23.6 percent for underserved areas is a weighted average of 26.7 percent for Fannie Mae's purchases during 2000 of prior-year mortgages and 22.6 percent for its purchases of current-year purchases. The HMDA-reported figure of 22.5 percent for Fannie Mae’s year 2000 purchases is based mainly on newly-mortgaged (current-year) loans that lenders report as being sold to Fannie Mae. Therefore, the HMDA figure is similar in concept to the current-year percentage from the GSEs' own data. As Table A.1 shows, the HMDA figures and the GSE current-year figures are practically the same in this case (about 22.5 percent). Thus, the relatively large share of underserved areas mortgages in Fannie Mae's year 2000 purchases of prior-year mortgages explains why Fannie Mae's own data show an overall (both prior-year and current-year) percentage of underserved areas loans that is higher than that reported in HMDA data.

As shown in Table A.1, the same explanation applies to the GSE versus HMDA reporting discrepancy for Freddie Mac’s year 2000 purchases of very-low-income loans. But as noted above, the Freddie Mac and HMDA data provide about the same VLI percentage (11.0 percent and 11.2 percent, respectively) for 1999. This results because the VLI percentage for Freddie Mac's prior-year loans (11.3 percent) is similar to the VLI percentage for its current-year loans (10.9 percent). Thus, the VLI percentage of Freddie Mac's total loan purchases (11.0 percent) will be similar to the VLI percentage of its current-year loans, which is the same as the HMDA-based VLI percentage of Freddie Mac's purchases. With this understanding of basic differences between GSE-reported

[83] For a discussion of the impact of the GSEs’ seasoned mortgage purchases on HMDA data coverage, see Scheessele (1998), *op. cit.*

and HMDA-reported loan information, the next section examines issues that have arisen about the reliability of HMDA data.

C. Three Findings About the Reliability of HMDA Data

Table A.2 presents the same information as Table A.1, except that the data are aggregated for the years 1993-5, 1996-2000, and 1993-2000. A review of the data for the goals-qualifying categories in Tables A.1 and A.2 yields the following insights about the reliability of HMDA data at the national level for metropolitan areas. **First**, comparing HMDA-reported data on GSE purchases with GSE-reported current-year data suggests that, on average, HMDA data provided reasonable estimates of the goals-qualifying percentages for the GSEs' current-year purchases. For example, Fannie Mae reported that 11.7 percent of the current-year loans they purchased between 1996 and 2000 were for special affordable borrowers (see Table A.2). HMDA also reported that 11.7 percent of the loans sold to Fannie Mae between 1996 and 2000 were for special affordable borrowers. The corresponding numbers for Freddie Mac were 11.0 percent reported by them and 11.1 percent reported by HMDA. During the same period, both Fannie Mae and HMDA reported that approximately 21 percent of the current-year loans purchased by Fannie Mae financed properties in underserved areas; Freddie Mac reported that 20.1 percent of the current-year loans it purchased financed properties in underserved areas, a figure slightly higher than the 19.0 percent that HMDA reported as underserved areas loans sold to Freddie Mac. The fact that the GSE and HMDA figures are similar suggests that the Berkovec and Zorn conclusions about HMDA being biased are wrong.[84] For the most recent period (1996-2000), the small discrepancies that exist are consistent with HMDA being biased in a downward direction, not an upward direction as Berkovec and Zorn contend.

Second, for some particular years, the GSEs' current-year data differ significantly from the HMDA-reported data on GSE purchases. For example, special affordable loans accounted for 12.1 percent of Fannie Mae's current-year purchases in 1998 compared with only 10.7 percent of Fannie Mae's special affordable purchases as reported by HMDA. Similarly, underserved areas accounted for 21.0 percent of Fannie Mae's current-year purchases compared with only 19.6 percent of Fannie Mae's underserved areas purchases as reported by HMDA. The same patterns exist for Freddie Mac's 1998 data for the special affordable and underserved areas categories. Thus, 1998 HMDA data do not provide a reliable estimate at the national level of the goals-qualifying percentages for the GSEs' purchases of current-year loans. However, the bias is in the opposite direction to that predicted by Berkovec and Zorn. Consistent with the aggregate 1996-2000 data, the 1998 data suggest that HMDA's goals-qualifying percentages are understated, not overstated. The data for 2000, on the other hand, show a mixture of results – in some cases the HMDA percentage is larger than the GSE "current year"

[84] The data in Table A.2 that support Berkovec and Zorn are the 1993-95 special affordable and low-mod data (particularly for Freddie Mac) that show HMDA over-reporting percentages by more than a half percentage point. Otherwise, the data in Table A.2, as well as Table A.1, do not present a picture of HMDA's having an upward bias in reporting targeted loans.

percentage (e.g., Fannie Mae's special affordable purchases) while in other cases the HMDA percentage is smaller than the GSE "current year" percentage (e.g., Freddie Mac's underserved areas purchases).

Third, the HMDA-reported percentages through 1997 are actually rather close to Freddie-Mac-reported overall percentages because Freddie Mac's prior-year purchases often resembled their current-year originations (see Table A.1). Fannie Mae, on the other hand, was more apt to have a higher percentage of targeted loans in its prior-year purchases, which means that HMDA data were more likely to underestimate Fannie Mae's overall performance. However, this underestimation of the share of Fannie Mae's goal-qualifying loans in HMDA data first arose in 1997, when Fannie Mae's purchases of prior-year loans were particularly targeted to affordable lending groups. For the years 1993 to 1996, Fannie Mae's prior-year loan purchases more closely resembled their current-year originations, which explains why HMDA data provide a reasonable estimate of the goals-qualifying percentages of Fannie Mae's overall purchases during this period.[85]

To conclude, the data reported in Tables A.1 and A.2 do not support the Berkovec and Zorn findings. With respect to the goals-qualifying percentages of GSE purchases, comparing columns 2 and 4 in Table A.1 for Fannie Mae and columns 6 and 8 for Freddie Mac shows that the HMDA-reported goals-qualifying percentages for loans sold to the GSEs are not always larger than the corresponding current-year percentages reported by the GSEs. For the 1996-2000 period, the average HMDA-reported percentages are approximately the same as the GSE-reported percentages for the low-mod and special affordable categories and slightly lower for the underserved areas category -- yielding conclusions different from those drawn by Berkovec and Zorn with regard to bias in HMDA data. Thus, this more recent and complete (Fannie Mae data as well as Freddie Mac data) analysis does not support the Berkovec and Zorn findings that HMDA overstates the goals-qualifying percentages of the market.

D. Fannie Mae's Strategy of Purchasing Seasoned Loans

Table A.1 shows that an important source of the past differential in affordable lending between Fannie Mae and Freddie Mac concerns the purchase of prior-year loans. As shown there, the prior-year mortgages that Fannie Mae was purchasing, particularly through 1998, were much more likely to be loans for lower-income families and underserved areas than the newly-originated mortgages that they were purchasing. For example, 30.1 percent of Fannie Mae's 1997 purchases of prior-year mortgages were loans financing properties in underserved areas, compared with 20.8 percent of its

[85] Notice that while Fannie Mae's 1998 purchases resembled their 1997 purchases with prior-year loans having higher goals-qualifying percentages than current-year loans, the pattern for 1999 was similar to that for 1993 to 1996 when there were smaller differentials between the goals-qualifying percentages of prior-year and current-year mortgages. In 2000, Fannie Mae's data showed similar prior-year and current-year percentages for the borrower-income categories but much higher prior-year percentages for the underserved areas category.

purchases of newly-originated mortgages. These purchases of prior-year mortgages were one reason Fannie Mae improved its performance relative to the primary market, which includes only newly-originated mortgages. In 1997, 16.0 percent of its prior-year mortgages qualified for the Special Affordable Goal, compared with only 10.2 percent of its purchases of newly-originated loans. The same patterns are exhibited by the 1998 data. For example, 17.9 percent of Fannie Mae's prior-year purchases during 1998 qualified for the Special Affordable Goal, compared with only 12.1 percent of its purchases of newly-originated loans. Through 1998, Fannie Mae seemed to be purchasing affordable loans that were originated by portfolio lenders in previous years. In 1999, on the other hand, there was little difference between the goals-qualifying percentages for Fannie Mae's prior-year and its current-year purchases – and, as explained in Section III, 1998 was the year Freddie Mac caught up with Fannie Mae in purchasing goals-qualifying home mortgages. In 2000, Fannie Mae's purchases of prior-year loans were somewhat more targeted to underserved areas than its purchases of current-year loans; however, its purchases of low-mod and special affordable loans during 2000 followed the pattern established in 1999, with little difference in the borrower income distribution between prior-year and current-year loans.

Freddie Mac has not pursued a strategy of purchasing seasoned targeted loans, or at least not to the same degree as Fannie Mae. During 1997 and 1998, Freddie Mac's purchases of prior-year mortgages and its purchases of newly-originated mortgages had similar percentages of special affordable and low- and moderate-income borrowers. As Table A.1 shows, there is a small differential between Freddie Mac's prior-year and newly-originated mortgages for the underserved areas category but it is much smaller than the differential for Fannie Mae. Thus, during 1997 and 1998, Freddie Mac's purchases of prior-year mortgages were less likely than Fannie Mae's to qualify for the housing goals, and this was one reason Freddie Mac's overall affordable lending performance was below Fannie Mae's during those years. Again in 1999, there was little difference between the goals-qualifying percentages for Freddie Mac's prior-year and its current-year purchases. However, in 2000, Freddie Mac seemed to be following a targeted purchase strategy with respect to seasoned special affordable loans; the special affordable share of Freddie Mac's prior-year loans (17.6 percent) was substantially higher than the special affordable share of current-year loans (13.0 percent).

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Housing Finance
WORKING PAPER SERIES[1]

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 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,

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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.

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 A

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages 1992 and 1997-2000

Goals-Qualifying Category	Fannie Mae Purchases	Freddie Mac Purchases	Ratio of Fannie Mae to Freddie Mac	Conventional Conforming Market Originations (W/O B&C)	Ratio of GSE to Market (W/O B&C) Fannie Mae	Ratio of GSE to Market (W/O B&C) Freddie Mac
Special Affordable Borrower						
1992	6.3 %*	6.5 %	0.97	10.4 %	0.61	0.63
1997	11.7	9.0	1.30	15.2	0.77	0.59
1998	13.2	11.3	1.17	15.4	0.86	0.73
1999	12.3	12.5	0.98	17.0	0.72	0.74
2000	13.0	14.3	0.91	16.8	0.77	0.85
Less Than Area Median Income Borrower						
1992	29.2	28.7	1.02	34.4	0.85	0.83
1997	37.6	34.1	1.10	42.5	0.88	0.80
1998	40.4	36.9	1.09	42.8	0.94	0.86
1999	39.3	40.0	0.98	44.8	0.88	0.89
2000	40.0	41.7	0.96	44.4	0.90	0.94
Underserved Areas						
1992	18.3	18.6	0.98	22.2	0.82	0.84
1997	23.5	19.9	1.18	24.9	0.94	0.80
1998	22.9	20.0	1.15	24.2	0.95	0.83
1999	20.6	21.2	0.97	25.2	0.82	0.84
2000	23.6	22.2	1.06	26.4	0.89	0.84

Source: See Table 4 in text. Special affordable includes very low-income borrowers plus low-income borrowers living in low-income census tracts. Very low-income (low-income) is defined as income less than or equal to 60 (80) percent of area median income. An underserved area is defined as a census tract with median income at or below 90 percent of the area median income; or a census tract with median income at or below 120 percent of the median inocme areas and a minority population of 30 percent or greater. Data with missing values are excluded.

* Interpreted as follows: in 1992, 6.3 percent of home purchase loans acquired by Fannie Mae were special affordable loans (as defined above).

Table B

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase and Refinance Mortgages, 1997-2000

Goals-Qualifying Category	Fannie Mae Purchases	Freddie Mac Purchases	Ratio of Fannie Mae to Freddie Mac	Conventional Conforming Market Originations (W/O B&C)	Ratio of GSE to Market (W/O B&C)	
					Fannie Mae	Freddie Mac
Special Affordable Borrower						
1997	11.5	9.9	1.16	15.6	0.74	0.63
1998	11.1	10.9	1.02	13.5	0.82	0.81
1999	12.3	13.3	0.92	17.3	0.71	0.77
2000	14.3	15.7	0.91	18.3	0.78	0.86
Less Than Area Median Income Borrower						
1997	37.5	35.7	1.05	42.9	0.87	0.83
1998	37.1	36.4	1.02	39.9	0.93	0.91
1999	38.8	40.7	0.95	45.1	0.86	0.90
2000	41.6	43.5	0.96	46.3	0.90	0.94
Underserved Areas						
1997	23.6	21.5	1.10	26.7	0.88	0.81
1998	21.2	20.9	1.01	23.6	0.90	0.89
1999	21.8	23.5	0.93	26.9	0.81	0.87
2000	25.3	24.7	1.02	28.9	0.88	0.85

Source: See Table 7 in text. Special affordable includes very low-income borrowers plus low-income borrowers living in low-income census tracts. Very low -income (low-income) is defined as income less than or equal to 60 (80) percent of area median income. An underserved area is defined as a census tract with median income at or below 90 percent of the area median income; or a census tract with median income at or below 120 percent of the median inocme areas and a minority population of 30 percent or greater. Data with missing values are excluded.

Table 1

Affordable Lending Shares for Major Sectors of the Mortgage Market in Metropolitan Areas
Home Purchase Mortgages, 1997-2000

			Conventional Conforming Market						
						Depositories		Conforming Market	
Borrower Characteristics	Total Market	FHA	Freddie Mac	Fannie Mae	Both GSEs	Total	Portfolio	Total	W/O B&C [2]
Low-Income:									
1997	32.1 %	47.6 %[1]	19.2 %	22.6 %	21.2 %	26.0 %	29.2 %	27.3 %	27.3 %
1998	32.3	49.1	22.3	25.0	23.9	26.4	29.1	27.8	27.6
1999	34.4	49.5	24.5	24.3	24.4	29.2	28.5	30.1	29.8
2000	33.8	48.7	27.1	24.9	25.9	29.7	28.7	29.8	29.4
African American:									
1997	7.8	14.4	3.2	4.5	4.0	4.4	4.7	5.1	4.9
1998	7.4	14.2	3.2	3.8	3.6	4.1	4.8	4.9	4.6
1999	7.9	14.6	3.5	3.4	3.4	4.7	4.7	5.4	5.0
2000	8.3	15.5	4.3	4.1	4.2	5.4	5.0	5.9	5.4
Hispanic:									
1997	8.7	17.8	5.1	6.3	5.8	5.2	5.1	5.9	5.8
1998	8.6	18.6	4.7	6.0	5.5	5.3	5.5	6.1	5.9
1999	9.7	19.3	5.5	6.0	5.8	6.5	6.6	7.1	6.9
2000	10.9	20.7	6.6	8.0	7.3	7.9	7.7	8.3	8.1
Minority:									
1997	21.4	35.8	14.0	17.7	16.2	15.3	14.6	16.5	16.3
1998	21.0	36.5	13.1	16.3	15.0	15.0	15.2	16.6	16.1
1999	23.4	37.7	14.9	17.3	16.3	17.7	17.3	19.0	18.4
2000	25.4	40.2	17.4	20.1	18.9	20.4	19.6	21.2	20.4
Neighborhood Characteristics									
Low-Income Tract:									
1997	12.8 %	19.1 %	7.9 %	9.5 %	8.9 %	10.2 %	12.0 %	10.9	10.8 %
1998	12.3	18.7	7.9	9.4	8.8	9.8	12.1	10.7	10.4
1999	12.7	18.2	8.4	8.1	8.2	10.8	11.6	11.3	10.9
2000	13.4	19.2	9.1	9.6	9.4	11.9	12.4	12.0	11.5
High-Minority Tract:									
1997	17.3	27.1	11.4	15.3	13.8	12.5	12.2	14.1	13.9
1998	16.9	27.0	10.8	14.0	12.7	12.2	12.6	14.1	13.6
1999	17.5	26.0	12.3	12.7	12.5	13.9	13.5	15.1	14.6
2000	18.5	26.5	12.7	15.1	14.1	15.7	14.9	16.4	15.8
High African-American Tract:									
1997	5.8	9.6	3.0	4.8	4.1	4.1	4.7	4.6	4.5
1998	5.5	9.2	3.2	3.8	3.6	3.9	4.7	4.5	4.3
1999	5.7	8.9	3.4	3.0	3.2	4.3	4.4	4.8	4.4
2000	6.0	9.4	3.8	3.6	3.7	5.0	4.8	5.1	4.8
Underserved Areas:									
1997	29.1	41.3	19.9	23.5	22.1	23.6	26.3	25.2	24.9
1998	28.2	41.2	20.0	22.9	21.7	22.7	26.1	24.6	24.2
1999	29.1	40.5	21.2	20.6	20.9	24.6	25.6	25.8	25.2
2000	30.3	42.1	22.2	23.6	23.0	26.7	27.1	27.1	26.4

Notes: All the data are for home purchase mortgages. The FHA, depositories, and market percentages are derived from 1997, 1998, 1999 and 2000 HMDA data. The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include conventional home loans purchased during 1997, 1998, 1999 and 2000; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998 or 1999 or 2000) as well as their purchases of mortgages originated during 1997, 1998,1999 and 2000. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the conforming loan limit which was $252,700 in 2000. "Total Depositories" data are loans originated by HMDA reporters regulated by FDIC, OTS, OCC, FRB, and The National Credit Union Administration; they consist mainly of banks, thrifts, and their subsidieries. The "Portfolio Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-2000 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six.

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

[2] HMDA-based market shares that have been adjusted to exclude the B&C portion of the subprime market. It should be recognized that there exists some uncertainty regarding the number of B&C loans in the HMDA data. The adjustment assumes that the B&C loans represent one-half of the subprime market. The adjustment for home purchase loans is small because subprime (B&C) loans are mainly refinance loans.

Table 2

Affordable Lending Shares for Major Sectors of the Mortgage Market in Metropolitan Areas
Home Purchase and Refinance Mortgages, 1997-2000

			Conventional Conforming Market						
						Depositories		Conforming Market	
Borrower Characteristics	Total Market	FHA	Freddie Mac	Fannie Mae	Both GSEs	Total	Portfolio	Total	W/O B&C [2]
Low-Income:									
1997	31.1 %	47.1 % [1]	20.5 %	22.3 %	21.6 %	26.0 %	28.0 %	28.1 %	27.4 %
1998	28.0	48.2	21.6	22.2	21.9	24.0	26.2	25.7	24.8
1999	33.2	49.0	25.2	23.9	24.4	29.3	28.1	30.9	29.8
2000	34.4	48.6	28.6	26.4	27.4	31.4	29.0	32.1	31.0
African American:									
1997	8.0	14.2	3.2	4.1	3.7	4.8	4.8	6.3	5.6
1998	6.5	13.7	3.0	3.1	3.0	3.9	4.4	5.0	4.3
1999	8.0	14.8	3.7	3.4	3.5	5.4	5.1	6.5	5.7
2000	8.9	15.6	4.7	4.4	4.5	6.6	5.8	7.4	6.5
Hispanic:									
1997	7.4	17.8	4.8	5.7	5.3	4.7	4.6	5.4	5.3
1998	6.7	17.2	4.4	4.8	4.6	4.4	4.5	5.2	5.0
1999	8.6	18.7	5.6	5.6	5.6	6.1	6.1	6.8	6.7
2000	10.2	20.4	6.7	7.9	7.4	7.6	7.2	8.3	8.1
Minority:									
1997	20.1	35.6	13.1	16.2	14.9	14.4	13.4	16.7	16.0
1998	18.0	34.8	12.2	13.8	13.1	13.2	13.1	15.3	14.5
1999	21.8	37.3	15.1	16.3	15.8	16.9	16.1	19.0	18.0
2000	24.7	40.0	17.3	19.4	18.4	20.2	18.6	21.7	20.6
Neighborhood Characteristics									
Low-Income Tract:									
1997	13.6 %	18.9 %	8.6 %	9.5 %	9.1 %	10.9 %	11.9 %	12.7 %	11.9 %
1998	11.5	17.4	8.1	8.2	8.1	9.5	10.9	10.7	10.0
1999	13.4	17.9	9.2	8.5	8.8	11.8	12.0	12.8	11.9
2000	14.7	19.2	10.4	10.5	10.5	13.5	13.1	14.0	13.1
High-Minority Tract:									
1997	17.8	27.5	11.8	14.9	13.7	13.0	12.2	15.9	14.9
1998	16.2	27.2	11.5	12.9	12.3	12.2	12.2	14.5	13.6
1999	18.3	26.6	14.2	13.6	13.8	15.0	13.8	17.0	15.9
2000	19.5	26.8	14.3	15.8	15.1	17.0	15.4	18.3	17.2
High African-American Tract:									
1997	7.1	9.7	3.5	4.5	4.1	4.9	5.1	6.6	5.9
1998	5.8	9.1	3.6	3.3	3.4	4.2	4.7	5.3	4.6
1999	6.9	9.3	4.0	3.5	3.7	5.6	5.1	6.6	5.7
2000	7.5	9.6	4.9	4.3	4.6	6.6	5.6	7.2	6.3
Underserved Areas:									
1997	30.0	41.1	21.5	23.6	22.8	25.0	26.5	27.8	26.7
1998	26.8	39.9	20.9	21.2	21.1	22.6	25.0	24.8	23.7
1999	30.0	40.4	23.5	21.8	22.5	26.4	26.6	28.2	26.9
2000	32.0	42.2	24.7	25.3	25.0	29.2	28.5	30.3	28.9

Notes: The FHA, depositories, and market percentages are derived from 1997-2000 HMDA data. The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include conventional loans purchased during 1997, 1998, 1999, and 2000; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998 or 1999 or 2000) as well as their purchases of mortgages originated during 1997, 1998, 1999, and 2000. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the conforming loan limit which was $252,700 in 2000. "Total Depositories" data are loans originated by HMDA reporters regulated by FDIC, OTS, OCC, FRB, and The National Credit Union Administration; they consist mainly of banks, thrifts, and their subsidieries. The "Portfolio Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-2000 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six.

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

[2] HMDA-based market shares that have been adjusted to exclude the B&C portion of the subprime market. It should be recognized that there exists some uncertainty regarding the number of B&C loans in the HMDA data. The adjustment assumes that the B&C loans represent one-half of the subprime market.

Table 3

GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1993-2000

Borrower and Tract Characteristics	Fannie Mae	Freddie Mac	Depository: Total	Depository: Portfolio	Conforming Market: Total	Conforming Market: W/O B&C	Conforming Market: W/O Mfg Homes
Very Low-Income							
1993-2000	9.8 %	8.9 %	12.9 %	14.3 %	13.1 %	13.0 %	11.4 %
1993-1995	8.1	6.6	12.3	14.4	11.6	11.6	10.3
1996-2000	10.5	9.9	13.2	14.4	13.8	13.7	11.9
Special Affordable							
1993-2000	11.5 %	10.4 %	15.1 %	16.8 %	15.4 %	15.3 %	13.5 %
1993-1995	9.9	7.9	14.6	17.0	13.8	13.7	12.3
1996-2000	12.2	11.4	15.4	16.6	16.2	16.0	14.0
Less than Area Median Income							
1993-2000	38.1 %	36.1 %	42.4 %	43.1 %	42.8 %	42.6 %	40.4 %
1993-1995	36.3	32.4	41.8	44.0	40.8	40.8	39.0
1996-2000	39.0	37.6	42.6	42.6	43.7	43.4	41.0
Underserved Areas							
1993-2000	22.7 %	20.3 %	24.3	26.3	25.1 %	24.8 %	23.6 %
1993-1995	22.9	19.4	24.1	26.8	24.0	24.0	23.0
1996-2000	22.6	20.7	24.4	26.0	25.6	25.2	23.9

Source: The Fannie Mae and Freddie Mac data include information on all their purchases of home loans and are from the loan-level data that they provide to HUD. All mortgages are conventional conforming mortgages. The Depository and Conforming Market data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations. "Total Depositories" data are loans originated by HMDA reporters regulated by FDIC, OTS, OCC, FRB, and the National Credit Union Administration; they consist mainly of banks, thrifts, and their subsidieries. The "Depository Portfolio" data refer to new originations that are not sold by banks and thrift institutions during 1997-2000 and thus are retained in depository portfolios. "Conforming Market W/O B&C" data are the average market percentages after deducting loan estimates of B&C loans (see text for explanation). The "Conforming Market W/O Mfg Homes" data exclude loans less than $15,000 and loans from lenders that primarily originate manufactured housing loans. Special affordable includes very low-income borrowers and low-income borrowers in low-income census tracts. Data with missing values are excluded.

Table 4

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-2000

Very Low-Income	Fannie Mae	Freddie Mac	Ratio of Fannie Mae to Freddie Mac	Conforming Market		Ratio of GSE to Market (W/O B&C)	
				Total	W/O B&C	Fannie Mae	Freddie Mac
1992	5.2 %	5.3 %	0.98	8.7 %	8.7 %	0.60	0.61
1993	6.7	6.0	1.12	10.8	10.8	0.62	0.56
1994	8.7	6.7	1.30	11.9	11.9	0.73	0.56
1995	9.3	7.0	1.33	12.0	12.0	0.78	0.58
1996	8.5	7.4	1.15	12.7	12.7	0.67	0.58
1997	9.9	7.6	1.30	13.0	13.0	0.76	0.58
1998	11.4	9.9	1.15	13.3	13.2	0.86	0.75
1999	10.8	11.0	0.98	15.0	14.7	0.73	0.75
2000	11.3	12.5	0.90	14.7	14.4	0.78	0.87
Special Affordable							
1992	6.3	6.5	0.97	10.4	10.4	0.61	0.63
1993	8.1	7.2	1.13	12.6	12.6	0.64	0.57
1994	10.6	8.0	1.33	14.1	14.1	0.75	0.57
1995	11.2	8.3	1.35	14.4	14.4	0.78	0.58
1996	10.3	8.7	1.18	15.0	15.0	0.69	0.58
1997	11.7	9.0	1.30	15.3	15.2	0.77	0.59
1998	13.2	11.3	1.17	15.6	15.4	0.86	0.73
1999	12.3	12.5	0.98	17.3	17.0	0.72	0.74
2000	13.0	14.3	0.91	17.1	16.8	0.77	0.85
Less Than Area Median Income							
1992	29.2	28.7	1.02	34.4	34.4	0.85	0.83
1993	33.2	31.6	1.05	38.9	38.9	0.85	0.81
1994	38.3	33.2	1.15	41.8	41.8	0.92	0.79
1995	37.8	32.4	1.17	41.4	41.4	0.91	0.78
1996	36.5	33.2	1.10	42.2	42.2	0.86	0.79
1997	37.6	34.1	1.10	42.5	42.5	0.88	0.80
1998	40.4	36.9	1.09	43.0	42.8	0.94	0.86
1999	39.3	40.0	0.98	45.2	44.8	0.88	0.89
2000	40.0	41.7	0.96	44.8	44.4	0.90	0.94
Underserved Areas							
1992	18.3	18.6	0.98	22.2	22.2	0.82	0.84
1993	20.3	18.4	1.10	21.9	21.9	0.93	0.84
1994	24.3	19.7	1.23	24.4	24.3	1.00	0.81
1995	24.7	20.1	1.23	25.5	25.4	0.97	0.79
1996	22.3	19.7	1.13	25.0	24.9	0.90	0.79
1997	23.5	19.9	1.18	25.2	24.9	0.94	0.80
1998	22.9	20.0	1.15	24.6	24.2	0.95	0.83
1999	20.6	21.2	0.97	25.8	25.2	0.82	0.84
2000	23.6	22.2	1.06	27.1	26.4	0.89	0.84

Source: The Fannie Mae and Freddie Mac percentages for 1993 to 2000 are from the loan-level mortgage purchase data that they provide to HUD; the 1992 GSE data are from HMDA. All mortgages are conventional conforming home purchase mortgages. The Conforming Market data are from HMDA; see text for an explanation of the market adjustment for B&C loans. Loans with a loan-to-income-ratio greater than six are excluded from the borrower income calculations. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

Table 5

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-2000
Various Market Definitions

			Conventional Conforming Market Originations						
Very Low-Income	Fannie Mae Purchases	Freddie Mac Purchases	Total Market	W/O Mfg Loans Only	W/O Loans Less Than $15K	W/O Mfg and Less Than $15K Loans	W/O Subprime Loans	W/O B&C Loans	W/O Subprime and Less Than $15K Loans
1992	5.2 %	5.3 %	8.7 %	8.3 %	7.9 %	7.6 %	8.7 %	8.7 %	7.9 %
1993	6.7	6.0	10.8	10.2	10.0	9.6	10.8	10.8	10.0
1994	8.7	6.7	11.9	11.3	11.2	10.7	11.9	11.9	11.2
1995	9.3	7.0	12.0	11.1	11.3	10.5	12.0	12.0	11.2
1996	8.5	7.4	12.7	11.5	12.0	10.8	12.7	12.7	12.0
1997	9.9	7.6	13.0	11.7	12.4	11.0	13.0	13.0	12.3
1998	11.4	9.9	13.3	11.7	12.8	11.4	13.2	13.2	12.6
1999	10.8	11.0	15.0	13.1	14.5	12.9	14.5	14.7	14.1
2000	11.3	12.5	14.7	13.3	14.1	13.0	14.1	14.4	13.6
Special Affordable									
1992	6.3	6.5	10.4	10.0	9.5	9.3	10.4	10.4	9.5
1993	8.1	7.2	12.6	11.9	11.8	11.3	12.6	12.6	11.8
1994	10.6	8.0	14.1	13.4	13.4	12.8	14.1	14.1	13.3
1995	11.2	8.3	14.4	13.3	13.6	12.7	14.4	14.4	13.6
1996	10.3	8.7	15.0	13.5	14.2	12.8	15.0	15.0	14.2
1997	11.7	9.0	15.3	13.6	14.6	13.0	15.3	15.2	14.5
1998	13.2	11.3	15.6	13.7	15.0	13.4	15.2	15.4	14.7
1999	12.3	12.5	17.3	15.3	16.8	15.0	16.7	17.0	16.2
2000	13.0	14.3	17.1	15.6	16.5	15.3	16.4	16.8	15.8
Less Than Area Median Income									
1992	29.2	28.7	34.4	33.8	33.4	33.0	34.4	34.4	33.4
1993	33.2	31.6	38.9	38.0	38.1	37.4	38.9	38.9	38.0
1994	38.3	33.2	41.8	40.9	41.1	40.3	41.8	41.8	41.1
1995	37.8	32.4	41.4	39.9	40.5	39.2	41.3	41.3	40.3
1996	36.5	33.2	42.2	40.3	41.1	39.4	42.2	42.2	41.4
1997	37.6	34.1	42.5	40.4	41.8	39.6	42.4	42.5	41.6
1998	40.4	36.9	43.0	40.7	42.5	40.3	42.7	42.8	42.0
1999	39.3	40.0	45.2	42.9	44.7	42.5	44.4	44.8	43.9
2000	40.0	41.7	44.8	43.0	44.1	42.6	43.9	44.4	43.3
Underserved Areas									
1992	18.3	18.6	22.2	21.9	21.7	21.5	22.1	22.2	21.6
1993	20.3	18.4	21.9	21.5	21.5	21.1	21.8	21.9	21.3
1994	24.3	19.7	24.4	23.9	24.0	23.5	24.3	24.3	23.8
1995	24.7	20.1	25.5	24.7	25.0	24.2	25.3	25.4	24.9
1996	22.3	19.7	25.0	23.8	24.5	23.1	24.8	24.9	24.4
1997	23.5	19.9	25.2	24.0	24.8	23.3	24.7	24.9	24.3
1998	22.9	20.0	24.6	23.1	24.3	22.8	23.6	24.2	23.3
1999	20.6	21.2	25.8	24.4	25.5	24.1	24.6	25.2	24.3
2000	23.6	22.2	27.1	26.1	26.8	25.8	25.6	26.4	25.3

Source: The Fannie Mae and Freddie Mac percentages for 1993 to 2000 are based on the loan-level mortgage purchase data that they provide to HUD; the 1992 GSE data are from HMDA. All mortgages are conventional conforming home purchase mortgages. The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from all borrower income calculations. See the text for an explanation of the adjustments for manufactured housing (mfg), subprime, and B&C loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

Table 6

GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase and Refinance Mortgages, 1993-2000

Borrower and Tract Characteristics	Fannie Mae	Freddie Mac	Conventional Conforming Market: Total	Conventional Conforming Market: W/O B&C Loans	Ratio of GSE to Market (W/O B&C): Fannie Mae	Ratio of GSE to Market (W/O B&C): Freddie Mac
Special Affordable						
1993-2000	10.6 %	10.3 %	15.0 %	14.3 %	0.74	0.72
1993-1995	8.3	7.1	11.6	11.4	0.73	0.62
1996-2000	11.9	11.9	16.5	15.7	0.76	0.76
Less than Area Median Income						
1993-2000	36.4 %	36.6 %	41.7 %	40.9 %	0.89	0.89
1993-1995	32.8	30.7	32.0	36.8	0.89	0.83
1996-2000	38.3	38.2	44.0	43.0	0.89	0.89
Underserved Areas						
1993-2000	22.4 %	21.6 %	26.1 %	25.2 %	0.89	0.86
1993-1995	22.0	20.4	23.5	23.2	0.95	0.88
1996-2000	22.7	22.3	27.3	26.1	0.87	0.85

Source: The Fannie Mae and Freddie Mac data include information on all their single-family-owner mortgage purchases from the loan-level data that they provide to HUD. All mortgages are conventional conforming mortgages. "Conventional Conforming Market" data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations. The numbers in the "W/O B&C Loans" column are the average market percentages after deducting B&C loans from the adjacent "Total" market column (see text for explanation). Special affordable includes very low-income borrowers and low-income borrowers in low-income census tracts. Data with missing values are excluded.

Table 7

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase and Refinance Mortgages, 1996-2000
Various Market Definitions

				Conventional Conforming Market Originations				Ratio of GSE to Market (W/O B&C)	
	Fannie Mae Purchases	Freddie Mac Purchases	Ratio of Fannie Mae to Freddie Mac	Total Market	W/O Mfg and Less Than $15K Loans	W/O Subprime Loans	W/O B&C Loans	Fannie Mae Ratio	Freddie Mac Ratio
Special Affordable									
1996	10.4	9.3	1.12	15.3	13.7	14.4	14.8	0.70	0.63
1997	11.5	9.9	1.16	16.4	14.9	14.8	15.6	0.74	0.63
1998	11.1	10.9	1.02	14.2	13.3	12.6	13.5	0.82	0.81
1999	12.3	13.3	0.93	18.3	17.0	16.1	17.3	0.71	0.77
2000	14.3	15.7	0.91	19.3	18.0	17.1	18.3	0.78	0.86
Less Than Area Median Income									
1996	36.6	34.5	1.06	42.4	40.5	41.4	41.9	0.87	0.82
1997	37.5	35.7	1.05	43.7	41.8	41.9	42.9	0.87	0.83
1998	37.1	36.4	1.02	40.9	39.7	38.9	39.9	0.93	0.91
1999	38.8	40.7	0.95	46.3	44.7	43.7	45.1	0.86	0.90
2000	41.6	43.5	0.96	47.4	45.8	44.9	46.3	0.90	0.94
Underserved Areas									
1996	23.0	20.9	1.10	26.7	25.3	25.3	26.0	0.88	0.80
1997	23.6	21.5	1.10	27.8	26.6	25.5	26.7	0.89	0.81
1998	21.2	20.9	1.01	24.8	23.9	22.4	23.6	0.90	0.89
1999	21.8	23.5	0.93	28.2	27.3	25.4	26.9	0.81	0.87
2000	25.3	24.7	1.02	30.3	29.4	27.3	28.9	0.88	0.85

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase and refinance mortgages. The Conventional Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from all borrower income calculations. See the text for an explanation of the adjustments for manufactured housing (Mfg), subprime, and B&C loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

Table 8

GSE Purchases and FHA-Insured Loans As Shares of Home Purchase Mortgages Originated in Metropolitan Areas During 2000

	FHA-Insured	GSE Purchases
Low-Income Borrowers	28% [1]	34-37%
African-American and Hispanic Borrowers	37-38%	24-29%
Low-Income Tracts	28-30%	32-34%
High Minority Tracts	28-29%	35-37%
Underserved Areas[2]	27-29%	35-37%
All Home Purchase Loans	19-20%	46-48%

Source: 2000 HMDA data and 2000 GSE data.

Notes: The FHA figures (first column) refer to percentages of all newly-mortgaged home purchase mortgage loans (except jumbo loans above the conforming loan limit of $252,700) in metropolitan areas that were insured by FHA during 2000, as reported by HMDA. The GSE figures (second column) are defined differently-- they include GSE purchases in metropolitan areas during 2000 of both 2000 and prior-year conventional mortgage originations. (About 26 percent of the GSEs' year 2000 purchases of home loans were originated prior to 2000.) The first FHA (second GSE) figure for the borrower and race variables are calculated by reallocating missing GSE and conventional market data for these variables. FHA data had only a few missing cases. As with the FHA data, the GSE purchases are expressed as a percentage of the total market in metropolitan areas. In this table, the "total market" includes all (government and conventional) home purchase mortgages originated in metropolitan areas during 2000 that were below the conforming loan limit of $252,700. The range in percentages also reflects varying assumptions about HMDA's coverage of FHA loans (90-95 percent range) and market loans (85-90 percent range) in metropolitan areas. Lower coverage assumptions would increase the FHA and market totals and reduce the GSE market share. Assuming HMDA has better coverage of FHA-insured loans than non-FHA-insured loans lowers the FHA percentages for all borrower and neighborhood categories.

[1] That is, it is estimated that FHA insured 28 percent of all home purchase loans that were originated for low-income borrowers in metropolitan areas during 2000.

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

Table 9a

Loan-to-Value Distribution for GSE Home Purchase Loans, 1997-2000

	Fannie Mae							
	Number of Mortgages				Percent of Total			
LTV Ratio	1997	1998	1999	2000	1997	1998	1999	2000
0-80%	534,685	681,789	629,425	711,178	56.6%	52.3%	53.3%	59.0%
80-90%	173,786	239,579	189,471	189,021	18.4%	18.4%	16.0%	15.7%
90-95%	188,041	289,999	253,117	219,891	19.9%	22.2%	21.4%	18.3%
95% and Over	31,539	53,491	48,337	51,855	3.3%	4.1%	4.1%	4.3%
Missing	17,130	39,941	60,810	32,847	1.8%	3.1%	5.1%	2.7%
Total Loans	945,181	1,304,799	1,181,160	1,204,792	100.0%	100.0%	100.0%	100.0%

	Freddie Mac							
	Number of Mortgages				Percent of Total			
LTV Ratio	1997	1998	1999	2000	1997	1998	1999	2000
0-80%	339,526	456,975	474,156	525,455	56.3%	53.8%	55.9%	56.9%
80-90%	110,745	154,230	137,117	136,968	18.4%	18.2%	16.2%	14.8%
90-95%	146,293	204,804	184,971	181,996	24.2%	24.1%	21.8%	19.7%
95% and Over	6,456	22,203	43,601	54,543	1.1%	2.6%	5.1%	5.9%
Missing	364	11,107	8,767	24,134	0.1%	1.3%	1.0%	2.6%
Total Loans	603,384	849,319	848,612	923,096	100.0%	100.0%	100.0%	100.0%

Note: Includes home purchase mortgages financing owner-occupied one-unit properties.

Table 9b

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

	Fannie Mae							
LTV Ratio	Special Affordable		Low-Mod		Underserved Areas		All Home Purchases	
0-80%	71,551	55.2%	238,394	56.3%	143,493	53.1%	711,178	59.0%
80-90%	17,156	13.2%	66,609	15.7%	46,889	17.4%	189,021	15.7%
90-95%	23,365	18.0%	86,254	20.4%	60,023	22.2%	219,891	18.3%
95% and Over	10,907	8.4%	31,243	7.4%	19,442	7.2%	51,855	4.3%
Missing	6,560	5.1%	819	0.2%	311	0.1%	32,847	2.7%
Total Loans	129,539	100.0%	423,319	100.0%	270,158	100.0%	1,204,792	100.0%

	Freddie Mac							
LTV Ratio	Special Affordable		Low-Mod		Underserved Areas		All Home Purchases	
0-80%	61,646	52.4%	180,823	52.4%	93,898	47.4%	525,455	56.9%
80-90%	14,497	12.3%	48,653	14.1%	31,061	15.7%	136,968	14.8%
90-95%	20,570	17.5%	69,304	20.1%	48,831	24.6%	181,996	19.7%
95% and Over	14,838	12.6%	34,777	10.1%	18,608	9.4%	54,543	5.9%
Missing	6,089	5.2%	11,688	3.4%	5,820	2.9%	24,134	2.6%
Total Loans	117,640	100.0%	345,245	100.0%	198,218	100.0%	923,096	100.0%

Note: Includes home purchase mortgages financing owner-occupied one-unit properties.

Table A.1

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-2000

	Fannie Mae Data			HMDA Data for Fannie Mae	Freddie Mac Data			HMDA Data for Freddie Mac	Conforming Market	
	Prior Year	Current Year	All		Prior Year	Current Year	All		All	W/O B&C Loans
Very Low-Income										
1992				5.2 %				5.3 %	8.7 %	8.7 %
1993	6.5 %	6.7 %	6.7 %	7.4	4.2 %	6.2 %	6.0 %	6.6	10.8	10.8
1994	7.9	8.9	8.7	9.4	6.4	6.8	6.7	7.8	11.9	11.9
1995	11.2	8.9	9.3	8.5	7.7	6.8	7.0	7.5	12.0	12.0
1996	8.8	8.4	8.5	8.7	7.2	7.4	7.4	8.0	12.7	12.7
1997	13.4	8.7	9.9	8.8	7.5	7.6	7.6	8.0	13.0	13.0
1998	15.1	10.5	11.4	9.2	10.1	9.8	9.9	8.4	13.3	13.2
1999	10.4	10.9	10.8	10.9	11.3	10.9	11.0	11.2	15.0	14.7
2000	11.4	11.3	11.3	11.8	15.3	11.4	12.5	11.6	14.7	14.4
Special Affordable										
1992				6.3				6.5	10.4	10.4
1993	8.2	8.1	8.1	8.8	5.1	7.4	7.2	7.8	12.6	12.6
1994	9.5	10.8	10.6	11.4	7.6	8.1	8.0	9.2	14.1	14.1
1995	13.2	10.8	11.2	10.5	9.1	8.2	8.3	8.9	14.4	14.4
1996	10.6	10.2	10.3	10.5	8.4	8.7	8.7	9.4	15.0	15.0
1997	16.0	10.2	11.7	10.5	9.2	9.0	9.0	9.4	15.3	15.2
1998	17.9	12.1	13.2	10.7	11.8	11.2	11.3	9.7	15.6	15.4
1999	12.1	12.4	12.3	12.5	12.9	12.5	12.5	12.6	17.3	17.0
2000	13.4	13.0	13.0	13.7	17.6	13.0	14.3	13.3	17.1	16.8
Less Than Area Median Income										
1992				29.2				28.7	34.4	34.4
1993	30.4	33.5	33.2	35.0	24.9	32.1	31.6	32.3	38.9	38.9
1994	35.6	38.9	38.3	40.1	31.5	33.6	33.2	35.6	41.8	41.8
1995	38.6	37.7	37.8	37.1	33.6	32.1	32.4	33.9	41.4	41.4
1996	35.5	36.8	36.5	37.7	31.8	33.5	33.2	35.3	42.2	42.2
1997	41.1	36.4	37.6	37.5	33.7	34.2	34.1	35.4	42.5	42.5
1998	45.3	39.2	40.4	38.1	36.1	37.0	36.9	36.2	43.0	42.8
1999	37.5	39.9	39.3	40.2	38.7	40.3	40.0	41.0	45.2	44.8
2000	39.1	40.3	40.0	42.0	46.4	39.9	41.7	41.3	44.8	44.4
Underserved Areas										
1992				18.3				18.6	22.2	22.2
1993	23.8	19.4	20.3	18.2	19.5	18.2	18.4	17.6	21.9	21.9
1994	26.6	23.6	24.3	22.5	21.0	19.4	19.7	19.2	24.4	24.3
1995	27.4	23.9	24.7	22.8	22.6	19.4	20.1	19.1	25.5	25.4
1996	23.4	21.9	22.3	21.6	22.3	19.1	19.7	19.0	25.0	24.9
1997	30.1	20.8	23.5	21.0	22.2	19.3	19.9	18.6	25.2	24.9
1998	28.4	21.0	22.9	19.6	22.0	19.5	20.0	17.4	24.6	24.2
1999	22.0	20.2	20.6	20.3	23.4	20.6	21.2	19.3	25.8	25.2
2000	26.7	22.6	23.6	22.5	23.9	21.4	22.2	20.9	27.1	26.4

Source: The Fannie Mae and Freddie Mac data for their purchases of "Prior Year" mortgages, "Current Year" mortgages, and "All" mortgages are from the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The "HMDA Data for (GSE)" are those mortgages that lenders report (in HMDA) as being sold to the GSEs. The Conforming Market data are from HMDA; see text for an explanation of the market adjustment for B&C loans. Loans with a loan-to-income-ratio greater than six are excluded from the borrower income calculations. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

Appendix B

Table B.1

GSEs' Role in Homebuyer Market, 1997-1999
(Market Without Manufactured Homes)

	Without Re-Allocation of Missing GSE First-Time Homebuyer Information		With Re-Allocation of Missing GSE First-Time Homebuyer Information	
All Homebuyers	Number	Percent Share	Number	Percent Share
Fannie Mae Purchases	3,369,239	24.5 %	3,369,239	24.5 %
Freddie Mac Purchases	2,309,650	16.8	2,309,650	16.8
Both GSEs	5,678,889	41.2	5,678,889	41.2
FHA-Insured Loans	2,458,889	17.8	2,458,889	17.8
Homebuyer Market	13,778,795		13,778,795	
All First-Time Homebuyers				
Fannie Mae Purchases	899,462	16.2 %	1,009,867	18.2 %
Freddie Mac Purchases	530,156	9.6	599,837	10.8
Both GSEs	1,429,618	25.8	1,609,704	29.0
FHA-Insured Loans	1,980,500	35.7	1,980,500	35.7
Homebuyer Market	5,549,256		5,549,256	
All Repeat Homebuyers				
Fannie Mae Purchases	2,469,777	30.0 %	2,359,372	28.7 %
Freddie Mac Purchases	1,779,494	21.6	1,709,813	20.8
Both GSEs	4,249,271	51.6	4,069,185	49.4
FHA-Insured Loans	478,389	5.8	478,389	5.8
Homebuyer Market	8,229,539		8,229,539	
African-American and Hispanic Homebuyers				
Fannie Mae Purchases	316,708	13.1 %	316,708	13.1 %
Freddie Mac Purchases	180,153	7.5	180,153	7.5
Both GSEs	496,861	20.6	496,861	20.6
FHA-Insured Loans	773,386	32.0	773,386	32.0
Homebuyer Market	2,416,583		2,416,583	
African-American and Hispanic First-Time Homebuyers				
Fannie Mae Purchases	119,795	8.0 %	134,500	9.0 %
Freddie Mac Purchases	50,701	3.4	57,365	3.8
Both GSEs	170,496	11.4	191,865	12.8
FHA-Insured Loans	663,559	44.4	663,559	44.4
Homebuyer Market	1,493,492		1,493,492	
Minority Homebuyers				
Fannie Mae Purchases	535,709	17.5 %	535,709	17.5 %
Freddie Mac Purchases	297,945	9.7	297,945	9.7
Both GSEs	833,654	27.2	833,654	27.2
FHA-Insured Loans	907,256	29.6	907,256	29.6
Homebuyer Market	3,063,023		3,063,023	
Minority First-Time Homebuyers				
Fannie Mae Purchases	198,618	10.7 %	222,998	12.0 %
Freddie Mac Purchases	91,221	4.9	103,211	5.6
Both GSEs	289,839	15.6	326,209	17.6
FHA-Insured Loans	772,635	41.6	772,635	41.6
Homebuyer Market	1,855,818		1,855,818	

Source: GSE home purchase data are from the loan-level data they report to HUD. The GSE first-time homebuyer data are from the census tract file of the Public Use Data Base; the GSE data in the second set of columns are increased to account for missing first-time homebuyer information (see text). Missing race and ethnicity data for first-time homebuyers are re-allocated based on the race and ethnicity percentage distribution of the non-missing data. FHA data are from FHA. The market data for homebuyers are from the American Housing Survey; in this table, the AHS data excluded homebuyers purchasing manufactured housing.

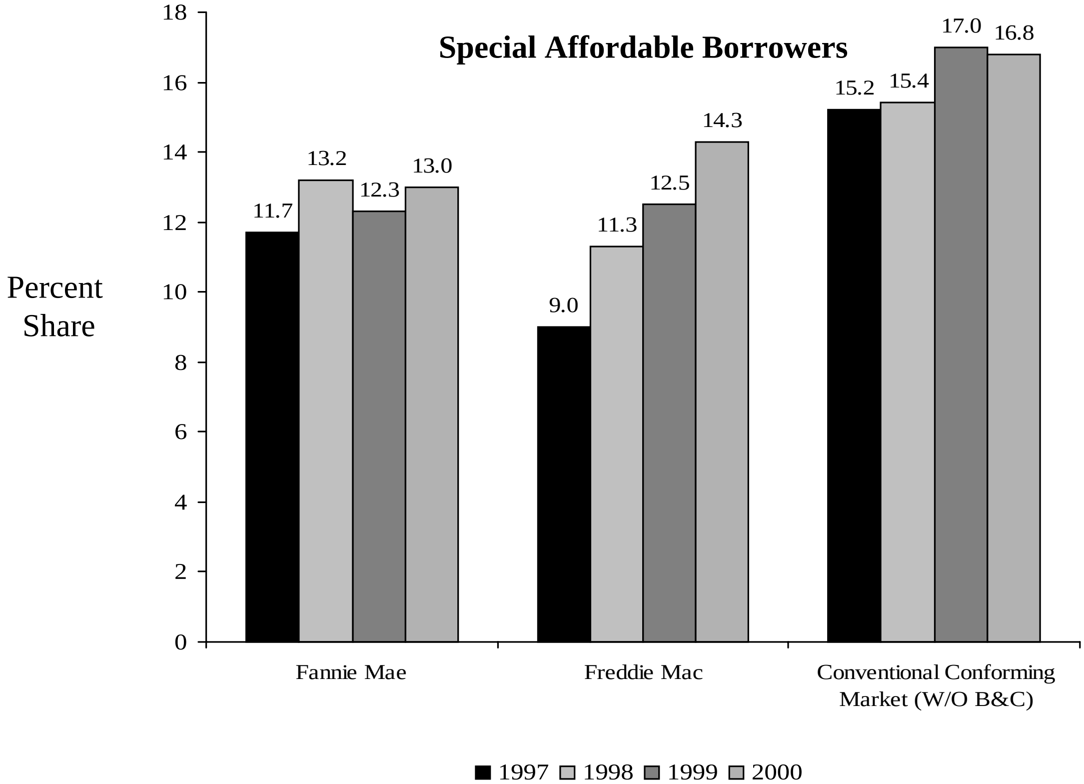
Table A.2

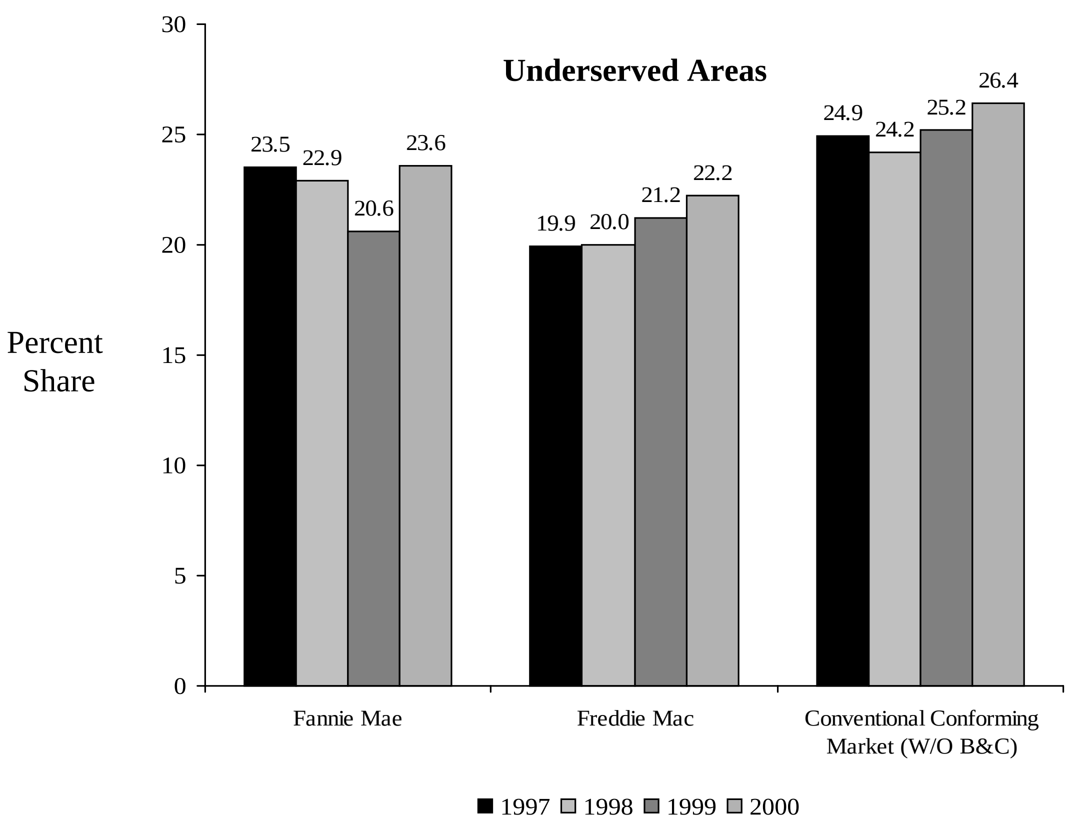
HMDA Versus GSE Reportting of GSE Loan Characteristics
Single-Family-Owner Home Loans in Metropolitan Areas, 1993-2000

Borrower and Tract Characteristics	Fannie Mae: GSE-Reported Current-Year Loan Purchases	Fannie Mae: HMDA-Reported GSE Purchases	Fannie Mae: HMDA-Reported/ GSE Reported	Freddie Mac: GSE-Reported Current-Year Loan Purchases	Freddie Mac: HMDA-Reported GSE Purchases	Freddie Mac: HMDA-Reported/ GSE Reported
Very Low-Income						
1993-2000	9.4 %	9.5 %	1.01 %	8.7 %	9.0 %	1.03 %
1993-1995	8.0	8.4	1.05	6.6	7.3	1.11
1996-2000	10.1	10.0	0.99	9.6	9.6	1.00
Special Affordable						
1993-2000	11.1 %	11.2 %	1.01 %	10.1 %	10.4 %	1.03 %
1993-1995	9.8	10.2	1.04	7.9	8.6	1.09
1996-2000	11.7	11.7	1.00	11.0	11.1	1.01
Less than Area Median Income						
1993-2000	38.0 %	38.6 %	1.02 %	35.8 %	36.9 %	1.03 %
1993-1995	36.4	37.2	1.02	32.6	33.9	1.04
1996-2000	38.7	39.3	1.02	37.2	38.1	1.02
Underserved Areas						
1993-2000	21.6 %	21.0 %	0.97 %	19.7 %	18.9 %	0.96 %
1993-1995	22.1	21.1	0.95	19.0	18.6	0.98
1996-2000	21.3	21.0	0.99	20.1	19.0	0.95

Source: The Fannie Mae and Freddie Mac "current year" data include information on their purchases of home loans originated in the same year they acquired the loans. The data are from the loan-level data that they provide to HUD. All mortgages are conventional conforming mortgages. The "HMDA-Reported" data include information on conventional conforming loans sold to the GSEs as reported by lenders in HMDA. Loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations. Special affordable includes very low-income borrowers and low-income borrowers in low-income census tracts. Data with missing values are excluded.

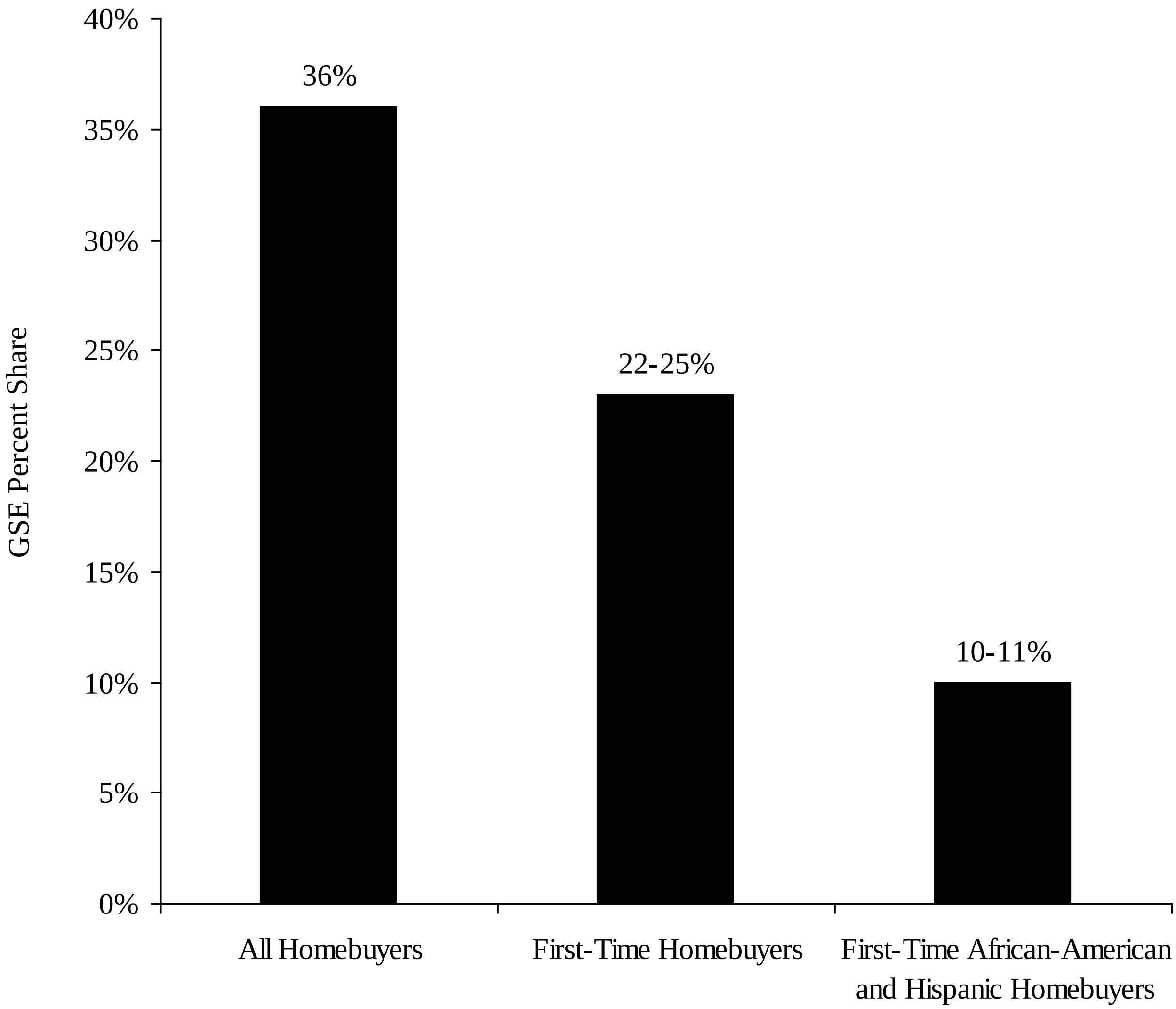
Figure A
The Share of GSE Purchases and Conventional Conforming Mortgages by Goals-Qualifying Category, 1997-2000





Source: Table A. Home purchase loans in metropolitan areas.

Figure B
GSEs' Share of Homebuyer Markets, 1997-99



Source: Tables 10 and 11.

Figure C

The Share of GSE Purchases and Conventional Conforming Mortgages for African-American Borrowers, 1997-2000

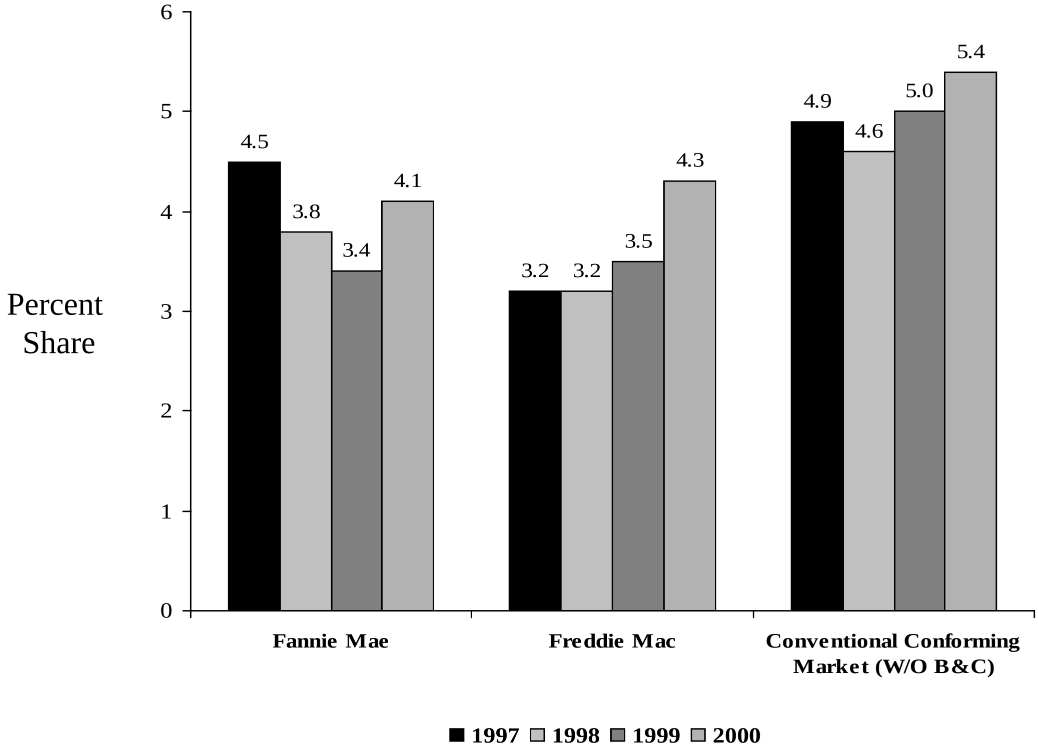
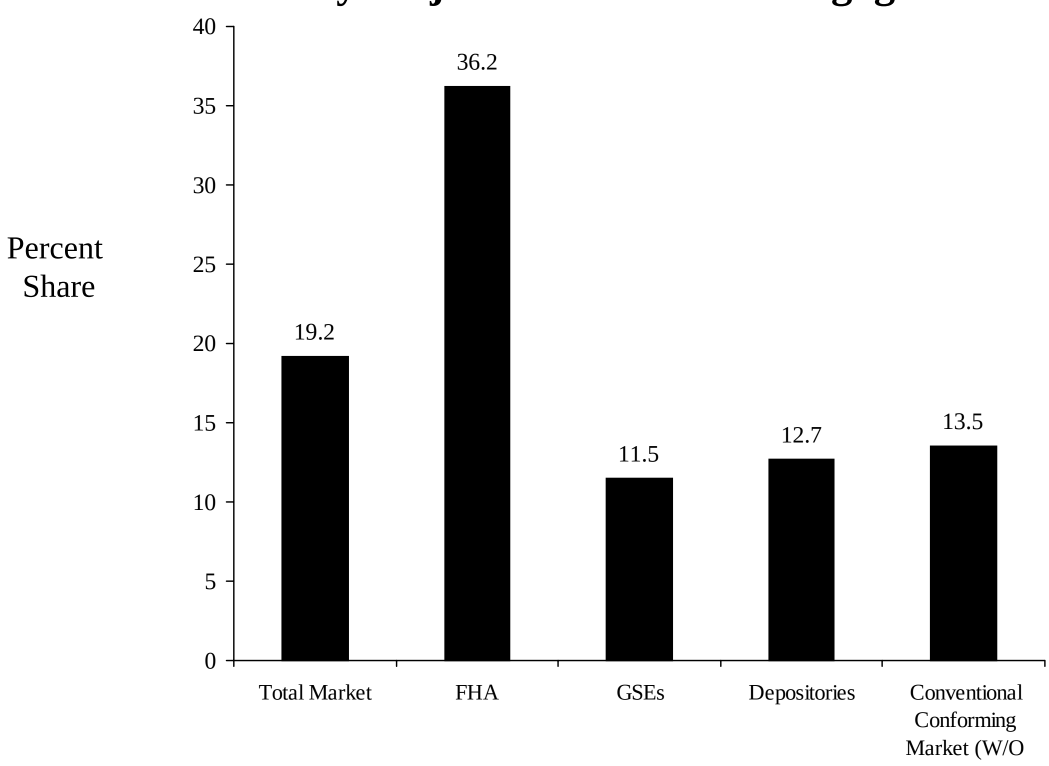


Figure D

The Share of Mortgages for African-American and Hispanic Borrowers by Major Sector of the Mortgage Market, 2000



Source: Table 1. Home purchase loans in metropolitan areas.