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THE GSEs' FUNDING OF AFFORDABLE LOANS: A 2004-05 UPDATE

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ABSTRACT

This study compares the borrower and neighborhood characteristics of single-family mortgages purchased by Fannie Mae and Freddie Mac between 1999 and 2005 with the characteristics of loans originated in the primary market during the same period. This study documents the recent improvement under HUD's Affordable Housing Goals that Fannie Mae and Freddie Mac have made in purchasing home loans for lower-income families and their neighborhoods. Specific findings regarding the GSEs' acquisitions of home purchase loans are as follows:

> (1) Fannie Mae led the market from 2002 to 2005 on the special affordable category (mainly loans to very-low-income borrowers) and from 2001 to 2005 on the low- and moderate-income category (loans for less-than-median-income borrowers). On these two borrower-income categories, Fannie Mae sharply improved its performance during the 1999-2003 period, erasing its gap with the primary market. On the underserved areas category (loans on properties in low-income and high-minority census tracts), Fannie Mae also sharply improved its performance between 1999 and 2002, which placed it above market levels in 2002; however, Fannie Mae lagged the underserved areas market during 2004 and 2005.
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> (2) Freddie Mac also improved its performance on the three housing goal categories, particularly between 2004 and 2005. The year 2005 was the first time that Freddie Mac led the market on the two borrower-income categories. However, like Fannie Mae, Freddie Mac lagged the market in 2005 on the underserved areas category.

While the above represents broad conclusions about the GSEs' mortgage purchases relative to the market, the annual data discussed in the paper exhibit some interesting patterns.

The GSEs' Funding of Affordable Loans: A 2004-05 Update[1]

I. Introduction

A. Purpose of Paper

The main purpose of this study is to assess the extent to which Fannie Mae and Freddie Mac are funding home loans for low-income borrowers and others who historically have not been well served by the mortgage market. The study is the most recent of several working papers and analyses examining the affordable lending performance of these two Government Sponsored Enterprises (GSEs) in the secondary mortgage market.[2] This study, which updates earlier analyses to include data for years 2004 and 2005, compares the borrower and neighborhood characteristics of single-family mortgages purchased by Fannie Mae and Freddie Mac with the characteristics of home loans originated in the primary market during the same time period. This issue of the GSEs' affordable lending performance has been highlighted by the new affordable housing regulations that the Department of Housing and Urban Development (HUD) issued for Fannie Mae and Freddie Mac in 2004, reports by the Congressional Budget Office and Federal Reserve staff raising questions about the degree to which homeowners share in the Federal benefits received by the GSEs,[3] and recent legislative proposals to alter the regulatory structure under which the GSEs operate.

[1] The author would like to thank Nana Farshad from Creative Information Technology Inc., Ron Hanson from L3 Communications, and Ian Keith from the Office of Policy Development and Research for their assistance in this project. Also appreciated are the comments from Jan Kuhl and Linda Campbell of the Office of GSE Oversight in HUD's Office of Housing, as well as those of Ian Keith.

[2] The two papers by Bunce and Scheessele (1996, 1998) examine the GSEs' performance through 1997; Bunce (2000b) updates their results through 1999 while Bunce (2002) further updates the results through 2000. The results were then updated through 2003 in HUD's 2004 GSE Rule (HUD, 2004b). There have been other studies of the GSEs' performance. Lind (1996a,b; 2000), Manchester (1998, 2002, 2007), Manchester *et al*. (1998), and U.S. Department of HUD (1996; 2000a,b), Bradford (2000b), Case and Gillen (2000), Freeman and Galster (2002), and Williams and Bond (2002). The GSE grant studies that HUD's Office of Policy Development and Research (PD&R) 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). For a more recent analysis of the GSE purchases, see Williams (2006); and for an analysis of the GSEs' purchases of loans for first-time homebuyers, see Bunce and Gardner (2004a, b).

[3] The Congressional Budget Office (2000, 2003) estimated that the GSEs retained $3.9 billion (37 percent) of the $10.6 billion in benefits that accrue to them due to their lower funding costs from their agency status. The remaining $6.7 billion (63 percent) is passed through to homeowners in terms of lower interest rates. Also see Passmore (2003).

Fannie Mae and Freddie Mac purchase mortgages from primary lenders and either hold the mortgages in portfolio or sell them to other investors as mortgage-backed securities, typically guaranteeing that the investors will receive full and timely payment of principal and interest.[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 underserved census tracts) of mortgages purchased by the GSEs are compared with those of mortgages originated in the conventional conforming market. The GSEs' performance is measured from loan-level data that they report to HUD, while information about the mortgage market is drawn mainly 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.

There have been several similar studies by HUD staff and other researchers concerning the GSEs' performance in providing affordable lending under the housing goals.[5] 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 of home loans accounted for by a particular affordable lending category (say loans for low-income families) with (b) the corresponding percentage for home loans originated in the overall conventional conforming market. Most studies have concluded that even though the GSEs had significantly improved their affordable loan purchases under the housing goals, their performance had lagged that of primary lenders (such as banks and thrifts) in the overall conventional market.[6]

The most recent HUD analysis of this issue was included in HUD's 2004 GSE Rule, which examined the GSEs' affordable lending performance through 2003.[7] With respect to the topics discussed here, that analysis had the following findings:

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[4] For an explanation of the overall role of Fannie Mae and Freddie Mac in the secondary mortgage market, see the study by the Congressional Budget Office (2000). For a more historical perspective on issues facing these enterprises, see 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).

[5] See list of studies in footnote 2 above.

[6] 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 rules; see Fannie Mae (2000, 2004) and Freddie Mac (2000, 2004). See U.S. Department of Housing and Urban Development (2000b, 2004b) for HUD's response to the GSEs' comments.

[7]U.S. Department of Housing and Urban Development, *HUD's Housing Goals for the Federal Nation Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) for the Years 2005-2008 and Amendments to HUD's Regulation of Fannie Mae and Freddie Mac: Final Rule, 24 CFR Part 81,*

(1) While Freddie Mac had been improving its affordable lending performance, it had consistently lagged the conventional conforming market in funding affordable home purchase loans for special affordable borrowers, low- and moderate-income borrowers and underserved neighborhoods – the three groups targeted by HUD's housing goals (defined below).[8]

(2) In general, Fannie Mae's affordable lending performance had always been better than Freddie Mac's. But like Freddie Mac, Fannie Mae's average performance during past periods (e.g., 1993-2003, 1996-2003, 1999-2003) had been below primary market levels. However, Fannie Mae markedly improved its affordable lending performance relative to the market during 2001, 2002, and 2003. Over that three-year period, Fannie Mae led the primary market in funding special affordable and low-mod loans but lagged the market in funding underserved areas loans. (HUD 2004b, page 63692)

Subsection B of this introductory section provides background on the affordable lending market and the GSEs' mandate to improve their purchases of loans for targeted borrowers. Subsection C then gives the study's main findings.

B. Background

The last ten years have been 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 and keep new homeowners in their homes by offering borrower counseling programs and developing innovative loss mitigation programs. Other participants 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, which suggests that these new affordable lending initiatives had an impact. 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).[9]

November 2, 2004. In the text, this final rule will be referred to as the "2004 GSE Rule" and referenced as "HUD, 2004b". A closely related publication is the regulatory analysis that accompanied this final rule – *Regulatory Analysis for The Secretary of HUD's Final Rule on HUD's Regulation of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac),* October, 2004; this regulatory analysis will be referenced as "HUD 2004a".

[8] 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. 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.

[9] For further discussion of the likely impacts of the housing goals on the single-family market, see Chapters IV and VI of HUD, 2004b.

The Bush Administration has emphasized the need to expand homeownership opportunities, particularly for minority families who currently lag non-minorities in their rates of ownership. Given their large size and the widespread use of their underwriting standards throughout the conventional market, the GSEs in particular are positioned to play an important role in funding first-time homebuyers and extending homeownership opportunities to historically underserved families. 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.[10]

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.[11] Because of this concern, Congress called for HUD to establish three annual 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;[12] and,

3. **Geographically-Targeted or Underserved Areas Goal**, which targets low-income and high-minority neighborhoods.[13]

The main objective of the housing goals is to increase GSE investment in underserved areas and GSE financing of underserved borrowers. The housing goals seek 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. In its November 2004 GSE Rule, HUD

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

[11] 102d Congress, S. Rep. No. 282, pages 31, 33, and 42-43 (1992).

[12] A borrower is very low-income if his or her income is not greater than 60 percent of AMI. A borrower is low-income if his or her income is not greater than 80 percent of AMI.

[13] 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. Within non-metropolitan areas, underserved areas are census tracts where (1) median income of families in the tract does not exceed 95 percent of the greater of the median income for the non-metropolitan portion of the state or the non-metropolitan potion of the nation as a whole or (2) minorities comprise 30 percent or more of the residents of the tract and the median income of families in the tract does not exceed 120 of the greater of the median income for the non-metropolitan portion of the state or the non-metropolitan potion of the nation as a whole.

increased the levels of the housing goals beginning in year 2005. HUD's goal targets for 2005-2008 are provided in Table 1. For example, the special affordable goal increased from 20 percent in 2001-2004 to 22 percent in 2005, 23 percent in 2006, 25 percent in 2007, and 27 percent in 2008.[14] HUD increased the housing goals in order to move Fannie Mae and Freddie Mac up to market levels. For instance, HUD projects that, under normal conditions, special affordable dwelling units account for about 27 percent of all single-family and multifamily units financed in the conventional conforming mortgage market. Thus, the 2008 goal is set at 27 percent so that the GSEs will "match the market" by 2008.

In addition to increasing the overall goal levels in 2004, HUD also established three new home purchase subgoals that covered each GSE's acquisitions of home purchase loans for owner-occupied properties in metropolitan areas.[15] Table 2 reports the subgoal targets for 2005 to 2008. For example, the low- and moderate-income home purchase subgoal is 45 percent in 2005, 46 percent in 2006, and 47 percent in 2007 and 2008. With respect to these subgoals, it was HUD's intention that the GSEs "lead the market", rather than simply "match the market" as was the case with the overall goals discussed above. HUD's analysis in the 2004 GSE Rule showed that the 47-percent low-mod subgoal in 2007 and 2008 was about three percentage points above the market's average performance during 2002 and 2003.[16] HUD reasoned that the home purchase subgoals would encourage the GSEs to expand homeownership opportunities for lower-income homebuyers who are expected to enter the housing market over the next few years. HUD concluded that the GSEs have the expertise, resources, and ability to lead the single-family-owner home purchase market, which is their "bread and butter" business.[17] However, except for Fannie Mae's 2001-03 performance on the two borrower-income goals, the GSEs had historically lagged the primary market for three goal categories, not led it. HUD felt that there were ample opportunities for the GSEs to expand their purchases in important and growing market segments such as the market for minority first-time homebuyers.

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[14] The 27 percent goal for 2008 is interpreted as follows: at least 27 percent of all the single-family owner, single-family rental, and multifamily rental dwelling units financed by mortgages purchased by a particular GSE in 2008 must qualify as special affordable. For a discussion of the housing goals and the GSEs' performance under the goals, see U.S. Department of Housing and Urban Development (2004b) and Manchester (2007).

[15] The subgoals apply only to the GSEs' purchases in metropolitan areas because the HMDA-based market benchmark is only available for metropolitan areas. HMDA market data for non-metropolitan areas are not reliable enough to serve as a market benchmark.

[16] The 18-percent special affordable subgoal for 2007 and 2008 was about two percentage points above market performance in 2002 and 2003, as was the 34-percent underserved areas subgoal for 2008.

[17] HUD recognized that there were certain markets, such as the single-family rental market, that the GSEs had not penetrated to the same degree as they had the single-family owner market. Loans in those market segments were more difficult to securitize. Therefore, HUD did not require the GSEs to lead the overall market, which includes both owner and rental mortgages. However, in the case of the single-family owner market for home purchase loans, HUD concluded that the GSEs have the capacity to lead that market, which was an important market for extending homeownership opportunities to low-income and minority families.

Table 1

GSE Affordable Housing Goals for 2005-08

Goals	2005	2006	2007	2008
Special Affordable	22%	23%	25%	27%
Low- and Moderate-Income	52%	53%	55%	56%
Underserved Areas	37%	38%	38%	39%

Table 2

GSE Home Purchase Subgoals for 2005-08

Home Purchase Subgoals	2005	2006	2007	2008
Special Affordable	17%	17%	18%	18%
Low- and Moderate-Income	45%	46%	47%	47%
Underserved Areas	32%	33%	33%	34%

The home purchase subgoals cover GSE purchases in metropolitan areas.

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 during 2004 and 2005.[18]

C. Study Findings

This study documents the recent improvement that Fannie Mae and Freddie Mac have made in purchasing home loans for lower-income families and their neighborhoods. Specific findings regarding the GSEs' acquisitions of home purchase loans are as follows:

> (1) Fannie Mae led the market from 2002 to 2005 on the special affordable category and from 2001 to 2005 on the low- and moderate-income category. On these two borrower-income categories, Fannie Mae sharply improved its performance during the 1999-2003 period, erasing its gap with the market. On the underserved areas category, Fannie Mae also sharply improved its performance between 1999 and 2002, which placed it above market levels in 2002; however, Fannie Mae lagged the underserved areas market during 2004 and 2005.
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> (2) Freddie Mac also improved its performance on the three housing goal categories, particularly between 2004 and 2005. The year 2005 was the first time that Freddie Mac led the market on the two borrower-income categories. However, like Fannie Mae, Freddie Mac lagged the market in 2005 on the underserved areas category.

While the above represents broad conclusions about GSE purchases relative to the market, the annual data exhibit some interesting patterns, as discussed below.

II. GSEs Compared with the Primary Conventional Conforming Mortgage Market

This section provides a detailed analysis of the extent to which the GSEs' loan purchases mirror or depart from the patterns found in the primary mortgage market. Dimensions of lending considered include the three "goals-qualifying" categories -- special affordable borrowers, less-than-median income borrowers, and underserved areas. The special affordable category consists mainly of very-low-income borrowers, or borrowers who have an annual income at or below 60 percent of area median income. Because this category is more targeted than the broadly-defined less-than-median-income (or low-mod) category, the discussion below will often focus on the special affordable category as well as the underserved areas category which adds a neighborhood dimension (low-income and high-minority census tracts) to the analysis. This section will also examine the performance of Fannie Mae and Freddie Mac in funding minority homebuyers.

Subsection A defines the primary mortgage market and discusses some technical issues related to the use of the GSE and HMDA data. Subsection B then presents the main results for home purchase loans.

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[18] Following earlier working papers, this analysis is conducted at a very aggregate level, as the GSEs' purchases are reported for all metropolitan areas combined or for the entire U.S. 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).

A. Definition of Primary Market

Conventional Conforming Market. HMDA data for mortgages originated in the conventional conforming market of metropolitan areas during the years 2004 and 2005 provide the basis for comparisons with the GSEs.[19] Only conventional loans with a principal balance less than or equal to the conforming loan limit are included; the conforming loan limit was $333,700 in 2004 and $359,650 in 2005 – these are called "conventional conforming loans". The GSEs' purchases of FHA-insured, VA-guaranteed, and Rural Housing Service loans are excluded from this analysis. 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.

Manufactured Housing Loans. In their past comments on HUD's analyses, both GSEs have raised questions about whether loans on manufactured housing should be excluded when comparing the primary market with the GSEs. The GSEs purchase these loans, but they have not played a significant role in the manufactured housing loan market. As emphasized by HUD in its 2000 and 2004 GSE Rules, manufactured housing is an important source of home financing for low-income families and for that reason, should be included in any analysis of affordable lending. However, for comparison purposes, data are also presented for the primary market defined without manufactured housing loans.[20] Because this analysis focuses on metropolitan areas, it does not include the substantial number of manufactured housing loans originated in non-metropolitan areas.

Subprime Loans. Both GSEs have also raised questions about whether subprime loans should be excluded when comparing the primary market with their performance. In its 2000 and 2004 GSE Rules, HUD argued that 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 A-minus loans (and possibly "B" grade subprime loans as well). The GSEs themselves have mentioned that a large portion of borrowers in the subprime market could qualify as "A credit". This analysis includes the A-minus portion of the subprime market, or conversely, excludes the B&C portion of that market.

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[19] HMDA is an excellent source for data on the income and racial characteristics of mortgage market originations, as it covers about 85-90 percent of all mortgage originations. See Appendix A of HUD (2004b) for analysis and discussion of the validity of HMDA data as a source for market performance in an analysis of the GSEs. See Appendix B of this paper for discussion of the usefulness of HMDA data for measuring GSE performance.

[20] Starting in 2004, HMDA data included an indicator of manufactured housing loans; in the past, analysts relied on the list of manufactured housing lenders compiled by Randall M. Scheessele at HUD.

Unfortunately, HMDA does not identify subprime loans, much less separate them into their A-minus and B&C components. However, in 2004, HMDA began identifying "high-cost loans", defined as first mortgages with an Annual Percentage Rate (APR) at least three percentage points above the rate on a comparable duration Treasury security. For these high-cost loans, the lender has to report the "spread" of the APR over the comparable duration Treasury; no spread information is required for loans not meeting the three-percentage-point threshold.[21] According to Federal Reserve staff, the three-percentage-point threshold was designed to proxy subprime loans; however, it appears that HMDA-defined high-cost loans were slightly less than the subprime market in 2004 and significantly more than the subprime market in 2005.[22] (Appendix A to this paper discusses these issues in more detail.)

Previous studies by HUD as well as other researchers identified subprime loans in HMDA using a list of subprime lenders developed by Randall M. Scheessele at HUD. In 2003, Scheessele identified 229 HMDA reporters that primarily originate subprime loans and account for about 60-70 percent of the subprime market.[23] To adjust HMDA data for B&C loans, past HUD analysis assumed that the B&C portion of the subprime market accounted for one-half of the loans originated by the subprime lenders included in Scheessele's list; these loans were dropped from the analysis as an estimate of the B&C portion of the market.[24]

Given uncertainty about the size of the overall subprime market and the B&C portion of that market, this paper presents GSE-market comparisons for several market estimates with different reductions for high-cost, subprime, and B&C loans. Appendix A to this paper discusses the various estimates. Below, Tables 3a-c report GSE-market comparisons for the following definitions of the market.

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[21] There were several other important changes made to HMDA in 2004, including the identification of manufactured housing loans mentioned earlier; see Avery, Canner, and Cook (2005) for an explanation of these changes.

[22] See Avery, Brevoort, and Canner (2006) for a discussion of the 2005 HMDA data and for reasons that high-cost loans overestimate the 2005 subprime market.

[23] 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.

[24] In its most recent GSE Rule, HUD (2004b) noted that the one-half estimate was conservative as some observers estimated that B&C loans account for only 20-40 percent of the subprime market. According to Inside B&C Lending, which is published by Inside Mortgage Finance, the A-minus share of the subprime market was 61.6 percent in 2000, 70.7 percent in 2001 (see March 11, 2002 issue), 75 percent in 2002 (see the September 15, 2003 issue), and approximately 80 percent since then (see the December 8, 2003 and December 22, 2006 issues). In its 2004 GSE Rule, HUD also noted that overstating the share of B&C loans in this manner allows for any differences in HMDA reporting of different types of loans – for example, if B&C loans account for 35 percent of all subprime loans, then assuming that they account for 50 percent is equivalent to assuming that B&C loans are reported in HMDA at 70 percent of the rate of other loans. In the past, varying the B&C share from 50 percent to 30 percent did not significantly change the analysis of home purchase loans because subprime loans were mainly for refinance purposes. The home purchase share of loans originated by the subprime lenders in Scheessele's list increased from 26 percent in 1999 to 36 percent in 2000, then dropping to about 30 percent from 2001-2004 before rising to 38 percent in 2005. Thus, measured by the lender list, the home purchase share of subprime loans has increased. By comparison, the home purchase share of high-cost loans was 33 percent in 2004 and 43 percent in 2005.

1. **Conventional Conforming Market (no reductions)**[25]
2. **Drop All High Cost Loans:** This market estimate excludes from the overall market (#1 above) all HMDA loans above the three percentage point threshold; this is provided simply to show the overall effects of excluding all high-cost loans from the market definition.
3. **Drop B&C Loans (Base Case):** This Base Case market estimate excludes B&C loans, which are estimated to be loans with a high-cost spread greater than 3.8 percent in 2004 and 5.3 in 2005; as explained in Appendix A, this drops 6.9 percent of all loans in 2004 and 7.6 percent in 2005.
4. **Drop B&C Loans (Alternative Estimate #1) – 9% with the Highest Costs:** This estimate excludes B&C loans, which are estimated to be loans with a high-cost spread greater than 3.48 in 2004 and 5.08 in 2005. As explained in Appendix A, this estimate excludes slightly over 9 percent of loans from the market definition, about the same percentage as HUD's traditional method of identifying B&C loans based on the lender list (see #6 below). Compared with #3 above, more high-cost loans are dropped from the market definition. It is provided to show the results of a modest variation in the estimate of the B&C market.
5. **Drop Subprime Loans – Lender List.** Similar to #2 above, this market estimate excludes from the overall market all HMDA loans originated by subprime lenders on Scheessele's list; again, this is provided simply to show the overall effects of excluding an estimate of the overall subprime market.
6. **Drop B&C Loans (Alternative Estimate #2) – Half of Subprime Lender List**: Under this estimate of B&C loans, one-half of the loans originated by the lenders on the subprime lender list are excluded from the market. In 2004 and 2005, this amounted to 9.3 percent of all loans. This approach provides some continuity with earlier HUD research, as it is the method that HUD used in the past to identify B&C loans.

B. Affordable Lending by the GSEs: Home Purchase Loans

Results Under Different Market Definitions. This section compares the GSEs' affordable lending performance with the primary market for the years 2004 and 2005.[26] Tables 3a-c show the GSE versus market results for home purchase loans under the six market definitions given above. First, it is interesting to see how the market percentages change with the different treatment of high-cost, subprime, and B&C loans. Dropping all high-cost loans reduces the market's 2005 special affordable percentage from 15.8 percent to 14.0 percent; the market's 2005 underserved area percentage is reduced even more, from 37.5 percent to 31.6 percent. Obviously, the market standard for evaluating the GSEs' performance will depend on how many high-cost loans are excluded from

[25] It should be noted that all the market definitions exclude loans less than $15,000 and, for the two borrower-income categories, loans with a loan-to-income ratio greater than six.

[26] The analysis in this section presents the GSE data on a purchase-year basis, which is consistent with how HUD scores the GSEs' goal performance. As discussed in Appendix B, the GSE data that are reported to HUD include the GSEs' purchases of mortgages originated in prior years as well as their purchases of mortgages originated during the current year. The market data reported by HMDA include only mortgages originated in the current year.

Table 3a

GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal Qualifying Home Purchase Mortgages, 2004 and 2005
Various Market Definitions

			Market Without Manufactured Housing Loans	
	2004	2005	2004	2005
I. Special Affordable				
Fannie Mae Purchases	17.0%	17.2%	17.0%	17.2%
Freddie Mac Purchases	15.4%	17.9%	15.4%	17.9%
1. Conventional Conforming Market Originations	17.1%	15.8%	16.7%	15.4%
2. Drop All High Cost Loans	15.9%	14.0%	15.4%	13.4%
3. Drop B&C Loans --- (Base Case)	16.4%	15.0%	15.9%	14.5%
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	16.2%	14.9%	15.7%	14.4%
5. Drop Subprime Loans --- Lender List	16.6%	15.3%	16.1%	14.8%
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	16.9%	15.6%	16.4%	15.1%
II. Low-and Moderate-Income				
Fannie Mae Purchases	46.3%	44.7%	46.3%	44.7%
Freddie Mac Purchases	42.7%	47.3%	42.7%	47.3%
1. Conventional Conforming Market Originations	46.5%	43.5%	45.9%	42.9%
2. Drop All High Cost Loans	44.8%	40.8%	44.1%	40.8%
3. Drop B&C Loans --- (Base Case)	45.5%	42.4%	44.9%	41.8%
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	45.2%	42.2%	44.6%	41.6%
5. Drop Subprime Loans --- Lender List	45.4%	42.7%	44.8%	42.0%
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	46.0%	43.1%	45.4%	42.5%
III. Underserved Areas				
Fannie Mae Purchases	33.5%	32.3%	33.5%	32.3%
Freddie Mac Purchases	32.0%	34.8%	32.0%	34.8%
1. Conventional Conforming Market Originations	35.8%	37.5%	35.6%	37.3%
2. Drop All High Cost Loans	33.4%	31.6%	33.1%	31.2%
3. Drop B&C Loans --- (Base Case)	34.6%	35.9%	34.3%	35.7%
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	34.2%	35.6%	33.9%	35.3%
5. Drop Subprime Loans --- Lender List	32.7%	33.9%	32.4%	33.6%
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	34.4%	35.8%	34.1%	35.6%

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The Conventional Conforming Market data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from all borrower income calculations for the market. Loans less than $15,000 are excluded from the market data. See the text for an explanation of the adjustments for manufactured housing, high-cost, 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 3b

Fannie Mae to Market Ratio
Purchases and Single-Family Lending in Metropolitan Areas
Goal Qualifying Home Purchase Mortgages, 2004 and 2005
Various Market Definitions

			Market Without Manufactured Housing Loans	
	2004	2005	2004	2005
I. Special Affordable				
Fannie Mae Purchases	**17.0%**	**17.2%**	**17.0%**	**17.2%**
Freddie Mac Purchases (See Table 3c)				
1. Conventional Conforming Market Originations	0.99	1.09	1.02	1.12
2. Drop All High Cost Loans	1.07	1.23	1.10	1.28
3. Drop B&C Loans --- (Base Case)	1.04	1.15	1.07	1.19
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	1.05	1.15	1.08	1.19
5. Drop Subprime Loans --- Lender List	1.02	1.12	1.06	1.16
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	1.01	1.10	1.04	1.14
II. Low-and Moderate-Income				
Fannie Mae Purchases	**46.3%**	**44.7%**	**46.3%**	**44.7%**
Freddie Mac Purchases (See Table 3c)				
1. Conventional Conforming Market Originations	1.00	1.03	1.01	1.04
2. Drop All High Cost Loans	1.03	1.10	1.05	1.10
3. Drop B&C Loans --- (Base Case)	1.02	1.05	1.03	1.07
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	1.02	1.06	1.04	1.07
5. Drop Subprime Loans --- Lender List	1.02	1.05	1.03	1.06
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	1.01	1.04	1.02	1.05
III. Underserved Areas				
Fannie Mae Purchases	**33.5%**	**32.3%**	**33.5%**	**32.3%**
Freddie Mac Purchases (See Table 3c)				
1. Conventional Conforming Market Originations	0.94	0.86	0.94	0.87
2. Drop All High Cost Loans	1.00	1.02	1.01	1.04
3. Drop B&C Loans --- (Base Case)	0.97	0.90	0.98	0.90
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	0.98	0.91	0.99	0.92
5. Drop Subprime Loans --- Lender List	1.02	0.95	1.03	0.96
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	0.97	0.90	0.98	0.91

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The Conventional Conforming Market data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from all borrower income calculations for the market. Loans less than $15,000 are excluded from the market data. See the text for an explanation of the adjustments for manufactured housing, high-cost, 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 3c

Freddie Mac to Market Ratio
GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal Qualifying Home Purchase Mortgages, 2004 and 2005
Various Market Definitions

			Market Without Manufactured Housing Loans	
	2004	2005	2004	2005
I. Special Affordable				
Fannie Mae Purchases (See Table 3b)				
Freddie Mac Purchases	**15.4%**	**17.9%**	**15.4%**	**17.9%**
1. Conventional Conforming Market Originations	0.90	1.13	0.92	1.16
2. Drop All High Cost Loans	0.97	1.28	1.00	1.34
3. Drop B&C Loans --- (Base Case)	0.94	1.19	0.97	1.23
4. Drop B&C (Alternative Estimate #1)				
--- 9% with the Highest Costs	0.95	1.20	0.98	1.24
5. Drop Subprime Loans --- Lender List	0.93	1.17	0.96	1.21
6. Drop B&C Loans (Alternative Estimate #2)				
---Half of Subprime Lender List	0.91	1.15	0.94	1.19
II. Low-and Moderate-Income				
Fannie Mae Purchases (See Table 3b)				
Freddie Mac Purchases	**42.7%**	**47.3%**	**42.7%**	**47.3%**
1. Conventional Conforming Market Originations	0.92	1.09	0.93	1.10
2. Drop All High Cost Loans	0.95	1.16	0.97	1.16
3. Drop B&C Loans --- (Base Case)	0.94	1.12	0.95	1.13
4. Drop B&C (Alternative Estimate #1)				
--- 9% with the Highest Costs	0.94	1.12	0.96	1.14
5. Drop Subprime Loans --- Lender List	0.94	1.11	0.95	1.13
6. Drop B&C Loans (Alternative Estimate #2)				
---Half of Subprime Lender List	0.93	1.10	0.94	1.11
III. Underserved Areas				
Fannie Mae Purchases (See Table 3b)				
Freddie Mac Purchases	**32.0%**	**34.8%**	**32.0%**	**34.8%**
1. Conventional Conforming Market Originations	0.89	0.93	0.90	0.93
2. Drop All High Cost Loans	0.96	1.10	0.97	1.12
3. Drop B&C Loans --- (Base Case)	0.92	0.97	0.93	0.97
4. Drop B&C (Alternative Estimate #1)				
--- 9% with the Highest Costs	0.94	0.98	0.94	0.99
5. Drop Subprime Loans --- Lender List	0.98	1.03	0.99	1.04
6. Drop B&C Loans (Alternative Estimate #2)				
---Half of Subprime Lender List	0.93	0.97	0.94	0.98

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The Conventional Conforming Market data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from all borrower income calculations for the market. Loans less than $15,000 are excluded from the market data. See the text for an explanation of the adjustments for manufactured housing, high-cost, 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.

the market definition.[27] Dropping estimated B&C loans (the Base Case market definition #3) reduces the market's 2005 special affordable percentage from 15.8 percent to 15.0 percent, while the market's 2005 underserved area percentage is reduced from 37.5 percent to 35.9 percent. Dropping B&C loans as estimated by Alternative 1 yields similar results. Using HUD's past approach to dropping B&C loans (one-half the subprime lender list) reduces the market's 2005 special affordable percentage only slightly from 15.8 percent to 15.6 percent; the market's 2005 underserved area percentage is reduced from 37.5 percent to 35.8 percent, which is practically the same as the Base Case market estimate of 35.9 percent.

Table 3a also shows the effect on the market estimates of dropping manufactured housing loans. Doing so reduces the special affordable and low- and moderate-income market estimates by about a half percentage point and the underserved area market estimate by 0.2-0.3 percentage point.

The GSEs' performance will vary, of course, with the chosen market estimate. Table 3b reports "Fannie-Mae-to-market ratios" for all the various market definitions. These ratios equal Fannie Mae's performance divided by market performance. For example, Fannie Mae's performance of 17.2 percent on the 2005 special affordable goal is larger than the base line market's performance of 15.0 percent, and this is reflected in a market ratio of 1.15 (17.2 divided by 15.0). All but two of Fannie Mae's 2004 and 2005 market ratios for the two borrower-income goals are greater than one, which means that Fannie Mae is leading the market in these cases. On the other hand, Fannie Mae's market ratios for underserved area loans tend to be less than one, which means that Fannie Mae is lagging the market.[28]

Table 3c reports market ratios for Freddie Mac. While the 2005 patterns (above one for the two borrower-income loans and below one for the underserved area loans) are the same as discussed for Fannie Mae, the 2004 results are quite different. In that year, none of Freddie Mac's market ratios are greater than one, even when all high-cost loans or all subprime loans are excluded from the market estimate. More will be said about this below.

GSE Versus Market Performance: 2004-05. Table 4 presents the same results as Table 3 but for only one definition of the market – the base case definition (#3) that subtracts from the overall market data an estimate of the B&C portion of all high-cost loans. This focus on a single market definition provides for a much simpler presentation.

First, consider the performance comparisons of Fannie Mae and Freddie Mac, as summarized by the Fannie-Mae-to-Freddie-Mac ratios in the third data column of Table 4. In 2004, Fannie Mae outperformed Freddie Mac on all three goals categories. For example, 46.3 percent of Fannie Mae's 2004 purchases of home loans were originated by low- and moderate-income borrowers, compared with 42.7 percent of Freddie Mac's 2004 purchases, resulting in a Fannie-

[27] A comparison of the results for market definitions #2 and #5 shows that dropping all high-cost loans (#2) reduces the market estimates more than does dropping all loans originated by lenders on the subprime lender list (#5).

[28] Fannie Mae's underserved area market ratios are greater than one only in those cases where all high-cost loans or all subprime loans are excluded from the market definition. These two market concepts are not appropriate standards for evaluating GSE performance because they exclude A-minus as well as B&C loans. As noted earlier, they are provided here simply to show the effects of excluding all high-cost or subprime loans.

Table 4

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 2004-2005

Borrower and Tract Characteristics	Fannie Mae	Freddie Mac	Ratio of Fannie Mae to Freddie Mac	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						
2004	17.0%	15.4%	1.11	16.4%	1.04	0.94
2005	17.2%	17.9%	0.96	15.0%	1.14	1.20
2004-2005 Average	17.1%	16.8%	1.03	15.7%	1.09	1.07
Less Than Area Median Income						
2004	46.3%	42.7%	1.09	45.5%	1.02	0.94
2005	44.7%	47.3%	0.94	42.4%	1.05	1.12
2004-2005 Average	45.6%	45.2%	1.01	43.9%	1.04	1.03
Underserved Areas						
2004	33.5%	32.0%	1.05	34.6%	0.97	0.92
2005	32.3%	34.8%	0.93	35.9%	0.90	0.97
2004-2005 Average	33.0%	33.5%	0.99	35.3%	0.93	0.95

Source: The Fannie Mae and Freddie Mac percentages for 2004 and 2005 are from the loan-level mortgage purchase data that they provide to HUD. 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 for the market. Loans less than $15,000 are excluded from the market data. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded. The "2004-2005 Average" is a weighted average.

Mae-to-Freddie-Mac ratio of 1.09 (46.3 divided by 42.7). In 2005, things changed, as Fannie Mae lagged Freddie Mac on all three housing goal categories. For example, 32.3 percent of Fannie Mae's 2005 purchases of home loans financed properties in underserved areas, compared with 34.8 percent of Freddie Mac's 2004 purchases, resulting in a Fannie-Mae-to-Freddie-Mac ratio of 0.93. This 2004 to 2005 shift in the two GSEs' relative performance was due to a sharp increase in Freddie Mac's performance and little or no increase in Fannie Mae's performance. For example, Freddie Mac's low-mod performance jumped from 42.7 percent in 2004 to 47.3 percent in 2005, while Fannie Mae's performance fell from 46.3 percent to 44.7 percent during this period.

Next, consider the market data and GSE-to-market ratios in the last three columns of Table 4. Between 2004 and 2005, the market percentages declined for the two borrower-income categories (special affordable and low-mod). For this reason, Fannie Mae's performance relative to the market actually improved slightly during this period, even though its own low-mod performance declined (from 46.3 percent in 2004 to 44.7 percent in 2005); this is indicated by the increase in the Fannie-Mae-to-Market ratio from 1.02 in 2004 to 1.05 in 2005. The Fannie-Mae-to-Market ratio for special affordable loans increased much more significantly from 1.04 to 1.14, as Fannie Mae's performance increased slightly (from 17.0 to 17.2 percent) while the market was experiencing a sharp drop off (from 16.4 to 15.0 percent). Freddie Mac's situation differed from Fannie Mae's. As indicated by the below-one Freddie-Mac-to-Market ratios, Freddie Mac lagged the market in 2004 on both borrower-income goals. However, Freddie Mac's sharp increase in 2005 performance moved it above the market, with market ratios of 1.20 and 1.12 for the special affordable and low-mod categories, respectively.

Both Fannie Mae and Freddie Mac lagged the market on the underserved areas category in 2004 and 2005. The GSEs exhibited opposite trends on this category as well. Because of Fannie Mae's fall off in performance, its market ratio fell from 0.97 to 0.90 during this period, while Freddie Mac's ratio, reflecting its improved 2004-05 performance, increased from 0.92 to 0.97 (but remaining less than one).

Sources of GSE Loans. The GSE Public Use Data Base identifies the source of the GSEs' purchases by lender type; this information is summarized in Table 5 for the years 2004 and 2005.[29] The traditional sources of loans for the GSEs have been mortgage companies and depositories (mainly banks and thrift institutions). These "traditional sources" provided 92.2 percent of Fannie Mae's loans in 2004 and 95.4 percent in 2005. By comparison, Freddie Mac relied much less on the "traditional" sources (72.0 percent in 2004 and 65.1 percent in 2005). In fact, the "other" or "non-traditional" source increased from 28.0 percent of Freddie Mac's purchases in 2004 to 34.9 percent in 2005; these loans were mainly acquired through Freddie Mac's purchases of subprime asset-backed securities.[30] These purchases have much higher goals-qualifying scores than Freddie

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[29] The "Total" figures in Table 5 correspond in definition to the Fannie Mae and Freddie Mac figures for 2004 and 2005 in Tables 3 and 4; however, the data are actually different because the data from GSE Public Use Data Base (PUDB) are not adjusted downward for the GSEs' participation percentages in REMIC deals. That is, each loan purchase in the PUDB (and in Table 5) is counted with a weight of one, rather than with the weight of the GSEs' participation percent (say 0.55).

[30] It is reported that Freddie Mac holds $180 billion of subprime asset-backed securities. Freddie Mac has indicated it plans to tighten its standards on subprime loans – specifically not buying subprime hybrid mortgages unless they are underwritten at the fully indexed and amortizing rate. See *American Banker*, "How Freddie Cutback in Hybrids May Reverberate", February 28, 2007.

Table 5

GSE Acquisitions in Metropolitan Areas of Home Purchase Mortgages by Type of Seller 2004-2005

Fannie Mae	**2004**				**2005**			
Mortgage Banks and Depositories	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent
Mortgage Banks	65.9%	16.1%	45.7%	29.6%	65.4%	15.7%	41.7%	33.2%
Savings Institutions	14.5%	16.9%	46.4%	25.8%	13.7%	16.5%	44.2%	30.8%
Banks	10.3%	14.1%	39.4%	28.7%	14.5%	16.5%	41.0%	31.1%
Credit Unions	1.5%	13.3%	43.1%	25.0%	1.8%	14.7%	43.0%	33.5%
Subtotal	92.2%				95.4%			
Other	7.8%	17.3%	46.8%	33.1%	4.6%	20.5%	47.3%	49.0%
Total	100.0%	16.0%	45.2%	29.1%	100.0%	16.1%	42.2%	33.3%

Freddie Mac	**2004**				**2005**			
Mortgage Banks and Depositories	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent
Mortgage Banks	33.6%	13.1%	39.5%	22.2%	28.7%	13.4%	39.1%	28.9%
Savings Institutions	4.4%	12.3%	38.9%	24.1%	8.3%	13.1%	39.2%	29.0%
Banks	33.6%	12.9%	39.0%	22.3%	27.7%	15.1%	39.3%	26.4%
Credit Unions	0.4%	16.5%	46.5%	19.3%	0.4%	15.4%	44.6%	23.9%
Subtotal	72.0%				65.1%			
Other	28.0%	20.0%	50.8%	43.0%	34.9%	23.9%	60.8%	54.0%
Total	100.0%	14.8%	42.3%	28.1%	100.0%	17.3%	46.4%	37.0%

Source: National File B of GSE Public Use Data Base.

Mac's purchases from traditional lenders, indicating that this has been one strategy Freddie Mac has pursued to increase its performance. For example, in 2005, 60.8 percent of the "non-traditional" loans qualified as low- and moderate-income, compared to approximately 40 percent for the loans that Freddie Mac purchased from its "traditional" sources. Similarly, 54.0 percent of the "non-traditional" loans were in underserved areas, compared with about 30 percent of loans purchased from "traditional" sources.

As noted above, Fannie Mae has followed a different purchase strategy, relying more on mortgage companies and depositories for its loans. It is also interesting that Fannie Mae's purchases from the traditional lender groups are characterized by higher goals-qualifying shares than Freddie Mac's purchases from these same lender groups. For example, 15.7 percent of Fannie Mae's 2005 purchases from mortgage companies qualified as special affordable, compared with only 13.4 percent of Freddie Mac's 2005 purchases from mortgage companies. In the same year, 31.1 percent of Fannie Mae's purchases from banks financed properties in underserved areas, compared with only 26.4 percent of Freddie Mac's purchases from banks.

GSE Versus Market Performance: 1999-2005. This section and Tables 6-8 present a longer run view of the GSEs' performance, from 1999 to 2005. Although the HMDA high-cost data used above for estimating the size of the B&C market were not available prior to 2004, results for earlier years can be presented based on HUD's traditional definition of the B&C market, half of the loans originated by lenders on Scheessele's subprime lender list. The 1999-2003 results reported in Tables 6-8 are taken from HUD's 2004 GSE Rule, while the 2004 and 2005 results are taken from Table 3a (Alternative Estimate #2). In this manner, the estimate of the B&C market, based on half of the subprime lender list, is consistently defined across the six years.

Tables 6-8 are useful for examining the improved affordable lending performance of the GSEs in the past few years. As shown in Table 6, the special affordable share of Fannie Mae's home loan purchases increased from 12.5 percent in 1999 to 17.2 percent in 2005; during this period, Fannie Mae also improved its performance relative to the market, as indicated by the increase in its special affordable market ratio from a very low 0.75 in 1999 to 1.10 in 2005. Fannie Mae lagged the market from 1999 to 2001 and then moved above the market in 2002. Freddie Mac, on the other hand, lagged the special affordable market from 1999 to 2004 before its recent increased performance moved it above the market in 2005. Table 7 shows somewhat similar improvement trends for the GSEs on the low- and moderate-income category, except that in 1999 each GSE started much closer to market levels – in that year, each GSE's performance was about 90 percent of the low-mod market compared with only about 75 percent of the special affordable market.

Table 8 shows that each GSE has improved its performance on the underserved areas category as well. The underserved areas share of Fannie Mae's (Freddie Mac's) purchases increased from 25.3 (25.6) percent in 1999 to 32.3 (34.8) percent in 2005. Except for 2002, however, the GSEs have remained below market levels. The Fannie-Mae-to-Market ratio for underserved areas increased from 0.85 in 1999 to approximately one during 2000-2004 before falling off to 0.90 in 2005. The Freddie-Mac-to-Market ratio increased from 0.86 in 1999 to a peak of 1.03 in 2002, then fell to approximately 0.90 in 2003 and 2004 before rebounding to almost one (0.97) in 2005.

GSE Minority Performance. Table 9 examines the GSEs' performance in terms of some additional borrower and neighborhood characteristics. In particular, the table includes data on the

Table 6

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Special Affordable Home Purchase Mortgages, 1999-2005

				Fannie Mae		Freddie Mac	
Special Affordable (%)	Fannie Mae	Freddie Mac	Market W/O Half Subprime Lender List	Ratio Fannie Mae to Market	Fannie Mae Minus Market	Ratio Freddie Mac to Market	Freddie Mac Minus Market
1999	12.5	12.8	16.6	0.75	-4.1	0.77	-3.8
2000	13.4	14.5	16.2	0.83	-2.8	0.90	-1.7
2001	14.7	13.9	15.1	0.97	-0.4	0.92	-1.2
2002	15.8	15.1	15.2	1.04	0.6	0.99	-0.1
2003	17.7	16.2	16.5	1.07	1.2	0.98	-0.3
2004	17.0	15.4	16.9	1.01	0.1	0.91	-1.5
2005	17.2	17.9	15.6	1.10	1.6	1.15	2.3

NOTE: For 1999-2003 data, see Table 7 of the 2004 GSE Rule (HUD, 2004a). Loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations for the market. Market data exclude loans less than $15,000. Conventional conforming market totals are adjusted by deducting one-half of the loans from the subprime lender list.

Table 7

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Low- and Moderate-Income Home Purchase Mortgages, 1999-2005

				Fannie Mae		Freddie Mac	
Low-and-Moderate Income (%)	Fannie Mae	Freddie Mac	Market W/O Half Subprime Lender List	Ratio Fannie Mae to Market	Fannie Mae Minus Market	Ratio Freddie Mac to Market	Freddie Mac Minus Market
1999	39.2	40.0	43.5	0.90	-4.3	0.92	-3.5
2000	40.1	41.7	42.6	0.94	-2.5	0.98	-0.9
2001	41.7	39.8	41.1	1.01	0.6	0.97	-1.3
2002	43.6	42.1	42.1	1.04	1.5	1.00	0.0
2003	47.5	44.2	45.2	1.05	2.3	0.98	-1.0
2004	46.3	42.7	46.0	1.01	0.3	0.93	-3.3
2005	44.7	47.3	43.1	1.04	1.6	1.10	4.2

NOTE: For 1999-2003 data, see Table 7 of the 2004 GSE Rule (HUD, 2004a). Loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations for the market. Market data exclude loans less than $15,000. Conventional conforming market totals are adjusted by deducting one-half of the loans from the subprime lender list.

Table 8

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Underserved Areas Home Purchase Mortgages, 1999-2005

				Fannie Mae		Freddie Mac	
Underserved Areas (%)	Fannie Mae	Freddie Mac	Market W/O Half Subprime Lender List	Ratio Fannie Mae to Market	Fannie Mae Minus Market	Ratio Freddie Mac to Market	Freddie Mac Minus Market
1999	25.3	25.6	29.8	0.85	-4.5	0.86	-4.2
2000	29.0	27.3	31.3	0.93	-2.3	0.87	-4.0
2001	29.8	27.3	30.3	0.98	-0.5	0.90	-3.0
2002	32.3	31.7	30.9	1.05	1.4	1.03	0.8
2003	32.0	29.0	32.2	0.99	-0.2	0.90	-3.2
2004	33.5	32.0	34.4	0.97	-0.9	0.93	-2.4
2005	32.3	34.8	35.8	0.90	-3.5	0.97	-1.0

NOTE: For 1999-2003 data, see Table 7 of the 2004 GSE Rule (HUD, 2004a). Loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations for the market. Market data exclude loans less than $15,000. Conventional conforming market totals are adjusted by deducting one-half of the loans from the subprime lender list.

GSEs' purchases of mortgages for minority borrowers and their neighborhoods. The following points stand out from these data.

During 2004 and 2005, home purchase loans to African-American and Hispanic borrowers accounted for 14.2 percent of Freddie Mac's purchases, 18.1 percent of Fannie Mae's purchases, and 20.5 percent of loans originated in the conventional conforming market (without B&C loans).[31] Thus, the African-American and Hispanic share of the GSEs' purchases was lower than the corresponding share for the conventional conforming market. Fannie Mae performed much better than Freddie Mac, as Freddie Mac's performance was only 69 percent of market performance compared with Fannie Mae's 0.88 percent.

The GSEs lagged the market on the minority neighborhood variable but there were some differences from the results reported above for minority borrowers. During 2004 and 2005, home purchase loans for properties in high-minority neighborhoods accounted for 28.5 percent of both GSEs' purchases compared with 30.2 percent of loans originated in the market. In this case, Freddie Mac and Fannie Mae exhibited similar performance and their performance was much closer (at 0.94 percent) to market performance. Table 9 also reports separate results for high African-American neighborhoods, which accounted for 7.2 percent of Freddie Mac's purchases during 2004-05, 6.6 percent of Fannie Mae's purchases, and 7.2 percent of market originations. Similar to its performance on other variables, Freddie Mac's performance increased sharply in 2005, rising from 6.5 percent in 2004 to 7.8 percent in 2005, placing it above the 2005 market level of 7.4 percent.[32]

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31 These percentages are obtained by combining the "2004-2005 Averages" for African-American and Hispanic borrowers in Table 8.

32 Appendix C provides tables corresponding to Tables 3a-Table 8 for the GSEs' total (both home purchase and refinance) mortgage purchases.

Table 9

Borrower and Neighborhood Characteristics for Sectors of the Conventional Conforming Mortgage Market in Metropolitan Areas <u>Home Purchase Mortgages</u>, 2004 and 2005

					Conventional Conforming Market	
Borrower Characteristics	Fannie Mae	Freddie Mac	Both GSEs	Depositories	Total	W/O B&C [1]
Low-Income:						
2004	30.1%	27.3%	29.0%	30.2%	30.2%	29.4%
2005	29.5%	30.9%	30.2%	28.4%	27.8%	26.9%
2004-2005 Average	29.8%	29.3%	29.6%	29.3%	29.0%	28.1%
African American:						
2004	6.4%	5.1%	5.9%	6.1%	7.5%	6.6%
2005	5.5%	6.2%	5.8%	7.2%	8.6%	7.4%
2004-2005 Average	6.0%	5.7%	5.8%	6.6%	8.1%	7.0%
Hispanic:						
2004	13.0%	8.2%	11.0%	11.4%	13.1%	12.7%
2005	11.2%	8.8%	10.1%	12.5%	14.9%	14.3%
2004-2005 Average	12.1%	8.5%	10.5%	12.0%	14.0%	13.5%
Minority:						
2004	26.3%	20.8%	24.0%	23.9%	27.1%	25.9%
2005	23.7%	22.3%	23.1%	26.0%	29.7%	28.1%
2004-2005 Average	25.0%	21.6%	23.5%	24.9%	28.4%	27.0%
Neighborhood Characteristics						
Low-Income Tract:						
2004	14.2%	13.6%	14.0%	14.4%	15.7%	14.8%
2005	14.0%	15.9%	14.9%	15.3%	16.9%	15.8%
2004-2005 Average	14.1%	14.9%	14.4%	14.8%	16.3%	15.3%
High-Minority Tract:						
2004	29.6%	28.1%	29.0%	27.8%	30.9%	30.0%
2005	27.2%	28.9%	28.0%	28.0%	31.6%	30.4%
2004-2005 Average	28.5%	28.5%	28.5%	27.9%	31.3%	30.2%
High African-American Tract:						
2004	6.7%	6.5%	6.6%	6.8%	7.7%	6.9%
2005	6.5%	7.8%	7.1%	7.5%	8.3%	7.4%
2004-2005 Average	6.6%	7.2%	6.9%	7.1%	8.0%	7.2%
Underserved Areas:						
2004	33.5%	32.0%	32.9%	33.3%	35.8%	34.6%
2005	32.3%	34.8%	33.5%	34.5%	37.5%	35.9%
2004-2005 Average	33.0%	33.5%	33.2%	33.9%	36.7%	35.3%

Notes: The "2004-2005 Average" is a loan-based weighted average. All the data are for home purchase mortgages. The market percentages are derived from HMDA data (various years). 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 2004 and 2005; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 2004 or 2005) as well as their purchases of mortgages originated during 2004 and 2005. The conventional conforming market includes all conventional loans except "jumbo" loans above the conforming loan limit which was $359,650 in 2005. "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 subsidiaries. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six. Loans less than $15,000 are excluded from the market data.

[1] HMDA-based market shares that have been adjusted to exclude an estimate of the B&C portion of the subprime market. See text (Base Case Market #3) for explanation.

Appendix A

Alternative Estimates of B&C Share of High Cost Market

The 2004 HMDA data first identified high-cost first mortgages – those with a spread (defined as APR minus comparable duration Treasury rate) of more than 3 percent. Federal Reserve Board economists came up with the 3-percent threshold as a proxy for identifying subprime loans. For various reasons, the HMDA-identified high-cost mortgages were only a portion of the subprime market in 2004 while in 2005 they totaled more mortgages than were in the subprime market. Even though there is uncertainty about the definition and size of the subprime market, the problem with high-cost loans as a proxy for that market can be gleaned from the following data comparisons.

High-cost loans for owner-occupied properties in the conventional conforming mortgage market increased from 13.8 percent of the overall market in 2004 to 25.7 percent of the market in 2005 – an almost doubling in market share.[33] It is highly unlikely that there was such a large jump in the subprime market share during this period since other sources showed a much smaller change in that market. For instance, according to *Inside Mortgage Finance* (IMF), the subprime dollar share of all mortgage originations increased only moderately between 2004 and 2005, from 20.7 percent to 22.7 percent.[34]

This paper deducts higher-risk B&C subprime loans from its HMDA-based estimates of the goals-qualifying (e.g., low-mod) shares of the market – in other words, it includes the A-minus portion of the subprime market in its market estimates. Thus, the issue at hand is what share of HMDA high-cost loans should be excluded in the market analysis. While there is much uncertainty here, some approaches for estimating that share are discussed below. Some key concepts in that discussion are:

1. High cost loans (those HMDA loans above the 3% threshold)
2. High cost loans as a percentage of the total subprime market
3. A-minus share of all subprime loans (65%, 70%, and 75% assumptions are used below)
4. B&C share of all subprime loans (which is one minus the A-minus share)
5. B&C share of HMDA-reported high cost loans (which is the parameter needed to adjust the HMDA data)

The analysis below focuses on estimating #5 for the year 2004; the 2004 estimate is then adjusted to reflect 2005 conditions. As noted in the text, because of the uncertainty in this exercise, several market definitions (with different exclusions for high cost loans) are included in

[33] These data are limited to metropolitan areas and exclude manufactured housing loans.

[34] It should be noted that data from *Inside Mortgage Finance* (September 8, 2006) did show a 12.4 percentage point jump in the subprime market share between 2003 (an 8.3 percent market share) and 2004 (a 20.7 percent market share); this was due to a sharp increase in subprime originations in 2004 as well as to the fact that heavy refinancing of prime loans in 2003 tended to reduce the subprime market share that year. (These subprime market share percentages adjust the data reported by *Inside Mortgage Finance* to exclude home equity loans from the overall market totals.)

this paper to examine the GSEs' affordable lending performance.

First, in a seminar presentation at HUD, Federal Reserve Board economist Robert Avery said that high cost loans covered about 60-70 percent of the subprime market in 2004. In the case of Avery's 60 percent figure, the estimates of the B&C portion of high cost loans (# 5 above) range from 42 percent to 58 percent assuming the A-minus portion of the market declines from 75 percent to 65 percent.[35] In the case of Avery's 70 percent figure, the estimates range from 36 percent to 50 percent.

Countrywide reported that 9 percent of high-cost loans were prime and the remaining 91 percent, subprime. Countrywide further reported that high-cost subprime loans accounted for 58 percent of all its subprime loans (similar to Avery's 60 percent figure). With these assumptions, the estimates of the B&C portion of high-cost loans range from 39 percent to 55 percent as the assumed A-minus share of the subprime market declines from 75 percent to 65 percent.

Inside Mortgage Finance (September 8, 2006) reported $530 billion in subprime originations in 2004. Assuming a 65-percent (75-percent) A-minus share, this translates into $344 billion ($398 billion) in A-minus loans and $186 billion ($132 billion) in B&C loans. HMDA reports $238 billion non-manufactured high-cost loans in 2004, which translates into $280 billion, assuming an 85 percent HMDA coverage ratio. Dividing the $185 billion ($132 billion) by $280 billion (adjusted HMDA high cost loans) yields 66 percent (47 percent) for the B&C share of the high cost market.[36]

The subprime lenders list shows that 51 percent of loans purchased by subprime lenders in 2004 were not high cost loans – so 49 percent of their loans were high cost. Depending on assumptions about the percentage of subprime lenders' loans that are prime (say 20 percent), and on the A-minus assumptions (75 percent to 65 percent), the estimates of the B&C portion of the high-cost market range from 41 percent to 57 percent.

As can be seen, estimates of the B&C share of high cost loans vary depending on the data bases and the various parameter assumptions. This analysis uses 50 percent as a starting point, as it is included in most of the ranges reported above. Thus, the Base Case market estimate for 2004 excludes loans with a high-cost spread greater than 3.8 percent; this captures 50 percent of all high cost loans in 2004.

To provide some context, it is useful to express the high-cost and B&C loans in terms of all conventional conforming loans in metropolitan areas. In 2004, high cost loans accounted for 13.8 percent of all loans, 11.5 percent of home purchase loans, and 15.3 percent of refinance loans. Under the 3.8 threshold, estimated B&C loans accounted for 6.9 percent of all loans, 5.5

[35] The 42-percent estimate is obtained as follows: (a) the B&C portion of the subprime market (i.e., 25 percent, which is one minus the assumed 75-percent A-minus share of the subprime market) is divided by (b) the assumed high cost share of subprime loans (i.e., Avery's 60 percent). If the assumed A-minus share is 65 percent, then the estimate is 58 percent.

[36] It should be noted that *National Mortgage News* (NMN) reported higher estimates of the subprime market than Inside Mortgage Finance. In 2004, NMN reported $607 billion (versus $530 billion for IMF), which would translate into a 54 percent (76 percent) B&C share of the high-cost market, assuming an A-minus share of 75 percent (65 percent).

percent of home purchase loans, and 7.8 percent of refinance loans.   Thus, the home purchase analysis in the text excludes the 5.5 percent of loans with the highest spreads.

The next task was to estimate the B&C portion of the market for 2005. The starting point for that estimate was the observation that, according to *Inside Mortgage Finance*, the subprime share of mortgage originations increased from 20.7 percent in 2004 to 22.7 percent in 2005, or by a factor of 1.0966. The B&C share (6.9 percent) of all loans in 2004 was multiplied by this factor (1.0966) to obtain 7.6 percent as the B&C share of all loans in 2005. A high cost spread of 5.3 was the cutoff for identifying 7.6 percent of the highest cost loans in 2005. Thus, in this case of a 5.3 threshold for 2005, estimated B&C loans accounted for 7.6 percent all loans, 7.0 percent of home purchase loans, and 8.0 percent of refinance loans.[37]

The above data exclusions can be compared with HUD's traditional approach of dropping half the loans originated by lenders identified by HUD economist Randall Scheessele as being primarily a subprime lender. Lenders on the subprime list accounted for almost 19 percent of all loans in 2004 and 2005.[38] HUD's traditional approach to identifying B&C loans would drop half of these loans from the market data. This amounted to 9.3 percent of all loans in 2004 and 2005, compared with 6.9 percent in 2004 and 7.6 percent in 2005 under the Base Case approach described earlier.[39]   Yet another method for identifying B&C loans – labeled in the text as "Alternative Estimate #1" -- excludes about 9 percent of the loans with the highest spreads. Therefore, this alternative approach is consistent with HUD's traditional method of excluding B&C loans, in that both drop about the same number of loans from the market. However, Alternative Estimate #1 focuses on those with the highest spreads (interest costs) while HUD's traditional approach focused on a portion (one half) of the loans originated by subprime lenders, and these latter loans included non-high-cost loans as well as high cost loans. The estimates of B&C loans under Alternative Estimate #1 are loans with a high cost spread greater than 3.48 in 2004 and greater than 5.08 in 2005. As noted above, compared with the Base Case, more high-cost loans are dropped from the market definition under this Alternative estimate #1.[40] It is provided to show the results of a modest variation in the estimate of the B&C market.

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[37] The estimated B&C loans accounted for 29.4 percent of all high cost loans in 2005, much lower than their 50 percent share in 2004; of course, the reason for this is the large number of high cost loans in 2005.

[38] In 2004, 49 percent of loans originated by lenders on the subprime list were high cost loans, and these high cost loans accounted for 68 percent of all high cost loans originated in that year. The corresponding percentages for 2005 were 83 percent and 61 percent, respectively.

[39] Of course, a major difference between the two approaches concerns the nature of the excluded loans. The excluded loans under the high cost approach are those with the highest spreads, or interest costs. Under the subprime lender approach, the excluded loans are similar in characteristics to a perfectly random sample of all loans originated by lenders on the subprime list -- they are not necessarily those with the largest spreads.

[40] Under Alternative Estimate #1, estimated B&C loans accounted for 66 percent of all high cost loans in 2004, compared with 50 percent for the Base Case. In 2005, estimated B&C loans under Alternative Estimate #1 accounted for 36 percent of all high cost loans, compared with the 29 percent for the Base Case.

Appendix B

Technical Issues: Using HMDA Data to Measure the Characteristics of GSE Purchases

This section discusses two technical issues concerning the use of HMDA data for measuring the GSEs' performance relative to the characteristics of mortgages originated in the primary market. The first issue concerns the reliability of HMDA data for measuring the borrower income and census tract characteristics of loans sold to the GSEs. Fannie Mae, in particular, contends that HMDA data understates the percentages of its business that qualify for the three housing goals. 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 over 15 percent of GSE purchases in 2004-05 involved loans originated in prior years, 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 newly-originated, current-year loans.

A related issue concerns the appropriate definition of the GSE data when making annual comparisons of GSE performance with the market. On the one hand, the GSE annual data can be expressed on a purchase-year basis, which means that all GSE purchases in a particular year would be assigned to that particular year. Alternatively, the GSE annual data can be expressed on an origination-year basis, which means that GSE purchases in a particular year would be assigned to the calendar year that the GSE-purchased mortgage was originated; for example, a GSE's purchase during 2001 of a loan originated in 1999 would be assigned to 1999, the year the loan was originated. These two approaches are discussed further below.

GSEs' Purchases of "Prior-Year" and "Current-Year" Mortgages. 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. 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.[41] 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. In its 2004 Rule, HUD (2004b) concluded that between 1998 and 2003, HMDA 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. As explained below,

[41] Non-HUD researchers have often relied on HMDA data as the source for GSE performance because prior to 2004 the Census-Tract File of the GSE Public Use Data Base (PUDB) on GSE purchases did not separate home purchase loans from refinance loans. In 2004, HUD improved that data base and began releasing data with home purchase and refinance loans separately identified. Thus, future analyses will likely rely on the PUDB rather than HMDA as the source for measuring GSE performance.

different conclusions are reached with the recent data for 2004 and 2005.

In any given calendar year, the GSEs can purchase mortgages originated in that calendar year or mortgages originated in a prior calendar year. In 2004 and 2005, for example, purchases of prior-year mortgages accounted for approximately 16 percent of the home purchase loans acquired by each GSE.[42] HMDA data provide information mainly on newly-originated mortgages that are sold to the GSEs--that is, HMDA data on loans sold to the GSEs will not include many of their purchases of prior-year loans. The implications of this for measuring GSE performance can be seen in Table B.1, which provides 2004 and 2005 data on the borrower and census tract characteristics of GSE purchases, as measured by HMDA data and by the GSEs' own data. Table B.1 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.

Consider Fannie Mae's special affordable purchases in 2005. According to Fannie Mae's own data, 17.2 percent of its purchases during 2005 were special affordable loans. According to HMDA data, only 14.9 percent of loans sold to Fannie Mae fell into the special affordable category. In this case, HMDA data underestimate the special affordable share of Fannie Mae's purchases during 2005. What explains these different patterns in the GSE and HMDA data? In this case, the main reason that HMDA data underestimate the special affordable percentage of Fannie Mae's 2005 purchases can be seen by disaggregating Fannie Mae's purchases during 2005 into their prior-year and current-year components. Table B.1 shows that the overall figure of 17.2 percent for special affordable purchases is a weighted average of 25.3 percent for Fannie Mae's purchases during 2005 of prior-year mortgages and 15.6 percent for its purchases of current-year purchases. The HMDA-reported figure of 14.9 percent is based mainly on newly-mortgaged (current-year) loans that lenders reported as being sold to Fannie Mae during 2005. The HMDA figure is similar in concept to the current-year percentage from the GSEs' own data. And the HMDA figure and the GSE current-year figure are rather close in this case (14.9 percent from HMDA versus 15.6 percent from the GSE data). Thus, the relatively large share of special affordable mortgages in Fannie Mae's purchases of prior-year mortgages explains why Fannie Mae's own data show an overall (both prior-year and current-year) percentage of special affordable loans that is higher than that reported for Fannie Mae in HMDA data. The same pattern can be seen in Fannie Mae's 2005 data for low- and moderate-income loans and underserved area loans – Fannie Mae's current-year percentages are similar to HMDA's percentages for Fannie Mae.[43]

The results are much different for Freddie Mac in both 2004 and 2005. The HMDA-reported percentages are much lower than those reported by Freddie Mac for its current-year purchases as well as for its overall purchases. Table B.1 shows that Freddie Mac's overall 2005 figure of 17.9 percent for special affordable purchases is a weighted average of 21.1 percent for Freddie Mac's purchases during 2005 of prior-year mortgages and 17.2 percent for its purchases of current-year mortgages. The HMDA-reported figure, is only 12.7 percent, or 4.5 percentage

[42] It should be noted that this is down from about 20 percent in 2001 and 2002.

[43] In 2004, Fannie Mae's prior-year percentages are not that different from its current-year percentages for the two borrower-income goals, resulting in Fannie Mae's overall percentages being similar to the percentage reported by HMDA. For some reason, there is an over two percentage point difference for the underserved area loans.

Table B.1

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 2004-2005

Borrower and Tract Characteristics	Fannie Mae Data: Prior Year	Fannie Mae Data: Current Year	Fannie Mae Data: All	HMDA Data for Fannie Mae	Freddie Mac Data: Prior Year	Freddie Mac Data: Current Year	Freddie Mac Data: All	HMDA Data for Freddie Mac	Conforming Market (W/O B&C Loans[1])
Special Affordable									
2004	16.7%	17.1%	17.0%	16.5%	16.1%	15.2%	15.4%	13.4%	16.4%
2005	25.3%	15.6%	17.2%	14.9%	21.1%	17.2%	17.9%	12.7%	15.0%
Less Than Area Median Income									
2004	43.9%	46.7%	46.3%	45.9%	42.8%	42.7%	42.7%	40.2%	45.5%
2005	52.6%	43.1%	44.7%	42.3%	48.6%	47.0%	47.3%	38.8%	42.4%
Underserved Areas									
2004	36.1%	33.1%	33.5%	30.9%	36.5%	31.1%	32.0%	24.8%	34.6%
2005	39.5%	31.1%	32.3%	29.7%	39.4%	33.7%	34.8%	25.4%	35.9%

Notes: 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 HMDA identifies as being sold to the GSEs. The Conforming Market data are from HMDA data.
Mortgages with a loan amount greater than six times borrower income are excluded for the purposes of the low- and moderate-income and special affordable analyses of the market. Loans less than $15,000 are excluded from the market data. In both the GSE and market analyses, mortgages classified as special affordable include mortgages from 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 area median income and a minority population of 30 percent or greater.
Because missing value percentages differ between GSE and HMDA data, mortgages with missing data are excluded from both the GSE and market data.

[1] See text for an explanation of the market adjustment for B&C loans.

Table B.2

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase and Refinance Mortgages, 2004-2005

Borrower and Tract Characteristics	Fannie Mae Data: Prior Year	Fannie Mae Data: Current Year	Fannie Mae Data: All	HMDA Data for Fannie Mae	Freddie Mac Data: Prior Year	Freddie Mac Data: Current Year	Freddie Mac Data: All	HMDA Data for Freddie Mac	Conforming Market (W/O B&C Loans[1])
Special Affordable									
2004	16.6%	17.4%	17.3%	16.2%	17.1%	15.5%	15.8%	13.6%	17.0%
2005	21.9%	16.1%	17.0%	15.4%	19.4%	17.1%	17.5%	13.4%	16.1%
Less Than Area Median Income									
2004	43.0%	46.7%	46.2%	45.3%	43.8%	42.9%	43.0%	40.5%	46.2%
2005	50.3%	44.2%	45.2%	43.5%	47.6%	46.5%	46.7%	40.6%	44.5%
Underserved Areas									
2004	36.1%	35.1%	35.3%	32.1%	37.1%	32.2%	33.0%	27.0%	36.3%
2005	39.5%	33.8%	34.8%	32.4%	39.8%	36.7%	37.2%	28.5%	38.3%

Notes: 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 and refinance mortgages. The "HMDA Data for (GSE)" are those mortgages that HMDA identifies as being sold to the GSEs. The Conforming Market data are from HMDA data. Mortgages with a loan amount greater than six times borrower income are excluded for the purposes of the low- and moderate-income and special affordable analyses of the market. Loans less than $15,000 are excluded from the market data. In both the GSE and market analyses, mortgages classified as special affordable include mortgages from 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 area median income and a minority population of 30 percent or greater. Because missing value percentages differ between GSE and HMDA data, mortgages with missing data are excluded from both the GSE and market data.

[1] See text for an explanation of the market adjustment for B&C loans.

points below Freddie Mac-reported current-year percentage of 17.2 percent. The differential for underserved area loans is even larger at 8.3 percentage points (25.4 percent reported by HMDA versus 33.7 percent reported by Freddie Mac for its current-year purchases). What explains these large differentials for Freddie Mac? The answer may lie in Freddie Mac's purchases of Asset-Backed Securities (ABS), which increased substantially in 2004 and 2005. Loans included in ABSs would not have been reported by HMDA-reporting lenders as sold to Freddie Mac; rather, these loans go unreported and thus are not included in Table B.1's HMDA data on Freddie Mac purchases. Thus, the HMDA data in 2004 and 2005 substantially understate Freddie Mac's contributions to affordable lending.[44]

Purchase-Year Versus Origination-Year Reporting of GSE Data. In comparing the GSEs' performance to the primary market, HUD has typically expressed the GSEs' annual performance on a purchase-year basis. That is, all mortgages (including both current-year mortgages and prior-year mortgages) purchased by a GSE in a particular year are assigned to the year of GSE purchase. The approach of including a GSE's purchases of both "current-year" and "prior-year" mortgages gives the GSE full credit for their purchase activity in the year that the purchase actually takes place; this approach is also consistent with the statutory requirement for measuring GSE performance under the housing goals. However, this approach results in an obvious "apples to oranges" problem with respect to the HMDA-based market data, which include only newly-originated mortgages (i.e., current-year mortgages). To place the GSE and market data on an "apples to apples" basis, HUD has also used an alternative approach that expresses the GSE annual data on an origination-year basis. In this case, all purchases by a GSE in any particular year would be fully reported but they would be allocated to the year that they were originated, rather than to the year they were purchased. Under this approach, a GSE's data for the year 2004 would not only include that GSE's purchases during 2004 of newly-originated mortgages but also any year-2004-originations purchased in later years (i.e., 2005 in this paper). This approach places the GSE and the market data on a consistent, current-year basis.

Following past HUD studies that have compared GSE performance with the primary market, the analysis in this paper reports the GSE data on a purchase-year basis; for those interested, a comparison of the results of the two approaches can be found in HUD's 2004 GSE Rule.

[44] Table B.2 reports the same information as reported in Table B.1 for each GSE's total purchases (including both home purchase and refinance loans).

Appendix C

GSEs’ Purchases of Total (Home Purchase and Refinance) Loans

The text 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 C.3a to C.9 report the GSEs' purchases of all single-family-owner mortgages, including both home purchase loans and refinance loans. (The tables are numbered to correspond to the home purchase tables in the text.)

The basic results concerning 2004-2005 trends in the income and tract characteristics of GSE purchases and the GSEs’ performance relative to each other and relative to the market are rather similar to those reported above. For example, both GSEs led the market during 2005 on the two borrower-income categories but lagged the market on the underserved areas category. Therefore, these tables will not be discussed in detail.

Table C.3a

GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal Qualifying Home Purchase and Refinance Mortgages, 2004 and 2005
Various Market Definitions

			Market Without Manufactured Housing Loans	
	2004	2005	2004	2005
I. Special Affordable				
Fannie Mae Purchases	17.3%	17.0%	17.3%	17.0%
Freddie Mac Purchases	15.8%	17.5%	15.8%	17.5%
1. Conventional Conforming Market Originations	18.0%	17.0%	17.8%	16.8%
2. Drop All High Cost Loans	16.3%	14.7%	16.0%	14.3%
3. Drop B&C Loans --- (Base Case)	17.0%	16.1%	16.7%	15.8%
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	16.7%	16.0%	16.4%	15.7%
5. Drop Subprime Loans --- Lender List	16.5%	15.8%	16.2%	15.5%
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	17.4%	16.5%	17.1%	16.2%
II. Low-and Moderate-Income				
Fannie Mae Purchases	46.2%	45.2%	46.2%	45.2%
Freddie Mac Purchases	43.0%	46.7%	43.0%	46.7%
1. Conventional Conforming Market Originations	47.5%	45.7%	47.2%	45.3%
2. Drop All High Cost Loans	45.3%	42.4%	44.9%	41.9%
3. Drop B&C Loans --- (Base Case)	46.2%	44.5%	45.9%	44.1%
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	45.9%	44.3%	45.5%	43.9%
5. Drop Subprime Loans --- Lender List	45.2%	43.8%	44.7%	43.4%
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	46.5%	44.9%	46.1%	44.5%
III. Underserved Areas				
Fannie Mae Purchases	35.3%	34.8%	35.3%	34.8%
Freddie Mac Purchases	33.0%	37.2%	33.0%	37.2%
1. Conventional Conforming Market Originations	37.8%	39.8%	37.7%	39.7%
2. Drop All High Cost Loans	35.0%	34.5%	34.8%	34.3%
3. Drop B&C Loans --- (Base Case)	36.3%	38.3%	36.2%	38.2%
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	35.9%	37.9%	35.7%	37.8%
5. Drop Subprime Loans --- Lender List	33.9%	36.2%	33.7%	36.0%
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	36.1%	38.2%	35.9%	38.1%

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 for the market. Loans less than $15,000 are excluded from the market data. See the text for an explanation of the adjustments for manufactured housing, high-cost, 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 C.3b

Fannie Mae to Market Ratio
GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal Qualifying Home Purchase and Refinance Mortgages, 2004 and 2005
Various Market Definitions

			Market Without Manufactured Housing Loans	
	2004	2005	2004	2005
I. Special Affordable				
Fannie Mae Purchases	**17.3%**	**17.0%**	**17.3%**	**17.0%**
Freddie Mac Purchases (See Table 3c)				
1. Conventional Conforming Market Originations	0.96	1.00	0.97	1.01
2. Drop All High Cost Loans	1.06	1.16	1.08	1.19
3. Drop B&C Loans --- (Base Case)	1.02	1.06	1.04	1.08
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	1.04	1.06	1.05	1.08
5. Drop Subprime Loans --- Lender List	1.05	1.08	1.07	1.10
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	0.99	1.03	1.01	1.05
II. Low-and Moderate-Income				
Fannie Mae Purchases	**46.2%**	**45.2%**	**46.2%**	**45.2%**
Freddie Mac Purchases (See Table 3c)				
1. Conventional Conforming Market Originations	0.97	0.99	0.98	1.00
2. Drop All High Cost Loans	1.02	1.07	1.03	1.08
3. Drop B&C Loans --- (Base Case)	1.00	1.02	1.01	1.02
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	1.01	1.02	1.02	1.03
5. Drop Subprime Loans --- Lender List	1.02	1.03	1.03	1.04
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	0.99	1.01	1.00	1.02
III. Underserved Areas				
Fannie Mae Purchases	**35.3%**	**34.8%**	**35.3%**	**34.8%**
Freddie Mac Purchases (See Table 3c)				
1. Conventional Conforming Market Originations	0.93	0.87	0.94	0.88
2. Drop All High Cost Loans	1.01	1.01	1.01	1.01
3. Drop B&C Loans --- (Base Case)	0.97	0.91	0.98	0.91
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	0.98	0.92	0.99	0.92
5. Drop Subprime Loans --- Lender List	1.04	0.96	1.05	0.97
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	0.98	0.91	0.98	0.91

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 for the market. Loans less than $15,000 are excluded from the market data. See the text for an explanation of the adjustments for manufactured housing , high-cost, 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 C.3c

Freddie Mac to Market Ratio
GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal Qualifying Home Purchase and Refinance Mortgages, 2004 and 2005
Various Market Definitions

			Market Without Manufactured Housing Loans	
	2004	2005	2004	2005
I. Special Affordable				
Fannie Mae Purchases (See Table 3b)				
Freddie Mac Purchases	**15.8%**	**17.5%**	**15.8%**	**17.5%**
1. Conventional Conforming Market Originations	0.88	1.03	0.89	1.04
2. Drop All High Cost Loans	0.97	1.19	0.99	1.22
3. Drop B&C Loans --- (Base Case)	0.93	1.09	0.95	1.11
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	0.95	1.09	0.96	1.11
5. Drop Subprime Loans --- Lender List	0.96	1.11	0.98	1.13
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	0.91	1.06	0.92	1.08
II. Low-and Moderate-Income				
Fannie Mae Purchases (See Table 3b)				
Freddie Mac Purchases	**43.0%**	**46.7%**	**43.0%**	**46.7%**
1. Conventional Conforming Market Originations	0.91	1.02	0.91	1.03
2. Drop All High Cost Loans	0.95	1.10	0.96	1.11
3. Drop B&C Loans --- (Base Case)	0.93	1.05	0.94	1.06
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	0.94	1.05	0.95	1.06
5. Drop Subprime Loans --- Lender List	0.95	1.07	0.96	1.08
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	0.92	1.04	0.93	1.05
III. Underserved Areas				
Fannie Mae Purchases (See Table 3b)				
Freddie Mac Purchases	**33.0%**	**37.2%**	**33.0%**	**37.2%**
1. Conventional Conforming Market Originations	0.87	0.93	0.88	0.94
2. Drop All High Cost Loans	0.94	1.08	0.95	1.08
3. Drop B&C Loans --- (Base Case)	0.91	0.97	0.91	0.97
4. Drop B&C (Alternative Estimate #1) --- 9% with the Highest Costs	0.92	0.98	0.92	0.98
5. Drop Subprime Loans --- Lender List	0.97	1.03	0.98	1.03
6. Drop B&C Loans (Alternative Estimate #2) ---Half of Subprime Lender List	0.91	0.97	0.92	0.98

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 for the market. Loans less than $15,000 are excluded from the market data. See the text for an explanation of the adjustments for manufactured housing, high-cost, 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 C.4

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase and Refinance Mortgages, 2004-2005

Borrower and Tract Characteristics	Fannie Mae	Freddie Mac	Ratio of Fannie Mae to Freddie Mac	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						
2004	17.3%	15.8%	1.09	17.0%	1.01	0.93
2005	17.0%	17.5%	0.97	16.1%	1.06	1.09
2004-2005 Average	17.2%	16.7%	1.03	16.6%	1.04	1.01
Less Than Area Median Income						
2004	46.2%	43.0%	1.07	46.2%	1.00	0.93
2005	45.2%	46.7%	0.97	44.5%	1.02	1.05
2004-2005 Average	45.8%	45.0%	1.02	45.4%	1.01	0.99
Underserved Areas						
2004	35.3%	33.0%	1.07	36.3%	0.97	0.91
2005	34.8%	37.2%	0.93	38.3%	0.91	0.97
2004-2005 Average	35.1%	35.2%	1.00	37.3%	0.94	0.94

Source: The Fannie Mae and Freddie Mac percentages for 2004 and 2005 are from the loan-level mortgage purchase data that they provide to HUD. All mortgages are conventional conforming home purchase and refinance mortgages. The Conforming Market data are from HMDA. Loans less than $15,000 are excluded from the market data. 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 for the market. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded. The "2004-2005 Average" is a weighted average.

Table C.5

GSE Acquisitions in Metropolitan Areas of Home Purchase and Refinance Mortgages by Type of Seller, 2004-2005

Fannie Mae	**2004**				**2005**			
Mortgage Banks and Depositories	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent
Mortgage Banks	62.7%	16.9%	46.9%	30.5%	63.5%	16.4%	43.8%	35.1%
Savings Institutions	15.9%	17.6%	47.2%	26.7%	15.5%	12.2%	45.7%	35.1%
Banks	12.9%	14.5%	40.0%	30.9%	15.0%	15.6%	41.2%	32.9%
Credit Unions	1.7%	14.8%	43.8%	25.0%	1.9%	15.2%	43.4%	34.0%
Subtotal	93.2%				95.9%			
Other	6.9%	18.6%	48.9%	36.6%	4.1%	20.2%	48.7%	50.8%
Total	100.0%	16.8%	46.0%	30.3%	100.0%	16.5%	43.9%	35.4%

Freddie Mac	**2004**				**2005**			
Mortgage Banks and Depositories	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent	Percent of Total	Special Affordable Percent	Low-Mod Percent	Underserved Area Percent
Mortgage Banks	37.2%	13.6%	40.5%	23.3%	30.7%	13.8%	40.6%	30.9%
Savings Institutions	5.1%	13.6%	41.9%	25.8%	10.6%	13.5%	41.3%	32.6%
Banks	32.8%	13.5%	39.9%	23.1%	23.8%	15.1%	40.7%	28.3%
Credit Unions	0.6%	15.0%	42.5%	19.4%	0.4%	15.1%	43.7%	25.8%
Subtotal	75.7%				65.5%			
Other	24.3%	22.9%	54.3%	44.5%	34.5%	23.8%	48.1%	55.1%
Total	100.0%	15.7%	43.5%	28.5%	100.0%	17.4%	46.5%	38.8%

Source: National File B of GSE Public Use Data Base.

Table C.6

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Special Affordable Home Purchase and Refinance Mortgages, 1999-2005

				Fannie Mae		Freddie Mac	
Special Affordable (%)	Fannie Mae	Freddie Mac	Market W/O Half Subprime Lender List	Ratio Fannie Mae to Market	Fannie Mae Minus Market	Ratio Freddie Mac to Market	Freddie Mac Minus Market
1999	12.5	13.5	17.0	0.74	-4.5	0.79	-3.5
2000	14.6	16.0	17.8	0.82	-3.2	0.90	-1.8
2001	13.7	13.0	14.0	0.98	-0.3	0.93	-1.0
2002	13.7	13.0	13.6	1.01	0.1	0.96	-0.6
2003	14.8	12.4	14.5	1.02	0.3	0.86	-2.1
2004	17.3	15.8	17.4	0.99	-0.1	0.91	-1.6
2005	17.0	17.5	16.5	1.03	0.5	1.06	1.0

NOTE: Loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations for the market. Market data exclude loans less than $15,000. Conventional conforming market totals are adjusted by deducting one-half of the loans from the subprime lender list.

Table C.7

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Low- and Moderate-Income Home Purchase and Refinance Mortgages, 1999-2005

				Fannie Mae		Freddie Mac	
Low-and-Moderate Income (%)	Fannie Mae	Freddie Mac	Market W/O Half Subprime Lender List	Ratio Fannie Mae to Market	Fannie Mae Minus Market	Ratio Freddie Mac to Market	Freddie Mac Minus Market
1999	38.6	40.4	43.8	0.88	-5.2	0.92	-3.4
2000	41.7	43.4	44.5	0.94	-2.8	0.98	-1.1
2001	40.5	38.8	39.9	1.02	0.6	0.97	-1.1
2002	40.3	38.1	39.6	1.02	0.7	0.96	-1.5
2003	42.6	37.5	41.8	1.02	0.8	0.90	-4.3
2004	46.2	43.0	46.5	0.99	-0.3	0.92	-3.5
2005	45.2	46.7	44.9	1.01	0.3	1.04	1.8

NOTE: Loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations for the market. Market data exclude loans less than $15,000. Conventional conforming market totals are adjusted by deducting one-half of the loans from the subprime lender list.

Table C.8

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas Underserved Areas Home Purchase and Refinance Mortgages, 1999-2005

Underserved Areas (%)	Fannie Mae	Freddie Mac	Market W/O Half Subprime Lender List	Fannie Mae: Ratio Fannie Mae to Market	Fannie Mae: Fannie Mae Minus Market	Freddie Mac: Ratio Freddie Mac to Market	Freddie Mac: Freddie Mac Minus Market
1999	26.5	27.8	31.7	0.84	-5.2	0.88	-3.9
2000	30.6	29.6	33.9	0.90	-3.3	0.87	-4.3
2001	29.3	27.2	29.9	0.98	-0.6	0.91	-2.7
2002	29.1	28.2	29.2	1.00	-0.1	0.97	-1.0
2003	28.4	24.6	29.1	0.98	-0.7	0.85	-4.5
2004	35.3	33.0	36.1	0.98	-0.8	0.91	-3.1
2005	34.8	37.2	38.2	0.91	-3.4	0.97	-1.0

NOTE: Loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations for the market. Market data exclude loans less than $15,000. Conventional conforming market totals are adjusted by deducting one-half of the loans from the subprime lender list.

Table C.9

Borrower and Neighborhood Characteristics for Sectors of the Conventional Conforming Mortgage Market in Metropolitan Areas Home Purchase and Refinance Mortgages, 2004-2005

					Conventional Conforming Market	
Borrower Characteristics	Fannie Mae	Freddie Mac	Both GSEs	Depositories	Total	W/O B&C [1]
Low-Income:						
2004	30.0%	27.6%	29.0%	30.2%	30.9%	29.8%
2005	29.5%	30.1%	29.8%	29.2%	29.3%	28.3%
2004-2005 Average	29.7%	28.7%	29.3%	29.7%	30.1%	29.0%
African American:						
2004	6.8%	5.5%	6.2%	6.8%	8.3%	7.2%
2005	6.1%	6.9%	6.5%	8.3%	9.5%	8.3%
2004-2005 Average	6.5%	6.2%	6.4%	7.5%	8.9%	7.8%
Hispanic:						
2004	12.2%	8.2%	10.5%	11.2%	12.6%	12.3%
2005	11.8%	9.2%	10.5%	12.5%	14.2%	13.9%
2004-2005 Average	12.0%	8.7%	10.5%	11.8%	13.4%	13.1%
Minority:						
2004	25.1%	20.5%	23.1%	23.8%	26.5%	25.4%
2005	23.8%	22.3%	23.0%	25.9%	28.8%	27.4%
2004-2005 Average	24.5%	21.4%	23.1%	24.8%	27.6%	26.4%
Neighborhood Characteristics						
Low-Income Tract:						
2004	14.5%	13.7%	14.2%	14.8%	16.5%	15.4%
2005	14.5%	16.3%	15.4%	16.2%	17.8%	16.7%
2004-2005 Average	14.5%	15.1%	14.8%	15.5%	17.1%	16.0%
High-Minority Tract:						
2004	32.6%	29.6%	31.4%	30.2%	33.4%	32.4%
2005	30.8%	32.2%	31.5%	31.0%	34.2%	33.1%
2004-2005 Average	31.8%	31.0%	31.4%	30.6%	33.8%	32.7%
High African-American Tract:						
2004	7.1%	6.8%	7.0%	7.3%	8.4%	7.4%
2005	6.9%	8.4%	7.7%	8.4%	9.3%	8.3%
2004-2005 Average	7.1%	7.6%	7.3%	7.8%	8.9%	7.9%
Underserved Areas:						
2004	35.3%	33.0%	34.4%	34.8%	37.8%	36.3%
2005	34.8%	37.2%	36.0%	37.0%	39.8%	38.3%
2004-2005 Average	35.1%	35.2%	35.1%	35.9%	38.8%	37.3%

Notes: The "2004-2005 Average" is a loan-based weighted average. All the data are for home purchase and refinance mortgages. The market percentages are derived from HMDA data (various years). 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 2004 and 2005; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 2004 or 2005) as well as their purchases of mortgages originated during 2004 and 2005. The conventional conforming market includes all conventional loans except "jumbo" loans above the conforming loan limit which was $359,650 in 2005. "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 subsidiaries. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six. Loans less than $15,000 are excluded from the market data.

[1] HMDA-based market shares that have been adjusted to exclude an estimate of the B&C portion of the subprime market. See text (Base Case Market #3) for an explanation.

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Housing Finance
W O R K I N G P A P E R S E R I E S[1]

HF-017 **Goal Performance and Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 2001-2005,** *by Paul B. Manchester,* May 2007.

This paper (an update of HF-015) analyzes the performance of Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market, in meeting the housing goals established by HUD for 2001-05. In 2004 HUD also established subgoals for GSE acquisitions of home purchase mortgages on properties in metropolitan areas for 2005-08, and this paper reports results for these subgoals in 2005. The paper also contains detailed information on borrower, locational, and loan characteristics of single-family mortgages purchased by the GSEs in this period. The report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that, with one exception, the GSEs passed all of their housing goals in 2001-05 and generally achieved the highest levels of performance on the housing goals to date in 2005. Also, in 2005 Freddie Mac passed all three home purchase subgoals, while Fannie Mae passed the underserved areas and special affordable home purchase subgoals, but fell short on the low- and moderate-income home purchase subgoal.

HF-016 **Are Rejected Households Credit-Constrained Or Simply Less Creditworthy?,** *by Darryl E. Getter,* June 2002.

This paper re-examines consumer participation in credit markets looking specifically at issues related to the market treatment of borrowers of different credit risk. The traditional credit-rationing literature describes some borrowers as being "credit-constrained" as a result of creditors not being able to determine their future income prospects. However, this paper presents evidence that most rejected borrowers have experienced delinquency problems in the past year and/or filed for bankruptcy; therefore, rejected borrowers are often of lower credit quality. Furthermore, a substantial amount of credit has been made available over the past few years, and the lending industry has developed credit and mortgage scoring techniques that allow it to price the credit risk of individual borrowers. As a result, credit has been made to risky borrowers although they must pay higher prices for it. The analysis also shows that creditworthy minorities are not more likely to pay unusually high loan rates. Finally, borrowers that are considered to be creditworthy yet still pay high interest rates are also the ones who report they do little shopping for a loan. In addition to mortgage credit, automobile and revolving credit markets are also analyzed in this study.

HF-015 **Goal Performance and Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 1998-2000,** *by Paul B. Manchester,* May 2002.

This paper (an update of HF-006) analyzes the performance of Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market, in meeting the housing goals established by HUD for 1998-2000. It also presents

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information on detailed borrower, locational, and loan characteristics of single-family mortgages purchased by the GSEs in this period. The report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that the GSEs passed all of their housing goals in 1998-2000 and generally achieved the highest levels of performance on the housing goals to date in 2000. It also finds that in most areas, by 2000 Freddie Mac had eliminated the performance gap with Fannie Mae that had existed in previous years.

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

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

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

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

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

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

Second, Fannie Mae has traditionally out-performed Freddie Mac in purchasing loans for lower-income borrowers and underserved neighborhoods; however, the relative performance of the two GSEs has recently shifted, as Freddie Mac's performance slightly surpassed Fannie Mae's during 1999.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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