

V. APPENDICES

A. Data Collection Package

Concetrance Letter

Dear ...

Congress is concerned about the effectiveness of HOME and ADDI programs in promoting homeownership opportunities⁴⁴. Specifically, Congress is concerned that new low-income homeowners have had difficulty maintaining ownership and has, therefore, charged the Department of Housing and Urban Development (HUD) with conducting this study. HUD has contracted with Concetrance Consulting Group, Inc. to provide an estimate of the foreclosure rate among HOME- and ADDI-assisted homebuyers.

Your institution has been selected to participate in this study of homebuyers assisted through the HOME/ADDI programs. Participation in this Government-sponsored survey is voluntary. Individual responses are held confidential, only the aggregate data is shared with HUD. The questions have been reviewed by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (OMB control # 2528-0253, expiration date 01/31/2011). The average estimated time to complete this data request is 12 hours.

We have identified a random sample of homebuyers that you provided with downpayment assistance through HOME/ADDI programs during one or more calendar years. For each sampled homebuyer, we are asking that you verify certain information reported in the IDIS system. We are also asking for additional information; most importantly, that you indicate the homebuyer's current status with respect to foreclosure.

In order to understand the factors associated with foreclosure, we are also seeking information on the homebuyer's income, debts, and the type of first mortgage used to purchase the home. Our staff will be available to assist you in identifying information that is available in your records.

Please use the attachments to this letter to provide the requested information. In order to open the attached Data Verification Form spreadsheet(s) you will need to enter a password, which will be provided in a separate email. All the information we collect will be used to respond to the Congressional request.

Concetrance staff will be in contact with you soon to see if you have any questions or need assistance in responding to this request. In the meantime, if you have any further questions about the request for information, please feel free to contact us at (202) 223-8877. Please direct inquiries to: Mandy at extension 319 or Shawn at extension 317. We anticipate completing this part of the survey by 3/13/2008. Should you have any difficulties completing the survey by that date, please contact us as soon as possible.

⁴⁴ Note institution selection: Institutions who served 700 buyers or less were selected randomly; those with more than 700 buyers were selected with certainty. The selection methodology enables us to reduce the burden on participating jurisdictions while maintaining statistical rigor.

We have already contacted your HUD Field Office with respect to this study; please contact them if you have any questions about the study. Dr. Harold Holzman at HUD headquarters is managing the study for the Department.

The goals of providing affordable housing can best be accomplished if the funds allocated for housing programs are effectively used. This study will help HUD understand the effectiveness of the HOME/ADDI homebuyer assistance. Thank you in advance for participating in this important study.

Attached please find:

- One or more worksheets for validating and providing data;
- A data field description that explains each item on the worksheet;
- A second worksheet that is a program characteristics questionnaire; and
- A letter from HUD's General Deputy Assistant Secretary, Nelson R. Bregón.

Best Regards,

Concurrence Consulting Group, Inc.

Letter From HUD's General Deputy Assistant Secretary



OFFICE OF COMMUNITY PLANNING
AND DEVELOPMENT

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-7000

FEB - 5 2008

Dear Participant:

SUBJECT: HUD Study on Default and Delinquency Rates
HOME and American Dream Downpayment Initiative Programs

The Department of Housing and Urban Development (HUD) has provided funding to State and local governments through the HOME and American Dream Downpayment Initiative (ADDI) programs to help over 335,000 low-income families become homeowners. However, Congress is concerned about whether these low-income families have been able to maintain homeownership. Congress has directed HUD to undertake a study to determine the default and delinquency rates of these assisted homebuyers.

On behalf of HUD, I am asking for your cooperation with this study. Your agency has been randomly selected to provide information on a small number of homebuyers that you have assisted through your HOME or ADDI programs between 2000 and 2005. HUD has contracted with Concentrance Consulting Group, Inc. to collect this data. Since this study is relying on a random sample of homebuyers, it is extremely important that you cooperate with the Concentrance research team to ensure that the study results are representative of homebuyers assisted across the nation.

You will be asked to verify information reported in HUD's Integrated Data Information System (IDIS) and to provide some additional information that you may maintain in your records. The attached worksheet provides complete details on the sample of assisted homebuyers and the information that HUD would like you to provide. HUD is convinced that Concentrance will be meticulous in their management of confidential data.

I urge you to give the Concentrance research team your full cooperation in order to provide HUD and Congress with the most accurate research from which to make future policy recommendations. Please feel free to contact Ginger Macomber in HUD's Office of Affordable Housing Programs at 202-402-4605, if you have any further questions about this request for information. If you have any concerns or questions about the study that you would like to raise with HUD, you may contact Dr. Harold Holzman, who is managing the study for the Department, at 202-402-5709.

Thank you very much for your assistance in this important research and your role in expanding the reach of homeownership in our country.

Sincerely,

A handwritten signature in black ink that reads "Nelson R. Bregón". The signature is stylized and written in a cursive-like font.

Nelson R. Bregón
General Deputy Assistant Secretary

Attachment

Data Verification and Collection Instrument, page 1

OMB # 2528-0253 Expiration Date: 01/31/2011 See Privacy Notices below	Data from Integrated Disbursement and Information System (IDIS) is shown below	IDIS data is correct (Yes, No, Unknown)	IDIS data is incorrect (enter correct data below)
Section A: IDIS Data Verification and Correction			
Homebuyer's Name	From IDIS		
Street Address of home purchased	From IDIS		
City	From IDIS		
State	From IDIS		
Zip Code	From IDIS		
Completion date	From IDIS		
Purchase price	From IDIS		
Total ADDI/HOME funds provided	From IDIS		
Total ADDI/HOME downpayment funds provided	From IDIS		
Total other public funds used	From IDIS		
Total private funds used	From IDIS		
Primary source of financing	From IDIS		
System Activity (ACT ID)	From IDIS		
Section B: Key Data to Collect		Enter data below:	
Affordability period (5, 10 or 15 years)			
Current ADDI/HOME lien status:		Please enter 'a', 'b', 'c' or 'd'.	
a) Lien is current b) Lien has been satisfied c) Lien has expired d) Property has been foreclosed			
Current 1st mortgage loan status			
a) Loan is current b) Loan is past due less than 90 days c) Loan is past due 90 days or more d) Loan has been paid off e) Loan status unknown			
Source of ADDI/HOME assistance:		Please enter 'a', or 'b'.	
a) ADDI b) HOME			
<i>Please supply data below. If you have no access to an item, please mark it as 'Unknown'.</i>			
Section C: Data available from loan documents		Enter data below:	
Primary mortgage amount			
Loan closing date			
Interest rate		0.00%	
Loan term (years)			
Loan type (Fixed/ARM)			
ARM type: 1-year 3-year 3/1 5/1 7/1			
Monthly housing payment (PITI)		\$ -	
Total loan amount (including all subordinate loans)		\$ -	
Buyer's cash contribution		\$ -	
Buyer's monthly household gross income		\$ -	
Credit score at time of loan			
Primary mortgage was FHA insured (Y/N)			

Data Verification and Collection Instrument, page 2

Public Reporting Burden Statement. Public reporting burden for this two-part collection of information is estimated to average a total of 12 hours for each Participating Jurisdiction in this study. This includes the time for locating files, collecting the files, reviewing the files and reporting the data. This information is being collected for the U.S. Department of Housing and Urban Development and will be used to study the impact of downpayment assistance on mortgage delinquency and foreclosure rates in the ADDI and HOME Programs. Response to this request is voluntary. You should not undertake the requested data collection unless this data collection instrument displays a currently valid OMB control number.

Privacy Act Statements. HUD is authorized to collect this information by P.L. 479.48, Stat.1246, 12 USC 1701 et. seq. and the Community Development Act of 1987, 42 USC 3543, to collect Social Security Numbers. Social Security Numbers are requested here in order to obtain the most accurate information possible on the mortgage delinquency and foreclosure histories of recipients of downpayment assistance received through the ADDI and HOME Programs. The information will be used to establish the rates of mortgage delinquency and foreclosure for recipients of downpayment assistance through ADDI and HOME, i.e., will be used to calculate aggregate statistics. Information on individual recipients of assistance from ADDI and HOME will not be disclosed outside the U.S. Department of Housing and Urban Development except as required and permitted by law.

Pursuant to the Privacy Act of 1974 (5 U.S.C. §552a) and the Principles for Providing and Using Personal Information, issued by the Information Infrastructure Task Force in 1995, Concentrance Consulting Group hereby acknowledges that we will acquire and keep only that personal information reasonably expected to support current or planned activities. All information requested herein will be acquired, disclosed, and used in ways that respect an individual's privacy. Personal information will not be improperly altered or destroyed, and will be used only for the purpose for which it is requested. Information acquired for this activity will not be used for any other unrelated activities.

We have instituted appropriate technical and managerial security measures to protect the confidentiality and integrity of this personal information, and to prevent the loss, unauthorized access, destruction, use, or disclosure of the data. Managerial measures include internal organizational measures that limit access to data and ensure that those individuals with access do not utilize the data for unauthorized purposes. Technical security measures to prevent unauthorized access include limits on access through use of passwords and the storage of data on secure servers.

ADDI/HOME Worksheet Data Field Breakdown

SECTION A refers exclusively to IDIS Data Fields.

SECTION B	Applies to both HOME loan (referred to as <u>lien</u>) and first mortgages (referred to as <u>loan</u>)
Current lien status	HOME funds loan (current/satisfied/expired/foreclosed)
Current loan status	First mortgage loan data (current/past due/paid in full/unknown)

SECTION C	Applies to the first mortgage
Primary mortgage amount	First mortgage loan amount
Loan closing date	Date of closing/settlement
Interest rate	For first mortgage
Loan term (years)	For first mortgage
Loan type (Fixed/Adjustable Rate Mortgage (ARM))	For first mortgage
ARM Type	For first mortgage
Monthly housing payment (PITI)	Includes all mortgages that require payments (seconds, thirds, etc) as well as taxes and insurance
Loan amount	Total encumbrance (all mortgages and liens balances)
Buyer's cash contribution	Buyer's funds for closing costs, down payment, and etc.
Homebuyer's household income	Provide monthly income used for qualifying
Credit score at time of loan	Credit score at time of loan approval(s)
Primary mortgage was FHA insured (Y/N)	For first mortgage

Program Characteristics Questionnaire, page 1

OMB control #2528-0253. Expiration date 01/31/2011

Questionnaire on General Characteristics of ADDI/HOME Programs

Public Reporting Burden Statement. Public reporting burden for this two-part collection of information is estimated to average a total of 12 hours for each Participating Jurisdiction in this study. This includes the time for locating files, collecting the files, reviewing the files and reporting the data. This information is being collected for the U.S. Department of Housing and Urban Development and will be used to study the impact of downpayment assistance on mortgage delinquency and foreclosure rates in the ADDI and HOME Programs. Response to this request is voluntary. You should not undertake the requested data collection unless this data collection instrument displays a currently valid OMB control number.

Privacy Act Statement. HUD is authorized to collect this information by P.L. 479.48, Stat.1246, 12 USC 1701 et. seq.: and the Community Development Act of 1987, 42 USC 3543, to collect Social Security Numbers. Social Security Numbers are requested here in order to obtain the most accurate information possible on the mortgage delinquency and foreclosure histories of recipients of downpayment assistance received through the ADDI and HOME Programs. The information will be used to establish the rates of mortgage delinquency and foreclosure for recipients of downpayment assistance through ADDI and HOME, i.e., will be used to calculate aggregate statistics. Information on individual recipients of assistance from ADDI and HOME will not be disclosed outside the U.S. Department of Housing and Urban Development except as required and permitted by law.

<i>Please respond only for the years for which you are being surveyed.</i>						
	<i>Click anywhere on the cells in the appropriate year, then click on the downward pointing triangle to reveal choices. (Questions 6a, 14, and 16 require narrative responses; question 8a requires data input, if appropriate.)</i>					
Homeownership education and counseling	2000	2001	2002	2003	2004	2005
1. Did recipients of ADDI/HOME funds receive homeownership counseling?						
<i>If you answered 'No' to Question 1 then skip to Question 6. Otherwise please answer the following:</i>						
2. What percent of recipients of ADDI/HOME funds received homeownership counseling?						
3. Of those recipients that received counseling, how many hours did they receive?						
4. Approximately what percentage of recipients counseled received the following <u>types</u> of counseling:						
4a. Pre-purchase Homebuyer Counseling (one on one)						
4b. Homebuyer Education Programs (group setting)						
4c. Counseling to Resolve or Prevent Mortgage Delinquency or Default						
4d. Non-Delinquency Post-Purchase Counseling – Individual						
4e. Post-Purchase Education Programs (group)						
4f. Counseling on avoiding Predatory Lending						

Program Characteristics Questionnaire, page 2

Eligibility Criteria	2000	2001	2002	2003	2004	2005
5. What maximum percent of median income (using any appropriate HUD-approved adjustments) did your agency require for ADDI/HOME programs?						
6. Did you have eligibility requirements in addition to those specified by ADDI/HOME programs?						
6a. If so describe those additional requirements. Identify any differences by year.						
Please select all that applies						
7. How did you verify recipient income qualifications? Identify any differences by year.						
8. Were FICO scores used in determining eligibility?						
8a. If so what was the minimum FICO score required?						
Provisions for Buyer Protection	2000	2001	2002	2003	2004	2005
9. How often did you check that the value of the property acquired by the recipient was reasonable (for example by reviewing the appraisal)?						
10. Within how many days of settlement did you inspect the property to ensure that it met the HOME property standards?						
Provisions for Buyer Protection	2000	2001	2002	2003	2004	2005
11. As a percent of gross income, what was the maximum monthly housing payment (principal, interest, taxes and insurance) that recipients could incur?						
12. What was the maximum monthly total debt as a percent of gross income that recipients could incur?						
13. How did you monitor that the recipient's loan interest rates were not excessive given the client's risk profile?						
14. Identify any other services you offered or measures you took to protect recipients from excessive property prices or excessive loan interest rates.						
	2000	2001	2002	2003	2004	2005
15. Generally, were you informed when a borrower became seriously delinquent or at risk of foreclosure?						
16. If Yes to 15, what interventions did you undertake when a borrower became delinquent or at risk of foreclosure?	Other (Describe in the space below)					

B. Detailed Discussion of Sampling Approach, Sample Weighting, Data Collection Process, and Matching of IDIS and FHA Data

This appendix presents a detailed discussion of the design of the PJ sample, the development of sampling weights, and the process for developing and executing the PJ survey.

PJ Sampling Approach

The sampling design aimed to produce, for each of the years 2000 through 2005, a sample of homebuyers from the combined HOME and ADDI programs, in which each homebuyer had an equal chance of being selected. While the survey sought information on homebuyers assisted by the HOME and ADDI programs, the respondent universe was made up of the PJs that administered these programs. The respondent universe in each year from 2000 through 2005 consisted of PJs that assisted at least one homebuyer in that year and that were eligible to receive an allocation of ADDI funding in Fiscal Year 2004. PJs were eligible for ADDI funding if they have a total population of at least 150,000 and would receive an allocation of \$50,000 or more based on the ADDI Allocation Formula. Fiscal Year 2004 had the largest allocation of funding for the ADDI program, so it was the year when the largest number of PJs were eligible for funding. In addition to these restrictions, the universe of PJs also excluded PJs in Louisiana, Mississippi, and parts of Alabama affected by the 2003 hurricanes due to the artificial impact this would have on foreclosure rates and one PJ that was under investigation for mismanaging its HOME/ADDI program. The total universe of PJs in the respondent universe ranges from a low of 302 in 2000 to a high of 371 in 2005.

The sampling approach was designed to minimize the number of PJs that were selected to provide information while also meeting goals related to the variance of the estimated foreclosure rate. The sample was designed to provide an estimate of the foreclosure rate with a standard error of 1 percent based on an assumed foreclosure rate in the HOME/ADDI program of 5 percent. To accomplish these goals the design used a sample of 33 PJs in each of the 6 years, and separated the PJs into three groups according to the number of buyers assisted in the particular year:

- Group 1: Over 700 buyers;
- Group 2: From 51 to 700 buyers; and
- Group 3: 50 or fewer buyers.

PJs that belonged to Group 1 were selected with certainty; each of them were asked to provide information on a random sample of 50 buyers selected from the total list of homebuyers assisted by PJ for a given year. From the PJs that belonged to Group 2 a sample of PJs was selected with probability proportional to PJ size (PPS), where the measure of size was the number of buyers. As with Group 1, each PJ was asked to provide information on a random sample of 50 buyers selected from its total list of assisted homebuyers for a given year. A simple random sample was selected from PJs in Group 3. Each selected PJs was asked to provide data on all the buyers that it assisted in that year.

The number of PJs sampled in Groups 2 and 3 was proportional to the number of total PJs in these two groups. For example, if the PJs in Group 2 account for one third of the total PJs in Groups 2 and 3 in a given year, then one third of the sample PJs would be from

Group 2 and two thirds will be from Group 3. In sampling PJs for Groups 2 and 3, PJs were first sorted by type of PJ (state, city, county, or consortium of local governments) and by region of the country to be sure the selected sample provides reasonable coverage in each of these dimensions. A systematic random sample was then drawn from these two groups for each year.

Our initial sampling technique randomized Act IDs for a particular PJ in a given year, in a manner that sampled each Act ID once. This approach excluded cases that were administered under a single Act ID – what we termed “multiples” – from the potential sampling pool. We revised our loan selection technique in order to include multiple Act ID cases in the sample and reselected the loans for the sample to include these files. For samples that had fewer than 50 loans, we simply included these ‘multiple’ files in the sample. For samples with more than 50 loans, we included the ‘multiple’ files for random sampling so the data would be unbiased. Financial data was divided by the number of multiples under a single Act ID.

The resulting sample consisted of 133 PJs, including 88 that were sampled once, 34 that were sampled twice, 7 that were sampled 3 times, 1 that were sampled 4 times, 2 that were sampled 5 times, and 1 that were sampled in all 6 years. However, since the sample is limited to a maximum of 50 buyers per year, the largest number of buyers any one PJ was asked to report on was 300. The total number of buyers sampled in each year ranged from 967 to 1,165.

Development of Sampling Weights

While the multi-stage stratified sample design described in the previous section greatly reduced data collection costs and ensured comprehensive data coverage, it resulted in differential probabilities of selection for the PJs and homebuyers. To account for the sample design, the study team computed a sampling weight for each sample homebuyer. The weights also adjusted for PJ non-responses and sample cases where lien status was missing from the PJ files. This section documents the methods used to construct the sampling weights that were used in all the cross-tabulations and regression analysis presented in the report so that the estimates were weighted up to the population of ADDI/HOME borrowers from which the sample was drawn. In addition, the weights played an important role in hypothesis testing and standard error estimation.

First-Stage (PJ) Selection Probability

We first removed from the survey data and sampling universe cases that PJs have identified as not HOME/ADDI assisted borrowers. The PJs in the sampling universe were stratified into three groups according to the number of buyers assisted in the particular year:

- Group 1: Over 700 buyers;
- Group 2: From 51 to 700 buyers; and
- Group 3: 50 or fewer buyers.

To construct the sampling weights, we first calculated the probability of selection for each sample PJs (Prob1). This and all subsequent calculations were done separately by PJ size group and completion year. For brevity, we will omit the subscript for year in any formula presentation.

Since the PJs in size group 1 were selected with certainty, their selection probability was 1.

The PJs in size group 2 were selected with probability proportion to size (PPS), where the measure of size is the number of homebuyers in each calendar year. As a result, their selection probability was:

$$\text{Prob1}_i = (n \cdot m_i) / M$$

Where:

Prob1_i is the probability of selection for sample PJ;
 n is the number of PJs sampled from the size group;
 m_i is the number of homebuyers for PJ_{*i*}; and
 M is the number of homebuyers across all PJs in the size group.

For PJs in size group 3, a simple random sample of PJs was selected within each completion year. Therefore, their selection probability was:

$$\text{Prob1}_i = n / N$$

Where:

Prob1_i is the probability of selection for PJ;
 n is the number of sample PJs in the size group; and
 N is the total number of PJs in the size group.

Second-Stage (Homebuyer) Selection Probability

Selection probability for the sampled homebuyers (Prob2) was computed separately by size group, PJ, and completion year. For PJs in size groups 1 and 2, the design required that a random sample of 50 assisted homebuyers was selected among each sample PJ. Consequently, the selection probability was:

$$\text{Prob2}_i = r_i / R_i$$

Where:

Prob2_i is the probability of homebuyer selection for sample PJ;
 r_i is the number of sample homebuyers in sample PJ_{*i*}; and
 R_i is the total number homebuyers in sample PJ_{*i*}.

For PJs in size group 3, they were asked to provide data on all of the homebuyers assisted in that year. As a result, the probability of homebuyer selection was 1 for each of these PJs.

The overall sampling weight for each sample borrower was constructed as the inverse of the product of the stage 1 and stage 2 selection probability, or $W = 1 / (\text{Prob1} \cdot \text{Prob2})$. In the formula, the quantities $1 / \text{Prob1}$ and $1 / \text{Prob2}$ are called the stage 1 and stage 2 sampling weights.

Adjustments for PJ Non-responses and Missing Data

To adjust for PJ non-responses, for each size group and completion year, we adjusted the stage 1 sampling weights as follows:

$$W1_{i \text{ adj}} = (1/\text{Prob1})*(S/R)$$

Where:

- W1_{i adj} is the adjusted stage 1 sampling weight for PJ_i;
- Prob1_i is the stage 1 selection probability for PJ_i;
- S = $\sum(1/\text{Prob1}_i)*m_i$ over all the sample PJs (i) in the size group;
- R = $\sum(1/\text{Prob1}_i)*m_i$ over all the responded sample PJs (i) in the size group; and
- m_i is the number of homebuyers for PJ_i;

To adjust for non-responses and cases with missing lien status at the homebuyer level, the stage 2 sampling weights were adjusted in the following manner, separately for each size group and completion year:

$$W2_{i \text{ adj}} = (1/\text{Prob2}_i)*(r_i/p_i)$$

Where:

- W2_{i adj} is the adjusted stage 2 sampling weight for PJ_i;
- Prob2_i is the stage 2 selection probability for PJ_i;
- r_i is the total number of sample homebuyers in PJ_i and
- p_i is the number of sample homebuyer cases returned by the PJ_i with complete lien status.

The final sampling weights were computed as:

$$W_{\text{adj}} = W1_{i \text{ adj}} * W2_{i \text{ adj}}$$

Variance and Confidence Intervals

To account for the complex sampling design, we used the Stata software package's facilities for survey data analysis to estimate variance and confidence intervals for the foreclosure estimates. See Stata's *Survey Data Reference Manual* for formulas for the variance estimation. The formula for the 100(1- α)% confidence intervals is (where α is the significance level):

$$\hat{x} \pm t_{1-\alpha/2,d} \{V(\hat{x})\}^{1/2}$$

where \hat{x} is the point estimate, $V(\hat{x})^{1/2}$ is the estimated standard deviation, and t is Student's t which indicates the multiple of the standard deviations that are associated with a level of statistical significance of α given d , the number of degrees of freedom, with $d = n - L$, where n is the number of primary sampling units (PSUs) and L is the number of strata.

PJ Survey Execution and Participation Results

This section summarizes our efforts to develop, test, and conduct the PJ survey.

Survey Preparation and Testing

As part of the development of the research design, the Concentrance team contacted a variety of PJs to gauge their willingness and ability to provide us with data, and to develop estimates of the time required to complete the survey. These contacts with PJs revealed a variety of systems for maintaining data on their HOME/ADDI programs, which had implications for PJs' ability and willingness to share information with the study. PJs that stored

data electronically expressed greater ability to share information, while PJs that stored data in paper files indicated that our data request would represent a considerable burden. Although larger PJs (in terms of number of cases assisted) were more likely to store data electronically, they were also more cautious about sharing data. Some PJs indicated that sharing of data would require a review of the data collection request and an approval by their general counsel. Smaller PJs were generally more forthcoming but sometimes did not retain detailed data electronically, making data collection more difficult and costly to provide.

Overall, these preliminary discussions showed that PJs would ultimately cooperate with the data collection efforts and that their caution was in part due to frustration with significant numbers of other data requests from different organizations. Sharing confidential information such as borrower name and social security number (which was explored as a means of linking survey results to FHA administrative data) was a concern for some PJs, but these jurisdictions generally indicated that, with the proper authorization from HUD, they would provide the data. Some PJs indicated that they would not be able to provide retrospective information such as details of housing counseling requirements, applicant screening processes, and provisions for homebuyer protection. Due to staff turnover these PJs indicated that it would be very difficult for current PJ employees to describe programmatic aspects of several years prior.

We leveraged insights gained from the preliminary PJ contact to develop the data collection package that was ultimately used in the study. The data collection package (provided in Appendix A) consisted of:

- A formal letter from Concentrance requesting PJ participation, that constituted the body of the email, described specific details of the information requested and the process to submit the information;
- A letter from HUD's General Deputy Assistant Secretary urging PJ cooperation;
- The Data Verification and Collection Instrument – one or more Excel worksheets for validating and providing data;
- A data field description that explains each item on the worksheet; and
- A second worksheet, consisting of a program characteristics questionnaire.

Pilot Test of Survey

Once the data collection package was approved by HUD, and while awaiting review and approval by the Office of Management and Budget (OMB) approval under the Paperwork Reduction Act⁴⁵, we contacted the nine largest PJs in the sample and requested their cooperation on a voluntary basis. Our goals with the pilot survey were to obtain feedback on the data collection instrument, and test the dedicated email system that we set up for the data collection effort. We gained several practical insights that called for modification of the data collection instruments. For instance we found that PJ contact information provided on the HUD website was often outdated – the names of responsible PJ officers, their titles, and email addresses were invalid for eight of the nine PJs.

We made additional modifications to our data collection instrument based on the feedback we received from the PJs. We added additional clarification in some of the fields; for

⁴⁵ 44 U.S.C 3501 – 3520.

example, we changed the field “Total Loan Amount” to “Total Loan Amount (including all subordinate loans)” and added “monthly” in “Buyer’s Household Gross Income”. We also removed the field requesting Social Security Number because PJs were understandably reluctant to share such sensitive data, and as our team developed a geo-code based matching process SSNs were no longer required for matching IDIS and FHA records.

Some of the PJs, especially state-level PJs, have indicated that they would have to request the data from their sub-recipients in order to respond to our Data Collection request. In order to assist these PJs with identifying loans on a sub-recipient basis, we revised our data collection forms to include county codes.

We also found that some cases, which were included in the sample, by the PJ prior to providing funding. Cancelled cases occurred when PJs began the process of assisting a homebuyer but did not complete the assistance. We were able to identify cancelled cases in IDIS data by reviewing whether financial assistance information was entered. If these fields were blank it meant funds were not disbursed.

Fielding the Survey

After OMB approval was received we contacted Field Office CPD Directors (FOD) to inform them of the beginning of the survey and to request their support in collecting data from the PJs. In addition, we notified FODs of the sample PJs in their jurisdiction, and sent a copy of our data collection package.

To allow for better management of the outgoing and incoming communication with the PJs, we divided sampled PJs into three groups by size. Larger PJs (more than 50 cases) had approximately 11 weeks to provide us with the data; PJs in the second wave had 10 weeks and smaller PJs in wave three had 9 weeks to complete the request. As part of our data communication security protocol, we protected the data collection instruments with an alpha-numerical password unique for each PJ. Following that, we emailed all the PJs a data collection package. The password to open the files was sent to the PJs in a separate email. We then called these PJs to confirm their receipt of the emails. We developed a data collection log where we tracked our data exchange with the PJs.

The data collection team maintained frequent telephone contact with PJs until a successful outcome was reached or PJs declined to participate in the survey. The initial set of contacts ensured receipt of the data collection package by the PJ and provided an opportunity for PJ representatives to ask questions about the study or the data collection instrument. The subsequent follow-up contacts helped us to assess the overall progress, and identify and resolve any issues that could have precluded PJ participation. In cases where PJs declined to participate or were uncooperative, we leveraged the assistance of Field Office CPD Directors and asked them to alert the PJs to the importance of the study and mediate their participation. It should be emphasized that, overall, PJs were cooperative, and most of the PJs that did not participate abstained because of lack of time or personnel to complete the survey, or other pressing data collection efforts already underway. In order to help minimize the burden we explored alternative methods for PJs to report the requested information. For instance, we recreated the survey instruments to include sub-recipient IDs for PJs that disbursed assistance through many sub-recipients.

After we received data from the PJs, we reviewed it for overall completeness and recorded any deficiencies. If necessary, we followed up with the PJ and requested additional information or clarifications.

During the survey period some PJs reported that some borrowers in their sample did not receive ADDI or HOME downpayment assistance, although IDIS records indicated that they did. This happened primarily due to miscoding of other types of aid as downpayment assistance in the IDIS database. Instructions on entry of data into IDIS given to PJs were clarified in 2003. We learned for cases prior to 2003 PJs may not have differentiated between downpayment assistance and other forms of activity when inputting case information into IDIS. An additional explanation for cases that did not receive assistance was the IDIS system “cleaning” performed in 2003. As part of this process PJs that had administered assistance but had not completed entry into IDIS were asked to complete all outstanding cases. This resulted in some cases from earlier years to have a “closing date” of 2003. Thus our sample also included a small number of cases that did not receive downpayment assistance during the sample period. These cases were removed from the sample and classified as ‘not assisted homebuyers.’

For each sampled homebuyer, the PJ was asked to verify the accuracy of key fields reported in IDIS. Table B-1 shows the share of sampled properties where the PJs corrected the IDIS data. As shown, the IDIS data was verified in 90 percent or more of cases for all of these variables.

Process for Matching IDIS and FHA Data

The process for matching observations in the IDIS and FHA administrative data sets relied primarily on the property address information in the two data sets. Specifically, the addresses in both IDIS and FHA data were geocoded using the same software to produce an 12-digit zip code which uniquely identifies a specific property. Of the 155,463 records in IDIS, 143,984 were successfully geocoded to produce a 12-digit zip code. An additional complication in this match routine was that while for single family homes, the 12-digit zip code is unique to that home, for multifamily properties a unit number is needed to further match specific units within the same property. Given the difficulty of trying to obtain consistent and complete information on unit numbers, cases with duplicate 12-digit zip codes in the IDIS data had to be dropped from the IDIS data. In the end, 133,073 IDIS records were matched against the FHA data to identify whether an FHA mortgagee received HOME/ADDI assistance.

The FHA data was limited to home purchase loans originated after January 1, 1999. Since the same property could be sold more than once, a match was only considered valid if the

**Table B-1:
Share of Cases Where PJs Corrected IDIS Data**

IDIS Data Element	Survey
Address	4.1%
City	0.7%
State	0.1%
Zip code	2.0%
Completion date	6.0%
Purchase price	8.4%
Total ADDI/HOME funds provided	5.3%
Total ADDI/HOME downpayment funds provided	8.7%
Total other public funds used	5.3%
Total private funds used	10.6%
Primary source of financing	1.3%

completion date in IDIS was within 12-months of the closing date in the FHA data. This relatively broad window was allowed because the completion date in IDIS did not always correspond with the closing date. IDIS completion date refers to the time when the PJ recorded the process of providing HOME/ADDI assistance as completed, which could occur either prior to or after the property sale. Given the infrequency with which property sales occur it is unlikely that broad time period would lead to erroneous matches.

In the end, of the 133,073 IDIS records matched against the FHA data, a total of 47,982 properties were matched. This result suggests that about 36 percent of HOME/ADDI assisted homebuyers also obtain an FHA-insured mortgage. This is higher than the 20 percent identified in the IDIS data, but that is not surprising since the PJ may not know if the primary mortgage is FHA-insured or may fail to report this since this is not a critical field in IDIS.

As a test of this process, we identified a sample of 94 homebuyers from one state housing finance agency PJ that had accurate information on HOME/ADDI assisted-buyers that used FHA-insured mortgages. The IDIS data for these 94 cases were matched against the FHA data and 86 successful matches resulted—a match rate of 91 percent. The remaining cases did not match apparently due to errors in the address recorded in either the IDIS or FHA data sets. Since these errors were assumed to be random and given the very high match rate, we would not expect there to be any bias in the characteristics of homebuyers identified through this matching process.

C. Key Tables

	Foreclosure Rate	Difference From First Category	Share of Buyers
Race/Ethnicity			
White (Non-Hispanic)	3.2%	NA	47%
African American (Non-Hispanic)	4.6%	1.4%	28%
Hispanic	3.6%	0.4%	21%
Other	1.8%	-1.4%	3%
Household Income (as % of Area Median Income)			
<50%	3.0%	NA	27%
50-60%	3.8%	0.8%	24%
60-80%	3.9%	0.9%	49%
Household Type			
Married Parent	3.8%	NA	32%
Single Parent	3.4%	-0.4%	31%
Other	3.8%	0.0%	37%
Household Size			
1 Person	3.7%	NA	25%
2 Persons	3.2%	-0.5%	22%
3 or more Persons	3.9%	0.2%	53%
First Time Homebuyer			
Yes	3.7%	NA	88%
No	2.7%	-1.0%	12%
Received Housing Counseling			
Yes	1.4%	NA	27%
No	4.4%	3.0%	73%
New Construction			
Yes	2.7%	NA	11.6%
No	3.7%	1.0%	88.4%

Note: Shaded cells indicate differences that are statistically significant at the 10% level.

Sources: Borrower characteristics from HUD's IDIS database; Foreclosure incidence from Concentrance Consulting PJ Survey.

	Foreclosure Rate	Difference from First Category	Share of Buyers
FHA Insured			
Yes	6.0%	NA	37%
No	2.6%	-3.4%	35%
Unknown	2.1%	-3.9%	28%
Primary Funding Source			
Private	7.6%	NA	64%
Public	7.9%	0.3%	29%
Unknown	1.5%	-6.1%	7%
HOME/ADDI Assistance as Percent of Purchase Price			
1-5 percent	3.8%	NA	30%
5-10 percent	4.4%	0.7%	26%
10-20 percent	3.1%	-0.7%	21%
20 percent plus	3.1%	-0.7%	23%
Total DPA and Borrower Cash as Percent of Purchase Price			
0 percent	8.0%	NA	6%
1-5 percent	5.6%	-2.4%	22%
5-10 percent	3.2%	-4.8%	23%
10-20 percent	2.8%	-5.1%	18%
20 percent plus	2.5%	-5.4%	25%
Missing	1.0%	-6.9%	6%

Note: Shaded cells indicate differences that are statistically significant at the 10% level. HOME/ADDI assistance may be in the form of grant or loan. Total DPA includes HOME grants and grants from other public and private sources.

Sources: Loan characteristics from PJ Survey responses; HOME/ADDI and DPA/Borrower Cash from HUD's IDIS data; Foreclosure incidence from Concentrance Consulting PJ Survey.

**Table C-3:
HOME/ADDI Foreclosure Rates 2001-2005 by Program Counseling Requirements**

	Foreclosure Rate	Difference from First Category	Share of Buyers
Homeownership Counseling Provided			
Yes	4.0%	NA	83%
No	1.7%	-2.4%	6%
Unknown	1.6%	-2.4%	10%
Share of Clients Receiving Counseling			
76-100%	4.1%	NA	78%
51-75%	6.2%	2.1%	1%
26-50%	--	--	0.0%
Up to 25%	1.3%	-2.9%	2%
Missing	1.7%	-2.5%	19%
Average Hours of Counseling Received			
>12	3.6%	NA	10%
8-12	4.5%	0.8%	32%
4-7	4.3%	0.7%	27%
2-3	2.5%	-1.1%	6%
<2	4.5%	0.9%	5%
Missing	1.6%	-2.0%	20%
Received One-on-One Counseling			
76-100%	4.4%	NA	41%
51-75%	6.0%	1.6%	2%
26-50%	6.7%	2.3%	10%
Up to 25%	3.8%	-0.6%	11%
Missing	1.8%	-2.6%	36%
Received Counseling on Predatory Lending			
76-100%	3.7%	NA	49%
51-75%	5.6%	1.8%	5%
26-50%	4.4%	0.7%	1%
Up to 25%	4.2%	0.5%	10%
Missing	3.0%	-0.7%	35%
Attended Prepurchase Homebuyer Education Sessions			
76-100%	4.0%	NA	57%
51-75%	3.8%	-0.2%	7%
26-50%	3.1%	-0.9%	4%
Up to 25%	4.0%	0.0%	11%
Missing	2.4%	-1.7%	22%
Received Counseling to Prevent Mortgage Delinquency			
76-100%	3.5%	NA	34%
51-75%	5.3%	1.8%	3%
26-50%	2.9%	-0.6%	2%
Up to 25%	5.9%	2.4%	19%
Missing	2.6%	-0.9%	43%
Received Post-Purchase Counseling (Non-Delinquency)			
76-100%	3.1%	NA	10%
51-75%	5.5%	2.4%	1%
26-50%	1.9%	-1.2%	2%
Up to 25%	4.9%	1.8%	22%
Missing	3.3%	0.1%	65%
Attended Post-Purchase Homebuyer Education Sessions			
76-100%	5.7%	NA	12%
51-75%	--	--	0.3%
26-50%	3.7%	-2.0%	9%
Up to 25%	1.9%	-3.8%	13%
Missing	3.6%	-2.1%	65%

Note: Shaded cells indicate differences that are statistically significant at the 10% level.

Sources: Program characteristics from PJ Survey responses; Foreclosure incidence from Concentrance Consulting PJ Survey.

**Table C-4:
HOME/ADDI Foreclosure Rates 2001-2005 by Program Characteristics**

	Foreclosure Rate	Difference from First Category	Share of Buyers
Imposed Additional Eligibility Requirements on Homebuyers			
Yes	3.7%	NA	64%
No	3.7%	0.1%	26%
Unknown	3.2%	-0.5%	10%
Use Credit Scores to Determine Eligibility			
Yes	2.2%	NA	12%
No	3.9%	1.8%	77%
Unknown	3.2%	1.0%	11%
Verify Borrower Income by Various Means			
Yes	3.8%	NA	91%
No	2.3%	-1.5%	9%
Review Property Appraisal			
Always	3.5%	NA	84%
Less than always	4.4%	0.9%	7%
Missing	3.9%	0.4%	9%
Timing of Property Inspection Relative to Settlement Day			
30 Days Before	3.7%	NA	34%
10 Days Before	3.6%	-0.2%	37%
After Settlement	2.4%	-1.3%	2%
Missing	3.7%	0.0%	26%
Program Limit for Housing Cost to Income Ratio			
Up to 29%	3.6%	NA	12%
30-35%	4.6%	1.0%	39%
36% or higher	2.7%	-0.9%	13%
Missing	2.9%	-0.7%	36%
Program Limit for Total Monthly Debt to Income Ratio			
Up to 41%	5.4%	NA	30%
42-46%	3.2%	-2.1%	22%
Above 46%	1.3%	-4.1%	4%
Missing	2.9%	-2.5%	44%
Informed When Homebuyer Becomes Seriously Delinquent			
Yes	3.9%	NA	49%
No	3.6%	-0.3%	39%
Missing	2.8%	-1.0%	12%
How Were Interest Rates Monitored to Determine if Excessive			
Published Rates	2.7%	NA	36%
Local Lender	5.0%	2.3%	27%
Relied on Loan Officer	5.7%	3.0%	11%
Did not monitor	1.2%	-1.6%	5%
Missing	2.8%	0.1%	20%

Note: Shaded cells indicate differences that are statistically significant at the 10% level.

Sources: Program characteristics from PJ Survey responses; Foreclosure incidence from Concentrance Consulting PJ Survey.

**Table C-5:
Logit Model Results for the Probability of Foreclosure Among HOME/ADDI-
Assisted Homebuyers 2001-2005**

Independent Variable	Model 3			Model 4		
	Odds Ratio	Coefficient Standard Error	Significance Level	Odds Ratio	Coefficient Standard Error	Significance Level
Origination Year 2002	0.57	0.16	0.05	0.59	0.16	0.06
Origination Year 2003	0.55	0.15	0.03	0.53	0.14	0.02
Origination Year 2004	0.43	0.13	0.01	0.47	0.15	0.02
Origination Year 2005	0.24	0.09	0.00	0.23	0.09	0.00
Region: Northeast	2.16	0.82	0.04	1.78	0.64	0.11
Region: South	1.86	0.62	0.07	1.51	0.40	0.12
Region: West	1.03	0.38	0.93	0.86	0.29	0.67
Race/Ethnicity: African-American	1.12	0.32	0.70			
Race/Ethnicity: Hispanic	0.89	0.27	0.70			
Race/Ethnicity: Other	0.78	0.64	0.76			
Race/Ethnicity: Missing	2.59	1.60	0.12			
FHA Insured	2.46	0.60	0.00	2.35	0.56	0.00
FHA Insured Status Unknown	1.36	0.47	0.37	1.31	0.44	0.42
PJ Type: City	1.50	0.51	0.23	1.79	0.42	0.01
PJ Type: Consortium	2.44	0.91	0.02	2.74	0.78	0.00
PJ Type: County	0.79	0.50	0.71	0.68	0.38	0.49
PJ Size: > 400 Homebuyers	0.73	0.25	0.36			
PJ Size: < 50 Homebuyers	0.57	0.21	0.13			
House Purchase Price	0.99	0.00	0.03	0.99	0.00	0.03
Borrower's Equity: 0% of Price	1.14	0.23	0.51	1.21	0.24	0.33
HOME/ADDI: 5-10% of Price	1.06	0.25	0.79	1.06	0.25	0.81
HOME/ADDI: 10-20% of Price	0.95	0.28	0.85	0.84	0.24	0.53
HOME/ADDI: 20%+ of Price	1.26	0.37	0.43	1.17	0.34	0.59
HOME/ADDI: Amortizing Loan	0.80	0.30	0.55	0.85	0.31	0.66
HOME/ADDI: Unknown	0.35	0.31	0.23	0.31	0.29	0.20
Other DPA: 1-10% of Price	1.12	0.51	0.80	1.20	0.51	0.68
Other DPA: 10%+ of Price	0.35	0.16	0.02	0.34	0.16	0.02
Received Counseling (IDIS)	0.62	0.22	0.19	0.60	0.21	0.15
Counseling Status Unknown	3.80	3.86	0.19	3.97	4.17	0.19
Decline in House Price Index	1.10	0.05	0.02	1.09	0.04	0.03
Unemployment Rate	1.02	0.08	0.76			
High Cost Loan Share	1.03	0.01	0.00	1.02	0.01	0.00
Check FICO Scores	0.47	0.18	0.04	0.44	0.16	0.03
Check Appraisal Always	0.47	0.17	0.04	0.63	0.21	0.16
Lender Monitors Interest Rates	3.52	0.75	0.00	3.33	0.66	0.00
Tract Household Income	1.35	0.55	0.46			
Tract Percent Minority	1.00	0.01	0.61			
Adjustable Rate Mortgage (ARM)	2.45	1.09	0.05	2.56	1.09	0.03
ARM/Fixed-Rate Unknown	1.01	0.35	0.99	0.94	0.33	0.85
No. Observations		4,038			4,041	

Note: Coefficients statistically significant at the 5 percent level are shown in bold text.

Sources: Concentrance Consulting estimates based on PJ Survey data combined with data from the 2000 decennial census on census tract income level and minority composition, HMDA on high cost loan shares, OFHEO on changes in house prices, and the BLS on unemployment rates.

**Table C-6:
Cox Proportional Hazard Model of Foreclosure Incidence for FHA-Insured Homebuyers
Assisted by the HOME/ADDI Programs**

	Hazard Ratio	Coefficient Standard Error	Significance Level
Origination Year: 2001	1.04	0.05	0.40
Origination Year: 2002	0.82	0.05	0.00
Origination Year: 2003	0.72	0.05	0.00
Origination Year: 2004	0.71	0.07	0.00
Origination Year: 2005	0.73	0.08	0.00
Region: Northeast	0.49	0.05	0.00
Region: South	0.98	0.05	0.63
Region: West	0.55	0.04	0.00
LTV: <=90	1.01	0.07	0.92
LTV: 91-94	1.00	0.05	0.97
LTV: >=98	0.98	0.06	0.76
LTV: Missing	1.02	0.14	0.87
Unpaid Balance: \$40-70K	0.96	0.06	0.55
Unpaid Balance: >\$70K	1.06	0.11	0.59
Unpaid Balance: Missing	1.12	0.07	0.07
Ratio Monthly Housing Costs/Income	1.01	0.00	0.00
Borrower Age	0.98	0.00	0.00
Borrower Gender: Female	0.75	0.03	0.00
Borrower Gender: Missing	0.82	0.24	0.50
Marital Status: Married	0.82	0.04	0.00
Marital Status: Separated	1.08	0.16	0.59
Marital Status: Missing	0.00	0.00	1.00
Race/Ethnicity: African American	1.01	0.05	0.89
Race/Ethnicity: Hispanic	0.80	0.05	0.00
Race/Ethnicity: Other	0.72	0.11	0.04
Race/Ethnicity: Missing	0.61	0.12	0.02
First-time Homebuyer	0.90	0.06	0.12
Construction Type: New Construction	0.73	0.07	0.00
Construction Type: Missing	0.00	0.00	1.00
Borrower Income: 50-60% AMI	0.93	0.04	0.12
Borrower Income: 60-80% AMI	0.86	0.04	0.00
Borrower Income: Missing	1.07	0.38	0.85
PJ Type: City	1.47	0.08	0.00
PJ Type: Consortium	1.03	0.08	0.72
PJ Type: County	0.92	0.08	0.34
PJ Size: 400 or more Homebuyers Annually	1.13	0.06	0.01
PJ Size: 50 or fewer Homebuyers Annually	0.87	0.06	0.06
Change in OFHEO House Price Index	1.09	0.01	0.00
Unemployment Rate	1.01	0.01	0.16
High Cost Loan Share	1.02	0.00	0.00
Tract Household Income as Percent of AMI	0.64	0.05	0.00
Tract Percent Minority	0.99	0.00	0.00
Received Counseling	1.09	0.08	0.20
Counseling Status Missing	2.11	0.60	0.01
No. of Dependents	1.14	0.01	0.00
Gift from Nonprofit Organization	1.24	0.05	0.00
Gift from Relative or Friend	1.03	0.06	0.60
Alternate Source of Funds: Government	0.91	0.07	0.22
Alternate Source of Funds: Other	1.06	0.12	0.59

**Table C-6:
Cox Proportional Hazard Model of Foreclosure Incidence for FHA-Insured Homebuyers
Assisted by the HOME/ADDI Programs (con't.)**

	Hazard Ratio	Coefficient Standard Error	Significance Level
Borrower's Equity: 0% of Price	1.20	0.05	0.00
Borrower's Equity: Missing	1.93	0.82	0.13
HOME/ADDI: 5-10% of Price	0.98	0.05	0.68
HOME/ADDI: 10-20% of Price	1.01	0.07	0.92
HOME/ADDI: 20%+ of Price	0.78	0.07	0.00
HOME/ADDI: Missing	1.44	0.35	0.13
HOME/ADDI: Amortizing Loan	1.20	0.09	0.02
Other DPA: 1-10% of Price	1.10	0.10	0.30
Other DPA: 10%+ of Price	0.85	0.12	0.28
Other DPA: Missing	0.21	0.14	0.02
Adjustable Rate Mortgage	0.98	0.15	0.88
No. Observations	47,308		
No. Failures	3,649		
Log Likelihood	(37,416)		
LR Chi-squared	1,823		
Prob. > Chi squared	0.000		

Note: Coefficients that are statistically significant at the 5 percent level are shown in bold.
Sources: Matched FHA-IDIS data.

D. Interpretation of the Estimated Coefficients in the Logit and Hazard Rate Regression Models

The Logit regression coefficients presented in Table C-5 are in odds ratio format. Each coefficient indicates how the odds or likelihood of foreclosure are associated with the respective explanatory variable in the model. Odds ratios above 1 indicate the variable is associated with an increased likelihood of foreclosure, while odds ratios below 1 implies that the variable is associated with a decreased probability of foreclosure.

For dichotomous independent variables (for example, whether a homebuyer was African American or not), the odds ratio indicates how much more likely a foreclosure is relative to the reference category for the dichotomous variable (in the case of African American the reference variable would be whites). For continuous variables, the odds ratio indicates how much the likelihood of a foreclosure increases from a 1 unit change in the independent variable. For example, the odds ratio of 1.10 for the decline in the OFHEO house price index indicates that for each 1 percentage point increase in house price declines, the odds or likelihood of a foreclosure increases by 10 percent (that is, the foreclosure odds are multiplied by 1.1). For categorical variables, the odds ratio shows the multiplier effect of the independent variable relative to the base case. For example, the odds ratio for loans originated in 2002 is 0.58, indicating that these loans have a 42 percent lower risk of foreclosure than loans originated in 2001—the base case year in the model. (The 42 percent reduction is obtained by multiplying the base case foreclosure risk by 0.58.)

Similar to the Logit models, hazard rate or duration models study the hazard (risk) or likelihood of events – in this case, foreclosures. Unlike Logit models, hazard models assess not only the incidence of the foreclosures but also the timing of the events. They take into account differences in the period of time available to observe whether a foreclosure has occurred. For instance, the models would allow us to account for loans originated in 2005 where we have less than 3 full years over which a foreclosure could happen while loans originated in 2000 have a much longer observation period.

The regression coefficients presented in Table C-6 are in hazard ratio format. The interpretation of hazard ratios is quite similar to that for the odds ratios. In the context of our study, both are measuring whether a particular explanatory variable is associated with an increased or decreased likelihood of the occurrence of foreclosure, holding all other factors constant.

A hazard ratio greater than one, suggests that the presence of the borrower or a loan characteristic is associated with a higher hazard or risk of foreclosure. On the other hand, if the estimated hazard ratio is less than one, it implies that the presence of the characteristic is associated with a lower hazard of foreclosure.

E. References

42 U.S.C. 12821. *The American Dream Downpayment Act*

44 U.S.C. 3501 et seq. *Paperwork Reduction Act of 1995*

Baker, Dean, *Who's Dreaming?: Homeownership Among Low-Income Families*, Center for Economic and Policy Research, Washington, DC, January 2005

Herbert, Christopher E.; Haurin, Donald R; Rosenthal, Stuart S.; and Duda, Mark., *Homeownership Gaps Among Low-Income and Minority Borrowers and Neighborhoods*, U.S. Department of Housing and Urban Development, March 2005

Herbert, Christopher E.; and Belsky, Eric S., *The Homeownership Experience of Low-Income and Minority Families: A Review and Synthesis of the Literature*, U.S. Department of Housing and Urban Development, June 2006

Herbert, Christopher E.; Turnham, Jennifer; Nolden, Sandra; Feins, Judith; and Bonjorni, Jessica., *Study of Homebuyer Activity Through the HOME Investment Partnerships Program*, U.S. Department of Housing and Urban Development, December 2003

Joint Center for Housing Studies, *The State of the Nation's Housing 2006*, 2006

Stata Corporation, *Survey Data Reference Manual*, Stata Press, 2007

U.S. Department of Housing and Urban Development, *Barriers to Minority Homeownership*, July 17, 2002

U.S. Department of Housing and Urban Development, *HOME Program National Production Report*, June 31, 2008

U.S. Department of Housing and Urban Development, *U.S. Housing Market Conditions, Homeownership Rates by Region and Metropolitan Status: 1983-Present.*, 1st Quarter 2008 (May), Table 28

U.S. Government Accountability Office, *HUD Homeownership Programs, Data Limitations Constrain Assessment of the American Dream Downpayment Initiative*, Report to Congressional Committees, June 2006

F. List of PJs That Participated in the Survey

The following 107 PJs shared information with us:

PJ Name	State
Alaska	Alaska
Amherst Consortium	New York
Arapahoe County	Colorado
Arizona	Arizona
Aurora	Colorado
Austin	Texas
Babylon Township	New York
Barnstable County Consortium	Massachusetts
Bergen County	New Jersey
Bexar County	Texas
Birmingham	Alabama
Boise	Idaho
Boston	Massachusetts
Bucks County Consortium	Pennsylvania
California	California
Camden County Consortium	New Jersey
Charlotte Consortium	North Carolina
Chesterfield County	Virginia
Clark County Consortium	Nevada
Cobb County Consortium	Georgia
Columbia	Missouri
Columbus	Ohio
Columbus, Ga.	Georgia
Dade County	Florida
Dallas	Texas
Dayton	Ohio
Dupage County Consortium	Illinois
Erie County Consortium	New York
Escondido	California
Florida	Florida
Fort Worth	Texas
Franklin County	Ohio
Georgia	Georgia
Green Bay	Wisconsin
Harris County	Texas
Hawaii	Hawaii
Hidalgo County	Texas
Honolulu	Hawaii
Howard County	Maryland
Huntsville	Alabama
Idaho	Idaho
Illinois	Illinois
Indiana	Indiana
Iowa	Iowa
Jacksonville/Duval County	Florida
Jefferson County	Colorado

PJ Name	State
Kansas City	Missouri
Kentucky	Kentucky
Laredo	Texas
Lenoir Consortium	North Carolina
Los Angeles	California
Los Angeles County	California
Lowell	Massachusetts
Lynn	Massachusetts
Lyon County Consortium	Nevada
Madison	Wisconsin
Massachusetts	Massachusetts
Michigan	Michigan
Missouri	Missouri
Monroe County Consortium	New York
Montgomery	Alabama
Nashville-Davidson	Tennessee
New Hampshire	New Hampshire
New York	New York
North Carolina	North Carolina
North Dakota	North Dakota
Ocean County Consortium	New Jersey
Oklahoma	Oklahoma
Omaha Consortium	Nebraska
Onondaga County Consortium	New York
Pasco County	Florida
Pennsylvania	Pennsylvania
Philadelphia	Pennsylvania
Pierce County	Washington
Portland Consortium	Oregon
Prince William County	Virginia
Quincy Consortium	Massachusetts
Richmond	Virginia
Riverside County	California
Rochester	New York
Sacramento	California
Salem Consortium	Oregon
Salt Lake County Consortium	Utah
San Antonio	Texas
San Joaquin County	California
San Luis Obispo County	California
Schenectady Consortium	New York
South Carolina	South Carolina
South Dakota	South Dakota
Spokane	Washington
Spokane County	Washington
St. Joseph County Housing Consortium	Indiana
St. Louis	Missouri
St. Louis County Consortium	Missouri
St. Louis County Consortium	Minnesota
Stockton	California
Tennessee	Tennessee

PJ Name

Texas
Topeka
Tucson Consortium
Urbana Consortium
Virginia
Waukesha County Consortium
West Virginia
Wichita
Wisconsin
Worcester

State

Texas
Kansas
Arizona
Illinois
Virginia
Wisconsin
West Virginia
Kansas
Wisconsin
Massachusetts

