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## **SELLER FUNDED DOWNPAYMENT ASSISTANCE: New Data Suggests Government Claims Exaggerated**

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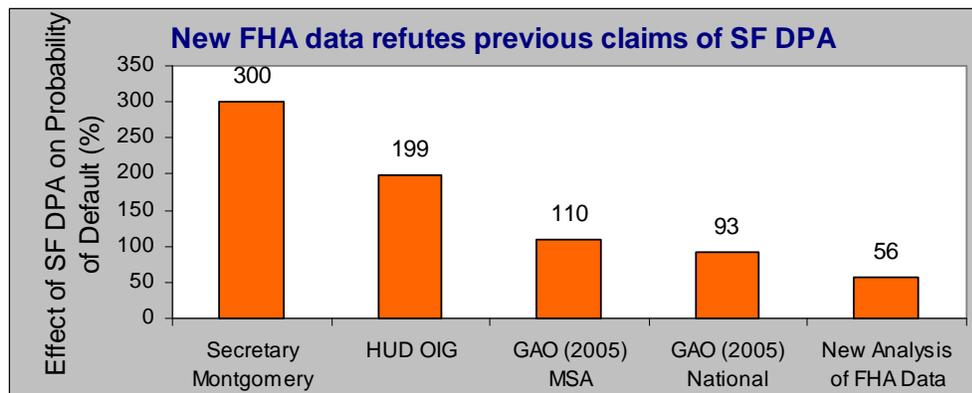
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## EXECUTIVE SUMMARY

On July 30, 2008, President Bush signed into law H.R. 3221, the *Housing and Economic Recovery Act of 2008*. Among the many changes this bill made that are intended to assist in the recovery of the housing sector, one provision is likely to have the opposite effect. Section 2113 of the bill terminates a practice known as Seller Financed Downpayment Assistance (SF DPA) for FHA-insured mortgages effective October 1, 2008. Critics of SF DPA have claimed that this assistance greatly raises a borrower's probability of default. This paper evaluates the prior economic evidence and provides a new analysis using recent FHA data.

### Results of this paper can be summarized as follow:

- Analyses of downpayment assistance performed by the Government Accountability Office (GAO) and by the Department of Housing and Urban Development (HUD OIG) are flawed and exaggerate the effects of SF DPA on mortgage default and claims.
- New data on FHA-insured loans allows for a new analysis of the question of impact of SF DPA is on the probability of default. Results indicate that the impact is half that claimed by GAO and one-sixth the claims by FHA.
- According data from the HUD, two-fifths of all African Americans who get FHA-insured loans also receive SF DPA. Over one-fourth of all Hispanics with FHA-insured loans receive SF DPA. SF DPA provides more assistance to African-Americans than FHA in general as over 17 percent of SF DPA loans are provided to African Americans while less than 12 percent of loans without SF DPA are provide to African Americans.
- Reforms to restrict recipients of SF DPA to borrowers with adequate credit scores would ensure SF DPA loans perform similarly to loans with downpayment assistance from other sources.
- A limitation of this analysis is that it is limited to only the default related costs associated with SF DPA and does not estimate the benefits from increased levels of homeownership among the populations served by SF DPA.



## 1. INTRODUCTION

Congress created the Federal Housing Authority (FHA) in 1934 to establish and implement crucial policy initiatives to assist low and moderate income individuals and families in making the transition from tenants to homeowners. To achieve this, the FHA insures certain loans for low and moderately priced homes. Prior to the subprime explosion, first time, lower income and higher risk borrowers had only the FHA program to turn to for mortgage financing. Hence, the FHA program attracted borrowers of varying levels of credit risk. This allowed premiums to be priced at an affordable level, since the better performing loans could offset the poorer performing loans. However, the boom in the subprime market allowed the less risky borrowers to get loans in the conventional market. While this adverse selection has created financing issues, it is important to remember that higher risk borrowers are exactly those who the FHA needs to target, since they cannot be served by any other segment of the marketplace.

On July 30, 2008, President Bush signed into law H.R. 3221, the *Housing and Economic Recovery Act of 2008*.<sup>1</sup> This massive housing reform legislation includes a temporary provision to allow the Treasury Department to rescue Fannie Mae and Freddie Mac; reforms oversight of the GSEs; allows for up to 400,000 homeowners to refinance their mortgages with FHA-insured loans; provides a first-time home buyer tax credit of up to \$7500 and raises the loan limit on FHA-insured loans to \$625,500.

The focus of this paper is Section 2113 of the bill, Cash Investment Requirement and Prohibition of Seller-Funded Down Payment Assistance.<sup>2</sup> This Section prohibits borrowers from receiving an FHA-insured loan if some or all of the required 3.5% downpayment<sup>3</sup> is provided by any third-party that is reimbursed by a seller or other beneficiary of the transaction. The activity this provision intends to end is commonly known as Seller Financed Downpayment Assistance (SF DPA).

To date, over one million low and moderate income families and individuals have purchased homes using SF DPA. Moreover, those purchasers are estimated to have built approximately \$9.6 billion in home equity between 2000 and 2005.<sup>4</sup>

SF DPA recipients typically have lower incomes and purchase more modestly priced homes than most borrowers of FHA-insured loans. Data compiled on over 200,000 transactions utilizing downpayment assistance provided by one of the nation's two largest charitable DPA providers indicate that DPA providers have had particular success assisting low-to-moderate income families not previously served by HUD and FHA. Among those 200,000 homebuyers who received downpayment assistance, approximately 80 percent purchased their first home.<sup>5</sup> Statistics presented later in this

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<sup>1</sup> Final passage of HR 3221 in the House of Representatives occurred on July 23, 2008 and the vote was 272-152. The bill then passed the Senate 72-13 on July 26, 2008.

<sup>2</sup> The relevant paragraph of this section states:

(C) PROHIBITED SOURCES- In no case shall the funds required by subparagraph (A) consist, in whole or in part, of funds provided by any of the following parties before, during, or after closing of the property sale:

(i) The seller or any other person or entity that financially benefits from the transaction.

(ii) Any third party or entity that is reimbursed, directly or indirectly, by any of the parties described in clause (i).

This subparagraph shall apply only to mortgages for which the mortgagee has issued credit approval for the borrower on or after October 1, 2008.

<sup>3</sup> Prior to enactment of this legislation, the minimum downpayment requirement was 3.0 percent.

<sup>4</sup> <http://www.ameridream.org/Documents/Reports/Evaluation-of-Research-DPA.pdf>

<sup>5</sup> <http://www.ameridream.org/Documents/Reports/Charitable-DPA-Briefing-Report.pdf>

report demonstrate that SF DPA disproportionately serves lower income and African-American populations.

## FAQ: How Does Seller Funded Downpayment Assistance Work?

### What is a Downpayment Assistance Program?

Downpayment Assistance (DPA) Programs provide gift funds for downpayment and closing costs to qualified homebuyers using an eligible loan program, such as FHA or a conventional loan that allows gifts from charitable organizations. Gift Funds of 1% to 6% of the final contract sales price can be received, depending on the particular needs of the homebuyer.

### What is a “DPA Participating Home?”

Any residential property can be purchased using downpayment assistance as long as the seller agrees to the DPA participation requirements. Both new and existing homes can be purchased using this program. In exchange for helping the seller find a qualified homebuyer, the seller agrees to make a contribution to the DPA provider of 1% to 6% of the final contract sales price, plus pay a nominal processing fee.

### What are the basic program requirements?

There are 4 basic program requirements:

- Both the homebuyer and seller must agree to participate in the DPA Program;
- The homebuyer must use an eligible single-family 1-4 unit loan program such as an FHA loan or a conventional loan that allows gifts from charitable organizations;
- The homebuyer must purchase a DPA participating home;
- The homebuyer must be the primary occupant of the property (non-occupant co-borrower(s) may assist primary occupant to qualify for the mortgage).

### Is the contribution that the seller pays to the DPA provider considered a charitable donation?

No, the seller contribution that is paid to the provider is not tax deductible because the seller derives the full benefit of the contribution through the sale of a home. However, this contribution may be tax deductible as a cost of sale, similar to that of a sales commission. Sellers should contact their personal tax advisor for questions regarding tax deductibility.

### Can any real estate agent utilize DPA, and what properties can be sold to DPA homebuyers?

Any real estate professional can use downpayment assistance programs. There are no enrollment or registration requirements. Properties sold to DPA homebuyers are financed with a mortgage loan that allows gift money from a charitable organization. Typically the mortgage loan is an FHA or a conventional loan that allows gifts from charitable organizations.

### Can any mortgage originator utilize DPA?

Yes, any mortgage originator can use downpayment assistance. Mortgage originators must use an eligible single-family 1-4 unit loan program such as an FHA or a conventional loan product that allows gifts from charitable organizations.

Source: Nehemiah Corporation of America

## 2. GOVERNMENT STUDIES OF SF DPA

Reports by the HUD Office of the Inspector General (OIG) and the U.S. Government Accountability Office (GAO) have been used to argue that FHA loans that receive SF DPA perform worse than other FHA loans, even those with other types of down payment assistance, such as gifts from relatives. This evidence has been used by FHA to argue to ban SF DPA.

Assistant Secretary for Housing Brian D. Montgomery testified before the Senate Appropriations Committee on April 10, 2008. Montgomery's written statement declares, "Data clearly demonstrates that FHA loans made to borrowers relying on seller-funded downpayment assistance go to foreclosure at three times the rate of loans made to borrowers who make their own downpayment... I know there is legislation under consideration that would ban seller-funded downpayment assistance. Yes, it should be banned. That would be a good thing to do."<sup>6</sup>

This section summarizes issues related to the GAO study's data and methodology. The GAO and HUD studies raise analytical and methodological concerns. The results from the GAO study appears to be overstating the performance problems of FHA-insured loans with SF DPA, and the descriptive statistics employed by GAO, HUD OIG and FHA are misleading and overstated.

### Government Accountability Office (GAO) Study

The GAO report, (GAO 2005)<sup>7</sup>, employs two data sets of FHA single-family purchase loans endorsed in 2000, 2001 and 2002. The first data set is a national sample and the second is a smaller sample from three Metropolitan Statistical Areas (MSAs). The MSA sample consists of loans in MSAs where the use of SF DPA was relatively high: Atlanta, Indianapolis and Salt Lake City. An econometric model is used to predict the probability of a loan becoming seriously delinquent or resulting in a claim, as a function of credit scores, initial loan to value ratios, front end ratios, borrower reserves and mortgage term. Other variables included house price appreciation, variables reflecting the passage of time, and variables indicating the presence and source of down payment assistance. To control for the condition of the house and the borrower, the study included controls for underserved area, home type and first time homebuyer.

GAO finds several variables to be significant predictors of delinquencies and claims. Credit scores, accumulated equity and front end-ratio all have the expected signs and are statistically significant. Surprisingly, the loan-to-value ratio is not significant, but the authors subscribe it to the lack of variation since the data samples are restricted to high LTV loans; about 85 percent of the sample had LTV ratios in the range of 98 to 100 percent. We will revisit this point and its implications for the GAO's results below.

With respect to downpayment assistance, the GAO study finds that all types of downpayment assistance substantially increased the likelihood of 90-day delinquency. Further, when the down payment assistance was from a seller-funded nonprofit, the delinquency rate rose by 100 percent, compared with similar loans with no assistance. Assistance from other sources raised the delinquency rate by 20 percent relative to similar loans with no assistance.

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<sup>6</sup> Testimony is available at <http://www.hud.gov/offices/cir/test080410.cfm>

<sup>7</sup> See *Mortgage Finance: Additional Action Needed to Manage Risks of FHA-Insured Loans with Down Payment Assistance* (November 2005), Government Accountability Office, GAO-06-24.

The results of GAO's models with regard to claims are weaker than with regard to delinquencies. For claims, the model yielded a significant difference between loans with any form of down payment assistance compared with loans with no down payment assistance, controlling for other factors. However, there was no statistically significant difference between loans with SF DPA as compared to loans with other sources of DPA.

Since claims rates are the relevant variable used in the FHA models to predict risk to the FHA mutual mortgage insurance fund (MMI), this report cannot be interpreted to claim that SF DPA is the reason for an increased risk to the FHA MMI. The correct interpretation of these results is that any form of down payment assistance may lead to high claims rates. Even government assistance could lead to higher claims rates.

The GAO study has several limitations which are highlighted below.

### **Sample Selection Issues**

The dataset used by GAO is not a random or representative sample of home purchases. The data set is restricted in a number of ways that bias the results towards finding a larger impact of SF DPA on default or claim. By analyzing loans that are riskier than a random sample from the onset, conclusions about SF DPA will be exaggerated.

To illustrate this point we can compare the claims rates for SF DPA in the national sample and the MSA sample. The national sample includes borrowers from different parts of the country and therefore reflects diverse economic conditions, not just in their personal lives but in the areas in which they live. The claims rate for this group, the national sample, is 10 percentage points lower than for the MSA sample. This suggests that default rates are likely to vary considerably depending on the economic circumstances of the borrower as well as the area in which they are located. Larger, more diverse samples yield a truer picture of the average default rate, than looking at specific, non-randomly selected samples such as the MSA sample of the GAO report.

A closer inspection of the data corroborates this view. The three cities sampled in the MSA sample are Salt Lake City, Indianapolis and Atlanta. According to the GAO, the reason for selecting these cities is that the use of down payment assistance was relatively high in these cities. Further, the GAO explicitly states in Footnote 2 of Appendix 1 that the Salt Lake City MSA was chosen because of its relatively high claims rates. Hence, as we stated before, the fact that these MSAs were chosen because they had high claims rates leads to selection issues and upwardly biased estimates of the claims rates. A more random, representative sample would yield much lower estimates of the claims rates, as we do find in the national sample, even though the national sample itself is biased since it only considers loans with a high LTV ratio, as discussed below.

Further, if we ranked the top ten states in terms of loans insured by the FHA, Indiana and Utah would not figure among them, making it unclear why Salt Lake City and Indianapolis are part of the MSA sample.

### **Loan-to-Value**

The sample set selected for analysis was restricted to only loans that had loan-to-value (LTV) ratios greater than 95 percent. Of these, about 85 percent had LTV ratios in the range of 98 to 100 percent. The literature on housing suggests that the greater the equity the borrower has in the house, the lower the probability of default. Hence to the extent that persons sampled in the high LTV ranges have limited equity in the house compared with those needing no assistance, the greater would be the likelihood of default. Hence results based on this sample are likely to predict much higher default rates for all categories of loans, as compared to a random sample of loans.

## Omitted Variables

While the regression models in the GAO study are able to capture many more factors compared to earlier OIG studies (2000, 2002), they still fail to adequately account for the economic conditions of the borrower as well as the regions in which they are located. This is particularly relevant since the sample focuses on group of people with low financial resources who possibly live in poor economic conditions. For these groups, it is extremely important to identify what caused them to default on the loan. For instance, certain events such as job loss, or divorce, or major illnesses could make a borrower unable to meet his or her monthly mortgage payments leading to delinquencies and defaults. Similarly, poor economic conditions, such as low house price increases (or price declines), in the area in which they live could lead to foreclosures and claims.

Omitted variables are an important concern because it is unclear why SF DPA, per se, should lead to higher default rates. More likely, the recipient of SF DPA, a borrower without even enough personal savings to meet the downpayment requirement plus closing costs, is subject to other factors that lead to higher default risks.

In general, while the GAO report does a marginally better job at evaluating loan performance than other OIG reports that have studied down payment assistance, the study falls short on several fronts. Even if we accept the regression models which suggest that downpayment assistance leads to higher default rates, the study fails to explain why we find this result. A borrower who receives \$2500 in down payment assistance, if it raises the price of the house fully, likely pays less than \$15 in additional monthly mortgage payments. It seems implausible that such a small additional cost could lead to a doubling of default rates as the GAO study claims. It is more likely that the reason for the elevated default rates is to be found in omitted variables.

### 3. DATA ANALYSIS AND DESCRIPTION: NEW FHA DATA

Recently, the Federal Housing Administration (FHA) released data which allow us to try to reproduce the results of the GAO study and test a model with newer data and with a larger data set to estimate the effect of SF DPA on the probability of default.<sup>8</sup> The data set includes variables identifying the beginning and end date of the loan, whether the loan terminated in a default or claim, the source of downpayment (borrower, government, family or seller financed), the FICO score category of the borrower, the loan-to-value ratio and the race of the borrower for the period 2000-2007. From this, we chose the four year period 2004-2007 since FICO score information was missing prior to 2004 and credit worthiness is an important control variable. Our data set contains information on over 1 million loans.

Several variables, such as the income and employment status of the borrower; whether the borrower was a first-time home buyer or had sufficient reserves to meet mortgage payments for a couple of months; the city, county or MSA; and the local economic conditions are missing from the database. Surprisingly, these variables were used in the analysis done by the GAO (2005) but were not made available to the public.<sup>9</sup> In the absence of these variables, the analysis that we present must be interpreted carefully. In theory, omitted variables may lead to an overstatement or understatement of the impact of SF DPA on default and claims rates. However, we believe that estimates presented below are likely to overstate the default and claims rates for SF DPA. Our view is motivated by

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<sup>8</sup> The data was released in conjunction with a recent FHA proposed rule to eliminate SF DPA. The data can be downloaded from the internet at: <http://www.hud.gov/offices/hsg/comp/rpts/pled/pledmenu.cfm>.

<sup>9</sup> A Freedom of Information Act (FOIA) request has been submitted to the FHA for additional variables to be released but at the time of the writing of this report, the FHA had not complied with that request.

the observation that borrowers unable to provide the 3% downpayment themselves are more likely to have lower incomes, shorter work histories and/or less job stability. If additional data was provided by FHA to allow us to control for income and other economic variables reflecting borrower and home characteristics, the estimated effects of SF DPA on default or claim may be lower than what we report here.

### Summary Statistics

Before performing regression analysis to estimate the impact of SF DPA on default and claims rates, we present some cross-tabs on the data. **Table 1** provides a distribution of loans by race. African-Americans are the second largest recipient of SF DPA loans and their proportion of this data set is greater than their share of the U.S. population. Over 17 percent of SF DPA loans are provided to African Americans while less than 12 percent of loans without SF DPA are provided to this demographic group. As is clear from the other columns, African-Americans are not a big recipient of government or family assisted loans. Hence eliminating SF DPA will disproportionately affect African-Americans.

**Table 1: Distribution of Loans By Race**

Race	Number (share) of Loans With SF DPA	Number (share) of Loans with other types of DPA	Number (share) of Loans with No DPA	Total Loans by Race
American-Indian	2,419 (0.5%)	1,684 (0.6%)	4,442 (0.6%)	8,545
Asian/Pacific	10,776 (2.3%)	9,066 (3.2%)	23,232 (3.0%)	43,074
African American	81,971 (17.2%)	29,129 (10.3%)	91,628 (11.9%)	202,728
Hispanic	63,280 (13.3%)	39,683 (14.1%)	129,880 (16.8%)	232,843
White	295,361 (61.9%)	191,127 (67.8%)	488,858 (63.2%)	975,346
Unknown	23,260 (4.9%)	11,535 (4.1%)	35,016 (4.5%)	69,811
<b>Total</b>	<b>477,067 (100%)</b>	<b>282,224 (100%)</b>	<b>773,056 (100%)</b>	<b>1,532,347 (100%)</b>

**Tables 2, 3 and 4** provide a breakdown of loans by source of downpayment, FICO score category and LTV ratios. **Table 2** indicates that default rates vary when categorized by source of downpayment. In this simplistic presentation it appears that default rates and claims rates are higher for loans using SF DPA. However, because this table makes no attempt to control for other factors affecting the borrowers and the loans, no conclusions about the *effect* of SF DPA on defaults can be drawn. In fact, this table illustrates the wrong way to make conclusions about the impact of SF DPA on default rates.

**Table 2: Default and Claims Rates by Source of Loan Funds**

Source of Downpayment	Default Rate (%)	Claims Rates (%)
Borrower's Own Funds	9.0	1.4
Employer	14.6	2.5
Family	11.7	1.8
Government	14.6	3.0
Non-Profits (SF DPA)	19.5	5.2

**Table 3** provides a summary of default rates by FICO score category. Default rates and claims rates are high for all borrowers with low FICO scores regardless of source of downpayment. Furthermore, default and claims rates among certain groups of borrowers with no DPA are higher than default and claims rates among borrowers with SF DPA.

**Table 3: Default and Claims Rates by Source of Downpayment and FICO Scores**

Downpayment:	Borrower		Employer		Family		Government		SF-DPA	
FICO Category	Default	Claim	Default	Claim	Default	Claim	Default	Claim	Default	Claim
300-499	26.38	2.93	33.33	0	28.66	4.02	31.85	4.20	41.48	9.18
500-559	21.20	2.39	27.59	5.17	24.27	2.55	29.95	5.11	33.91	7.01
560-599	15.23	1.67	15.83	2.32	17.89	1.96	22.20	3.36	24.84	4.93
600-619	11.76	1.42	21.79	2.56	14.70	1.54	17.42	2.63	19.47	3.94
620-639	8.91	1.12	12.50	1.97	10.71	1.23	13.08	2.21	15.39	3.21
640-679	5.53	0.73	9.51	1.14	7.17	0.95	8.64	1.56	10.38	2.51
680+	1.98	0.32	3.44	0.69	2.78	0.38	3.26	0.58	4.79	1.32

**Table 4** demonstrates the difference in the distribution of borrower's FICO across the various sources of downpayment. Taken together, these tables indicate that while in general SF DPA mortgages have claims and default rates that are higher than those with other forms of assistance, this appears to be driven by the fact that the bulk of these loans are going to people with lower FICO scores.

It is important to note that FICO scores are but one indicator of the credit worthiness of a borrower and importantly provides an indication only of a borrower's previous credit risk. Purchasing a home is a major financial decision and may be correlated with other developments in a borrower's life which may raise or lower their credit risk on a forward-looking basis. For example, completing graduate school and obtaining a professional job may reduce someone's credit risk and motivate a home purchase concurrently.

**Table 4: Distribution of FICO Score by Source of Downpayment**

FICO Category:	Borrower	Employer	Family	Government	SF DPA	Total
300-499	3579	12	921	405	4455	9372
500-559	36,579	116	10,677	3699	42,463	93,534
560-599	73,483	259	22,964	7896	71,039	175,641
600-619	54,553	156	17,412	5816	46,141	124,078
620-639	59,953	152	18,146	6194	44,610	129,055
640-679	109,343	263	31,622	10,799	68,388	220,415
680+	165,345	291	37,997	13,790	64,657	282,080
<b>Total</b>	<b>502,835</b>	<b>1249</b>	<b>139,739</b>	<b>48,599</b>	<b>341,753</b>	<b>1,034,175</b>

### Regression Analysis

To properly study the data provided and estimate the increase in the probability of default for mortgages that received SF DPA while controlling for other factors, we ran a regression (probit model) of the probability of default and claim on all available variables. It is important to stress that only a properly constructed regression model can calculate the impact of one explanatory variable (e.g. SF DPA) on the dependent variable (e.g. default or claim). **Table 5** presents summary statistics for key variables included in the model. In addition, the model includes controls for year and state.

**Table 5: FHA Data, 2004-2007: Summary Statistics**

	Mean	Std. Dev.
Defaults	0.118	0.322
Claims	0.019	0.139
Nonprofit Assistance	0.333	0.471
Govt Assistance	0.047	0.212
Family Assistance	0.134	0.340
Employer Assistance	0.001	0.034
FICO Score	614.10	62.68
Minority	0.333	0.471
High LTV Ratio (LTV $\geq$ 95)	0.880	0.324
State Per Capita Income	34,387	4680
State Unemployment Rate	4.87	0.94
State Bankruptcy Rate	4.75	4.48
State Foreclosure Rate	5.33	3.91
<b>Observations</b>	<b>1,022,790</b>	

We obtained the expected effects for the variables in the model and those results are presented in the Appendix. For instance, borrowers with high FICO scores are less likely to default. Borrowers with high LTV ratios are more likely to default. In the absence of

information on the borrowers' income and employment history, we included controls for the state unemployment rate and state per capita income. The results suggest that borrowers located in states with high per capita income and low unemployment rates are less likely to default. We further included variables attempting to capture the economic conditions of the borrower and the region in which the borrower was located by including the state bankruptcy (and the state foreclosure rate) as additional variables. The coefficient on the bankruptcy rate was positive and significant suggesting that controlling for economic conditions is important when assessing the probability of a loan going into default or resulting in a claim.

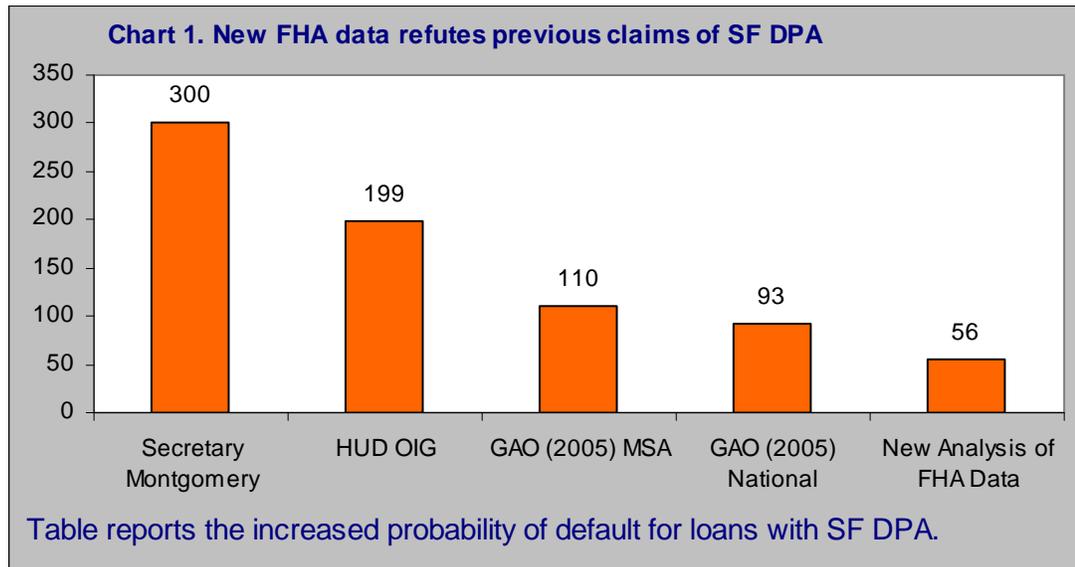
Finally, we turn to the results for downpayment assistance. All types of assistance, whether from family, government or nonprofit, increase the likelihood of default. This seems intuitive assuming that borrowers who need such assistance are typically those with low incomes, unstable employment and few reserves to meet large loan commitments, and that those related factors are not captured explicitly in the data. Within this group, the likelihood of default was marginally higher for those with nonprofit assistance loans. To calculate the probability of default for these loans, we first estimated the marginal effect (rather than the probit coefficient which cannot be interpreted directly) associated with this variable. This number is approximately 0.066. Then we divided the marginal effect by the average probability of default in the sample, 11.8 percent. This yielded the estimate that a loan obtained with downpayment assistance has a 56 percent higher probability of default, as compared to a loan with no downpayment assistance. The corresponding numbers for government assistance and family assistance were 39 percent and 19 percent. **Table 6A** presents these results.

**Table 6A: Marginal Effects For Different Forms of Assistance: Default Rates**

	Marginal Effect (1)	Average Default Probability (2)	Percentage Change (1)/(2)
SF DPA	0.066	0.118	56
Govt DPA	0.046	0.118	39
Employer DPA	0.044	0.118	37
Family DPA	0.022	0.118	19

It is important to emphasize that our estimates are significantly lower than those in the GAO and the HUD OIG reports and than those in the statement quoted earlier by HUD Assistant Secretary Brian Montgomery. **Chart 1** compares the estimate of the marginal effect of SF DPA on mortgage default to the statements made by HUD and the GAO. This chart clearly demonstrates that the newest FHA dataset, larger and without the sample selection bias discussed above, indicates that the claims made by previous research are greatly exaggerated.

For example, in the GAO study using a national data set, the default rate for nonprofit assistance loans was estimated to be nearly 100 percent higher than that on loans with no SF DPA. HUD OIG claims that SF DPA raises default rates by nearly 200 percent. We believe, as stated earlier, that the coefficient on the SF DPA variable in this new analysis is being driven up due to the lack of variables capturing the income level of the borrower, the borrower's employment history and other economic characteristics. The actual impact on the default rate may be lower than estimated here.



The results for claims are similar to those with default and are presented in **Table 6B**. The probability of a loan going to claim is higher for those with low FICO scores and high LTV ratios. However, in this case, the claims rate for those with nonprofit assistance and government assistance is similar. The probability of a loan going to claim for both, relative to those with no assistance, is approximately 63 percent higher. Again, as compared to the GAO study, our estimates of the claims rates are much lower. The GAO study found that seller-funded assistance raised the claims rate by 134 percent relative to loans with no assistance.

**Table 6B: Marginal Effects for Different Forms of Assistance: Claims Rates**

	Marginal Effect (1)	Average Claim Probability (2)	Percentage Change (1)/(2)
<b>Seller Funded DPA</b>	<b>0.012</b>	<b>0.019</b>	<b>63</b>
Govt DPA	0.008	0.019	42
Employer DPA	0.008	0.019	42
Family DPA	0.002	0.019	11

### A Policy Experiment to Reduce Default and Claims Rates

To illustrate the result that factors other than SF DPA are contributing to higher default and claims rates among certain categories of loans, we next present the results for an analysis that demonstrates that a simple modification to the eligibility criteria for SF DPA can have a significant effect on the probability of default. This experiment is not intended as a recommendation but rather highlights the fact that policies geared at borrower's risk characteristics generally could be employed to affect default and claims rates.

To analyze the impact of one policy restriction, restricting SF DPA to borrower's with certain minimum FICO scores, we reran our model and constrained SF DPA borrowers to those with a FICO score of at least 640. The probit model regression results are presented in the Appendix and are comparable to the full sample. **Tables 7A** and **7B** calculate new marginal impacts of SF DPA on the probability of default and claim. Here

the results are notably different. Unlike in **Table 6A** and **6B**, where SF DPA scored notably worse than other categories of DPA, here the results are very similar at least for SF DPA and employer provided DPA. In other words, by restricting SF DPA borrowers to a minimum FICO score appears to yield default risks of SF DPA loans that are equivalent to borrower's with other type of DPA. This modest reform would appear to limit the financial risk of SF DPA on the FHA to a level similar to other permitted forms of DPA.

**Table 7A: Marginal Effects for DPA, FICO $\geq$ 640: Default Rates**

	Marginal Effect (1)	Average Default Probability (2)	Percentage Change (1)/(2)
SF DPA	0.033	0.087	38
Govt DPA	0.037	0.087	43
Employer DPA	0.035	0.087	40
Family DPA	0.017	0.087	20

**Table 7B: Marginal Effects for DPA, FICO $\geq$ 640: Claims Rates**

	Marginal Effect (1)	Average Claims Probability (2)	Percentage Change (1)/(2)
SF DPA	0.007	0.013	54
Govt DPA	0.005	0.013	39
Employer DPA	0.005	0.013	39
Family DPA	0.001	0.013	8

#### 4. CONCLUSION

The mission of the FHA is to serve low and moderate income individuals and families and promote homeownership. Seller Financed Downpayment Assistance (SF DPA) has assisted over 1 million households buy homes and has helped a disproportionate share of minority homebuyers. As a result of recently enacted legislation, SF DPA for FHA-insured loans is scheduled to end October 1, 2008. The high volume of activity among SF DPA providers indicates that terminating this program would adversely affect a large number of future homebuyers. Given the current turmoil in the housing market, this could elongate a housing market recovery.

While the analysis presented does indicate that SF DPA is associated with higher probability of default and higher probability of a claim, the impact appears significantly lower than estimates made by government agencies and calls into question the validity of the policy advocated by the FHA and recently enacted into law. In addition, because our data set lacks borrower's income data and detailed local economic conditions data, we expect that our results are biased upwards given that SF DPA is likely more prevalent among borrower's in worse personal or local economic condition. For example, SF DPA borrower's have, on average, lower FICO scores than non-SF DPA borrowers.

Additional data, collected by FHA but not publicly released, would allow for more precise estimation of the effect of SF DPA on default and claims probabilities. In the absence of that data, we performed an experiment on the impact of restricting SF DPA to borrowers

with a minimum FICO score. Our results indicate that such a rule could result in SF DPA loans performing on par with other forms of DPA, namely family, government or employer-provided. A precise estimate of the necessary FICO restriction or evaluations of other requirements for borrowers would require a more complete data set.

Finally, it is important to emphasize that this analysis is limited to the potential costs associated with SF DPA and makes no attempt to capture the benefits of this program. Homeownership is a widely endorsed public policy objective and the benefits on homeownership may accrue disproportionately to households of lesser means, the target of FHA generally and SF DPA in particular.

## APPENDIX

**Table A1** and **Table A2** presents the probit marginal effects necessary for calculating the probability of default presented in **Table 6A** and **6B** and for **Table 7A** and **7B**.

**Table A1: Probit Marginal Effects, Full Sample**

Dependent Variable	Probability of Delinquency		Probability of Claim	
	Marginal Effect	Standard Error	Marginal Effect	Standard Error
SF DPA	0.066	0.001	0.012	0.0002
Govt DPA	0.046	0.002	0.008	0.0006
Employer DPA	0.044	0.010	0.008	0.0036
Family DPA	0.022	0.001	0.002	0.0003
Minority	0.017	0.001	-0.001	0.0003
FICO Score	-0.0009	4.31e-06	-0.0001	1.20e-06
High LTV Ratio	0.002	0.001	0.002	0.0003
PCI (\$10,000)	-3.06	0.546	-0.231	0.180
State Unemployment	0.001	0.002	-0.002	0.0003
Bankruptcy Rate	0.0003	0.0002	0.0002	0.0001
State Dummies	Yes		Yes	
Time Dummies	Yes		Yes	

**Table A2: Probit Marginal Effects: SF DPA Loans, FICO $\geq$ 640**

Dependent Variable	Probability of Delinquency		Probability of Claim	
	Marginal Effect	Standard Error	Marginal Effect	Standard Error
SF DPA	0.033	0.001	0.007	0.0003
Govt DPA	0.037	0.001	0.005	0.0004
Employer DPA	0.035	0.008	0.005	0.002
Family DPA	0.017	0.0008	0.001	0.0002
Minority	0.015	0.0006	-0.0002	0.0001
FICO Score	-0.0007	4.54e-06	-0.00005	1.29e-06
High LTV	0.005	0.0007	0.002	0.0001
State PCI (\$10,000)	-2.78	0.506	-0.0424	0.0168
State Unemployment	0.002	0.001	-0.001	0.0002
State Bankruptcy Rate	0.0003	0.0002	0.0001	0.00006
State Dummies	Yes		Yes	
Time Dummies	Yes		Yes	