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Report to the Chairman, Subcommittee on Housing and Community Opportunity, Committee on Financial Services, House of Representatives

November 2005

MORTGAGE FINANCING

Additional Action Needed to Manage Risks of FHA-Insured Loans with Down Payment Assistance

GAO-06-24

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Highlights

Highlights of GAO-06-24, a report to the Chairman, Subcommittee on Housing and Community Opportunity, Committee on Financial Services, House of Representatives

Why GAO Did This Study

The Federal Housing Administration (FHA) permits borrowers to obtain down payment assistance from third parties; but, research has raised concerns about the performance of loans with such assistance. Due to these concerns, GAO examined the (1) trends in the use of down payment assistance with FHA-insured loans, (2) the impact that the presence of such assistance has on purchase transactions and house prices, (3) how such assistance influences the performance of these loans, and (4) FHA's standards and controls for these loans.

What GAO Recommends

The Secretary of Housing and Urban Development should direct the FHA Commissioner to implement additional controls to manage the risks associated with loans that involve down payment assistance. Such controls could involve considering the presence and source of down payment assistance when underwriting loans. Further, the FHA Commissioner should consider additional controls for loans with down payment assistance from seller-funded nonprofits. In written comments, HUD generally agreed with the report's findings. HUD also commented on certain aspects of selected recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-06-24.

To view the full product, including the scope and methodology, click on the link above. For more information, contact William B. Shear at (202) 512-8678 or shearw@gao.gov.

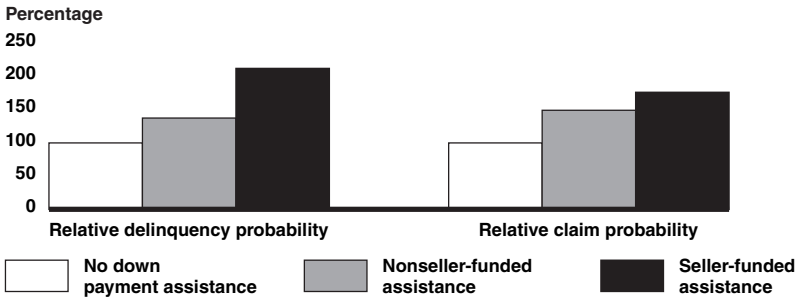
What GAO Found

Almost half of all single-family home purchase mortgages that FHA insured in fiscal year 2004 had down payment assistance. Nonprofit organizations that received at least part of their funding from sellers provided assistance for about 30 percent of these loans and represent a growing source of down payment assistance. However, assistance from seller-funded nonprofits alters the structure of the purchase transaction. First, because many seller-funded nonprofits require property sellers to make a payment to their organization; assistance from these nonprofits creates an indirect funding stream from property sellers to homebuyers. Second, GAO analysis indicated that FHA-insured homes bought with seller-funded nonprofit assistance were appraised at and sold for about 2 to 3 percent more than comparable homes bought without such assistance.

Regardless of the source of assistance and holding other variables constant, GAO analysis indicated that FHA-insured loans with down payment assistance have higher delinquency and claim rates than do similar loans without such assistance. Furthermore, loans with assistance from seller-funded nonprofits do not perform as well as loans with assistance from other sources. This difference may be explained, in part, by the higher sales prices of comparable homes bought with seller-funded assistance.

Although FHA has implemented some standards and controls on loans with down payment assistance, stricter standards and additional controls could help in managing the risks these loans pose. FHA standards permit assistance from seller-funded nonprofits; in contrast, mortgage industry participants restrict such assistance. Further, government guidelines call for routine identification of risks that could impede meeting program objectives; however, FHA has not conducted routine analysis of the performance of loans with down payment assistance.

Effect of Down Payment Assistance on the Probability of Delinquency and Claim



Source: GAO.

Note: Loans without assistance are set at 100 percent. Data are from a national sample of FHA-insured loans from 2000, 2001, and 2002; and the analysis controlled for selected variables.

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Abbreviations

ARM	adjustable rate mortgage
AVM	Automated Valuation Model
CHUMS	Computerized Homes Underwriting Management System
FHA	Federal Housing Administration
GSE	government-sponsored enterprises
HAND	Homeownership Alliance of Nonprofit Downpayment Providers
HUD	The U.S. Department of Housing and Urban Development
IRS	Internal Revenue Service
LTV	loan-to-value
MSA	Metropolitan Statistical Area
OIG	Office of Inspector General
RHS	U.S. Department of Agriculture's Rural Housing Service
TOTAL	Technology Open to Approved Lenders
VA	Department of Veterans Affairs

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United States Government Accountability Office
Washington, D.C. 20548

November 9, 2005

The Honorable Bob Ney
Chairman
Subcommittee on Housing and Community Opportunity
Committee on Financial Services
House of Representatives

Dear Mr. Chairman:

Mortgage insurance provided by the Federal Housing Administration (FHA) of the U.S. Department of Housing and Urban Development (HUD) insures billions of dollars in private home loans each year. One of FHA's primary goals is to expand homeownership opportunities for first-time homebuyers and other borrowers who would not otherwise qualify for conventional mortgages on affordable terms. Homebuyers who receive FHA-insured mortgages often have limited funds and, to meet the 3 percent borrower investment FHA requires, may obtain down payment assistance from a third party, including not only a relative but also a charitable organization (nonprofit) that is funded by the property seller. A purpose of a down payment is to create "instant equity" for the new homeowner, and our work and others have shown that loans with greater owner investment generally perform better.[1] HUD's Office of Inspector General (OIG) has raised concerns about the performance of FHA-insured loans with down payment assistance from seller-funded nonprofits.[2] In light of these concerns, you asked us to evaluate how FHA-insured home loans with down payment assistance perform compared with loans that are originated without such assistance. The insurance program is supported in part through insurance premiums that FHA charges its borrowers, and FHA estimates that the mortgage insurance fund operates at a profit. In

[1]GAO, *Mortgage Financing: FHA's Fund Has Grown, but Options for Drawing on the Fund Have Uncertain Outcomes*, GAO-01-460 (Washington, D.C.: Feb. 28, 2001). GAO, *Mortgage Financing: FHA Has Achieved Its Home Mortgage Capital Reserve Target*, GAO/RCED-96-50 (Washington, D.C.: Apr. 12, 1996). Dennis R. Capozza, Dick Kazarian, and Thomas A. Thomson. "Mortgage Default in Local Markets," Real Estate Economics, vol. 25 no. 4 (Winter 1997).

[2]HUD Office of Inspector General, *Final Report of National Audit; Down Payment Assistance Programs; Office of Insured Single Family Housing*, 2000-SE-121-0001(Seattle, Wash.: Mar. 31, 2000); HUD Office of Inspector General, *Follow Up of Down Payment Assistance Programs Operated by Private Nonprofit Entities*, 2002-SE-0001 (Seattle, Wash.: Sept. 25, 2002).

response to your request, this report examines (1) trends in the use of down payment assistance in FHA-insured loans (e.g., volume and source), (2) the impact that the presence of down payment assistance has on the structure of the purchase transaction and the house price of FHA-insured loans, (3) the effect of down payment assistance on the performance of FHA-insured loans, and (4) the extent to which FHA standards and controls for loans with down payment assistance are consistent with government internal control guidelines and mortgage industry practices.

To describe trends in the use of down payment assistance with FHA-insured loans, we obtained loan-level data from HUD on single-family purchase money mortgage loans.[3] We analyzed the data by source of assistance to determine trends in loan volume and the proportion of loans with down payment assistance (including geographic variations). To examine the structure of the purchase transaction for loans with and without down payment assistance, we reviewed HUD policy guidebooks and reports and interviewed real estate agents, lenders, appraisers, and other key players involved in transactions with down payment assistance. To examine how down payment assistance impacted the house price of FHA-insured loans, we examined the sales prices of homes by the use and source of down payment assistance using property value estimates derived from an Automated Valuation Model (AVM).[4] To examine how down payment assistance influences the performance of FHA-insured loans, we obtained from HUD a sample of single-family purchase money loans endorsed in fiscal years 2000, 2001, and 2002 and performance data on those loans (current as of June 30, 2005).[5] To examine the extent to which FHA standards and controls for loans with down payment assistance were consistent with government internal control guidelines, we reviewed FHA regulations and guidelines for loans with down payment assistance and

[3]Purchase money mortgage loans are used for the purchase of a home rather than to refinance an existing mortgage. In this report, we analyze purchase money mortgage loans.

[4]Automated Valuation Model (AVM) is a broad term used to describe a range of computerized econometric models that are designed to provide estimates of residential real estate property values. AVMs may use regression, adaptive estimation, neural networking, expert reasoning, and artificial intelligence to estimate the market value of a residence. We assessed the reliability of the HUD and AVM data by discussing the data with knowledgeable HUD officials and staff from the contractor that provided the AVM data and, when possible, comparing the data with similar publicly available data. We determined that the data were sufficiently reliable for our analyses.

[5]All years are fiscal years unless otherwise indicated.

compared these with certain internal control standards.[6] We also interviewed mortgage industry participants about the controls they used to manage the risks associated with affordable loan products that permit down payment assistance and, as appropriate, compared their practices with FHA's. We did not verify that these institutions did in fact use these controls. We selected these entities because they offered products intended to expand affordable homeownership opportunities in part by permitting down payment assistance. Appendix I provides a full description of our scope and methodology. We performed our audit work in Boston, Massachusetts, and Washington, D.C., from January 2005 to September 2005 in accordance with generally accepted government auditing standards.

Results in Brief

The proportion of FHA-insured loans that are financed in part by down payment assistance from various sources has increased substantially in the last few years, while the overall number of loans that FHA insures has fallen dramatically. Assistance from nonprofit organizations funded by sellers has accounted for a growing percentage of that assistance.[7] From 2000 to 2004, the total proportion of FHA-insured loans with down payment assistance grew from 35 to nearly 50 percent. Approximately 6 percent of FHA-insured loans in 2000 received down payment assistance from seller-funded nonprofits, but by 2004 nonprofit assistance had grown to about 30 percent. Our analysis showed that those states where the use of nonprofit down payment assistance, primarily from seller-funded nonprofits, was higher than average tended to have lower-than-average house price appreciation rates.

[6]GAO, *Internal Control Management and Evaluation Tool*, GAO-01-1008G (Washington, D.C.: August 2001).

[7]Seller-funded down payment assistance programs are supported, in part, by financial contributions and service fees collected by nonprofit organizations from participating property sellers.

Down payment assistance provided by a seller-funded nonprofit can alter the structure of the purchase transaction in important ways. First, when a homebuyer receives assistance from a seller-funded nonprofit, many nonprofits require the property sellers to make a payment to the nonprofit that equals the amount of assistance the homebuyer receives plus a service fee, after the closing. This requirement creates an indirect funding stream from property sellers to homebuyers that does not exist in other transactions, even those involving some other type of down payment assistance. Second, mortgage industry participants reported, and a HUD contractor study found, that property sellers who provided down payment assistance through nonprofits often raised the sales price of the homes involved in order to recover the required payments that went to the organizations.[8] Our AVM analyses found that homes bought with seller-funded nonprofit assistance appraised at and sold for higher prices than comparable homes bought without assistance, resulting in larger loans for the same collateral and higher effective loan-to-value (LTV) ratios.[9] Specifically, we found that homes with seller-funded down payment assistance were appraised and sold for about 2 to 3 percent more than comparable homes without such assistance. That is, homebuyers would have less equity in the transaction than would otherwise be the case. FHA requires lenders to inform appraisers of the presence and source of down payment assistance but does not require that lenders identify whether the down payment assistance provider receives funding from property sellers. Without this information, appraisers cannot consider the impact that such assistance could have on the purchase price of a home and potentially on the appraiser's estimate of the home's market value.

Loans with down payment assistance do not perform as well as loans without down payment assistance; this may be explained, in part, by the homebuyer having less equity in the transaction. Holding other variables constant, our analysis indicated that FHA-insured loans with down payment assistance had higher delinquency and claim rates than similar loans without such assistance. These differences in performance may be explained, in part, by the higher sales prices of comparable homes bought with seller-funded down payment assistance.

[8]Concentrance Consulting Group, *An Examination of Downpayment Gift Programs Administered by Nonprofit Organizations*, prepared for the U.S. Department of Housing and Urban Development (Washington D.C.: March 2005).

[9]We define effective LTV ratio to equal the loan amount divided by the true market value of the home that would exist without the presence of down payment assistance.

FHA has implemented some standards and internal controls to manage the risks associated with loans with down payment assistance, but stricter standards and additional controls could help FHA better manage risks posed by loans with down payment assistance while meeting its mission of expanding homeownership opportunities. First, with regard to standards, like other mortgage industry participants, FHA generally applies the same underwriting standards to loans with down payment assistance that it applies to loans without such assistance. One important exception is that FHA, unlike others, does not limit the use of down payment assistance from seller-funded nonprofits. Some mortgage industry participants view down payment assistance from seller-funded nonprofits as a seller inducement to the sale and, therefore, either restrict or prohibit its use. FHA has not viewed such assistance as a seller inducement and, therefore, does not subject this assistance to the limits it otherwise places on contributions from sellers. Although FHA, like others, applies the same underwriting standards to loans with down payment assistance as it applies to loans without such assistance, because FHA's portfolio is heavily weighted toward loans with down payment assistance, stricter standards may be warranted for such loans. Second, with regard to controls, FHA has taken steps to assess and manage the risks associated with loans with down payment assistance, but additional controls may be warranted. For example, FHA has conducted ad hoc loan performance analyses of loans with down payment assistance and contracted for two studies to assess the use of such assistance with FHA-insured loans, but FHA has not routinely assessed the impact that the widespread use of down payment assistance has had on loan performance. Also, FHA has targeted monitoring of appraisers that do a high volume of loans with down payment assistance, but FHA has not targeted its monitoring of lenders that do a high volume of loans with down payment assistance, even though FHA holds lenders, as well as appraisers, accountable for ensuring a fair valuation of the property it insures.

We make recommendations designed to better manage the risks of loans with down payment assistance generally and more specifically from seller-funded nonprofits. Overall, we recommend that in considering the cost and benefit of its policy permitting down payment assistance, FHA also consider risk mitigation techniques such as including down payment assistance as a factor when underwriting loans or monitoring more closely loans with such assistance. With regard to down payment assistance providers that receive funding from property sellers, we recommend that FHA take additional steps to mitigate the risk associated with these loans.

These controls include treating such assistance as a seller contribution and, therefore, subject to existing limits on seller contributions.

We provided a draft of this report to HUD, and the Assistant Secretary for Housing—Federal Housing Commissioner provided written comments, which are discussed later in this report and reprinted in appendix IV. HUD generally agreed with the report's findings, stating that the report confirmed its own analysis of loan performance and the findings of an independent contractor hired by FHA to evaluate how seller-funded down payment assistance programs operate. HUD also agreed to take steps to better identify the source of down payment assistance, which would permit it to better monitor the performance of these loans. HUD also agreed to consider incorporating the presence and source of down payment assistance when underwriting loans.

HUD also commented on certain aspects of selected recommendations. First, although HUD agreed with the report's recommendation to perform routine and targeted loan performance analyses of loans with down payment assistance, it stated that FHA already monitors the performance of these loans. We recognized in our report that FHA does perform ad hoc analyses of loan performance, but because of the substantial number of FHA loans that involve some form of down payment assistance, and the risk of these loans, we continue to believe that FHA should more routinely monitor the performance of these loans. Second, HUD disagreed with our recommendation that it should revise its standards to treat assistance from a seller-funded nonprofit organization as a seller inducement to purchase, arguing, based on advice of HUD's Office of the General Counsel, that if the gift of down payment assistance is made by the nonprofit entity to the buyer before closing, while the seller's contribution to the nonprofit entity occurs after the closing, then the buyer has not received funds that can be traced to the seller's contribution. We realize that FHA relies on this advice to authorize sellers to do indirectly what they cannot do directly. Nevertheless, because gifts of down payment assistance from seller-funded nonprofits are ultimately funded by the sellers, they are like gifts of down payment assistance made directly by sellers. We, therefore, continue to believe that assistance from a seller-funded entity should be treated as a seller inducement to purchase. Finally, while the draft report was with the agency for comment, HUD's contractor completed the 2005 Annual Actuarial Review. Consistent with our recommendation, the contractor included the presence and source of down payment assistance as a factor in estimating loan performance—finding that it is a very important factor. However, in reviewing the contractor's methodology, we found certain

limitations may understate the impact that down payment assistance has on estimates of loan performance. We, therefore, modified our recommendation to address one of these weaknesses and to emphasize the continuing need to consider the presence and source of down payment assistance in future loan performance models.

Background

Mortgage insurance, a commonly used credit enhancement, protects lenders against losses in the event of default. Lenders usually require mortgage insurance when a homebuyer has a down payment of less than 20 percent of the value of the home. FHA, the U.S. Department of Veterans Affairs (VA), the U.S. Department of Agriculture's Rural Housing Service (RHS), and private mortgage insurers provide this insurance. In 2003, lenders originated $3.8 trillion in single-family mortgage loans, of which more than 60 percent were for refinancing. Of all the insured loans originated in 2003, including refinancings, private companies insured about 64 percent, FHA about 26 percent, VA about 10 percent, and RHS a very small number.

One of FHA's primary goals is to expand homeownership opportunities for first-time homebuyers and other borrowers who would not otherwise qualify for conventional mortgages on affordable terms. As a result, FHA plays a particularly large role in certain market segments, including first-time and low-income homebuyers. During 2001 to 2003, FHA insured about 3.7 million mortgages with a total value of about $425 billion. FHA insures most of its single-family mortgages under its Mutual Mortgage Insurance Fund (Fund), which is primarily funded with borrowers' insurance premiums and proceeds from the sale of foreclosed properties. FHA's mortgage insurance program is currently a negative subsidy program—that is, the Fund is self-financed and FHA estimates that it operates at a profit; however, the Fund is experiencing higher-than-estimated claims. The economic value of the Fund that supports FHA's guarantees depends on the relative size of cash outflows and inflows over time. Cash flows out of the Fund from payments associated with claims on defaulted loans and refunds of up-front premiums on prepaid mortgages. To cover these outflows, FHA receives cash inflows from borrowers' up-front and annual insurance premiums and net proceeds from recoveries on defaulted loans. If the Fund were to be exhausted, the U.S. Treasury would have to cover lenders' claims directly. We reported that FHA submitted a $7 billion reestimate for the Fund's credit subsidy and interest as of the end of 2003, primarily due

to an increase in estimated and actual claims over what FHA previously estimated.[10] Several recent events may help explain the increase in claims, including changes to underwriting guidelines, competition from the private sector, and an increase in down payment assistance. A program assessment included with the 2006 President's Budget noted that FHA's loan performance model is neither accurate nor reliable because it consistently under predicts claims. Since 1990, the National Housing Act has required an annual and independent actuarial analysis of the economic net worth and soundness of the Fund.[11]

FHA has been backing mortgages with low down payments for many years. For example, almost 90 percent of FHA-insured mortgages originated in 2000 had an LTV ratio greater than 95 percent. LTV ratios are important because of the direct relationship that exists between the amount of equity borrowers have in their homes and the likelihood of default. The higher the LTV ratio, the less cash borrowers will have invested in their homes and the more likely it is that they may default on mortgage obligations, especially during times of economic hardship.

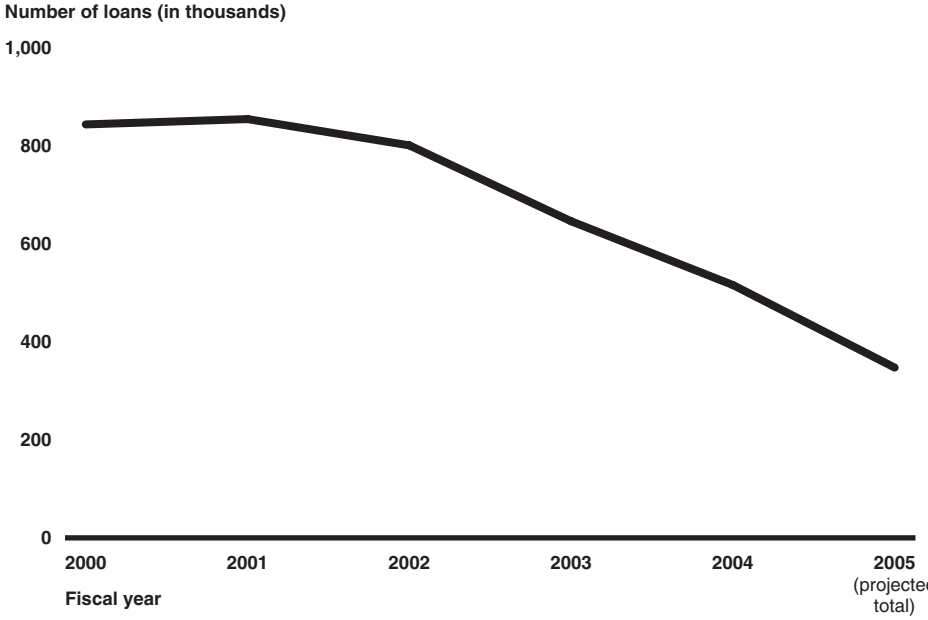
The number of loans that FHA insures each year has fallen dramatically since 2000 (fig. 1). This decline is likely due, in part, to greater availability of low and no down payment products from the conventional market. Specifically, in 1992 Congress authorized HUD to establish housing goals for Fannie Mae and Freddie Mac that direct them to contribute to the affordability and availability of housing for low- and moderate-income families, underserved areas, and special affordable housing for very low-income families.[12] In the 1990s, private mortgage insurers began insuring loans with low down payments; concurrently, Fannie Mae and Freddie Mac began purchasing these loans. More recently, the conventional market has introduced products such as zero-down payment loans that have attracted homebuyers who might otherwise have applied for an FHA-insured mortgage. Certain conventional mortgage products also permit down payment assistance.

[10]See GAO, *Mortgage Financing: FHA's $7 Billion Reestimate Reflects Higher Claims and Changing Loan Performance Estimates*, GAO-05-875 (Washington, D.C.: Sept. 2, 2005).

[11]12 U.S.C. Section 1711 (g).

[12]Fannie Mae and Freddie Mac are government-sponsored enterprises (GSE) chartered by Congress that purchase mortgages from lenders across the country, financing their purchases by borrowing or issuing mortgage-backed securities that are sold to investors.

Figure 1: Number of FHA-Insured Single-Family Purchase Money Loans, Fiscal Years 2000 through 2005



Source: GAO.

Note: Loans insured by FHA's 203(b) program, its main single-family program, and its 234(c) condominium program. Small specialized programs, such as 203(k) rehabilitation and 221(d) subsidized mortgages, were not included.

Homebuyers with FHA-insured loans need to make a 3 percent contribution toward the purchase of the property. FHA, like many conventional mortgage lenders, permits homebuyers to obtain these funds from certain third-party sources and use the money for the down payment and closing costs. Generally, mortgage industry participants accept as third-party sources relatives, a borrower's employer, government agencies, and charitable organizations (nonprofits).[13]

[13]Some mortgage industry participants consider secondary financing a type of down payment assistance. Secondary financing may take the form of an additional mortgage or secured loan that pays for a down payment, closing costs, or both. For the purposes of this report, we do not include secondary financing as a type of down payment assistance because the funds are not a gift.

Among nonprofits that provide down payment assistance, some receive contributions from property sellers. When a homebuyer receives down payment assistance from one of these organizations, the organization requires the property seller to make a financial payment to their organization. These nonprofits are commonly called "seller-funded" down payment assistance providers. Examples of seller-funded nonprofits that provide the most down payment assistance to homebuyers with FHA-insured mortgages, include: Nehemiah Corporation of America; AmeriDream, Incorporated; and The Buyers Fund, Incorporated. A 1998 memorandum from HUD's Office of the General Counsel found that funds from a seller-funded nonprofit were not in conflict with FHA's guidelines that prohibit down payment assistance from sellers.[14] In contrast, some nonprofits do not require property sellers to make a financial payment to their organization in return for providing down payment assistance to a homebuyer. Examples of these nonprofits that provide the most down payment assistance to homebuyers with FHA-insured mortgages, include the Clay Foundation, Incorporated; and Family Housing Resources, Incorporated. For a nonprofit to provide down payment assistance to a homebuyer, regardless of its funding source, FHA requires that the organization have a Taxpayer Identification Number.[15] FHA does not approve down payment assistance programs administered by nonprofits; instead, lenders are responsible for assuring that the gift to the homebuyer from a nonprofit meets FHA requirements.

FHA relies on lenders to underwrite the loans and determine their eligibility for FHA mortgage insurance. Lenders wanting to participate in FHA's mortgage programs receive approval from HUD. As of August 2004, over 10,000 lending institutions had been approved. These lenders review loan applications and assess applicants' creditworthiness and ability to make payments. FHA relies on these lenders to ensure compliance with FHA standards. Lenders often initiate the use of down payment assistance from seller-funded down payment assistance providers. Additionally, FHA and its lenders rely upon appraisers to provide an independent and accurate valuation of properties. A primary role of appraisals in the loan underwriting process is to provide evidence that the collateral value of a

[14]HUD Office of the General Counsel, April 7, 1998; Memorandum; Subject: Nehemiah Homeownership 2000 Program—Downpayment Assistance.

[15]A Taxpayer Identification Number is an identification number used by the IRS in the administration of tax laws.

property is sufficient to avoid losses on a loan if the borrower is unable to repay the loan.

Legislation sets certain standards for FHA-insured loans. Currently, depending on a property's appraised value and the average closing costs within a state, the LTV limits range from 97.15 to 98.75 percent.[16] However, because FHA allows financing of the up-front insurance premium, borrowers can receive a mortgage with an effective LTV ratio of close to 100 percent. FHA also has flexibility in how it implements changes to an existing product. For example, the HUD Secretary can change underwriting requirements for existing products and has done this many times. Specific examples include a decrease in items considered as borrower's debts and an expanded definition of what can be included as borrower's effective income when lenders calculate qualifying ratios. Additionally, HUD is supporting a legislative proposal that would enable HUD to insure mortgages with no down payment. Borrowers would also be able to finance certain closing costs. FHA would charge borrowers premiums that would be higher than those for FHA's regular 203(b) mortgage product. The program is targeted to first-time homebuyers, and borrowers would be required to participate in homebuyer counseling. According to HUD, a zero down payment program would provide FHA with a better way to serve families in need of down payment assistance. We previously recommended that Congress and FHA consider a number of means to mitigate the risks that a no down payment product and any other new single-family insurance product may pose. Such means may include limiting the initial availability of new products, requiring higher premiums, and requiring stricter underwriting and enhanced monitoring. Such risk mitigation techniques would help protect the Fund while allowing FHA time to learn more about the performance of such loans.[17]

[16]12 U.S.C. 1709 (b) (2) (B) (ii).

[17]See GAO, *Mortgage Financing: Actions Needed to Help FHA Manage Risks from New Mortgage Products*, GAO-05-194 (Washington, D.C.: Feb. 11, 2005).

The mortgage industry is increasingly using credit scoring, automated underwriting, and mortgage scoring. Credit scoring models, which estimate the credit risk of individuals', use statistical analyses that identify the characteristics of borrowers who are most likely to make loan payments and then create a weight or score for each characteristic. Credit scores, also known as FICO scores because they are generally based on software developed by Fair, Isaac and Company, range from 300 to 850, with higher scores indicating a better credit history. Automated underwriting is the process of collecting and processing the data used in the underwriting process. During the 1990s, private mortgage insurers, the GSEs, and larger financial institutions developed automated underwriting systems, and by 2002 more than 60 percent of all mortgages were underwritten using these systems. This percentage continues to rise.[18] Mortgage scoring is a technology-based tool that relies on the statistical analysis of millions of previously originated mortgage loans to determine how key attributes such as credit history, property characteristics, and mortgage terms affect future loan performance. FHA has developed and recently implemented a mortgage scoring tool, called the Technology Open to Approved Lenders (TOTAL) Mortgage Scorecard, that can be used in conjunction with existing automated underwriting systems.

[18]Susan Wharton Gates, Vanessa Gail Perry, and Peter Zorn, "Automated Underwriting in Mortgage Lending: Good News for the Underserved," *Housing Policy Debate*, vol. 13, no. 2 (2002).

We identified and reviewed three studies that evaluated the extent to which the presence of down payment assistance impacts loan performance, but these analyses have been limited in that they do not consider other variables that may be important to delinquency and claim, such as borrowers' credit scores and the period during which a loan is observed. HUD's OIG conducted two studies looking at defaults on FHA-insured loans with down payment assistance.[19] In the first study, the OIG found that the default rate for a sample of FHA-insured loans with down payment assistance provided by Nehemiah, a seller-funded nonprofit, was more than double that of loans that did not get assistance from this nonprofit (4.64 percent and 2.11 percent, respectively). The second more recent study found that the default rate for the same sample of Nehemiah-assisted loans had quadrupled to 19.42 percent. Moreover, this default rate was double the default rate for loans that did not get assistance from this nonprofit (9.7 percent). The OIG's studies did not adjust for other variables that could potentially explain these differences in loan performance, such as differences in borrowers' credit scores or house price appreciation after the loans were originated. In response to the OIG's findings, FHA contracted for analysis of a sample of FHA-insured loans to identify the presence and source of down payment assistance. A coalition of down payment assistance nonprofits, Homeownership Alliance of Nonprofit Downpayment Providers (HAND), released a study which found that delinquency rates for loans with assistance from nonprofits were about 11 percent higher than for loans with gifts from relatives. HAND also noted that the delinquency rates on loans with assistance from nonprofits were about the same as the delinquency rates on loans receiving other forms of assistance.[20] The HAND study adjusted for geographic distribution, but not for other factors, such as borrowers' credit scores or the age of the loans. Because loans with assistance from nonprofits were a small portion of FHA's portfolio until 2000, most of the loans in this sample with assistance from nonprofits would have had little time in which to experience a delinquency, unlike other loans in the sample.

[19]The first HUD OIG study evaluated a sample of Nehemiah loans in four cities that were originated between August 1997 and May 1999; the OIG evaluated the performance of these loans as of October 25, 1999. For the second study, the HUD OIG generated a random sample of FHA-insured loans originated in October 1997 through March 2001 and reevaluated the performance of the sample of FHA-insured loans in the first study as of February 2002.

[20]This study analyzed loans endorsed in October 1997 through September 2001 and evaluated their performance, as of May 15, 2003.

The Percentage of Purchase Loans in FHA's Portfolio with Down Payment Assistance Has Been Increasing Since 2001

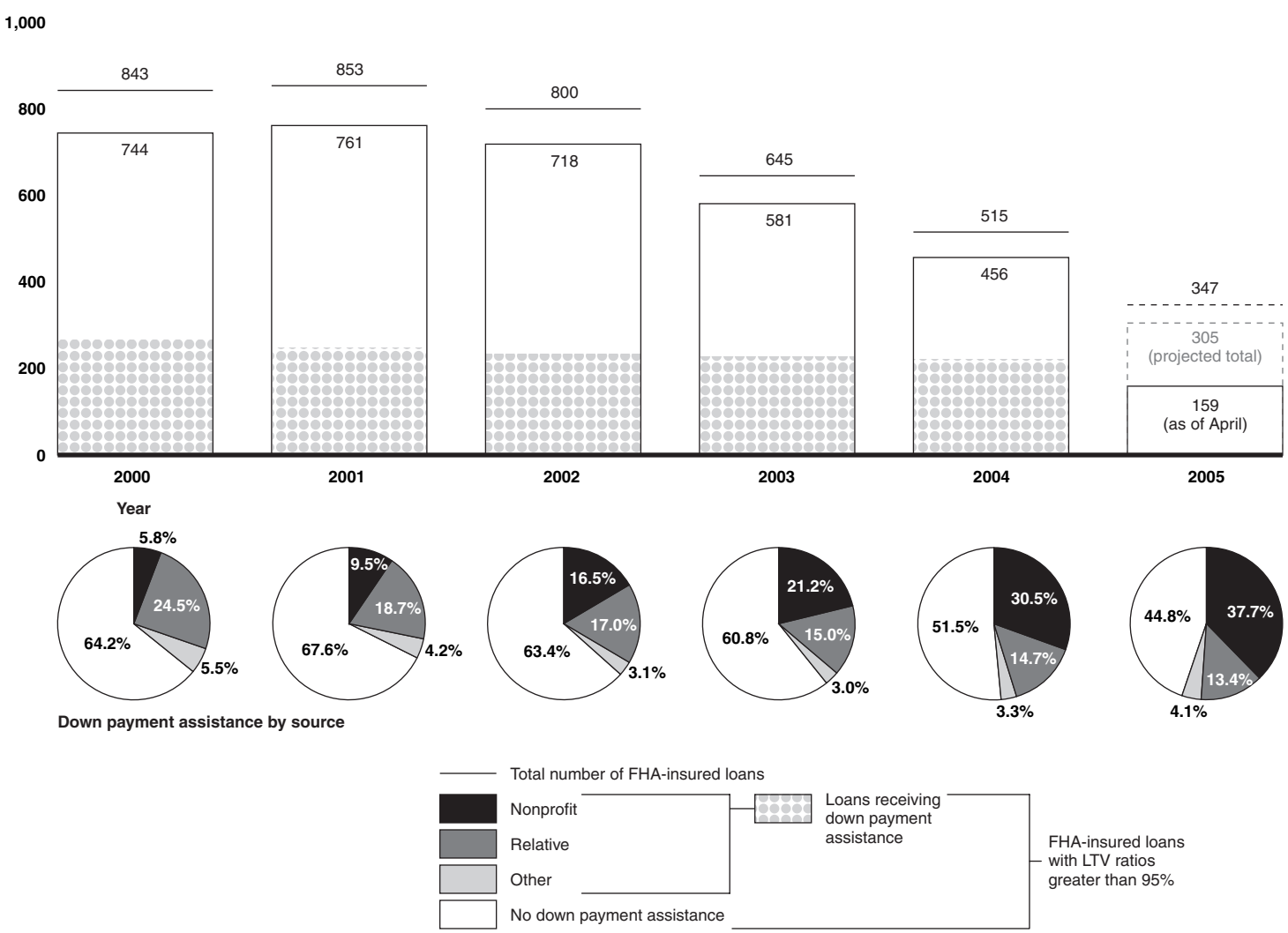
As the number of home mortgages FHA insures each year has fallen, the number of FHA-insured single-family purchase money loans with nonprofit down payment assistance has not. As a result, the proportion of loans with down payment assistance that FHA insures each year has increased significantly. From 2000 to 2004, the total proportion of FHA-insured single-family purchase money loans that had an LTV ratio greater than 95 percent and that also involved down payment assistance, from any source, grew from 35 to nearly 50 percent (fig. 2).[21] Assistance from nonprofit organizations, about 93 percent of which were funded by sellers, accounted for an increasing proportion of this assistance. Approximately 6 percent of FHA-insured loans received down payment assistance from nonprofit organizations in 2000, but, by 2004 this figure had grown to about 30 percent.[22] Our analysis of a sample of FHA-insured loans from 2000 to 2002 showed that the average amount of down payment assistance, regardless of source, was about $3,400 and that the amount of down payment assistance relative to sales price was about 3 percent.[23]

[21]The data sample we relied on included only FHA-insured, single-family purchase money loans with an LTV ratio greater than 95 percent. Loans with an LTV ratio greater than 95 percent account for almost 90 percent of FHA's total portfolio.

[22]Loans insured by FHA's 203(b) program, its main single-family program, and its 234(c) condominium program. Small specialized programs, such as 203(k) rehabilitation and 221(d) subsidized mortgages, were not included. For 2000, 2001, and 2002, our analysis is based on a representative sample of FHA-insured purchase money loans with an LTV ratio greater than 95 percent. For 2003, 2004, and 2005, our analysis is based on the total universe of FHA-insured purchase money loans with an LTV ratio greater than 95 percent. HUD data do not differentiate between nonprofit down payment assistance providers that receive funding from sellers and those that do not. See the note to figure 2 for details on the proportions of loans in the samples with seller-funded assistance.

[23]Ninety percent of assistance from seller-funded nonprofit organizations was between 2.8 and 5.5 percent of the sales price; however, 90 percent of assistance from other sources was between 1.0 percent and 8.8 percent of the sales price.

Figure 2: Number of FHA-Insured Single-Family Purchase Money Loans and Percentage of Loans with Down Payment Assistance, by Source (Loans with LTV Ratio Greater Than 95 percent, Fiscal Years 2000-2005)



Source: GAO analysis of data from Concentrance Consulting Group and FHA's Single-Family Data Warehouse.

Note: Percentage of loans with down payment assistance by source for 2000, 2001, and 2002 are based on a representative sample of FHA-insured purchase money loans with an LTV ratio greater than 95 percent. Of the loans in the sample with nonprofit assistance, 93.5 percent had seller-funded assistance, 1.8 percent had nonseller-funded assistance, 0.5 percent had assistance from a nonprofit with both seller-funded and nonseller-funded programs, and 4.2 percent had assistance from nonprofits with a status that we could not identify. For these years, our category "nonprofit" includes only loans with assistance from nonprofit organizations we could verify as requiring funds from sellers

as a condition of providing assistance. All other loans with nonprofit assistance were included in the nonseller-funded (other sources) group.

Percentage of loans with down payment assistance by source for 2003 through April 2005 are based on the total universe of FHA-insured purchase money loans with an LTV ratio greater than 95 percent. For these years, our category "nonprofit" includes loans with assistance from all nonprofit organizations. We reviewed the nonprofit assistance provider for 95.2 percent of the loans with nonprofit assistance. Of these loans, 93.5 percent had seller-funded assistance, 1.5 percent had nonseller-funded assistance, 1.1 percent had assistance from a nonprofit with both seller-funded and nonseller-funded programs, and 3.9 percent had assistance from nonprofits with a status that we could not identify. We did not review nonprofit organizations that provided a low volume of assistance.

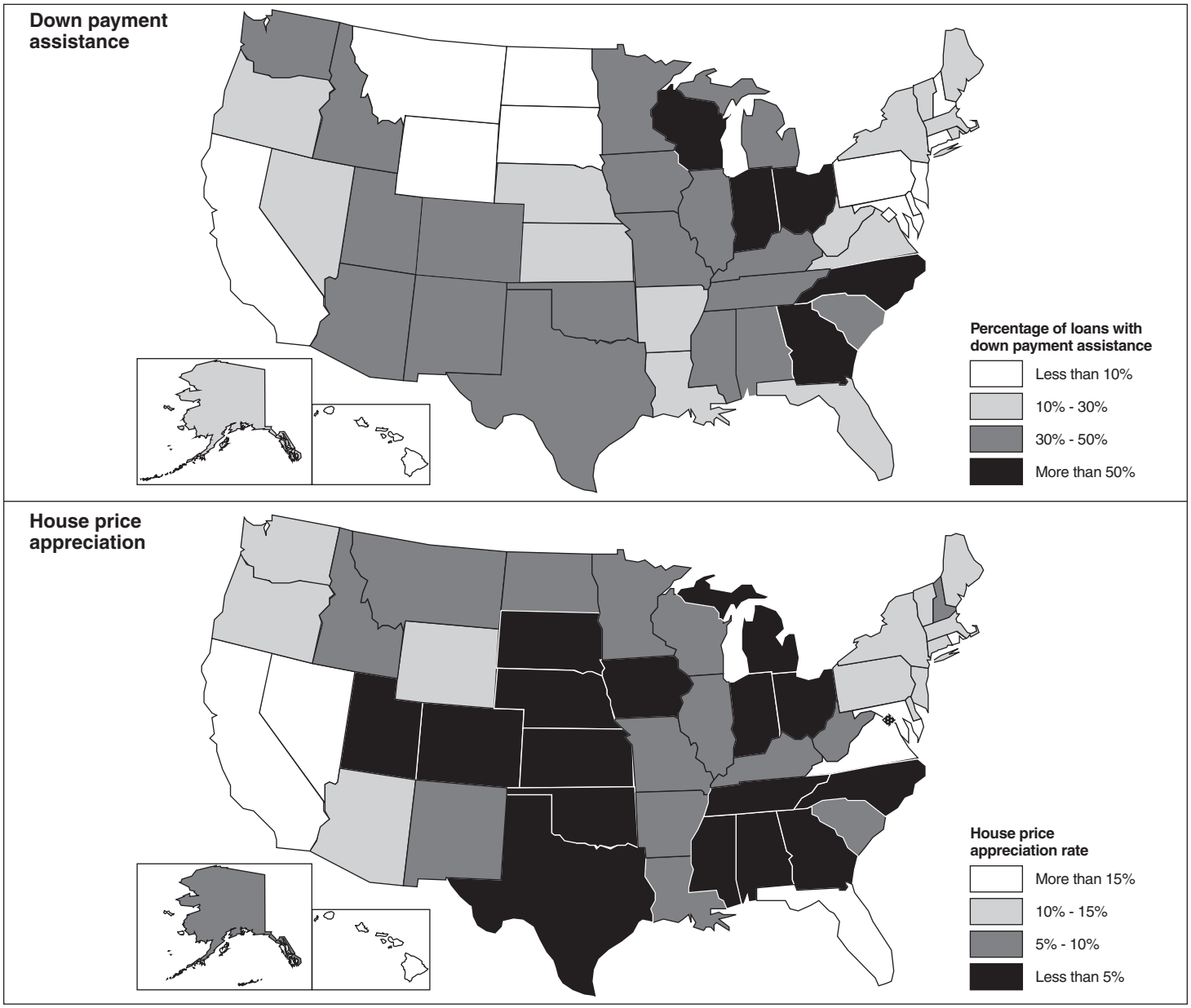
As figure 2 illustrates, the total number of FHA-insured loans originated fell dramatically between 2001 and 2005. Realtors that we spoke to from across the country told us that fewer homebuyers were using FHA-insured mortgages, opting instead for conventional low and zero down payment mortgage products and loans with secondary financing that do not require private mortgage insurance. In addition, officials from government agencies that provide down payment assistance noted either a decrease in the use of FHA mortgage insurance, an increase in the demand for conventional mortgages, or both.

Although the number of FHA-insured loans decreased markedly from 2001 to 2004, the number of FHA-insured loans with down payment assistance did not. As a result, these loans constitute a growing share of FHA's total portfolio. Growth in the number of seller-funded nonprofit providers and the growing acceptance of this type of assistance have contributed to the increase in the use of down payment assistance. According to industry professionals, relatives have traditionally provided such assistance, but in the last 10 years other sources have emerged, including not only seller-funded nonprofit organizations, but also government agencies and employers. The mortgage industry has responded by developing practices to administer this type of assistance, such as FHA's policies requiring gift letters and documentation of the transfer of funds. Lenders also reported that seller-funded down payment assistance providers, in particular, have developed practices accepted by FHA and lenders. For example, seller-funded programs have standardized gift letter and contract addendum forms for documenting both the transfer of down payment assistance funds to the homebuyer and the financial contribution from the property seller to the nonprofit organization. As a result, for FHA-insured loans, lenders are increasingly aware of and willing to accept down payment assistance, including from seller-funded nonprofits.

States that have higher-than-average percentages of FHA-insured loans with nonprofit down payment assistance, primarily from seller-funded programs, tend to be states with lower-than-average house price appreciation rates (fig. 3).[24] From May 2004 to April 2005, 34.6 percent of all FHA-insured purchase money loans nationwide involved down payment assistance from a nonprofit organization, and 15 states had percentages that were higher than this nationwide average. Fourteen of these 15 states also had house price appreciation rates that were below the median rate for all states. In addition, the eight states with the lowest house appreciation rates in the nation all had higher-than-average percentages of nonprofit down payment assistance. Generally, states with high proportions of FHA-insured loans with nonprofit down payment assistance were concentrated in the Southwest, Southeast, and Midwest.

[24]We measured house price appreciation using data from Global Insight, Inc., for the end of the fourth quarter of 2003 to the end of the fourth quarter of 2004.

Figure 3: Percentage of FHA-Insured Single-Family Purchase Money Loans Using Nonprofit Down Payment Assistance and House Price Appreciation Rates, by State



Sources: GAO analysis of HUD data for May 2004–April 2005 (top map data); Global Insights, Inc., data for the end of the fourth quarter of 2003 to the end of the fourth quarter of 2004 (bottom map data); Art Explosion (map images).

Some real estate agents we spoke with commented that in housing markets with low house appreciation rates, sellers do not typically receive multiple offers for their properties. As a result, they may turn to seller-funded down payment assistance providers to attract and expand the pool of potential homebuyers and facilitate purchase transactions that can result in higher sales prices. In contrast, in real estate markets with high house appreciation rates, such as San Francisco and New York City, mortgage industry participants reported that they generally see more assistance in the form of secondary financing involving first and second mortgages. This assistance is often provided by government agencies and nonprofit instrumentalities of government. In addition, lenders and private mortgage insurers described housing markets located on the coasts, and in urban areas in general as having higher proportions of homebuyers utilizing down payment assistance in the form of secondary financing.

Purchase transactions in which the seller was a builder had higher usage of nonprofit down payment assistance than did other purchase transactions. In our sample of loans endorsed in 2000, 2001, and 2002, homes sold by builders were more than twice as likely to involve down payment assistance from seller-funded nonprofits as homes sold by nonbuilder property sellers. Specifically, of the home purchase transactions involving nonbuilder property sellers, 8.3 percent had seller-funded down payment assistance, compared with 19.3 percent of transactions with homes sold by builders. Ninety-seven percent of the loans originated by one lender that was affiliated with a builder involved nonprofit down payment assistance.

Seller-Funded Assistance Affects Home Purchase Transactions and Can Raise House Prices

The presence of down payment assistance from seller-funded nonprofits can alter the structure of purchase transactions and often results in higher house prices. As we have seen, homebuyers may receive down payment assistance from a variety of sources besides seller-funded nonprofits, including relatives and various government and nonprofit homebuyer assistance programs. When buyers receive assistance from sources other than seller-funded nonprofits, the home purchase takes place like any other purchase transaction—buyers use the funds to pay part of the house price, the closing costs, or both, reducing the mortgage by the amount they pay and creating "instant equity." However, seller-funded down payment assistance programs typically require property sellers to make a financial contribution and pay a service fee after the closing, creating an indirect funding stream from property sellers to homebuyers that does not exist in a typical transaction. Further, our analysis indicated and mortgage industry participants we spoke with reported that property sellers often raised the

sales price of their properties in order to recover the contribution to the seller-funded nonprofit that provided the down payment assistance. In these cases, homebuyers may have mortgages that were higher than the true market value price of the house and would have acquired no equity through the transaction.

Seller-Funded Down Payment Assistance Changes the Structure of the Purchase Transaction

FHA guidelines state that providers of down payment assistance may not have an interest in the sale of the property, noting that assistance from sellers, real estate agents, builders, and associated entities are considered an inducement to buy.[25] FHA guidelines do allow sellers to contribute up to 6 percent of the sales price toward closing costs, although none of this money can be used to meet the 3 percent borrower contribution requirement.[26] Contributions from sellers exceeding 6 percent of the sales price or exceeding the actual closing costs result in a dollar-for-dollar reduction to the sales price when calculating the loan's LTV ratio. In spite of these FHA requirements, FHA lists among acceptable providers not only relatives, a borrower's employer, and homeownership programs but also charitable organizations (nonprofits)—including those that are funded by contributions from property sellers. Like down payment assistance from all other sources, FHA does not limit the amount of assistance from seller-funded nonprofits, and homebuyers can use this assistance for the down payment and closing costs.

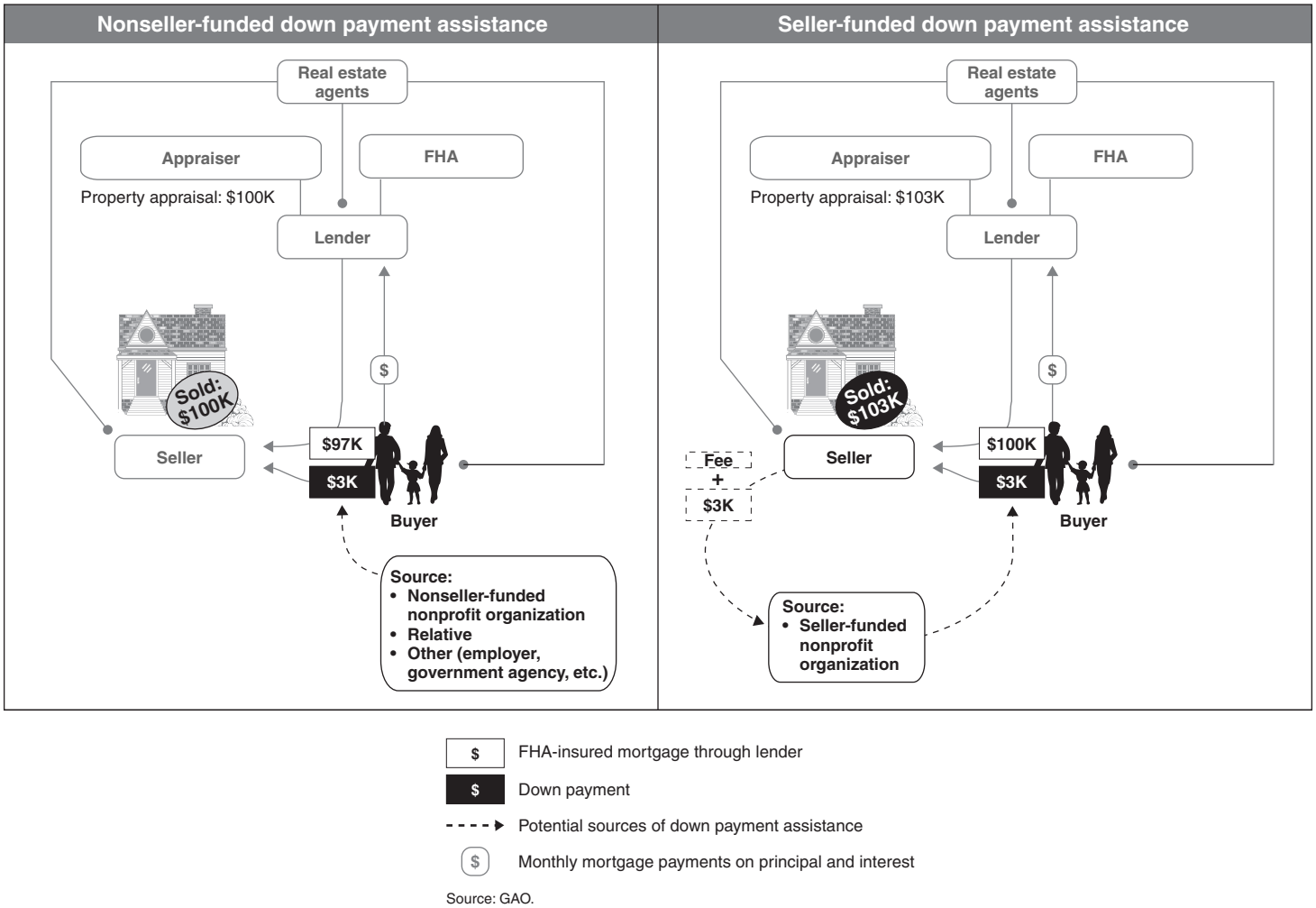
As a result, individuals and entities that HUD has described as having an interest in the sale of a property may provide gift assistance to homebuyers indirectly through these nonprofits, effectively circumventing the 6 percent rule. The presence of this type of assistance changes the way a property is purchased by creating an indirect funding stream from the seller to the buyer (fig. 4). That is, after the closing, these organizations commonly require property sellers to provide both a financial payment equal to the amount of assistance paid to the homeowner and a service fee. Before the sale of the property, sellers that partner with these nonprofits often complete an addendum to the sales contract that outlines, as a condition of

[25]HUD, *Mortgage Credit Analysis for Mortgage Insurance, One to Four Family Properties*, Handbook 4155.1 Rev-5. Chapter 2, Section 3, "Borrower's Cash Investment in the Property" (October 2003).

[26]HUD, Handbook 4155.1 Rev-5, Chapter 1, Section 2, "Maximum Mortgage Amounts" (October 2003).

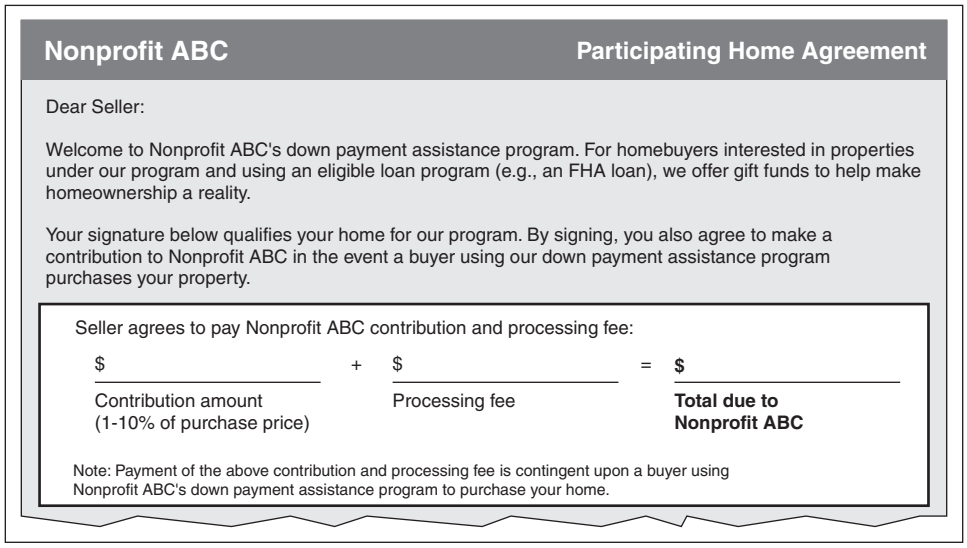
the sale, their commitment to providing a financial payment and fee after closing (fig. 5).

Figure 4: Structure of FHA Individual Purchase Transaction, with Nonseller-Funded Down Payment Assistance and with Seller-Funded Down Payment Assistance



Source: GAO.

Figure 5: Generic Illustration of Addendum to the Sales Contract Completed Prior to Closing that Facilitates Seller's Commitment to Providing Financial Payment to the Nonprofit Organization after Closing



Nonprofit ABC — **Participating Home Agreement**

Dear Seller:

Welcome to Nonprofit ABC's down payment assistance program. For homebuyers interested in properties under our program and using an eligible loan program (e.g., an FHA loan), we offer gift funds to help make homeownership a reality.

Your signature below qualifies your home for our program. By signing, you also agree to make a contribution to Nonprofit ABC in the event a buyer using our down payment assistance program purchases your property.

Seller agrees to pay Nonprofit ABC contribution and processing fee:

$	+	$	=	$
Contribution amount (1-10% of purchase price)		Processing fee		**Total due to Nonprofit ABC**

Note: Payment of the above contribution and processing fee is contingent upon a buyer using Nonprofit ABC's down payment assistance program to purchase your home.

Source: GAO.

Seller-Funded Down Payment Assistance Often Results in Higher Sales Prices

When a homebuyer receives down payment assistance from a seller-funded nonprofit, property sellers often raise the sales price of the property to recover the required payment to the nonprofit providing the assistance. GAO analysis of a national sample of FHA-insured loans endorsed in 2000, 2001, and 2002 suggests that homes with seller-funded assistance were appraised and sold for about 3 percent more than comparable homes without such assistance.[27] Additionally, our analysis of more recent loans, a sample of FHA-insured loans settled in March 2005, indicates that homes sold with nonprofit assistance were appraised and sold for about 2 percentage points more than comparable homes without nonprofit

[27]We drew the sample of loans for this analysis from a national sample of FHA-insured loans developed through a file review study funded by HUD and conducted by the Concentrance Consulting Group. The sample consisted of just over 5,000 purchase money loans endorsed in 2000, 2001, and 2002 with LTV ratios greater than 95 percent.

assistance.[28] To examine the possibility that sales prices of homes with seller-funded assistance were in fact higher than sales prices of comparable homes without such assistance, we contracted with First American Real Estate Solutions to provide estimates of the value of homes in a sample of FHA-insured loans. The values were calculated for the month prior to the closing, using an AVM. AVMs, which use statistical processes to estimate the property values, using property characteristics and trends in sales prices in the surrounding areas, are widely used in the mortgage industry for quality control and other purposes. We examined the ratio of the estimated AVM values to the appraisal values and sales prices and found that the ratios for loans with seller-funded nonprofit down payment assistance ranged from about 2 to 3 percentage points lower than the ratios for loans without such assistance. In other words, for loans with seller-funded down payment assistance, the appraised value and sales price were higher as compared with loans without such assistance. See appendix II for the details of our analysis.

[28]The sample of loans for this analysis is a stratified random sample of 2,000 FHA-insured purchase money loans with first amortization dates in April 2005, extracted from FHA's Single-Family Data Warehouse.

In addition, some mortgage industry participants told us that homes purchased with down payment assistance from seller-funded nonprofits may be appraised for higher values than if the same homes were purchased without assistance. Appraisers we spoke with said that lenders, realtors, and sellers sometimes pressured them to "bring in the value" in order to complete the sale. Additionally, a prior HUD contractor study corroborates the existence of these pressures.[29] FHA requires lenders to provide information to appraisers about the source and amount of assistance. However, FHA reporting requirements do not require lenders to inform appraisers whether the source of the assistance is a seller-funded nonprofit.[30] HUD has issued several Mortgagee Letters that provide clarifications regarding FHA standards and requirements for loans with down payment assistance.[31] For example, in January 2005, HUD issued a Mortgagee Letter to clarify FHA's standards requiring that appraisers be informed of the presence and source of down payment assistance, regardless of its source.[32] Also in January 2005, HUD issued a Mortgagee Letter to reiterate that lenders are required to ensure that appraisals comply with FHA requirements.[33] Lenders we spoke with reported that they document the source of the assistance—a relative, nonprofit, and a borrower's employer, for instance—but, typically do not inform appraisers about the relationship between the seller and the down payment assistance provider.

Marketing materials from seller-funded nonprofits often emphasize that property sellers using these down payment assistance programs earn a higher net profit than property sellers who do not. These materials show sellers receiving a higher sales price, that more than compensates for the fee typically paid to the down payment assistance provider. For homebuyers who receive assistance from seller-funded nonprofits, the higher sales prices result in mortgages that are higher than mortgages made

[29]Concentrance Consulting Group, *An Examination of Downpayment Gift Programs Administered by Nonprofit Organizations*, prepared for the U.S. Department of Housing and Urban Development (Washington D.C.: March 2005).

[30]HUD: Mortgagee Letter 2005-02, Seller Concessions and Verification of Sales, Jan. 4, 2005.

[31]HUD issues Mortgagee Letters to inform mortgage industry participants of changes in FHA's operations, policies, and procedures.

[32]HUD: Mortgagee Letter 2005-02, Seller Concessions and Verification of Sales, Jan. 4, 2005.

[33]HUD: Mortgagee Letter 2005-06, Lender Accountability for Appraisals, Jan. 28, 2005.

using other types of down payment assistance, such as a gift from a relative, or with no assistance at all.

Additionally, several mortgage industry participants we interviewed noted that when homebuyers obtained down payment assistance from seller-funded nonprofits, property sellers increased their sales prices to recover their payments to the nonprofits providing the assistance. Again, a prior HUD contractor study corroborates the existence of this practice.[34] A higher sales price results in a larger loan for the same collateral and, therefore, a higher effective LTV ratio (fig. 6).

Figure 6: Example of LTV Ratio Calculations for FHA-Insured Loans, by Source of Down Payment Funds

		Purchase price (-)	Required borrower contribution (3%) (+)	Financed closing costs (.75%) (=)	Loan amount before up-front insurance premium (+)	Up-front insurance premium (1.5%) (=)	Total mortgage	Home value	Effective LTV ratio
Down payment assistance	**Seller-funded nonprofit**	$103,000	($3,090)	$772.50	$100,682.50	$1,510.24	**$102,192.73**	$100,000	**102.2** %
	Nonseller-funded (e.g., relative)	100,000	(3,000)	750.00	97,750.00	1,466.25	**99,216.25**	100,000	**99.2**
No assistance		100,000	(3,000)	750.00	97,750.00	1,466.25	**99,216.25**	100,000	**99.2**

Assumptions:

- A home with a market value of $100,000. (Our analysis of a sample of FHA-insured loans endorsed in fiscal years 2000, 2001, and 2002 indicates that the median sales price for FHA-insured loans with down payment assistance, regardless of source, was about $105,000.)
- Seller participation in a seller-funded nonprofit down payment assistance program with an agreement to raise the sales price 3 percent higher than the home's market value.
- 3 percent borrower contribution.
- A state with high closing costs, so the maximum LTV ratio is 97.75.
- Buyer financing closing costs of .75 percent of the purchase price.
- Up-front insurance premium financing of 1.5 percent of the purchase price.

Sources: GAO and HUD.

The higher sales price that often results from a transaction involving seller-funded down payment assistance can have the perverse effect of denying buyers any equity in their properties and creating higher effective LTV ratios. As we have seen, FHA guidance stipulates that any financial

[34]Concentrance Consulting Group, *An Examination of Downpayment Gift Programs Administered by Nonprofit Organizations*, prepared for the U.S. Department of Housing and Urban Development (Washington D.C.: March 2005).

assistance provided by a party with an interest in the sale of the property is limited to 6 percent of the sales price and can be used only for closing costs. Contributions from interested parties, such as sellers, that exceed 6 percent of the sales price or the actual closing costs result in a dollar-for-dollar reduction to the sales price when calculating the loan's LTV ratio. Along with the maximum allowable LTV ratio, the effect of this requirement is to ensure that FHA homebuyers obtain a certain amount of "instant equity" at closing. That is, when the sales price represents the fair market value of the house, and the homebuyer contributes 3 percent of the sales price at the closing, the LTV ratio is less than 100 percent. But when a seller raises the sales price of a property to accommodate a contribution to a nonprofit that provides down payment assistance to the buyer, the buyer's mortgage may represent 100 percent or more of the property's true market value.

FHA-Insured Loans with Down Payment Assistance, particularly from Seller-Funded Nonprofits, Do Not Perform as Well as Similar Loans without Assistance

Holding other variables constant, FHA-insured loans with down payment assistance do not perform as well as similar loans without such assistance. Furthermore, loans with down payment assistance from seller-funded nonprofits do not perform as well as loans with assistance from other sources. This difference in performance may be explained, in part, by the higher sales prices of comparable homes bought with seller-funded down payment assistance.

For our analyses, we used two samples (i.e., national and MSA) of FHA-insured single-family purchase money loans endorsed in 2000, 2001, and 2002.[35] We grouped the loans into the following three categories:

- loans with assistance from seller-funded nonprofit organizations,
- loans with assistance from nonseller-funded sources, and

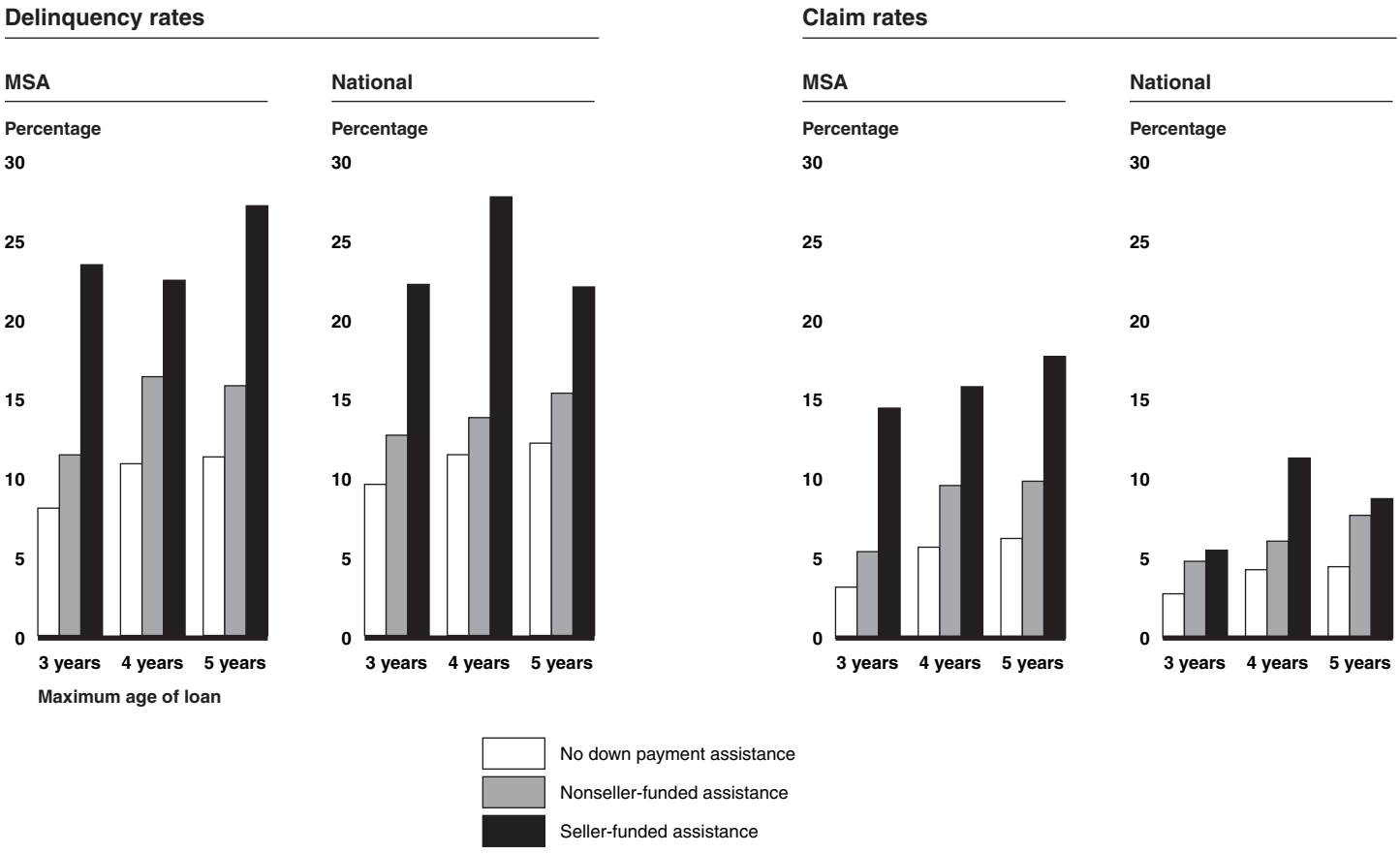
[35]The data (current as of June 30, 2005) consisted of loans insured by FHA's 203(b) program, its main single-family program, and its 234(c), condominium program. Small specialized programs, such as 203(k) rehabilitation and 221(d) subsidized mortgages, were not in the sample. The national sample included all 50 states and the District of Columbia, but not U.S. territories. The Metropolitan Statistical Area (MSA) sample consisted of loans from three MSAs with high rates of down payment assistance (Atlanta, Indianapolis, and Salt Lake City). Performance is measured by claim rate, 90-day delinquency rate, and rate of loss given default.

- loans without assistance.[36]

We analyzed loan performance by source of down payment assistance, controlling for the maximum age of the loan. As shown in figure 7, in both samples and in each year, loans with down payment assistance from seller-funded nonprofit organizations had the highest rates of delinquency and claims, and loans without assistance the lowest. Specifically, between 22 and 28 percent of loans with seller-funded assistance had experienced a 90-day delinquency, compared to 11 to 16 percent of loans with assistance from other sources and 8 to 12 percent of loans without assistance. The claim rates for loans with seller-funded assistance ranged from 6 to 18 percent, for loans with other sources of assistance ranged from 5 to 10 percent, and for loans without assistance from 3 to 6 percent.

[36]HUD data does not differentiate between nonprofit down payment assistance providers that receive funding from sellers and those that do not. The group of seller-funded nonprofit organizations includes only nonprofit organizations we could verify as requiring funds from sellers as a condition of providing assistance. All other nonprofits were included in the nonseller-funded (other sources) group. In the national and MSA samples combined, 1,655 loans had at least one gift letter source indicating a nonprofit. Of those, 1,548 (93.5 percent) were seller-funded, 29 (1.8 percent) were not seller-funded, 8 (.5 percent) were from a nonprofit with both seller-funded and nonseller-funded programs, and 70 (4.2 percent) were from nonprofits with a status that we could not identify.

Figure 7: Delinquency and Claim Rates, by Maximum Age of Loan and Source of Down Payment Funds



Source: GAO.

Note: Analysis based on data from two samples of loans drawn for a file review study funded by HUD and conducted by the Concentrance Consulting Group. The sampled loans were purchase money loans endorsed in 2000, 2001, and 2002 with LTV ratios greater than 95 percent. The national sample consisted of just over 5,000 loans, and the MSA sample consisted of 1,000 loans for each of the three MSAs: Atlanta, Indianapolis, and Salt Lake City.

Even when other variables relevant to loan performance were held constant, loans with down payment assistance and, in particular, seller-funded assistance, had higher delinquency and claim rates. In order to test whether other factors correlated with the receipt of seller-funded assistance—for example, the concentration of these loans in slowly appreciating areas—we used regression analyses that controlled for this and other potentially relevant variables (see app. III for the details of our analyses).[37] As figure 8 illustrates, seller-funded assistance was found to have a substantial impact on claim and delinquency in both the national and MSA samples.

Specifically, the results from the national sample indicated that assistance from a seller-funded nonprofit raised the probability that the loan had gone to claim by 76 percent relative to similar loans with no assistance. Differences in the MSA sample were even larger; the probability that loans with seller-funded nonprofit assistance would go to claim was 166 percent higher than it was for comparable loans without assistance. Similarly, results from the national sample showed that down payment assistance from a seller-funded nonprofit raised the probability of delinquency by 93 percent compared with the probability of delinquency in comparable loans without assistance. For the MSA sample, this figure was 110 percent.[38]

[37]We built four econometric models with differing variables as predictors of the conditional probability of a loan becoming 90 days delinquent or resulting in a claim. For the analysis presented here, we used a model based on variables used in FHA's TOTAL Mortgage Scorecard, augmented with other variables. The variables included in the model based on the augmented TOTAL Mortgage Scorecard variables were: LTV (the initial loan-to-value ratio), FICO score (and an indicator variable for borrowers without a FICO score), borrower reserves, front-end ratio (housing payment to income ratio), year of endorsement, mortgage term (15 or 30 years), mortgage type (adjustable or fixed-rate), underserved area, condominium and first-time homebuyer indicators, house price appreciation measured at the state level, variables reflecting the passage of time, and variables indicating the presence and source of down payment assistance.

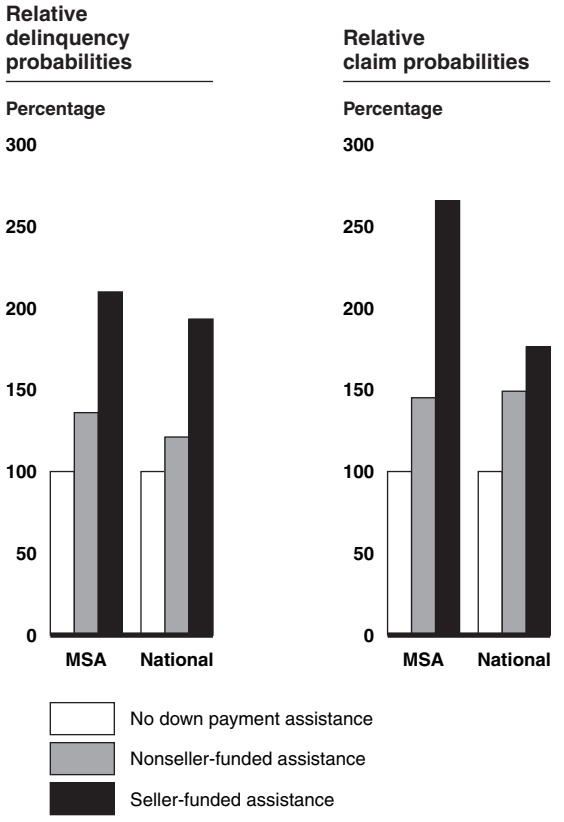
[38]The differences between seller-funded down payment assistance and no down payment assistance are statistically significant with a one-tailed test at a level of 1 percent.

Loans with down payment assistance from nonseller-funded sources did not perform as well as loans without assistance when other variables relevant to loan performance were held constant. We found that this type of down payment assistance had a substantial impact on the probability of claim and delinquency in both the national and MSA samples (see fig. 8). In the national sample, it raised the probability of claim by 49 percent and the probability of delinquency by 21 percent relative to similar loans with no down payment assistance.[39] In the MSA sample, it raised the probability of claim by 45 percent and the probability of delinquency by 36 percent compared with loans without assistance.[40]

[39]The differences between nonseller-funded assistance and no assistance in the national sample are statistically significant for claims and delinquencies at 1 percent and 5 percent, respectively, in one-tailed tests.

[40]The differences between nonseller-funded assistance and no assistance in the MSA sample are statistically significant at 5 percent in one-tailed tests.

Figure 8: Effect of Down Payment Assistance on the Probability of Delinquency and Claim, Controlling for Selected Variables



Source: GAO.

Note: Loans without down payment assistance are set at 100 percent. The results show the effect of a change in the variable on the odds ratio—that is, the probability of a claim (or delinquency) divided by the probability of not experiencing a claim (or delinquency). However, the probability of experiencing a claim or delinquency in any given quarter is fairly small; so, the change in the odds ratio is very close to the change in the probability. The analysis is based on data from two samples of loans drawn for a file review study funded by HUD and conducted by the Concentrance Consulting Group. The loans in the samples were endorsed in 2000, 2001, and 2002 and had LTV ratios greater than 95 percent. The national sample consisted of just over 5,000 loans and the MSA sample consisted of 1,000 purchase money loans for each of the three MSAs: Atlanta, Indianapolis, and Salt Lake City. The loan performance data (current as of June 2005) are from HUD's Single-Family Data Warehouse. For a detailed description of the regression model and other data sources, see appendix III.

The higher probability of claims in the MSA sample, as compared to the national sample, may be attributable to higher house price appreciation rates at the national level as compared to the MSAs. Research suggests that delinquent borrowers who have accumulated equity in their properties are more likely than other borrowers to prepay in order to avoid claims.[41] During the 5-year period from the first quarter of 2000 to the last quarter of 2004, the median house price increase in the national sample was about 39 percent. During the same period, the Salt Lake City, Indianapolis, and Atlanta MSAs realized increases in the median price of existing homes of 11 percent, 18 percent, and 32 percent, respectively. On average, then, borrowers in the national sample could be expected to have accumulated more equity than those in the MSAs and to be more likely to sell their homes and prepay their mortgages if they faced delinquency. The effect of the increased LTV ratio associated with loans with seller-funded down payment assistance may be less important in the presence of substantial accumulated equity.[42]

The effect of seller-funded down payment assistance on loan performance is substantial and to achieve an equivalent decline in loan performance requires substantial changes in other factors. For example, the presence of seller-funded down payment assistance increased claims by 76 percent. Adjusting other factors to increase claims by 76 percent would require lowering a borrower's credit score about 60 points, for example, or raising the payment to income ratio about 25 percentage points. Both of these adjustments to a loan are significant.

[41]Brent W. Ambrose and Charles A. Capone, "The Hazard Rates of First and Second Defaults," *Journal of Real Estate Finance and Economics*, vol. 20, no. 3 (May 2000), 275–93; Michelle A. Danis and Anthony Pennington-Cross, "A Dynamic Look at Subprime Loan Performance," Federal Reserve Bank of St. Louis Working Paper 2005-029A (May 2005), available at http://research.stlouisfed.org/wp/2005/2005-029.pdf.

[42]Our claim probability findings for nonseller-funded down payment assistance were similar with the national and MSA samples.

We also examined differences in loss severities between loans with seller-funded assistance and unassisted loans. Although our analysis was tentative because many claims had not yet completed the property disposition process, it suggested that the ultimate losses from loans with seller-funded assistance were greater than other loans. We could determine the net profit or loss for only 184 loans from the national sample and for only 205 loans from the MSA sample. We used a regression to predict the loss rate, or the dollar amount of loss (or profit, in a few cases), divided by the original mortgage balances.[43] The loss rate for loans with seller-funded assistance was about 5 percentage points higher in both samples. The differences were not statistically significant in the national sample but were in the MSA sample. Our analysis of loss severities indicated no significant differences in loss rates between unassisted loans and loans with nonseller-funded assistance in the national sample. In the MSA sample, loans with nonseller-funded assistance did have statistically significantly higher loss rates.

The weaker performance of loans with seller-funded down payment assistance may be explained, in part, by the higher sales prices of homes when buyers receive such assistance, resulting in higher effective LTV ratios. Prior GAO analysis has found that, controlling for other factors, high LTV ratios lead to increased claims.[44] Our analysis of AVM data in the national sample of loans endorsed in 2000, 2001, and 2002 indicated that the sales prices of homes with seller-funded down payment assistance were 3 percent higher than the sales prices of comparable homes without it, leading to higher effective LTV ratios for these loans. GAO analysis suggests that this 3 percent difference in sales price translates into a 16 percent increase in claims. Claim rates for loans with seller-funded assistance in the 2000–2002 national sample were about 19 percent to 39 percent higher than claim rates for loans with other forms of assistance—a

[43]The other explanatory variables were the LTV ratio at the time the loan was originated, the interest rate on the mortgage at the time the loan was originated, the original mortgage balance, the borrower's credit score, and the estimated appreciation in house prices since the time the loan was originated, along with indicators for a gift from a seller-funded nonprofit or a gift from another source.

[44]GAO-01-460.

difference that may largely explain the difference in claim rates between seller-funded and other forms of assistance.[45]

Stricter Standards and Additional Controls Could Help FHA Manage the Risks Posed by Loans with Down Payment Assistance

FHA has implemented some standards and internal controls to manage the risks associated with loans with down payment assistance, but stricter standards and additional controls could help the agency better manage the risks these loans pose. First, FHA applies the same standards to loans with down payment assistance that it applies to all loans but is less restrictive in the sources of down payment assistance it permits than other mortgage industry participants. Government internal control guidelines advise agencies to consider and recognize the value of industry practices that may be applicable to agency operations.[46] Private mortgage insurers, Fannie Mae, and Freddie Mac offer practices that could be instructive in this instance. Mortgage industry participants told us that they viewed down payment assistance from seller-funded nonprofits as an inducement and, therefore, either restricted or prohibited its use. FHA does not share this view and has not held this assistance to the same limits it places on funds from sellers. Second, FHA has assessed, on an ad hoc basis, the performance of loans with down payment assistance. In contrast, government internal control guidelines recommend that agencies routinely identify risks that could impede efficient and effective management and develop approaches to analyze and manage risk. Finally, although FHA has implemented targeted monitoring of appraisers that do a high volume of loans with down payment assistance, the agency has not implemented targeted monitoring of lenders that do a high volume of loans with down payment assistance.

[45]The poorer performance of loans with down payment assistance from nonseller-funded sources relative to loans without assistance may be related to factors not captured by our regression models (see app. III).

[46]GAO-01-1008G.

FHA Standards Permit Borrowers to Obtain Down Payment Assistance from Seller-Funded Sources

Government internal control guidelines do not prescribe standards specifically for loans with down payment assistance but do advise agencies to consider and recognize the value of industry practices that may be applicable to agency operations. FHA practices related to down payment assistance are in many ways comparable to industry practices. The agency applies the same standards to loans with down payment assistance as it does to other FHA-insured loans—for example, placing a 6 percent cap on the amount of funds sellers can contribute to loan transactions and requiring borrowers to meet the same underwriting requirements as other borrowers. FHA does not consider the presence, source, or amount of down payment assistance as a factor in its underwriting guidelines; more specifically, FHA does not include down payment assistance as a variable in its TOTAL Mortgage Scorecard.[47] Similarly, mortgage industry participants reported not imposing additional underwriting criteria for loans with down payment assistance.

FHA's standards regarding sources of down payment assistance differ from those of key mortgage industry participants in one important respect—while FHA permits down payment assistance from seller-funded sources, mortgage industry participants restrict or prohibit such assistance. FHA, like other mortgage industry participants, does not permit homebuyers to obtain down payment assistance directly from property sellers but does permit them to get it from nonprofits that receive contributions from property sellers. Further, FHA does not include down payment assistance from seller-funded nonprofits in the 6 percent limit that it has imposed on seller contributions. In contrast, some mortgage industry participants we met with told us that they viewed down payment assistance from seller-funded nonprofits as an inducement and, therefore, either restricted or prohibited its use. Although some mortgage industry participants do permit homebuyers to use seller-funded nonprofits, these entities typically impose restrictions on the amount of assistance a homebuyer may receive and how the funds can be used. For example, Fannie Mae and Freddie Mac permit homebuyers to obtain funds provided by seller-funded nonprofits but only

[47]Although FHA's TOTAL Mortgage Scorecard does not directly consider the presence of down payment assistance, it is possible that a loan with down payment assistance "looks better" as compared with a loan without assistance, because (1) the effective LTV ratio is higher than the LTV ratio entered into the TOTAL Mortgage Scorecard because the dollar value used for the property value may be higher for transactions utilizing seller-funded down payment assistance and (2) the borrower reserves are higher (because the borrower doesn't have to use their own funds to make the down payment)—both of which would raise the borrower's score.

up to 3 percent of the sales price and only for closing costs. FHA standards for other sources of down payment assistance are similar to those of mortgage industry participants we spoke with. Specifically, neither limits the amount of assistance a homebuyer may receive from sources such as relatives, and this money can be used for the down payment, as well as the closing costs. Also, as mentioned earlier, FHA applies the same underwriting standards to loans with down payment assistance as it applies to loans without such assistance.

Mortgage industry participants we spoke with cited three reasons for restricting down payment assistance from seller-funded nonprofits. First, some mortgage industry participants noted that seller-funded nonprofits are not disinterested third parties because of the contingency requiring contributions from sellers after the loan closes. Second, some mortgage industry participants noted that homebuyers receiving down payment assistance from seller-funded nonprofits often finance larger loan amounts than they would otherwise because sellers increase the sales price to compensate for the contribution. Third, some mortgage industry participants noted that, in effect, seller-funded nonprofits can be used as intermediaries to enable sellers to contribute funds in excess of HUD's 6 percent limit on seller contributions.

Additionally, another HUD program has more restrictive standards on permitted sources of down payment assistance. The American Dream Downpayment Initiative, a program administered by HUD's Office of Community Planning and Development that provides grants for down payment assistance programs, does not permit seller-funded nonprofits to administer its funds.[48] And, in 1999, HUD proposed a rule that would prohibit borrowers from obtaining down payment assistance from organizations that received funds from sellers. HUD stated that this rule was "intended to prevent a seller from providing funds to an organization as a quid pro quo for that organization's down payment assistance for purchase of one or more homes from the seller."[49] HUD later withdrew this

[48]HUD's Office of Community Planning and Development administers this grant program, which provides down payment assistance funds to homebuyers. Initially, HUD awards funds to state and local governments that are participating jurisdictions. These jurisdictions may choose to designate nonprofit organizations to administer the funds, but not seller-funded nonprofits.

[49]Proposed Rule, The U.S. Department of Housing and Urban Development, 24 C.F.R. Part 203, 64 F.R. 49956 (Sept. 14, 1999).

rule after receiving 1,871 public comments on the proposed rule; all but 21 opposed it.

HUD officials noted that HUD permits seller-funded down payment assistance because the assistance does not compromise FHA guidance prohibiting homebuyers from using funds from property sellers and other interested parties toward a down payment. FHA considers seller contributions to the homebuyer in excess of 6 percent of the sales price and direct seller down payment assistance as inducements to purchase that must be factored into the purchase transaction.[50] These funds result in a dollar-for-dollar reduction to the sales price before the LTV ratio is calculated. Further, FHA requires any down payment assistance be essentially a gift that is not subject to repayment. HUD officials stated that seller-funded nonprofits are not sellers and do not require homebuyers to pay back the funds. In addition, these officials noted that the seller and buyer—in a transaction involving seller-funded down payment assistance—agree on the sales price and pointed out that the contribution the nonprofit receives from the seller after the closing supports future homebuyers. For these reasons, we were told, HUD did not recognize a direct relationship between the property seller and the homebuyer stemming from the activities of the seller-funded nonprofit organization.

Although FHA applies many of the same standards to loans with down payment assistance as it applies to other loans, it does impose additional documentation requirements on loans with down payment assistance. Lenders must obtain a "gift letter" that includes the donor's name and contact information; an explanation of the donor's relationship to the borrower; the dollar amount of the assistance; and a statement that specifies that no repayment is required. They must ensure that the down payment assistance meets FHA's requirements, document the Taxpayer Identification Numbers for all nonprofits, and provide evidence of the transfer of funds from the donor to the borrower.[51] As noted earlier, lenders must also tell appraisers when a transaction involves down payment

[50]Other inducements can include repair allowances, moving costs, and items such as cars, furniture, and televisions.

[51]Our review of FHA loan-level data found that a small percentage (less than 1 percent) of loans with down payment assistance from nonprofits did not have a documented Taxpayer Identification Number, but instead included the number "999999999." Additionally, we found that at least 1.97 percent of the loans had Taxpayer Identification Numbers that were not associated with a tax-exempt organization. Loan level data analyzed includes FHA single-family mortgages originated from October 2003 through April 2005.

assistance and its source, and appraisers must include this information in their reports. However, FHA guidance does not require lenders to inform appraisers if the source of the assistance is a seller-funded nonprofit.

FHA Does Not Conduct Routine Loan Performance Analyses on Loans with Down Payment Assistance

Government risk assessment guidelines recommend that agencies routinely identify risks that could impede efficient and effective management and develop approaches, either qualitative or quantitative, to analyze and manage these risks. Additionally, some mortgage industry participants reported that they did some quantitative loan performance analyses on loans with down payment assistance in order to understand the risks associated with these loans.

FHA has conducted some risk analysis on its loans with down payment assistance. For example, FHA officials recently told us that they had been analyzing the performance of loans with down payment assistance on an ad hoc basis. FHA's Office of Evaluation has been conducting analyses since February 2000, comparing the performance of loans with down payment assistance with those made without assistance. For example, from January through July 2005, FHA carried out four ad hoc loan performance analyses of all FHA-insured loans. FHA's analyses indicate that loans with down payment assistance do not perform as well as loans without down payment assistance. However, according to FHA officials FHA has not undertaken ongoing periodic loan performance analyses that consider the presence and source of down payment assistance.

HUD has also initiated two research efforts to evaluate down payment assistance as it relates to FHA-insured loans and down payment assistance. The first study evaluated the accuracy of loan-level data maintained in HUD's information systems and collected information on sources and amounts of gift assistance.[52] The study included a comparison of data found in key documents FHA maintained with the information lenders had transmitted via the Computerized Homes Underwriting Management System (CHUMS).[53] This research found that, for loans with down payment assistance, the gift amounts and sources in HUD's information system were

[52]Concentrance Consulting Group, *Audit of Loans with Downpayment Assistance*, prepared for the U.S. Department of Housing and Urban Development (Washington, D.C.: Feb. 6, 2004).

[53]FHA tracks the presence and source of down payment assistance in an information system (CHUMS).

frequently missing or different from the information in the documents. The study also found that needed Taxpayer Identification Numbers were missing for 74 percent of loans reviewed that involved assistance from nonprofit organizations. As a result of the study, HUD clarified the data requirements for loans with down payment assistance. For example, in January 2005 HUD reiterated its requirement for lenders to provide information on the presence, amount, and source of down payment assistance.

The second study evaluated the influence of assistance from seller-funded nonprofits on the origination of FHA-insured loans through interviews with various mortgage industry participants.[54] This study found that seller-funded down payment assistance providers serve primarily as conduits for the transfer of down payment funds between buyers and sellers in order to meet HUD's gift eligibility requirement. Additionally, the study found that many appraisers, mortgage lenders, underwriters, seller-funded down payment assistance providers, and real estate agents reported that homes sold with seller-funded down payment assistance had inflated appraised values and property sales prices. The second study resulted in a report issued in March 2005 and included several recommendations to FHA. FHA is currently assessing whether HUD should approach loans with down payment assistance differently (e.g., apply an enhanced risk-based premium structure on loans with down payment assistance from certain sources); but as of September 2005 FHA had not taken any action.

[54]Concentrance Consulting Group, *An Examination of Downpayment Gift Programs Administered by Non-profit Organizations*, prepared for the U.S. Department of Housing and Urban Development (Washington, D.C.: March 2005).

FHA annually contracts for an actuarial review. A key component of this review is an assessment of loan performance. These analyses of loan performance—which also help in estimating program subsidy costs—consider a number of factors including the loan's LTV ratio and mortgage age. However, the presence and source of down payment assistance were not included in these loan performance analyses prior to the actuarial review for 2005.[55] This actuarial review indicates that down payment assistance has a significant impact on the performance of these loans. Specifically, when the actuarial review incorporated down payment assistance into the econometric model, the estimated value of FHA's insurance fund for 2005 decreased by $1.8 billion. The actuarial review also stated that down payment assistance "has had a major economic impact on the fund" and that these loans should be closely monitored. However, the analysis in the actuarial review may understate the magnitude of the effect of down payment assistance on claim rates because the gift letter source variable used in the actuarial review understates the number of loans with gift assistance for loans endorsed between 2000 and 2002, according to HUD's contractors. Additionally, the impact of down payment assistance may be greater than found in the actuarial review. Specifically, the actuarial review's estimates of loan performance are based on the historical experience of loans made with down payment assistance, most of which were originated between 2000 and 2005—a period marked by rapid house price appreciation. However, because down payment assistance has a greater impact in areas of low price appreciation, should the rate of house price appreciation decline in the future, the effects of down payment assistance may be greater. Further, the actuarial review does not examine the impact that the presence and source of down payment assistance may have on claim severity. As noted earlier, FHA recently took action to clarify data reporting requirements regarding the source and amount of down payment assistance, but these FHA reporting requirements do not differentiate seller-funded nonprofits from nonseller-funded types of nonprofits.[56]

[55]Technical Analysis Center, Inc. with Integrated Financial Engineering, Inc. "*An Actuarial Review of the Federal Housing Administration Mutual Mortgage Insurance Fund for Fiscal Year 2005*," prepared for the U.S. Department of Housing and Urban Development (Fairfax, VA: Oct. 14, 2005).

[56]HUD: Mortgagee Letter 2005-02, Seller Concessions and Verification of Sales, Jan. 4, 2005.

FHA's Monitoring of Down Payment Assistance Lending is Limited

Government internal control guidelines advise agencies to monitor external entities that perform critical functions, in part to ensure that these entities are accountable for their operations. FHA relies on numerous outside entities—including lenders and appraisers—to perform critical functions, including functions specific to loans with down payment assistance. As we have seen, lenders must ensure that assistance provided by nonprofits organizations meets FHA requirements and that the nonprofits have current Taxpayer Identification Numbers. Furthermore, FHA and its lenders rely upon appraisers to provide an independent and accurate valuation of properties, including confirmation of sales and financing concessions such as down payment assistance and seller contributions.

Two recent GAO reviews found that FHA performs some oversight of both lenders and appraisers, but that opportunities exist for improved monitoring.[57] As we have seen, additional opportunities still exist for improving FHA's monitoring of loans with down payment assistance. FHA carries out risk-based monitoring of lenders and appraisers that are involved in the process of endorsing FHA-insured loans, using loan performance data (e.g., higher early defaults and claims), complaints of irregularities or fraudulent practices, the results of technical reviews of individual loans, and other factors to target lenders for review. However, FHA has not implemented targeted monitoring of lenders that do a high volume of loans with down payment assistance. HUD monitors appraisers that it has determined pose risks to FHA's insurance fund, targeting individual appraisers on several risk factors, such as involvement with loans that have early default rates and those that are insured under HUD programs known to be at a higher risk of fraud and abuse. FHA has also implemented targeted monitoring of appraisers that do a high volume of loans with down payment assistance. When an appraiser is targeted, FHA first does a desk review and then, if necessary, conducts a field review.

Conclusions

Homebuyers receiving down payment assistance from seller-funded nonprofits pay higher purchase prices, reducing their initial equity in the

[57]GAO, *Single-Family Housing: Progress Made, but Opportunities Exist to Improve HUD's Oversight of FHA Lenders*, GAO-05-13 (Washington, D.C.: Nov. 12, 2004). GAO, *Single-Family Housing: HUD's Risk-Based Oversight of Appraisers Could be Enhanced*, GAO-05-14 (Washington, D.C.: Nov. 5, 2004).

home. In effect, these homebuyers are financing the down payment assistance and paying for it over time. Moreover, loans with down payment assistance—particularly from seller-funded sources—perform significantly worse than loans without such assistance. These loans have higher claims and delinquencies—meaning that some households receiving assistance ultimately lose their homes. However, down payment assistance has helped some households become homeowners, or become homeowners sooner than they might have without such assistance.

Down payment assistance can impose additional risks to the loans FHA insures, and it has taken steps toward managing these risks by conducting ad hoc loan performance analyses and studies. More recently, HUD has supported legislation for a no down payment product that would help homebuyers who lack down payment funds, obviating the need for down payment assistance. This legislation includes tools for mitigating the risks of such loans with higher premiums and homebuyer counseling. We previously recommended that Congress and FHA consider a number of means, such as enhanced monitoring, to mitigate the risks that a no down payment product and any other new single-family insurance product may pose. Such techniques would help protect the Fund while allowing FHA time to learn more about the performance of such loans.[58] Likewise, such tools may be useful in mitigating the risks associated with loans with down payment assistance.

Although FHA has taken some steps to understand the risks associated with loans with down payment assistance, it could take additional steps to understand and manage the risks that loans with down payment assistance represent, while still meeting its mission of expanding homeownership opportunities. Furthermore, because the proportion of loans FHA insures that involve some form of down payment assistance has increased dramatically in the last 5 years, and because the risks associated with down payment assistance are substantial, the need for FHA to better manage these risks has become increasingly important. For example, FHA requires lenders to collect and report information on the presence and source of down payment assistance, but it does not require them to collect and report whether the entity providing the assistance is funded by property sellers. Without this information, FHA cannot, on a regular basis, monitor and evaluate the prevalence of this form of assistance or its impact on loan performance.

[58] GAO-05-194.

More routine and systematic analysis of the impact that all forms of down payment assistance have on loan performance would also provide FHA with an ongoing assessment of the effect that the increasing use of down payment assistance is having on loan performance. Though we found that the presence and source of down payment assistance is an important predictor of loan performance, FHA does not now include it as a factor in its TOTAL Mortgage Scorecard automated underwriting tool. We recommended in our September 2005 report that FHA assess and report the impact that including the presence of down payment assistance would have on the forecasting ability of the loan performance models used in FHA's actuarial reviews of the Fund.[59] Consistent with our recommendation, in October 2005, FHA, for the first time, included down payment assistance as a factor in its annual actuarial review estimates of loan performance. However, because data on the use and source of down payment assistance is still limited, the review may underestimate the impact that down payment assistance has on claims. Further the review does not consider the impact that down payment assistance may have on the severity of claims.

Finally, although FHA holds lenders and appraisers accountable for the quality of appraisals, appraisers may not have complete information affecting the sales price of the home. Specifically, FHA requires lenders to inform appraisers of all contract terms, including seller concessions, which may include down payment assistance. However, FHA does not require lenders to inform appraisers when down payment assistance is provided by a seller-funded nonprofit. Further, as we have seen, such assistance creates an indirect funding stream from the seller to the buyer and, thus, becomes, in effect, a seller inducement. However, because FHA does not consider down payment assistance from a seller-funded nonprofit an inducement to purchase, it does not require that lenders reduce the sales price before applying the appropriate LTV ratio.

Recommendations for Executive Action

While balancing the goals of providing homeownership opportunities and managing risk, FHA should consider implementing additional controls to manage the risks associated with loans that involve "gifts" of down payment assistance, especially from seller-funded nonprofit organizations, as these loans pose additional risks to the FHA mortgage insurance fund.

[59]GAO-05-875.

Specifically, given the increased risks posed by loans with down payment assistance, from any source, we recommend that the Secretary of HUD direct the Assistant Secretary for Housing (Federal Housing Commissioner) to consider the following four actions to better understand and manage these risks:

- To provide FHA with data that would permit the agency to identify whether down payment assistance is from a seller-funded down payment assistance provider, modify FHA's "gift letter source" categories to include "nonprofit seller-funded" and "nonprofit nonseller-funded" and require lenders to accurately identify and report this information when submitting loan information to FHA;

- To more fully consider the risks posed by down payment assistance when underwriting loans, include the presence and source of down payment assistance as a loan variable in FHA's TOTAL Mortgage Scorecard during the underwriting process;

- To ensure that FHA has an ongoing understanding of the impact that down payment assistance has on loan performance, implement routine and targeted performance monitoring of loans with down payment assistance, including analyses that consider the source of assistance; and

- To more accurately reflect the impact that down payment assistance has on loan performance, continue to include the presence and source of down payment assistance in future loan performance models. To enhance the actuarial reviews' estimates of claims, consider including in the annual review of actuarial soundness, the impact that the presence and source of down payment assistance has on claim severity.

We further recommend that the Secretary of HUD direct the Assistant Secretary for Housing (Federal Housing Commissioner) to take the following two actions to balance the goals of expanding homeownership and sustaining the actuarial soundness of the Fund by managing the risks associated with loans that involve "gifts" of down payment assistance from nonprofit organizations that receive funding from sellers:

- To ensure that appraisers have the information necessary to establish the market value of the properties, require lenders to inform appraisers about the presence of down payment assistance from a seller-funded source; and

- Because down payment assistance provided by seller-funded entities is, in effect, a seller inducement, revise FHA standards to treat assistance from seller-funded nonprofits as a gift from the seller and, therefore, subject to the prohibition against using seller contributions to meet the 3 percent borrower contribution requirement.

Agency Comments and Our Evaluation

We provided a draft of this report to HUD for its review and comment. We received written comments from HUD's Assistant Secretary for Housing (Federal Housing Commissioner), which are reprinted in appendix IV. HUD generally agreed with the report's findings, noting that the analysis of loan performance is consistent with its own findings regarding the performance of loans with down payment assistance and how seller-funded down payment assistance programs operate. HUD also agreed to take steps that will improve its oversight of down payment assistance lending. Specifically, HUD will modify its information systems to document assistance from seller-funded nonprofits, and HUD will consider incorporating down payment assistance into FHA's TOTAL Mortgage Scorecard and requiring lenders to inform appraisers when assistance is provided by seller-funded nonprofits.

The department commented on certain aspects of selected recommendations. First, although HUD agreed with the report's recommendation to perform routine and targeted loan performance analyses of loans with down payment assistance, it maintained that FHA already performs monitoring of these loans. We recognized that FHA has conducted ad hoc risk analyses of its loans with down payment assistance. Additionally, the actuarial review of FHA's insurance Fund for 2005 includes, for the first time, down payment assistance as a variable in its model of loan performance. Consistent with our findings, the 2005 actuarial review found the presence of down payment assistance to be a significant factor in explaining loan performance. Further, the 2005 actuarial review states that loans with down payment assistance should be closely monitored. We agree. Because the proportion of loans FHA insures that involve some form of down payment assistance is growing dramatically, and because the risks associated with down payment assistance are substantial, we continue to recommend that FHA more routinely monitor the performance of loans with down payment assistance.

Second, HUD disagreed with our recommendation that it should revise its standards to prohibit the use of down payment assistance from seller-funded nonprofit organizations to meet the three percent borrower

contribution requirement. Our recommendation was based on our conclusion that the down payment assistance provided by seller-funded nonprofits was, in effect, a seller inducement to purchase. As the basis of its disagreement with our recommendation, FHA cites a 1998 internal HUD Office of the General Counsel memorandum, acknowledged in our report. The 1998 HUD memorandum reasoned that as long as seller-funded down payment assistance is provided to the buyer *before* closing, and the seller's contribution to the nonprofit entity occurs *after* closing, the buyer has not received funds that can be directly traced to the seller's contribution.

We realize that FHA relies on HUD's 1998 memorandum to authorize sellers to do indirectly what they cannot do directly, namely provide gifts of down payment assistance to buyers. We continue to believe that HUD should recognize that because gifts of down payment assistance from seller-funded nonprofits are ultimately funded by the sellers, they are like gifts of down payment assistance made directly by sellers. We, therefore, continue to believe that FHA should revise its standards to treat assistance from a seller-funded entity as a seller inducement to purchase.

In addition, as noted in our report, HUD agreed with our conclusion and recommendation after it issued its 1998 memorandum. In 1999, HUD proposed a rule that would have prohibited use of gifts from nonprofit organizations for buyers' down payment assistance, if the organizations received funds for the gifts—directly or indirectly—from sellers. Although HUD later withdrew the rule without substantive explanation, we continue to believe HUD's rationale in proposing the rule was correct.

Third, in its comment letter, HUD stated that FHA has incorporated the source of down payment assistance in the 2005 actuarial review of the Mutual Mortgage Insurance Fund, which was published during the course of obtaining HUD's comments on a draft of this report. In response, we have added information describing the analyses contained in the 2005 actuarial review, and modified our recommendation to address a weakness in the actuarial review's analysis of down payment assistance, and to emphasize the need to continue considering the presence and source of down payment assistance in future loan performance models.

As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the appropriate Congressional Committees and the Secretary of Housing and

Urban Development. We also will make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions concerning this report, please contact me at (202) 512-8678 or shearw@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix V.

Sincerely yours,

William B. Shear
Director, Financial Markets and
Community Investment

Objectives, Scope, and Methodology

To examine trends in the use of down payment assistance with loans insured by the Federal Housing Administration (FHA), we obtained loan data from the U.S. Department of Housing and Urban Development (HUD) on single-family purchase money mortgage loans—that is, loans used for the purchase of a home rather than to refinance an existing mortgage.

First, to measure the use of down payment assistance from fiscal year 2000 to 2002, we used two samples of loans originally drawn for a file review study funded by HUD and conducted by the Concentrance Consulting Group (Concentrance).[1] That study found that FHA's Single-Family Data Warehouse was not a reliable source for identifying loans with down payment assistance. A review of paper files indicated that down payment assistance was frequently not recorded in the database and that the source of the assistance (government, nonprofit, relative, etc.) was often miscoded. Therefore, we limited our review to the 8,294 files reviewed by Concentrance for which the presence, source, and amount of assistance had been ascertained from a review of the paper files. The national sample consisted of just over 5,000 loans from a simple random sample of FHA purchase money loans endorsed in fiscal years 2000, 2001, and 2002, while the Metropolitan Statistical Area (MSA) sample consisted of just over 1,000 purchase money loans from each of the three MSAs (Atlanta, Indianapolis, and Salt Lake City) endorsed over the same time period.[2] Only loans with loan-to-value (LTV) ratios greater than 95 percent were sampled. The sample included loans insured by FHA's 203(b) program, its main single-family program, and its 234(c) condominium program. Small specialized programs, such as 203(k) rehabilitation and 221(d) subsidized mortgages were not included in the sample.

Second, to measure the use of down payment assistance for fiscal years 2003, 2004, and 2005, we obtained from HUD loan-level data for single-family purchase money loans with an LTV ratio greater than 95 percent. We utilized HUD's loan-level data for these years, because in January 2003 FHA implemented changes to its data collection requirements for loans with

[1]For a full description of this sample, see Concentrance Consulting Group, *Audit of Loans with Downpayment Assistance*, prepared for the U.S. Department of Housing and Urban Development, Feb. 6, 2004.

[2]According to HUD officials, HUD selected the Atlanta and Indianapolis MSAs for the Concentrance review because the use of down payment assistance was relatively high in those MSAs. HUD chose the Salt Lake City MSA because it had relatively high rates of down payment assistance and relatively high claim rates.

down payment assistance. We believed that these changes should lead to improved data quality.

We analyzed the data, by source of assistance, for trends in loan volume and in the proportion of loans with down payment assistance. For fiscal years 2000, 2001, and 2002, we generalized the percentage breakouts from the representative sample to the universe of FHA-insured single-family purchase money loans endorsed in these years. We also analyzed state-by-state variations in the proportion of loans with nonprofit down payment assistance; loans endorsed from May 2004 through April 2005 were included in this analysis. We met with appropriate FHA officials to discuss the quality of the data. Based on these discussions, we determined that the FHA data we used were sufficiently reliable for our analysis.

To examine the structure of the purchase transaction for loans with and without down payment assistance, we reviewed HUD policy guidebooks and reports on down payment assistance. We also interviewed HUD officials; staff from Fannie Mae and Freddie Mac; staff from selected conventional mortgage providers, private mortgage insurers, mortgage industry groups representing realtors and appraisers, state and local government agencies, and nonprofit down payment assistance providers; and individual real estate agents and appraisers. During the interviews, we asked a structured set of questions designed for the particular type of industry participant. We also reviewed the Web sites of selected mortgage industry participants.

To examine how down payment assistance impacts the prices of houses purchased with FHA-insured loans, we examined the sales prices of homes by the use and source of down payment assistance using property value estimates derived from an Automated Valuation Model (AVM).[3] We contracted with First American Real Estate Solutions to obtain property value estimates derived from their AVMs on two samples of FHA-insured single-family purchase money loans. One sample included the data set of 8,294 loans endorsed in fiscal years 2000, 2001, and 2002—the sample developed by Concentrance. The second sample included a stratified random sample of 2,000 FHA purchase money loans with first amortization

[3]AVM is a broad term used to describe a range of computerized econometric models that are designed to provide estimates of residential real estate property values. AVMs may use regression, adaptive estimation, neural networking, expert reasoning, and artificial intelligence to estimate the market value of a residence.

dates in April 2005, extracted from FHA's Single-Family Data Warehouse.[4] We used the AVM data as benchmarks to determine if a relationship existed between property valuation and the presence and source of down payment assistance by examining the ratio of the estimated AVM value to the appraised value and the sales price of the home. We met with staff of First American Real Estate Solutions to discuss the data and models in their AVM, including the steps the firm takes to verify the accuracy and maintain the integrity of the data. Based on these discussions, we determined that the AVM data we used were sufficiently reliable for our analysis. For a detailed description of our data sources and analysis, see appendix II.

To evaluate the influence of down payment assistance on the performance of FHA-insured home mortgage loans, we conducted multiple loan performance analyses on HUD data for the sample of loans endorsed in fiscal years 2000, 2001, and 2002. We used information on the source of down payment funds—data developed by Concentrance; delinquency, claim, and loss data; and other factors that research had indicated can affect loan performance. The loan performance data we used were current through June 30, 2005. First, we analyzed loan performance by source of down payment assistance, controlling for the maximum age of the loan. Second, we compared the performance of the loans by the presence and source of down payment assistance while holding other variables constant. Third, we examined the size of the effect of down payment assistance on loan performance relative to the size of the effect of other variables that influence loan performance, including LTV ratio and credit score. Fourth, using AVM data obtained from First American Real Estate Solutions for these loans, we also assessed the extent to which higher sales prices explained any difference in the performance of FHA-insured loans with down payment assistance. For a detailed description of our data sources, performance measures, and risk models, see appendix III.

To examine the extent to which FHA standards and controls for loans with down payment assistance are consistent with government internal control guidelines and, as appropriate, mortgage industry practices, we first assessed whether key FHA controls were consistent with the guidelines in GAO's August 2001 *Internal Control Management and Evaluation Tool*.[5]

[4]The date of first amortization is generally the first day of the month after settlement, so that most of these loans would have been settled during March 2005.

[5]GAO-01-1008G.

These guidelines include (1) ensuring that an agency's operations are consistent with any applicable industry or business norms; (2) using qualitative and quantitative methods to identify risk and determine relative risk rankings on a scheduled and periodic basis; (3) ensuring that adequate mechanisms exist to identify risks to the agency arising from its reliance on external parties to perform critical agency operations; and (4) ensuring that statutory requirements—as well as agency requirements, policies, and regulations—are applied properly. Second, we compared FHA's standards and controls to mortgage industry practices, as appropriate. We interviewed officials from HUD, Fannie Mae, Freddie Mac, conventional mortgage providers, private mortgage insurers, state and local government agencies, and nonprofit down payment assistance providers. These entities provided us with information about the controls they reported using to manage the risks associated with affordable loan products that permit down payment assistance. We did not verify that these entities, in fact, used these controls. We also reviewed descriptions of mortgage products permitting down payment assistance that are supported by mortgage industry participants and compared the standards used by these entities.

Automated Valuation Model Analysis

This appendix describes our analysis of differences in the sales prices and appraised values of homes purchased with and without down payment assistance and insured by the Federal Housing Administration (FHA). The U.S. Department of Housing and Urban Development's (HUD) Office of Inspector General (OIG) and others have indicated that appraisals and sales prices may be higher for homes with seller-funded assistance, relative to comparable homes without such assistance. Higher prices for comparable collateral can lead to higher loan amounts when supported by higher appraisals, which may cause higher delinquency, claim, and loss rates for loans with seller-funded assistance. To examine this possibility, we contracted with First American Real Estate Solutions (First American) to provide estimated house values from their Automated Valuation Models (AVM). AVMs from First American and other vendors are widely used by lenders, mortgage insurers, HUD, and government-sponsored enterprises for quality control and other purposes.

First American obtains data from local governments, large lenders, and other sources on house price sales and property characteristics across most of the United States. These data are used in statistical analyses that model the sales prices of properties, as a function of their characteristics, and appreciation trends for the surrounding neighborhoods. The models estimate a property's value on a given date, along with a likely range for that value and a confidence score, indicating the probability that the property's true value is within 10 percent of the estimated value. First American used four models to value the transactions we submitted, with about 95 percent of the cases relying on one of two models. Both of these are hybrid models, in that they use both hedonic regression to estimate property value and repeat sales methods to estimate a more precise estimated value for a property.[1] Hedonic regression places values on the characteristics of a property, such as square footage, number of bathrooms, and presence of a garage, to use when examining comparable properties. The repeat sales method uses multiple sales of the same properties over time to estimate the growth rates, and then uses these growth rates to estimate a sales price based on the previous sales prices of the property and the estimated growth rate in prices. In about 5 percent of the cases, when these two models could not provide a value estimate, two other

[1]See, for example, Bradford Case, Henry Pollakowski, and Susan Wachter, "On Choosing Among House Price Index Methodologies," *AREUEA Journal*, vol. 19 (1991), 286–307.

models that rely on neural net methods to produce value estimates were used.[2]

GAO provided First American with addresses for the 8,294 loans in the Concentrance Consulting Group (Concentrance) sample of loans endorsed in fiscal years 2000, 2001, and 2002.[3] First American was asked to provide an estimate of each home's value with an "as-of" date 2 weeks before the loan's actual settlement date. GAO also provided addresses from a stratified random sample of 2,000 FHA purchase money loans extracted from FHA's Single-Family Data Warehouse with first amortization dates in April 2005. The stratification was based on the gift letter source code in FHA's system, so that 1,000 loans had gift assistance from a nonprofit, and 1,000 did not.[4] As GAO did not have the settlement dates for this sample, we asked the contractor to value the homes as of March 1, 2005.[5] We did not provide First American with any information pertaining to the source of the purchaser's down payment funds.

First American might not be able to estimate the value of a particular property for a variety of reasons. For example, a data entry error or unusual address might prevent a match between FHA's database and the contractor's, or a local jurisdiction might not allow public access to property transaction records, reducing the number of properties in the contractor's database. In addition, there might be too few transactions in an area to allow a precise estimate of a property's value. "Hit rate" refers to the

[2]Neural nets are discussed in Paul Kershaw and Peter Rossini, "Using Neural Networks to Estimate Constant Quality House Price Indices," Fifth Annual Pacific Rim Real Estate Society Conference, Kuala Lumpur, Malaysia, January 1999.

[3]For a more detailed description of the data developed by Concentrance, see appendix I: Objectives, Scope, and Methodology.

[4]For the 2000, 2001, and 2002 Concentrance sample, when we had the name and often the Taxpayer Identification Number of the nonprofit, we divided the sample between seller-funded nonprofits and nonseller-funded sources, so that a gift from a nonprofit that was not clearly seller-funded was included in the nonseller-funded category. For the 2005 transactions, we used FHA's Single-Family Data Warehouse, which records the Taxpayer Identification Number but not the name of the nonprofit. Hence, for this analysis the samples were split between the categories "gift from a nonprofit" and "gift from a source other than nonprofit." We were able to link the Taxpayer Identification Number to the name of the nonprofit for almost 90 percent of the records in the Single-Family Data Warehouse sample, and found that the nonprofit was seller-funded in about 94 percent of those cases.

[5]The date of first amortization is generally the first day of the month after settlement, so that most of these loans would have settled during March 2005.

percentage of loans for which First American was able to make an estimate of property value. The hit rates were over 70 percent for the 2000, 2001, and 2002 national and Metropolitan Statistical Area (MSA) samples and 65 percent for the 2005 stratified national sample (tables 1-8). Hit rates were low for the Indianapolis component of the MSA sample, and confidence scores for Indianapolis were much lower than for the other two MSAs and for both national samples. Further, in Indianapolis, estimated values were much higher than sales prices for the loans that were valued. First American told us that Indiana is a nondisclosure state—that is, state law prohibits access to property transaction records by the general public.[6] For this reason, the contractor used secondary sources to value properties in this state. Utah is also a nondisclosure state. Although hit rates and confidence scores were higher for Salt Lake City than for Indianapolis, sales price ratios were also high for this MSA. Therefore, we dropped the Indianapolis and Salt Lake City components from one set of MSA results, and we present one table with just the Atlanta results. While some nondisclosure states, such as Indiana and Kansas, had low confidence scores, others did not. For example, Texas is a nondisclosure state but had a high hit rate and high confidence scores. First American has an arrangement that allows them to access Multiple Listing Service data for several urban counties in Texas, providing a substitute for government records. For two cases that clearly represented outliers in the Concentrance data files, we replaced a value from the Concentrance review with a value from the Single-Family Data Warehouse.[7]

To examine the possibility that the presence of seller-funded nonprofit down payment assistance might increase appraisals and sales prices, we calculated the ratio of the AVM estimate of property value to the sales price and the appraised value from FHA's records. Both the numerator and denominator(s) were random variables. The AVM estimate was a model estimate with an associated error, and sales prices and appraisals reflected the buyer's or appraiser's estimate of a home's true value, which may have errors of varying magnitudes. The ratio of two normally distributed random variables has a Cauchy distribution (a distribution with fat tails and an undefined mean). Hence, tests of the difference in medians are generally

[6]The others are Alaska, Kansas, Mississippi, Missouri, New Mexico, Texas, and Utah.

[7]In one case, a mortgage amount was recorded as $12,937, although the Single-Family Data Warehouse recorded it as $128,937, and the sales price was $130,000. In the other case, a sales price was recorded as $783,300, and the Single-Family Data Warehouse recorded the sales price as $78,300, and the mortgage was $77,362.

more informative than tests of differences in means.[8] We tested the difference in medians with a Kruskal-Wallis test and the difference in means with a T-test. We also tested the difference in medians or in means using only records with confidence scores of more than 50, rejecting transactions with low confidence; we report these results in tables 1–8 as the high confidence median and the high confidence mean. We also tested for differences in the trimmed means, rejecting the top and bottom 1 percent of the transactions; we report these results in tables 1–8 as the trimmed mean.[9] Because of the statistical problems inherent in testing the mean of a ratio of random variables, we relied on the difference in medians as our primary indicator of a significant difference in valuations.

The results of the analysis are presented in tables 1–4, which show the difference in the ratio of the AVM estimate to the appraised value and sales price for loans with and without nonprofit down payment assistance. The median ratio of the AVM estimate to the appraised value was slightly over 1, except for the MSA sample with Indianapolis included, for which the ratio was about 1.1.[10] The median ratio of the AVM value to the sales price was generally 1 or 2 percentage points higher than the ratio of the AVM value to the appraised value, as appraised values were the same as sales prices for about half the transactions but were up to 4 percentage points higher than sales prices for most of the other half. In the national sample for 2000, 2001, and 2002, prices and appraisal ratios were both about 3 percentage points lower for loans with seller-funded assistance, indicating that sales prices and appraisals were typically about 3 percentage points higher for transactions with seller-funded assistance than they were for comparable homes without such assistance. The appraisal ratio was also 3 percentage points lower when the sample was restricted to estimated values with confidence scores above 50; in these cases, the sales price ratio was 4 percentage points lower, indicating that homes with seller-funded

[8]The problem of testing means for a Cauchy distribution and the use of medians as an alternative are discussed in E.L. Lehmann, *Theory of Point Estimation*. (West Sussex, England: John Wiley and Sons, Inc., 1983). In particular see 352–353 and 423.

[9]Use of the trimmed mean for non-normal distributions is discussed in the National Institute of Standards and Technology's *Engineering Statistics Handbook* chapter on "Exploratory Data Analysis," http://www.itl.nist.gov/div898/handbook/eda/section3/eda351.htm.

[10]There may be a slight upward bias to the AVM estimates for a sample consisting solely of FHA-insured loans. Because FHA has a maximum loan amount, only the least expensive homes in a high-priced neighborhood will qualify for FHA, so there will be some tendency for FHA-insured properties to have lower values than neighboring properties. This tendency should not have a differential impact on assisted and unassisted transactions.

assistance sold for about 4 percentage points more than comparable homes without assistance. Differences in the MSA sample for these years were not as large, with a 1 percentage point difference in the median appraisal ratio and differences of about 2 percentage points for the price ratio and for the appraisal ratio when the sample was restricted to estimated values with high confidence scores. Kruskal-Wallis tests for a difference in medians were always significant at 1 percent in one-tailed tests.[11] T-tests for differences in means were generally significant at 5 percent or more in one-tailed tests, except for the national sample appraisal ratio. T-tests were also conducted on differences in means with the top and bottom 1 percent of the ratio distribution excluded. These trimmed mean results were similar to the mean results but with higher significance levels and sometimes larger differences.

For the March 2005 national sample, median differences in both sales price and appraisal ratios were about 2.3 percentage points and were statistically significant with p-values of less than 1 percent in one-tailed tests. These findings indicate that sales prices and appraisals were about 2.3 percentage points higher for transactions with nonprofit assistance than they were for comparable homes without nonprofit assistance. Mean differences were slightly smaller, ranging between 1 and 2 percentage points. The mean price difference was statistically significant at 5 percent in a one-tailed test, while appraisal ratio differences in means were not significant. Again, because of the statistical difficulties inherent in testing the ratio of two random variables, we relied primarily on tests of the difference in medians.

[11]The level of statistical significance is shown as the p-value in tables 1–8.

Table 1: The Ratio of AVM Value to Appraisal Value and Sales Price—Nonprofit Down Payment Assistance, National Sample, Fiscal Years 2000, 2001, and 2002

78 % hit rate. Confidence score: 78 median						
Type	**Nonprofit assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.071	1.030	1.068	1.027	1.063
	Yes	1.055	1.002	1.041	1.000	1.043
	Difference	0.016	0.028	0.027	0.027	0.020
	p-value	0.084	**0.001**	**0.008**	**0.001**	**0.006**
Sales price ratio	No	1.095	1.046	1.090	1.043	1.084
	Yes	1.067	1.012	1.053	1.007	1.053
	Difference	0.028	0.034	0.037	0.036	0.031
	p-value	**0.011**	**0.001**	**0.001**	**0.001**	**0.001**

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; p-values statistically significant at 5% or better are **bold.**

Table 2: The Ratio of AVM Value to Appraisal Value and Sales Price—Nonprofit Down Payment Assistance, MSA Sample, Fiscal Years 2000, 2001, and 2002

85 % hit rate. Confidence score: 78 median						
Type	**Nonprofit assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.106	1.080	1.086	1.061	1.102
	Yes	1.096	1.067	1.068	1.039	1.093
	Difference	0.010	0.013	0.018	0.022	0.009
	p-value	0.093	**0.024**	**0.008**	**0.001**	0.058
Sales price ratio	No	1.126	1.095	1.105	1.076	1.123
	Yes	1.110	1.078	1.081	1.052	1.107
	Difference	0.016	0.017	0.024	0.024	0.016
	p-value	**0.015**	**0.003**	**0.001**	**0.001**	**0.006**

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; p-values statistically significant at 5% or better are **bold.**

Table 3: The Ratio of AVM Value to Appraisal Value and Sales Price—Nonprofit Down Payment Assistance, Atlanta MSA Sample, Fiscal Years 2000, 2001, and 2002

95 % hit rate. Confidence score: 85 median						
Type	**Nonprofit assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.037	1.013	1.035	1.012	1.035
	Yes	1.025	0.989	1.022	0.988	1.012
	Difference	0.012	0.024	0.013	0.024	0.023
	p-value	0.165	**0.001**	0.130	**0.001**	**0.002**
Sales price ratio	No	1.057	1.028	1.056	1.027	1.057
	Yes	1.039	1.001	1.036	1.001	1.026
	Difference	0.018	0.027	0.020	0.026	0.031
	p-value	0.079	**0.001**	0.056	**0.001**	**0.001**

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; p-values statistically significant at 5% or better are **bold.**

Table 4: The Ratio of AVM Value to Appraisal Value and Sales Price—Nonprofit Down Payment Assistance, National Sample, March 2005

65 % hit rate. Confidence score: 77 median						
Type	**Nonprofit assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.051	1.024	1.049	1.024	1.047
	Yes	1.037	1.001	1.036	1.000	1.025
	Difference	0.014	0.023	0.013	0.024	0.022
	p-value	0.116	**0.007**	0.156	**0.006**	**0.006**
Sales price ratio	No	1.079	1.044	1.075	1.039	1.070
	Yes	1.058	1.021	1.057	1.013	1.048
	Difference	0.021	0.023	0.018	0.026	0.022
	p-value	**0.049**	**0.008**	0.084	**0.006**	**0.013**

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; p-values statistically significant at 5% or better are **bold.**

We also tested for the differences in ratios between transactions with no gift assistance versus transactions with gift assistance from sources other than nonprofits (tables 5–8). We found no significant differences in any of the samples that we examined and no consistent pattern in the signs of the differences. Transactions with assistance had differences in medians that were sometimes slightly positive and sometimes slightly negative.

Table 5: The Ratio of AVM Value to Appraisal Value and Sales Price—Down Payment Assistance from Other Sources, National Sample, Fiscal Years 2000, 2001, and 2002

78 % hit rate. Confidence score: 78 median						
Type	**Other assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.072	1.032	1.069	1.028	1.064
	Yes	1.070	1.027	1.065	1.024	1.060
	Difference	0.002	0.005	0.004	0.004	0.004
	p-value	0.430	0.420	0.280	0.360	0.255
Sales price ratio	No	1.094	1.046	1.091	1.042	1.083
	Yes	1.096	1.046	1.089	1.043	1.086
	Difference	-0.002	0.000	0.002	-0.001	-0.003
	p-value	0.500	0.397	0.420	0.500	0.500

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; no differences were statistically significant at 5% or better.

Table 6: The Ratio of AVM Value to Appraisal Value and Sales Price—Down Payment Assistance from Other Sources, MSA Sample, Fiscal Years 2000, 2001, and 2002

85 % hit rate. Confidence score: 78 median						
Type	**Other assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.108	1.079	1.085	1.052	1.103
	Yes	1.101	1.080	1.087	1.072	1.101
	Difference	0.007	-0.001	-0.002	-0.020	0.002
	p-value	0.194	0.381	0.500	0.500	0.392
Sales price ratio	No	1.128	1.097	1.105	1.068	1.124
	Yes	1.122	1.093	1.106	1.083	1.121
	Difference	0.006	0.004	-0.001	-0.015	0.003
	p-value	0.224	0.375	0.500	0.500	0.340

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; no differences were statistically significant at 5% or better.

Table 7: The Ratio of AVM Value to Appraisal Value and Sales Price—Down Payment Assistance from Other Sources, Atlanta MSA Sample, Fiscal Years 2000, 2001, and 2002

95 % hit rate. Confidence score: 85 median						
Type	**Other assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.037	1.012	1.036	1.012	1.035
	Yes	1.036	1.017	1.033	1.017	1.036
	Difference	0.001	-0.005	0.003	-0.005	-0.001
	p-value	0.450	0.500	0.400	0.500	0.500
Sales price ratio	No	1.056	1.026	1.056	1.025	1.057
	Yes	1.058	1.030	1.056	1.029	1.058
	Difference	-0.002	-0.004	0.000	-0.004	-0.001
	p-value	0.500	0.500	0.500	0.500	0.500

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; no differences were statistically significant at 5% or better.

Table 8: The Ratio of AVM Value to Appraisal Value and Sales Price—Down Payment Assistance from Other Sources, National Sample, March 2005

65 % hit rate. Confidence score: 77 median						
Type	**Other assistance**	**Mean**	**Median**	**High confidence mean**	**High confidence median**	**Trimmed mean**
Appraisal value ratio	No	1.051	1.026	1.031	1.022	1.049
	Yes	1.053	1.024	1.021	1.028	1.044
	Difference	-0.002	0.002	0.010	-0.006	0.005
	p-value	0.500	0.354	0.373	0.433	0.379
Sales price ratio	No	1.073	1.040	1.069	1.033	1.069
	Yes	1.095	1.045	1.091	1.054	1.072
	Difference	-0.022	-0.005	-0.022	-0.021	-0.003
	p-value	0.500	0.500	0.500	0.500	0.500

Source: GAO.

Notes: p-value is for one-tailed test; p-value of .001 means .001 or less; p-value of .5 means .5 or greater; no differences were statistically significant at 5% or better.

Loan Performance Analysis

This appendix describes the econometric models that we built and the analysis that we conducted to examine the performance of mortgage loans that received down payment assistance and were insured by the U.S. Department of Housing and Urban Development's (HUD) Federal Housing Administration (FHA). We developed multiple regression models to forecast delinquency, claim, prepayment, and loss on two samples of FHA single-family purchase money loans endorsed in 2000, 2001, and 2002.[1] The national sample included all 50 states and the District of Columbia but excluded U.S. territories. The Metropolitan Statistical Area (MSA) sample consisted of loans in three MSAs where the use of down payment assistance was relatively high: Atlanta, Indianapolis, and Salt Lake City. The data were current as of June 30, 2005.

Our forecasting models used observations on loan quarters—that is, information on the characteristics and status of an insured loan during each quarter of its life – to predict conditional foreclosure and prepayment probabilities.[2] Our model used a pair of binary logistic regressions to predict the probability of claim, or prepayment, as a function of several key predictor variables. Some of these variables, such as initial loan-to value (LTV) ratio, credit score, and the presence of down payment assistance, do not vary over the life of a loan, while others, such as accumulated equity from amortization and price appreciation, may change and are updated quarterly.

Data and Sample Selection

For our analysis, we used the 8,294 loans in the Concentrance Consulting Group's (Concentrance) sample of FHA single-family purchase money mortgage loans endorsed in fiscal years 2000, 2001, and 2002, for which the presence, source, and amount of assistance had been ascertained through a loan file review.[3] Only loans with LTV ratios greater than 95 percent were sampled. The national sample consisted of just over 5,000 loans from a

[1]The data consisted of loans insured in FHA's 203(b) program, FHA's main single-family program, and the 234(c) condominium program. Small specialized programs, such as 203(k) rehabilitation and 221(d) subsidized mortgages were not in the sample.

[2]These probabilities are conditional because they are subject to the condition that the loan has remained active until a given quarter.

[3]For a more detailed description of the data developed by Concentrance, see appendix I: Objectives, Scope, and Methodology. For a full description of the data, see Concentrance, *Audit of Loans with Downpayment Assistance*, prepared for the U.S. Department of Housing and Urban Development, Feb. 6, 2004.

simple random sample of purchase money loans, while the MSA sample consisted of just over 1,000 purchase money loans from each of three MSAs: Atlanta, Indianapolis, and Salt Lake City. Concentrance's loan file review also recorded the borrowers' credit scores, an important predictor of loan performance that, at the time, was not captured in FHA's Single-Family Data Warehouse.

We supplemented these files with information from FHA's Single-Family Data Warehouse. We then merged variables reflecting delinquency, claim, and prepayment information with the Concentrance files, along with information on borrowers' assets and data on national and local economic conditions. We obtained state-level unemployment rates from the Bureau of Labor Statistics, 30-year fixed rate mortgage rates from Freddie Mac, 1- and 10-year Treasury interest rates from the Federal Reserve, the Personal Consumption Expenditure Deflator from the Bureau of Economic Analysis, and median existing house prices at the state level from Global Insights, Inc., in order to measure house price appreciation over time. Table 9 lists the names and definitions of the variables used in the models.

Table 9: Names and Definitions of the Variables Used in Our Regression Models

Constructed risk	Combines the variables used in a prior GAO report to predict claim probability, including initial LTV ratio, price appreciation after origination, loan size, location, interest rate, unemployment rate, loan type, and other variables[a]
FICO score	FICO score of borrower in case binder (if two scores, it is the lower score; if three scores it is the median score)
No FICO score	Equals 1 if no FICO score was available for the borrower
Borrower reserves	Equals 1 if the borrower had less than 2 months of mortgage payment in liquid assets after closing
Front-end ratio	Housing payments divided by income
Seller-funded down payment assistance	Equals 1 if the borrower received down payment assistance from a seller-funded program[b]
Nonseller-funded down payment assistance	Equals 1 if the borrower received down payment assistance from a source other than a seller-funded program
Underserved area	Equals 1 if the home is in a census tract designated by HUD as underserved
Condominium	Equals 1 if the loan is a 234(c) condominium loan
First-time homebuyer	Equals 1 if the borrower was flagged in HUD's database as a first-time homebuyer
LTV ratio	The ratio of the original mortgage amount to the sales price of the house

(Continued From Previous Page)	
15-year mortgage	Equals 1 if the mortgage term is 25 years or less (mostly 15 year terms)
Endorsed in fiscal year 2000	Equals 1 if endorsed in fiscal year 2000
Endorsed in fiscal year 2001	Equals 1 if endorsed in fiscal year 2001
House price appreciation rate	Growth rate in the median price of existing housing, reduced by 0.5 percent per quarter to adjust for increasing quality of the housing stock[c]
First 6 quarters	Number of quarters since origination, up to 6
Next 6 quarters	Number of quarters since the sixth quarter after origination, up to 12
Following quarters	Number of quarters since the twelfth quarter after origination
Adjustable Rate Mortgage (ARM)	Equals 1 if adjustable rate mortgage
Atlanta MSA	Equals 1 if in the Atlanta MSA sample
Salt Lake City MSA	Equals 1 if in the Salt Lake MSA sample
Relatively high equity	The ratio of the market value of the mortgage to the book value of the mortgage, when greater than 1.2: measures the incentive of the borrower to refinance the loan
Relatively low equity	The ratio of the market value of the mortgage to the book value of the mortgage, when less than 1.2
Initial interest rate	The initial interest rate on the mortgage
Original mortgage amount	The balance of the mortgage at time of origination

Source: GAO.

[a]GAO-01-460.

[b]In a small number of cases borrowers received both types of assistance. In these cases, the record was assigned to the category with the larger amount of assistance.

[c]Global Insights, Inc.

Specification of Delinquency and Claim Models

The models we estimated used logistic regression to predict the probability of a loan becoming seriously delinquent or resulting in a claim on FHA's insurance coverage, as a function of credit score, equity, and other variables. Equity and credit scores have consistently been found to be important predictors of mortgage credit risk and some studies have found that other variables, such as qualifying ratios, are important.[4] The dependent variable is the conditional probability of a loan becoming 90

[4]See GAO-05-194 for a review of what published research indicates about the variables that are most important when estimating the risk level associated with individual mortgages.

days delinquent, or resulting in a claim, in a given quarter, conditional on the loan having survived until that quarter.[5]

We estimated the delinquency and claim regressions using both national and MSA samples of loans. For each of these samples, we developed four different delinquency regressions and four different claim regressions. The first model used for delinquency and claim regressions we based on the variables used in the FHA Technology Open to Approved Lenders (TOTAL) Mortgage Scorecard (used by FHA's TOTAL Mortgage Scorecard automated underwriting algorithm as predictors of credit risk). These variables were initial LTV ratio, credit score, housing payment-to-income ratio (the front-end ratio), borrower reserves, and mortgage term (15-year or 30-year term). To these, we added variables for house price appreciation, variables reflecting the passage of time, and variables indicating the presence and source of down payment assistance. For the second model, we augmented the model based on the FHA TOTAL Mortgage Scorecard variables with indicators of whether the mortgage was an adjustable rate mortgage, the property was located in an underserved area, the property was a condominium, and the purchaser was a first-time homebuyer. We based the third regression model on GAO's model of FHA actuarial soundness that we estimated in 2001.[6] That model used, among others, the initial LTV ratio, loan type (30-year fixed, 15-year fixed, investor, or adjustable rate mortgage), property type (one or multiple unit), Census division, accumulated equity stemming from house price appreciation and amortization, and a set of variables reflecting the passage of time, to predict the annual probability of a loan terminating in a claim. We created a variable called constructed risk, using the results of the 2001 actuarial study. Because that study used millions of loans in the model estimation, its estimates of the effects of certain variables, such as accumulated equity, may be more precise than those produced using the thousands of loans in the Concentrance sample. However, the actuarial study did not use credit score as a predictor variable or consider down payment assistance. Therefore, we included the constructed risk variable along with credit score information, borrower reserves, front-end ratio, and presence and source of down payment assistance. The fourth model augments GAO's actuarial model by adding three variables: underserved area, condominium,

[5]Such termination probabilities are called hazard rates in statistical mortgage modeling.

[6]This model is fully documented in GAO-01-460 (Washington, D.C.: Feb. 28, 2001).

and first-time homebuyer. GAO estimated prepayments and losses twice, once in a national sample, and once in a MSA sample.

The LTV ratio calculated from FHA's database will tend to understate the true LTV ratio of the mortgage if homes with seller-funded down payment assistance are sold for higher prices than are comparable homes without such assistance.[7] Comparable homes would have the same value, yet the home purchased with assistance may have a larger loan. For example, FHA regulations allow the borrower to take out a mortgage for about $99,000 on a $100,000 home. With seller-funded down payment assistance, the same home might sell for $103,000 and qualify for a $102,000 loan.[8] The calculated LTV ratio would be about 99 percent in each case ($99,000/$100,000 or $102,000/$103,000), but the transaction with seller-funded assistance would have a larger mortgage, backed by the same collateral. In such cases, the initial LTV ratio would be understated, the borrower's equity subsequent to origination would be overstated, and the risk of delinquency or claim for such loans should be higher than for loans with comparable LTV ratios and subsequent price appreciation. To test for this possibility, we included a variable, seller-funded down payment assistance, which was set equal to 1 for loans that received seller-funded down payment assistance. To test for the possibility that down payment assistance in general, and not just seller-funded assistance, raised delinquency and claim probabilities, we included a variable, nonseller-funded down payment assistance, which was set equal to 1 for loans that received down payment assistance from relatives, a borrower's employer, government programs, nonprofits that were not seller-funded, or nonprofits with a source of funding that was not ascertained.

Estimation Results

Tables 10 through 17 present the estimation results for our 90-day delinquency regressions, and tables 18 through 25 present the results for our claim regressions for the national samples and MSA samples. Our results are consistent with other research that finds credit scores and accumulated equity to be important variables predicting delinquency and claims.[9] In specifications that use the constructed risk variable (tables 12,

[7]And the higher price is supported by an appraisal.

[8]FHA requires a buyer contribution of about 3 percent, but allows the borrower to finance some closing costs and the mortgage insurance premium.

[9]GAO-05-194.

13, 16, 17, 20, 21, 24, and 25), we find it a statistically significant predictor of delinquency or claim. Additionally, credit score is highly significant. The front-end ratio, which FHA uses in its underwriting, is also very important. Borrower reserves, however, generally have the wrong sign, and are statistically insignificant. In some specifications indicators for condominium loans, for loans to first-time homebuyers, and for loans in underserved areas are added, and they are also found to be insignificant. In specifications that use TOTAL Mortgage Scorecard variables (tables 10, 11, 14, 15, 18, 19, 22, and 23), credit score has statistically significant effect of the expected sign. The front-end ratio is also an important predictor with the expected sign. Again reserves are not an important predictor; neither are the 15-year loan indicator, the initial LTV ratio, and indicators for condominiums or underserved areas.

The failure to find a significant effect for short-term loans is not surprising, as such loans constitute only about 1 percent of the loans in each sample. The lack of a significant effect for LTV ratio is also not surprising. The Concentrance samples are restricted to high-LTV loans, and about 85 percent of loans in the sample had LTV ratios in a very narrow range (98 to 100 percent). Over 99 percent of loans had LTV ratios between 96 and 102 percent. The lack of variation in this variable meant that the regression had little ability to identify its effect.

The lack of a significant effect for reserves in the claim and delinquency regressions is surprising. It may indicate that down payment assistance alters the relationship between reserves and credit risk. Without assistance, borrowers with substantial liquid assets may have few reserves after a down payment is made. With assistance, borrowers with substantial liquid assets may retain those assets by not making a down payment with their own funds. If liquid assets are a better measure of risk than are reserves, then reserves may be a less useful risk indicator when substantial numbers of loans have down payment assistance.

Delinquency Results

In both the national and MSA samples, down payment assistance substantially increased the likelihood of 90-day delinquency. Using the augmented GAO actuarial model, results in the national sample indicated that down payment assistance from a seller-funded nonprofit raised the delinquency rate by 100 percent, compared with similar loans with no assistance (table 12).[10] Assistance from other sources raised the delinquency rate by 20 percent, relative to similar loans with no assistance. With the model based on the augmented TOTAL Mortgage Scorecard variables, the results indicated that assistance from a seller-funded nonprofit raised the delinquency rate by 93 percent, while assistance from other sources raised the delinquency rate by 21 percent (table 10). The differences between loans with seller-funded assistance and loans without it are significant with a one-tailed test at a level of 1 percent in all variations of the model. The differences between seller-funded assistance and assistance from other sources were large and also significant at 1 percent in a one-tailed test in all variations. Differences in delinquency rates in the MSA sample were also substantial. Considering the augmented GAO actuarial model, loans with seller-funded down payment assistance had delinquency rates that were 105 percent higher than the delinquency rates on comparable loans without assistance, while loans with assistance from other sources had delinquency rates that were 34 percent higher than the delinquency rates of loans without assistance (table 16). The differences between seller-funded assistance and no assistance, and between seller-funded assistance and other assistance, were both significant at 1 percent in one-tailed tests in all variations.[11]

[10]This can be calculated from the regression coefficients for seller-funded down payment assistance and non-seller-funded down payment assistance in table 12, by taking the exponent of the coefficient. See Betty Kirkwood and Johnathan Sterne, *Essential Medical Statistics*, 2nd edition (Oxford UK: Blackwell Publishing, 2003), 197-198.

[11]The model based on the TOTAL Mortgage Scorecard variables found even larger differences, with seller-funded nonprofit assistance loans having claim rates 109 percent higher and loans with assistance from other sources having claim rates 36 percent higher than comparable loans without assistance.

Claim Results

Down payment assistance also had a substantial impact on claims in both the national and MSA samples. Results from the national sample using the augmented GAO actuarial model indicated that assistance from a seller-funded nonprofit raised the claim rate by 81 percent, relative to similar loans with no assistance, as shown in the odds ratio point estimate column of table 20.[12] Assistance from other sources raised the claim rate by 44 percent, relative to similar loans with no down payment assistance. With the model based on the augmented TOTAL Mortgage Scorecard variables, we found that assistance from a seller-funded nonprofit raised the claim rate by 76 percent, while assistance from other sources raised the claim rate by 49 percent (table 18). The differences between loans with down payment assistance and those without it were statistically significant with a one-tailed test at a level of 1 percent. Seller-funded assistance had a larger impact on claims than did assistance from other sources. Those differences, while large, were not quite significant at conventional levels.[13] Differences in the MSA sample were even larger for seller-funded nonprofit assistance. Using the GAO actuarial model, loans with seller-funded down payment assistance had claim rates that were 134 percent higher than the claim rates on comparable loans without assistance, while loans with down payment assistance from other sources had claim rates that were 24 percent higher than the claim rates on loans without assistance (table 25). The difference between seller-funded assistance and no assistance, and the difference between seller-funded assistance and other assistance, were both significant at 1 percent in one-tailed tests in all variations of the model.

[12]The odds ratio is the probability that an event, such as a claim or a prepayment, will occur, divided by the probability that the event will not occur.

[13]The p values for a one-tailed test range from 0.11 to .12 with the constructed risk variable, and .2 to .27 with the TOTAL Mortgage Scorecard variables.

Several explanations are possible for the increase in delinquency and claim rates associated with down payment assistance from nonseller-funded sources. It is possible that the gifts from relatives were actually loans, despite the inclusion of a gift letter indicating that repayment is not expected. In these cases, the LTV ratio would be misstated, not because the collateral value was overstated, but because the total amount of debt incurred in the transaction was understated. It is also possible that borrowers who could save for a down payment differed in key respects from borrowers who could not. For example, some researchers have suggested that households may increase their savings rates prior to purchasing a home.[14] Others have found evidence that young households increased their earnings and savings by working more hours prior to purchasing their first home.[15] It may be the case that households that can more easily increase earnings or reduce consumption in order to accumulate savings enter homeownership when a down payment is required but that both flexible and inflexible households purchase homes when no down payment is required. The inclusion of households with less flexibility would tend to increase delinquencies and claims.

While delinquency differences are about the same for the MSA sample and the national sample, claim rate differences for seller-funded nonprofit assistance are much larger in the MSA sample than they are in the national sample. Research suggests that delinquencies are more likely to cure, or to prepay, than to claim if the borrower is projected to have accumulated equity.[16] The rate of house price appreciation in the national sample is much higher than in the MSA samples, so that borrowers in the national sample would have accumulated more equity. Over the 5-year period from the first quarter of fiscal year 2000 to the last quarter of fiscal year 2004, the median house price of existing houses increased 11 percent the Salt Lake City MSA, 18 percent in the Indianapolis MSA, and 32 percent in the Atlanta

[14]Ronald J. Krumm and Austin Kelly, "Effects of Homeownership on Household Savings," *Journal of Urban Economics*, vol. 26, (1989), 281-294.

[15]Don Haurin, Pat Hendershott, and Susan Wachter, "Wealth Accumulation and Housing Choices of Young Households: An Exploratory Investigation" *Journal of Housing Research*, vol. 7, no. 1, (1996), 33-57.

[16]Brent W. Ambrose and Charles A. Capone, "The Hazard Rates of First and Second Defaults," *Journal of Real Estate Finance and Economics*, vol. 20, no. 3 (May 2000), 275–293; Michelle A. Danis and Anthony Pennington-Cross, "A Dynamic Look at Subprime Loan Performance" Federal Reserve Bank of St. Louis Working Paper 2005-029A (May 2005), available at http://research.stlouisfed.org/wp/2005/2005-029.pdf .

MSA. The median increase in the national sample was about 39 percent and the mean increase was 51 percent. It is possible that substantial house price appreciation in the national sample weakened the effect of seller-funded down payment assistance on claims, as the assisted loans that became delinquent were more likely to be resolved without a claim in rapidly appreciating markets.

Table 10: Delinquency Regression Results—National Sample, Model Based on Augmented TOTAL Mortgage Scorecard Variables

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	2.9662	3.8624	0.4425	
LTV ratio	-0.00214	0.038	0.9551	0.998
15-year mortgage	0.096	0.2587	0.7105	1.101
FICO score	-0.0119	0.000716	<.0001	0.988
No FICO score	0.5569	0.1259	<.0001	1.745
Borrower reserves	0.0634	0.0895	0.4789	1.065
Front-end ratio	1.477	0.5467	0.0069	4.38
Endorsed in fiscal year 2000	-0.1064	0.1047	0.3096	0.899
Endorsed in fiscal year 2001	-0.0332	0.0979	0.7346	0.967
ARM	-0.3078	0.1678	0.0667	0.735
Underserved area	0.0703	0.0785	0.3706	1.073
Condominium	-0.2547	0.1843	0.1669	0.775
First-time homebuyer	-0.0448	0.1064	0.6736	0.956
Seller-funded down payment assistance	0.6583	0.1111	<.0001	1.932
Nonseller-funded down payment assistance	0.1911	0.0935	0.041	1.211
House price appreciation rate	-0.9398	0.7716	0.2232	0.391
First 6 quarters	0.1997	0.0259	<.0001	1.221
Next 6 quarters	0.00186	0.0492	0.9698	1.002
Following quarters	0.0558	0.0496	0.2603	1.057

Source: GAO.

Table 11: Delinquency Regression Results—National Sample, Model Based on TOTAL Mortgage Scorecard Variables

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	0.3717	3.7917	0.9219	
LTV ratio	0.0249	0.037	0.4997	1.025
15-year mortgage	0.1153	0.2585	0.6555	1.122
FICO score	-0.012	0.000714	<.0001	0.988
No FICO score	0.5782	0.1251	<.0001	1.783
Borrower reserves	0.0545	0.0892	0.5414	1.056
Front-end ratio	1.4461	0.5442	0.0079	4.246
Endorsed in fiscal year 2000	-0.1498	0.1039	0.1493	0.861
Endorsed in fiscal year 2001	-0.0351	0.0979	0.7197	0.965
Seller-funded down payment assistance	0.6384	0.1101	<.0001	1.894
Nonseller-funded down payment assistance	0.1911	0.0933	0.0405	1.211
House price appreciation rate	-1.0039	0.7676	0.191	0.366
First 6 quarters	0.1994	0.0259	<.0001	1.221
Next 6 quarters	0.000889	0.0493	0.9856	1.001
Following quarters	0.0563	0.0497	0.257	1.058

Source: GAO.

Table 12: Delinquency Regression Results—National Sample, Augmented GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	1.8293	0.498	0.0002	
Constructed risk	0.1162	0.0175	<.0001	1.123
FICO score	-0.0116	0.000711	<.0001	0.988
No FICO score	0.5583	0.1255	<.0001	1.748
Borrower reserves	0.0476	0.0893	0.5943	1.049
Front-end ratio	1.2325	0.5399	0.0224	3.43
Underserved area	0.0415	0.0783	0.5961	1.042
Condominium	-0.2416	0.1713	0.1584	0.785
First-time homebuyer	-0.047	0.1062	0.6583	0.954
Seller-funded down payment assistance	0.6961	0.1086	<.0001	2.006
Nonseller-funded down payment assistance	0.1839	0.0932	0.0484	1.202

Source: GAO.

Table 13: Delinquency Regression Results—National Sample, GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	1.8124	0.4868	0.0002	
Constructed risk	0.118	0.0174	<.0001	1.125
FICO score	-0.0117	0.000708	<.0001	0.988
No FICO score	0.5652	0.1247	<.0001	1.76
Borrower reserves	0.0448	0.0891	0.615	1.046
Front-end ratio	1.191	0.5363	0.0264	3.29
Seller-funded down payment assistance	0.6979	0.1083	<.0001	2.01
Nonseller-funded down payment assistance	0.1835	0.0929	0.0483	1.201

Source: GAO.

Table 14: Delinquency Regression Results—MSA Sample, Model Based on Augmented TOTAL Mortgage Scorecard Variables

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-8.4601	8.0246	0.2918	
LTV ratio	0.0457	0.079	0.5634	1.047
15-year mortgage	0.2383	0.5188	0.6461	1.269
FICO score	-0.011	0.000826	<.0001	0.989
No FICO score	0.4604	0.1437	0.0014	1.585
Borrower reserves	-0.0184	0.1163	0.8742	0.982
Front-end ratio	2.2265	0.672	0.0009	9.268
Endorsed in fiscal year 2000	-0.2113	0.1344	0.116	0.81
Endorsed in fiscal year 2001	-0.0661	0.113	0.5586	0.936
ARM	-0.0869	0.1367	0.5249	0.917
Underserved area	0.1458	0.0918	0.1124	1.157
Condominium	0.3403	0.2298	0.1387	1.405
First-time homebuyer	-0.1141	0.1258	0.3643	0.892
Seller-funded down payment assistance	0.741	0.1146	<.0001	2.098
Nonseller-funded down payment assistance	0.3074	0.1346	0.0224	1.36
Atlanta MSA	-0.1697	0.1149	0.1399	0.844
Salt Lake City MSA	0.2951	0.1265	0.0197	1.343
House price appreciation rate	4.9561	2.2367	0.0267	142.033
First 6 quarters	0.2025	0.0294	<.0001	1.224
Next 6 quarters	0.0374	0.0589	0.5256	1.038
Following quarters	-0.0242	0.0626	0.6988	0.976

Source: GAO.

Table 15: Delinquency Regression Results—MSA Sample, Model Based on TOTAL Mortgage Scorecard Variables

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-4.3569	5.0712	0.3903	
LTV ratio	0.00335	0.0465	0.9425	1.003
15-year mortgage	0.2403	0.5184	0.643	1.272
FICO score	-0.0109	0.000822	<.0001	0.989
No FICO score	0.463	0.1423	0.0011	1.589
Borrower reserves	-0.0185	0.1164	0.8735	0.982
Front-end ratio	2.1509	0.6709	0.0013	8.593
Endorsed in fiscal year 2000	-0.1969	0.1292	0.1273	0.821
Endorsed in fiscal year 2001	-0.0439	0.1114	0.6936	0.957
Seller-funded down payment assistance	0.7357	0.1138	<.0001	2.087
Nonseller-funded down payment assistance	0.3091	0.1343	0.0214	1.362
Atlanta MSA	-0.1443	0.114	0.2054	0.866
Salt Lake City MSA	0.3253	0.1244	0.0089	1.384
House price appreciation rate	4.9592	2.2289	0.0261	142.478
First 6 quarters	0.2026	0.0294	<.0001	1.225
Next 6 quarters	0.038	0.059	0.5197	1.039
Following quarters	-0.0256	0.0628	0.6838	0.975

Source: GAO.

Table 16: Delinquency Regression Results—MSA Sample, Augmented GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	1.0815	0.5621	0.0543	
Constructed risk	0.1411	0.0239	<.0001	1.152
FICO score	-0.0108	0.000819	<.0001	0.989
No FICO score	0.45	0.143	0.0016	1.568
Borrower reserves	-0.0195	0.1159	0.8666	0.981
Front-end ratio	2.1455	0.6696	0.0014	8.546
Underserved area	0.1265	0.0914	0.1665	1.135
Condominium	0.3149	0.1905	0.0983	1.37
First-time homebuyer	-0.1261	0.1256	0.3152	0.882
Seller-funded down payment assistance	0.719	0.1125	<.0001	2.052
Nonseller-funded down payment assistance	0.2932	0.1342	0.0289	1.341
Atlanta MSA	-0.1538	0.1071	0.1508	0.857
Salt Lake City MSA	0.1268	0.1222	0.2991	1.135

Source: GAO.

Table 17: Delinquency Regression Results—MSA Sample, GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	0.987	0.5534	0.0745	
Constructed risk	0.1419	0.0238	<.0001	1.152
FICO score	-0.0107	0.000814	<.0001	0.989
No FICO score	0.4409	0.1415	0.0009	1.554
Borrower reserves	-0.017	0.1158	0.8831	0.983
Front-end ratio	2.0408	0.6682	0.0023	7.697
Seller-funded down payment assistance	0.7131	0.1118	<.0001	2.04
Nonseller-funded down payment assistance	0.2924	0.1338	0.0289	1.34
Atlanta MSA	-0.131	0.1065	0.2185	0.877
Salt Lake City MSA	0.1711	0.1203	0.1549	1.187

Source: GAO.

Table 18: Claim regression results – National Sample, Model Based on Augmented TOTAL Mortgage Scorecard Variables

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	4.6847	4.4388	0.2912	
LTV ratio	-0.0575	0.0431	0.1816	0.944
15-year mortgage	0.4688	0.3668	0.2012	1.598
FICO score	-0.00926	0.00116	<.0001	0.991
No FICO score	0.7271	0.1946	0.0002	2.069
Borrower reserves	-0.0933	0.1558	0.5492	0.911
Front-end ratio	2.1398	0.8949	0.0168	8.498
Endorsed in fiscal year 2000	0.0121	0.1814	0.9468	1.012
Endorsed in fiscal year 2001	0.1217	0.1696	0.473	1.129
ARM	-0.7761	0.345	0.0245	0.46
Underserved area	0.0268	0.1304	0.837	1.027
Condominium	-0.3245	0.3088	0.2933	0.723
First-time homebuyer	-0.3168	0.1663	0.0567	0.728
Seller-funded down payment assistance	0.5664	0.1924	0.0032	1.762
Nonseller-funded down payment assistance	0.3995	0.148	0.007	1.491
House price appreciation rate	-1.6943	1.0614	0.1104	0.184
First 6 quarters	0.448	0.0545	<.0001	1.565
Next 6 quarters	0.1178	0.0554	0.0333	1.125
Following quarters	0.0879	0.0543	0.1052	1.092

Source: GAO.

Table 19: Claim Regression Results—National Sample, Model Based on TOTAL Mortgage Scorecard Variables

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	3.0763	5.0183	0.5399	
LTV ratio	-0.0413	0.0488	0.398	0.96
15-year mortgage	0.5144	0.3667	0.1607	1.673
FICO score	-0.00929	0.00116	<.0001	0.991
No FICO score	0.7393	0.1927	<.0001	2.094
Borrower reserves	-0.1276	0.1552	0.4108	0.88
Front-end ratio	1.9601	0.8969	0.0288	7.1
Endorsed in fiscal year 2000	-0.0442	0.181	0.807	0.957
Endorsed in fiscal year 2001	0.1316	0.1698	0.4384	1.141
Seller-funded down payment assistance	0.5012	0.1904	0.0085	1.651
Nonseller-funded down payment assistance	0.3786	0.1475	0.0102	1.46
House price appreciation rate	-1.8949	1.0561	0.0728	0.15
First 6 quarters	0.4486	0.0545	<.0001	1.566
Next 6 quarters	0.1189	0.0554	0.032	1.126
Following quarters	0.0863	0.0543	0.1118	1.09

Source: GAO.

Table 20: Claim Regression Results—National Sample, Augmented GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-2.2855	0.8291	0.0058	
Constructed risk	0.2665	0.0244	<.0001	1.305
FICO score	-0.0088	0.00116	<.0001	0.991
No FICO score	0.7538	0.1937	<.0001	2.125
Borrower reserves	-0.1405	0.1559	0.3674	0.869
Front-end ratio	1.8786	0.8691	0.0307	6.544
Underserved area	-0.0771	0.1308	0.5559	0.926
Condominium	-0.2178	0.2986	0.4659	0.804
First-time homebuyer	-0.2937	0.1662	0.0771	0.745
Seller-funded down payment assistance	0.5947	0.1887	0.0016	1.812
Nonseller-funded down payment assistance	0.3641	0.1483	0.0141	1.439

Source: GAO.

Table 21: Claim Regression Results—National Sample, GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-2.6245	0.8108	0.0012	
Constructed risk	0.2656	0.0242	<.0001	1.304
FICO score	-0.00861	0.00115	<.0001	0.991
No FICO score	0.7174	0.1917	0.0002	2.049
Borrower reserves	-0.1575	0.1555	0.3111	0.854
Front-end ratio	1.7053	0.8705	0.0501	5.503
Seller-funded down payment assistance	0.5894	0.1878	0.0017	1.803
Nonseller-funded down payment assistance	0.3443	0.1477	0.0197	1.411

Source: GAO.

Table 22: Claim Regression Results—MSA Sample, Model Based on Augmented TOTAL Mortgage Scorecard Variables

		Analysis of maximum likelihood estimates		Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-20.5482	9.2777	0.0268	
LTV ratio	0.0309	0.0906	0.7334	1.031
15-year mortgage	0.5153	0.6032	0.393	1.674
FICO score	-0.00643	0.00108	<.0001	0.994
No FICO score	0.6042	0.1723	0.0005	1.83
Borrower reserves	0.179	0.1498	0.2322	1.196
Front-end ratio	1.3785	0.9056	0.128	3.969
Endorsed in fiscal year 2000	-0.6808	0.1897	0.0003	0.506
Endorsed in fiscal year 2001	-0.1985	0.1533	0.1954	0.82
ARM	-0.3282	0.1857	0.0771	0.72
Underserved area	0.1533	0.1218	0.2083	1.166
Condominium	0.0761	0.2989	0.799	1.079
First-time homebuyer	-0.0626	0.1733	0.7179	0.939
Seller-funded down payment assistance	0.9768	0.1576	<.0001	2.656
Nonseller-funded down payment assistance	0.3724	0.1864	0.0457	1.451
Atlanta MSA	-0.5987	0.1764	0.0007	0.55
Salt Lake City MSA	0.7624	0.1591	<.0001	2.143
House price appreciation rate	13.3648	2.8741	<.0001	>999.999
First 6 quarters	0.4356	0.0503	<.0001	1.546
Next 6 quarters	0.1633	0.0513	0.0015	1.177
Following quarters	-0.00873	0.0535	0.8704	0.991

Source: GAO.

Table 23: Claim Regression Results—MSA Sample, Model Based on TOTAL Mortgage Scorecard Variables

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-18.9754	7.322	0.0096	
LTV ratio	0.018	0.0691	0.7941	1.018
15-year mortgage	0.5857	0.6014	0.3301	1.796
FICO score	-0.00645	0.00108	<.0001	0.994
No FICO score	0.6401	0.1701	0.0002	1.897
Borrower reserves	0.191	0.1499	0.2027	1.21
Front-end ratio	1.3525	0.9035	0.1344	3.867
Endorsed in fiscal year 2000	-0.6919	0.1865	0.0002	0.501
Endorsed in fiscal year 2001	-0.1672	0.1517	0.2703	0.846
Seller-funded down payment assistance	0.9732	0.1569	<.0001	2.647
Nonseller-funded down payment assistance	0.3778	0.1863	0.0426	1.459
Atlanta MSA	-0.5566	0.1748	0.0014	0.573
Salt Lake City MSA	0.765	0.1571	<.0001	2.149
House price appreciation rate	13.0362	2.8596	<.0001	>999.999
First 6 quarters	0.4345	0.0503	<.0001	1.544
Next 6 quarters	0.1621	0.0513	0.0016	1.176
Following quarters	-0.00953	0.0536	0.8589	0.991

Source: GAO.

Table 24: Claim Regression Results—MSA Sample, Augmented GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-4.3382	0.7653	<.0001	
Constructed risk	0.3949	0.0292	<.0001	1.484
FICO score	-0.00628	0.00108	<.0001	0.994
No FICO score	0.5396	0.1727	0.0018	1.715
Borrower reserves	0.1587	0.1491	0.2872	1.172
Front-end ratio	1.1872	0.9057	0.1899	3.278
Underserved area	0.0986	0.1218	0.4181	1.104
Condominium	0.1499	0.2587	0.5625	1.162
First-time homebuyer	-0.0842	0.1732	0.6267	0.919
Seller-funded down payment assistance	0.8555	0.154	<.0001	2.352
Nonseller-funded down payment assistance	0.2174	0.1885	0.2488	1.243
Atlanta MSA	-0.4073	0.1515	0.0072	0.665
Salt Lake City MSA	0.3428	0.1506	0.0229	1.409

Source: GAO.

Table 25: Claim Regression Results—MSA Sample, GAO Actuarial Model

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-4.3714	0.7543	<.0001	
Constructed risk	0.3956	0.0291	<.0001	1.485
FICO score	-0.00625	0.00108	<.0001	0.994
No FICO score	0.5421	0.1696	0.0014	1.72
Borrower reserves	0.1634	0.1486	0.2716	1.177
Front-end ratio	1.12	0.9029	0.2148	3.065
Seller-funded down payment assistance	0.8486	0.153	<.0001	2.336
Nonseller-funded down payment assistance	0.2154	0.1879	0.2518	1.24
Atlanta MSA	-0.3964	0.1512	0.0087	0.673
Salt Lake City MSA	0.3626	0.1488	0.0148	1.437

Source: GAO.

Prepayment Model

Modeling conditional claim rates has a substantial advantage: It allows time-varying covariates such as post-origination increases in house prices to be incorporated into the regression model. But the use of conditional claim rates also poses one possible disadvantage. If certain borrowers, such as recipients of seller-funded assistance, had high rates of prepayment, their conditional claim rates could be high not because they had higher credit risk but because a small number of loans survived and eventually went to claim. That is, the hazard rate would be large because the denominator was small, not because the numerator was large. To examine this possibility, we used a logistic regression that predicted the quarterly conditional probability of prepayment to estimate the competing risk of loans terminating in prepayment. The results are presented in tables 26 and 27.

The regressions used as explanatory variables two variables that represent the incentive to refinance—the ratio of the book value of the mortgage to the value of the mortgage payments evaluated at currently prevailing interest rates, split into two segments. One segment represented book value exceeding market value, the other represented book value that was less than market value. Additionally, the regression used variables that measured the passage of time, the constructed risk variable, credit scores, and indicators for down payment assistance. Results were as expected. Loans with an incentive to refinance that was driven by the interest rate had significantly higher rates of prepayment. High-risk loans and those with low credit scores prepaid more slowly. We also found that loans with seller-funded assistance prepaid more slowly than comparable loans without assistance, demonstrating that our estimate of the effect of assistance on loan performance was not inflated by rapid prepayment in this group of loans.

Table 26: Prepayment Regression Results—Quarterly Conditional Probability of Prepayment, National Sample

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-15.0802	0.7199	<.0001	
Relatively high equity	3.2059	0.1639	<.0001	24.679
Relatively low equity	5.5491	0.6957	<.0001	256.998
Constructed risk	-0.0232	0.0137	0.0911	0.977
FICO score	0.00374	0.000293	<.0001	1.004
No FICO score	-0.2327	0.0691	0.0008	0.792
ARM	0.6987	0.0853	<.0001	2.011
Condominium	0.2131	0.0611	0.0005	1.238
Underserved area	-0.1744	0.0365	<.0001	0.84
First-time homebuyer	-0.1203	0.0445	0.0068	0.887
Seller-funded down payment assistance	-0.2284	0.0641	0.0004	0.796
Nonseller-funded down payment assistance	-0.0562	0.0412	0.173	0.945
First 6 quarters	0.2094	0.0146	<.0001	1.233
Next 6 quarters	-0.0471	0.0236	0.0461	0.954
Following quarters	-0.049	0.0243	0.044	0.952

Source: GAO.

Table 27: Prepayment Regression Results—Quarterly Conditional Probability of Prepayment, MSA Sample

	Analysis of maximum likelihood estimates			Odds ratio estimates
Parameter	Estimate	Standard error	Pr > ChiSq	Point estimate
Intercept	-16.4562	0.8684	<.0001	
Relatively high equity	2.7283	0.2334	<.0001	15.307
Relatively low equity	6.6288	0.8161	<.0001	756.558
Constructed risk	0.0174	0.0228	0.4469	1.018
FICO score	0.00527	0.000391	<.0001	1.005
No FICO score	-0.3271	0.0882	0.0002	0.721
ARM	0.3858	0.1059	0.0003	1.471
Condominium	-0.1332	0.0929	0.1514	0.875
Underserved area	-0.2159	0.0486	<.0001	0.806
First-time homebuyer	0.1096	0.0615	0.0745	1.116
Seller-funded down payment assistance	-0.2208	0.0556	<.0001	0.802
Nonseller-funded down payment assistance	0.064	0.0579	0.2689	1.066
First 6 quarters	0.1487	0.0193	<.0001	1.16
Next 6 quarters	-0.0359	0.0366	0.3256	0.965
Following quarters	-0.1246	0.0404	0.0021	0.883

Source: GAO.

Loss Given Default Model

We also examined the severity of the loss for loans that resulted in a claim. The results of this analysis are limited because FHA's Single-Family Data Warehouse had profit or loss amounts for only 389 loans.[17] We ran a regression to predict the loss rate, defined as the profit or loss amount divided by the original mortgage amount. Explanatory variables included the initial LTV ratio, credit score, initial interest rate, original mortgage amount, house price appreciation since time of origination, and indicators for whether the loan had seller-funded nonprofit down payment assistance, assistance from another source, or no assistance. The results of this analysis are in tables 28 and 29.

In the national sample, loans with seller-funded nonprofit assistance had loss rates that were about 5 percentage points worse than those for loans

[17]These included 184 in the national sample and 205 in the MSA sample.

with no assistance. Loans with assistance from other sources had loss rates about 2 percentage points better. Neither result was significant. In the MSA sample, loans with seller-funded nonprofit assistance also had loss rates about 5 percentage points worse, while loans with assistance from other sources had loss rates about 7 percentage points worse. Both were significant in a one-tailed test.

Table 28: Loss Regression Results—Loss Rate Given Default, National Sample

Variable	Parameter estimate	t Value	Pr > |t|
Intercept	0.41124	0.22	0.8259
LTV ratio	-0.01548	-0.79	0.4308
Seller-funded down payment assistance	-0.04978	-1.08	0.2828
Nonseller-funded down payment assistance	0.02139	0.61	0.5417
FICO score	0.00023796	0.82	0.4147
No FICO score	-0.01532	-0.32	0.7456
House price appreciation rate	0.66013	2.17	0.0312
Initial interest rate	-0.03729	-1.91	0.0583
Original mortgage amount	0.00000218	5.11	<.0001
R-squared = 0.1897			

Source: GAO.

Note: N=184.

Table 29: Loss Regression Results—Loss Rate Given Default, MSA Sample

Variable	Parameter estimate	t Value	Pr > |t|
Intercept	0.020059	0.01	0.9911
LTV ratio	-0.0251	-1.32	0.1895
Seller-funded down payment assistance	-0.05107	-1.78	0.0769
Nonseller-funded down payment assistance	-0.0698	-2.05	0.0416
FICO score	0.00027289	1.11	0.2703
No FICO score	0.02254	0.72	0.4743
House price appreciation rate	1.54727	3.41	0.0008
Initial interest rate	0.0048	0.35	0.7261
Original mortgage amount	0.00000261	5.44	<.0001
R-squared = 0.182			

Source: GAO.

Note: N=205.

Comments from the Department of Housing and Urban Development

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-8000

ASSISTANT SECRETARY FOR HOUSING-
FEDERAL HOUSING COMMISSIONER

October 25, 2005

Mr. William B. Shear
Director
Financial Markets and Community Investments
United States Government Accountability Office
441 G Street, NW
Washington, D. C. 20548

Dear Mr. Shear:

Thank you for permitting FHA to respond to the GAO Draft Report 06-24, "MORTGAGE FINANCING: Additional Action Needed to Manage Risks of FHA-insured Loans with Down Payment Assistance." As you know, FHA has been examining these types of down payment assistance programs for the past several years. The report confirms FHA's own analysis of loan performance and the findings of an independent contractor hired by FHA to evaluate how seller-funded gift programs operate.

The GAO report provides additional analysis and reiterates that borrowers receiving seller-funded down payment assistance pay more for their homes than homebuyers who receive no such assistance or assistance from down payment programs funded without seller involvement. Borrowers who rely on seller-funded down payment assistance are representative of the population that FHA was established to serve, families who are otherwise underserved by the private sector. Because of this fact, FHA has determined that additional requirements or restrictions that would prevent these borrowers from obtaining FHA financing would not be beneficial, leaving this population with financing options that are more costly and riskier than FHA. Therefore, FHA has determined that charging a higher premium on these types of loans would be a more palatable alternative, compensating FHA for the additional risk, while still permitting these borrowers the advantage of a more affordable, less risky loan.

FHA has also determined that a Zero Down program would better serve borrowers who have little savings for a down payment, but who have steady incomes and acceptable credit. The proposed Zero Down program was designed to address the concerns that GAO raises in the report – that buyers using seller-funded gifts are paying too much for their homes and putting themselves in a risky position, as evidenced by the historical loan performance – and to ensure that FHA was keeping pace with the rest of the mortgage market, where 100% financing products have become increasingly common.

That said, although the report reaffirms FHA's own findings, the agency is disappointed that the recommendations do not acknowledge that a Zero Down program would provide FHA with a better way to serve families in need of down payment assistance. FHA represents a better, safer

financing alternative for many families with blemished credit. Providing a new product would serve these families well, by offering consumer protections to ensure that these families would not pay more than they should for their homes or their financing, and that these families would have the benefits of loss mitigation to help them stay in their homes should they experience any future financial hardship.

FHA's responses to the individual recommendations are as follows:

GAO Recommendation: To provide FHA with data that would permit it to identify whether down payment assistance is from a seller-funded down payment assistance provider, modify FHA's "gift letter source" categories to include "nonprofit seller-funded" and "nonprofit non-seller-funded" and require lenders to accurately identify and report this information when submitting loan to FHA.

FHA Response: FHA agrees with this recommendation and will modify the systems to collect this additional information.

GAO Recommendation: To more fully consider the risk posed by down payment assistance when underwriting loans, include the presence and source of down payment assistance as a loan variable in FHA's TOTAL Scorecard.

FHA Response: Consistent with past practice, HUD will consider and incorporate into TOTAL all appropriate factors, including the presence and source of down payment assistance, that can with historical data be shown empirically relevant for assessing borrower credit risk with respect to loan performance.

GAO Recommendation: To ensure that FHA has an ongoing understanding of the impact that down payment assistance has on loan performance, implement routine and targeted performance monitoring of loans with down payment assistance, including analyses that consider the source of assistance.

FHA Response: FHA agrees and believes that it already performs monitoring of portfolios of such mortgages based on the information residing in its system of records. Obviously, FHA's concern, based on loan performance data, resulted in seeking the services of a contractor to analyze and explore these down payment assistance programs in detail.

GAO Recommendation: To improve the forecasting ability of the loan performance models used in the annual review of actuarial soundness, consider the presence and source of down payment assistance.

FHA Response: FHA incorporated the source of down payment assistance into its FY 2005 Actuarial Review of the Mutual Mortgage Insurance Fund, a variable that has proved to have considerable explanatory power. FHA informed GAO that it planned to incorporate this variable during its interviews about down payment assistance.

GAO Recommendation: To ensure appraisers have the information necessary to establish the market value of the property, require lenders to inform appraisers about the presence of down payment assistance from a seller-funded source.

FHA Response: Lenders are required to inform appraisers about all seller concessions, including down payment assistance. Appraisers are aware of seller funded down payment assistance providers in their markets, as evidenced by the findings of the Concentrance study referenced several times in the GAO report. Regardless, FHA will consider imposing the additional requirement that the lender inform the appraiser when down payment assistance is provided by a nonprofit that relies on contributions from the seller.

GAO Recommendation: Because down payment assistance provided by seller funded entities is, in effect, a seller inducement, revise FHA standards to treat assistance from a seller-funded nonprofit as a seller contribution, and therefore subject to the 6 percent limit on seller contributions and the prohibition against using seller contributions to meet the 3 percent borrower contribution requirement.

FHA Response: HUD's Office of General Counsel has advised that the timing of the payments is a key point in whether there is a seller contribution that is an inducement to purchase. If a gift is made from a nonprofit entity (either directly or through an entity such as the closing agent), from the nonprofit's own funds, prior to the completion of the closing, the gift becomes the homebuyer's property so the buyer can make the three percent required down payment. After completion of the closing, a seller makes a contribution (perhaps through the closing agent as well) from the gross sales proceeds to the nonprofit entity. The donation is commingled with other nonprofit funds that later become a source of donations to buyers other than the buyer who has just closed the purchase of the seller's property. Because the buyer has not received funds from the nonprofit that can be traced to the seller's contribution, there has not been an inducement to purchase provided by the seller.

Thank you again for the opportunity to review the GAO report. Consistent with the spirit of your report and its recommendations, HUD will continue to take all steps needed for responsible financial management of its down payment assistance programs, while ensuring that FHA programs serve effectively families who are otherwise underserved by the private sector.

Sincerely,

Brian D. Montgomery
Assistant Secretary for Housing-
Federal Housing Commissioner

GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

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