

Community Advantage Panel Survey: Data Collection Update and Analysis of Panel Attrition

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Sarah Riley, Jong-Gyu Paik, and Mark Lindblad

Center for Community Capital

University of North Carolina at Chapel Hill

Overview

We provide an update of the CAP data collection activities that occurred in 2007 and describe our data collection plans for 2008. We first summarize the CAP sampling strategy and data collection progress and then consider upcoming survey plans, attrition concerns, and the extent to which 2007 survey completers are representative of baseline respondents and other CAP borrowers.

Sampling Strategy and Data Collection Progress

Table 1 provides an overview of CAP data collection progress for our sample of 3,743 original homeowners and 1,531 original renters.¹ The table displays the number of completed interviews by survey year, module, and mode of administration.

In the interest of simplifying the terminology that we use when discussing the panel survey waves and rounds, we now refer to these survey periods as Years. The calendar year in which baseline owners data was collected corresponds to Year 0, and all subsequent years, for both owners and renters, are referred to as Year 1 through Year 4. Under this new naming scheme, Year 4 data comprises Wave 5 owners data and Round 4 renters data.

The 2008 row of Table 1 indicates that data collection for this year will include a repeat of the wealth and assets, mortgages, and savings, modules administered in 2005. We have also added new questions concerning housing experiences, including measures to capture overall satisfaction with owning vs. renting and reasons for having chosen to own or to rent.

¹ Previous versions of this analysis have used 1,533 original renters. However, we recently discovered that two of these renters actually had missing data for all survey questions; the survey instrument had incorrectly labeled these cases as completes.

Table 1: Data Collection Overview

<u>Year</u>	<u>Survey Year</u>	<u>Owners</u>			<u>Renters</u>		
		<u>Module</u>	<u>Mode</u>	<u>Completes</u>	<u>Module</u>	<u>Mode</u>	<u>Completes</u>
2003	0	Home purchasing info; Counseling	SRU phone survey	3,743	---	--	--
2004	1	Social Capital; Parenting;	SRU phone survey	2,614	Social Capital; Parenting;	RTI phone survey	1,530
2005	2	Wealth & Assets; Mortgages; Savings;	SRU phone survey RTI in-home interview	2,701 1,284	Wealth & Assets; Mortgages; Savings;	RTI in-home interview	1,157
2006	3	Rising Energy Costs; Financial Literacy; Sense of Community	SRU phone survey	2,380 total (2,118 +	Rising Energy Costs; Financial Literacy; Sense of Community	RTI phone survey	1,047 total (970 +
	2&3	Wealth & Assets; Mortgages; Savings; Rising Energy Costs; Financial Literacy; Sense of Community;	RTI phone survey to Soft-Refusal Sample (Owners who did not complete Year 2 SRU phone survey &/or RTI in-home intrvw)	262)	Wealth & Assets; Mortgages; Savings; Rising Energy Costs; Financial Literacy; Sense of Community;	RTI phone survey to Soft-Refusal Sample (Renters who did not complete RTI's Year 2 interview)	77)
2007	4	Social Capital 2; Parenting 2; Medical Costs; Credit Scores; Collective Efficacy	RTI phone survey	2,079	Social Capital 2; Parenting 2; Medical Costs; Credit Scores; Collective Efficacy	RTI phone survey	903
2008	5	Wealth & Assets 2; Mortgages 2; Savings 2; Housing Experiences	RTI phone survey RTI in-home interview		Wealth & Assets 2; Mortgages 2; Savings 2; Housing Experiences	RTI in-home interview	

- Note:**
- Universal core questions (demographics, employment, household expenses) asked every year. In addition, owners were administered a movers' module from Year 2 onward. Conversely, renters were asked about their intentions to purchase a home every year.
 - Renters were matched to urban owners by location and income. Renters' Year-1 data originally included 118 additional respondents who were later dropped due to not meeting age or income requirements. Renters' Years 2–5 data include one case that did not complete Year 1 (ZRID=30202046).

Table 2 provides additional details about the final status of the data collection efforts for 2007. The 2007 completion rates for *eligible* owners and renters were 72% and 74%, respectively. However, the number of individuals who were eligible for survey in 2007 exceeded the number of respondents who completed the 2006 survey. Considering only those individuals who completed the 2006 survey, 87% of owners and 86% of renters completed the 2007 survey.

Most respondents who were contacted in 2007 were willing to participate in the survey, as less than 1% of the eligible sample resulted in hard refusals. The majority of those cases that were not completed simply could not be contacted, either because of incorrect contact information or because tracing was unsuccessful.

Table 2: Final Status of 2007 Data Collection

Final Status – 2007	<u>Owners</u>	<u>Renters</u>
	Year 4	Year 4
Completed Interview	2,079 (72%)	903 (74%)
Bad Number & Unable to contact	629 (22%)	246 (20%)
Ineligible	49 (2%)	39 (3%)
Refused – hard refusal	5 (0.2%)	0 (0%)
Refused – soft refusal	139 (5%)	29 (2%)
Total Eligible in 2007	2,901	1,217

Notes: (1) Percentages shown are column percentages. (2) The completion rates presented are calculated relative to all *eligible* cases, rather than simply those that completed the 2006 survey.

Panel Completion Rates by Survey Year*Owners*

Of the 2,079 owners who completed the Year 4 interview in 2007, approximately 74% (1,545) also completed the interviews for Years 0, 1, 2, and 3. The original baseline sample contained 3,743 home owners, and slightly less than half (1,545, 41.3%) have completed all five interviews. Another 21% (769) have completed four interviews, 15% (540) have completed three interviews, and 11% (423) have completed just two interviews. Twelve percent of the original sample completed only baseline. Table 3 presents the number and percentage of completed owner interviews by year.

Of the 1,546 owners (including 262 soft-refusals) who completed the first Wealth and Assets module, approximately 86% (1,336) are eligible for the 2008 survey. This module was completed in-home by 1,284 owners, of which 92% (1,179) are eligible in 2008.

Table 3: Owner Interviews by Year

Years Completed	Eligible in 2008	Number of Owners	Percentage	Cumulative Percentage
All five years	Yes	1,545	41.3%	41.3%
Only four years	Yes	769	20.5%	61.8%
<i>Years 0,1,2,3</i>		340	9.1%	
<i>Years 0,1,2,4</i>		144	3.9%	
<i>Years 0,1,3,4</i>		29	0.8%	
<i>Years 0, 2,3,4</i>		255	6.8%	
Only three years	Yes	540	14.5%	76.3%
<i>Years 0,1,2</i>		303	8.1%	
<i>Years 0,1,3</i>		26	0.7%	
<i>Years 0,1,4</i>		27	0.7%	
<i>Years 0,2,3</i>		106	2.8%	
<i>Years 0,2,4</i>		44	1.2%	
<i>Years 0,3,4</i>		34	0.9%	
Only two years	No	423	11.3%	87.6%
<i>Years 0,1</i>		199	5.3%	
<i>Years 0,2</i>		180	4.8%	
<i>Years 0,3</i>		44	1.2%	
Only one year (baseline)	No	466	12.5%	100%
Total		3,743	100%	100%

Note: Numbers are based on the raw data set prior to data cleaning; Year 2 refers either to the SRU phone survey or to the RTI in-home interview; Year 3 includes soft refusals.

Renters

Of the 903 renters who completed the Year 4 interview in 2007, 802 (89%) also completed the interviews for Years 1, 2, and 3. The original baseline renters sample consisted of 1,531 renters, and 52% of these have completed all four interviews, while 17% have completed three rounds. In addition, approximately 11% completed two years, and 20% completed only baseline. Note that renters have had one less interview opportunity than owners because the first renters survey was administered concurrently with the second owners survey. Table 4 presents the number and percentage of completed renter interviews by year.

Of the 1,234 renters (including 77 soft-refusals) who completed the first Wealth and Assets module, approximately 88% (1,088) are eligible for the 2008 survey. This module was completed in-home by 1,157 renters, of which 88% (1,013) are eligible in 2008.

Table 4: Renter Interviews by Year

Years Completed	Eligible in 2008	Number of Renters	Percentage	Cumulative Percentage
All four years	Yes	802	52.4%	52.5%
Only three years	Yes	267	17.4%	69.9%
<i>Years 1,2,3</i>		167	10.9%	
<i>Years 1,2,4</i>		47	3.1%	
<i>Years 1,3,4</i>		53	3.4%	
Only two years		164	10.7%	80.5%
<i>Years 1,2</i>	No	140	9.1%	
<i>Years 1,3</i>	Yes	24	1.6%	
Only one year (baseline)	No	297	19.4%	100%
Total		1,531	100%	100%

Note: Numbers are based on the raw data set prior to data cleaning. Year 2 refers to the RTI in-home interview. Year 3 includes soft refusals.

The 2008 Survey

Eligibility

The panel members who are eligible for 2008 interviewing comprise 2,797 owners and 1,088 renters. We derived these numbers by (1) requiring at least two prior completed surveys for renters and at least three prior completed surveys for owners and (2) subtracting cases for respondents who refused, were deceased, or were otherwise ineligible. Calling will begin in July.

Prioritizing Owners and Renters for 2008 Data Collection

Because many of the individuals who are most likely to drop out of the panel (e.g., minorities) are also those who are most interesting from our research perspective, we will be taking extra measures in 2008 to minimize attrition. In particular, we have created a priority score for all eligible renters and owners. This priority score indicates which cases should receive the most attention in the calling/tracing queue and will enable us to more persistently target those individuals who are at the greatest risk of being lost in 2008.

The tables below present the criteria that we used to create the priority score, which include race, age, gender, education, and credit score. Each of these criteria is a significant predictor of survey non-response, as will be demonstrated in the subsequent sections. The tables also present the fraction and number of cases that fall within each category.

Cases are assigned their priority scores based on how many of the attrition criteria they meet. For example, males were less likely to respond to the 2007 survey, so these are assigned one priority point. Similarly, individuals who achieved low educational attainment or who are located in Arizona and Mississippi (high-attrition states), were assigned an additional point for each of these attributes.

Of the owners who are eligible for 2008 data collection, more than 80% are assigned priority scores of 2 or less, with approximately 20% meeting none of the attrition criteria. Of eligible renters, 86% have a score of 2 or less, and nearly 30% meet none of these attrition criteria. Because the most seriously at-risk cases (those with priority scores of 3 or more) make up at most 20% of the eligible cases, this priority ranking system enables us to effectively discriminate among cases, and we expect its implementation to improve retention going forward.

Table 5: Owner Priority Scores for 2008 Data Collection

Criterion	Frequency	Percent
Race: <i>Black, Hispanic, or Other</i> (+1 point)	1,018	36.40
Gender: <i>Male</i> (+1 point)	1,476	52.77
Age: ≤ 25 (+1 point)	567	20.27
Education:		
<i>11th grade or less</i> (+2 points)	195	6.97
<i>High School Grad or GED</i> (+1 point)	555	19.84
Location: <i>Arizona or Mississippi</i> (+1 point)	137	4.90
Credit Score: <i>None</i> (+1 point)	159	5.68
Priority Score (6= highest, 0=lowest)		
0	504	18.02
1	1,036	37.04
2	733	26.21
3	334	11.94
4	158	5.65
5	26	0.93
6	6	0.21
Total Eligible	2,797	100

Table 6: Renter Priority Scores for 2008 Data Collection

Criterion	Frequency	Percent
Race: <i>Hispanic or Other</i> (+1 point)	216	19.85
Gender: <i>Male</i> (+1 point)	300	27.57
Age: ≤ 25 (+1 point)	184	16.91
Education:		
<i>11th grade or less</i> (+ 2 points)	167	15.35
<i>High School Grad or GED</i> (+1 point)	334	30.70
Priority Score (5=highest, 0=lowest)		
0	312	28.68
1	389	35.75
2	238	21.88
3	101	9.28
4	40	3.68
5	8	0.74
Total Eligible	1,088	100

Panel Attrition Bias

In this section, we consider in two ways whether the sample of most recent panel respondents is representative of our target research populations. First, we examine the extent to which those individuals who completed the 2007 interview represent baseline respondents. Specifically, we compare the baseline characteristics of owners and renters who did not complete Year 4 with those of the renters and owners who did so. To carry out this comparison, we use multivariate logit models to predict Year 4 survey completion.

Second, we examine whether the owners panel is representative of the larger CAP sample of loans to which we would like to generalize the findings of our future panel research. For this purpose, we use Chi-square proportion tests to identify differences between those 2,079 owners who completed Year 4 and the set of all 29,491 owners in our target sample who received CAP loans. The appendices provide descriptive statistics for all the variables in these models (Owners: Appendices A and C; Renters: Appendix B).

Samples

As discussed previously, a total of 2,079 owners and 903 renters completed the 2007 survey. In analyzing attrition, we consider as a reference point the subsets of the baseline samples of 3,743 owners and 1,531 renters for which the demographics data are complete.

For owners, we remove 77 cases due to missing demographic information. Similarly, for renters, we omit 113 cases. Therefore, our final samples comprise 3,666 owners and 1,418 renters.

These sample sizes are smaller than the samples used in last year's analysis (Owners=3,677, Renters=1,434) because we re-examined the demographic data and explored the role of proxy respondents, for whom some demographic information differs from that of the original respondents. As proxy characteristics were previously used to fill in some missing data, removing these cases from the current analysis provides a more accurate picture of baseline demographics.

Multivariate Analyses of Panel Retention

Specifications

Our multivariate logit specifications predicting the likelihood that owners and renters completed the 2007 interview incorporate demographic characteristics. So that the findings for owners and renters can be compared, the first two specifications contain only those variables common to both the owner and renter panels. The third specification also includes loan characteristics that are available only for our Self-Help data set of CAP homeowners.

For all three specifications, income was trimmed due to insignificance and a higher rate of missing data. U.S. region was also trimmed due to insignificance

and the testing of geographic effects through state rather than region. States were compared to the reference category of other states, which was created by combining states with less than 100 respondents in the baseline panel. This variable construction resulted in owners and renters having a different number of parameters for the state variable.

Year 4 Completion: Owners vs. Renters

In predicting completion, significant findings generally point toward attrition bias. Ideally, then, none of the variables should show significance. However, the results shown in Tables 7 and 8 do suggest some attrition bias: the Chi-square values indicate that both owner and renter specifications partially explain Year 4 survey completion. Appendices A, B, and C respectively provide descriptive statistics for all the variables used in Specifications 1-3.

For owners, Specification 1 of Table 7 indicates that sex, race, age, education, and geography jointly predict completion while the insignificant effects of marital status, the number of children in the household, and employment are taken into consideration. Specifically, the odds of completing Year 4 for males are .79 times those for females. In addition, Black and Hispanic owners were .73 times as likely to complete the survey as Whites. Education levels also influenced completion: compared to high school graduates, the odds of Year 4 completion for owners with four-year college degrees are nearly twice as great. Geography influenced completion in Mississippi, Ohio, Oklahoma, North Carolina, Virginia, and Arizona, with the odds of completion for Mississippi owners and Arizona owners being .54 and .63 times those of owners in Other states, respectively. For owners in Ohio, Oklahoma, and North Carolina, the odds of completion were approximately 1.3 times those of owners in Other states, while owners in Virginia had 1.5 times the odds of completion. Finally, individuals aged 41 or older were 1.41 times as likely as those younger than 26 to complete Year 4.

For renters, Specification 2 of Table 7 indicates that gender, age, race, education, and the number of children in the household jointly predict completion. Males have .76 times the completion odds of females, while Hispanics were .6 times as likely to complete the survey as Whites. Compared to renters aged 25 years or younger, renters aged 36 years and older are about 1.7 times as likely to have completed Year 4, while those 41 or older are nearly twice as likely to have completed. Compared to high school graduates, the odds of completion are 1.5 to 2 times as great for renters in any of the higher education categories excluding the bachelor's degree. Moreover, respondents reporting two children in the household have only .61 times the odds of completion of respondent households with no children.

Table 7: Logit Regression of Year 4 Completion on Demographic Variables

Variable	Specification 1 - Owners		Specification 2 - Renters	
	B	Odds ratio	B	Odds ratio
Sex				
(Female)				
Male	-.24	.79**	-.27	.76*
Age				
(25 years old or less)				
26 – 30 years old	.03	1.03	.03	1.03
31 – 35 years old	.04	1.04	.17	1.19
36 – 40 years old	.15	1.17	.53	1.69*
41 years old or more	.34	1.41*	.66	1.94**
Race				
(White)				
Black	-.32	.73**	.07	1.07
Hispanic	-.32	.73**	-.51	.60**
Other	-.39	.67*	-.85	.43**
Marital status				
(Never married)				
Married or living with partner	.05	1.05	-.08	.93
Widowed, divorced, separated	-.08	.93	-.08	.93
Number of Children				
(No child)				
1	.08	1.09	-.21	.81
2	.03	1.04	-.49	.61**
3 or more	-.08	0.93	-.24	.79
Education				
11th grade or less	-.32	.73*	-.23	.80
(High school graduate/GED)				
Some 2 year college	.31	1.36**	.39	1.48*
2 year degree	.11	1.11	.64	1.89**
Some 4 year college	.30	1.35*	.54	1.71*
Bachelor's degree	.57	1.77**	.25	1.28
Some graduate school or more	.54	1.72**	.71	2.04**
Employment				
(Employed)				
Unemployed, looking for work	-.04	.96	-.08	.93
Unemployed, not looking for work	-.40	.67	.50	1.65
Retired	.31	1.37	.23	1.26
State				
(Other states)				
Arizona	-.47	.63*	-.05	0.95
California	-.11	.90		
Illinois	-.05	.96		
Michigan	.03	1.03		
Mississippi	-.63	.54**		
North Carolina	.29	1.34**	.19	1.21
Ohio	.26	1.30*		
Oklahoma	.25	1.29*	.20	1.22
South Carolina	-.06	.94		
Texas	-.26	.77		
Virginia	.43	1.53*		

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Intercepts	.25	.26
Model Chi-Square (-2LogL)	187.40	134.20
Df	33	25
N	3,666	1,418

Note: Panel retention frequencies follow: Owners retained 2,056, dropped out 1,610; Renters retained 893, dropped out 525. Reference groups are in parentheses; States with less than 100 observations were included in Other states; region and income were not significant and were removed; * p<.05; ** p<.01

Across both specifications for owners and renters, only gender, age, race, and education significantly affect Year 4 completion. Respondents who are female, older, White, and of higher educational attainment were more likely to complete the 2007 survey. Geography and the number of children also influenced Year 4 completion, but these effects are not consistent across owners and renters.

Overall, these results show that we continue to have difficulty retaining baseline respondents who are less educated, younger, male, and minority. As discussed in the previous section, special attention will be given to these groups in 2008 to minimize attrition.²

Further Analysis of Owner Retention: Owner-specific Loan Characteristics

The third specification (see Table 8) predicting retention incorporates not only the respondent demographics previously considered but also borrower and loan characteristics, such as first-time homebuyer status, credit score, and the origination loan-to-value ratio, that we have obtained from Self-Help. Clearly, these loan characteristics do not exist for our renters. Descriptive statistics for this specification are provided in Appendix C.

In predicting owner retention, the more comprehensive specification displayed in Table 8 indicates that gender, age, race, marital status, education, borrower credit score, and geographic location jointly predict completion when the insignificant effects of employment, first-time homebuyer status, annual income as a percent of area median income, loan origination year, and original loan-to-value ratio are considered.

More specifically, the odds of male owners completing Year 4 are .78 times those of female owners. With regard to age, the odds of completion are greatest for respondents 41 years or older, relative to those 25 years or younger, as these individuals were 1.4 times as likely to complete Year 4. The completion odds for Hispanic and Black owners are .77 and .81 times those of Whites, respectively. Moreover, married or partnered owners have 1.1 times the completion odds of

² Our survey implementation contractor, RTI International, has hypothesized that minority attrition has been exacerbated by increased cell phone usage among these groups, as cell phones cannot be traced. In consequence, RTI projects that minority attrition will be considerably lower in 2008, when interviews will be conducted in person for many respondents, rather than over the phone.

owners who have never been married. Education levels also influence completion: compared to high school graduates, owners with four year college degrees or more are 1.6 times as likely to have completed Year 4. From the perspective of geography, owners in Arizona have .63 times the odds of completion of Other states, while those in North Carolina have 1.38 times these odds.

The purpose of Specification 3 of Table 8 was to add loan-characteristic variables to the analysis presented as Specification 1 of Table 7. Of these variables, only borrower credit score at origination influenced Year 4 completion. Compared to owners whose origination credit scores were unavailable, owners with credit scores greater than 720 have nearly 2.5 times the odds of completion. Otherwise, Table 8 indicates that most of our baseline loan characteristics did not bias the sample of 2007 survey respondents. First-time homebuyer status, annual household income as a percent of area median income, loan origination year, and original loan-to-value ratio are all insignificant predictors of completion when the other relevant variables are controlled for. Overall, Specification 3 indicates that attrition bias persists in our owners' panel with regard to gender, age, race, marital status, education, geography, and especially credit score.

Table 8: Logit Regression of Year 4 Completion on Demographics and Loan Characteristics

Variable	Specification 3 – Owners	
	B	Odds ratio
Sex		
(Female)		
Male	-.25	.78**
Age		
(25 years old or less)		
26 – 30 years old	.01	1.01
31 – 35 years old	.01	1.02
36 – 40 years old	.01	1.10
41 years old or more	.33	1.39**
Race		
(White)		
Black	-.21	.81*
Hispanic	-.26	.77*
Other	-.35	.70
Marital status		
Married or living with partner	.09	1.10*
Widowed, divorced, separated (Never married)	-.05	.95
Education		
11th grade or less (High school graduate/GED)	-.22	.80
Some 2 year college	.34	1.40**
2 year degree	.13	1.14
Some 4 year college	.32	1.37*
Bachelor's degree	.49	1.64**
Some graduate school or more	.48	1.62**
Employment		
(Employed)		
Unemployed, looking for work	-.01	.99
Unemployed, not looking for work	-.44	.64
Retired	.37	1.45
Identified as First-time homebuyer		
(Not a first-time home buyer)		
Identified as First-time homebuyer	.04	1.04
Income as percentage of AMI		
(0-50% AMI)		
51%-80% AMI	.09	1.10
>81% of AMI	-.25	.78

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(No credit score)

Less than 580	.46	1.59
581-620	.42	1.53*
621-660	.50	1.66**
661-720	.54	1.72**
Greater than 720	.89	2.45**

Origination year

(1999)

2000	-.21	.81
2001	-.16	.85
2002	-.13	.88
2003	.24	1.30

Loan to value

(0-90%)

91%-95%	-.12	.89
96%-97%	-.10	.91
>97%	-.10	.90

State

(Other states)

Arizona	-.47	.63*
California	-.12	.89
Illinois	.01	1.01
Michigan	.14	1.15
Mississippi	-.53	.59*
North Carolina	.33	1.38**
Ohio	.21	1.51
Oklahoma	.19	1.22
South Carolina	-.06	.94
Texas	-.26	.78
Virginia	.33	1.39

Intercepts

-.40

Model Chi-Square (-2LogL)

227.5

Df

45

N

3,546

Note: Reference groups are in parentheses; states with less than 100 observations were included in the 'Other states' category. Region variables were not significant and were removed; * p<.05; ** p<.01

Comparison of the 2007 CAP Owners Panel with Other Self-Help Borrowers

This section compares the characteristics of those owners who completed the Year 4 survey with those of a selected sample of other CAP borrowers. Table 9 presents frequencies for demographic and homebuyer variables. The CAP sample to which we direct our findings consists of 28,491 homeowners, while the sample of Year 4 panel survey completers comprises 2,079 cases. Due to missing data, we exclude 3,758 borrowers, including 134 Year 4 completers. Thus, the final sample sizes for this analysis are 24,733 for the CAP sample and 1,945 for the Year 4 panel.

We used Chi-square tests to compare these two groups, and Table 9 presents our results. The middle column of Table 9 provides percentages for all 24,733 CAP borrowers, including those who responded to the Year 4 survey. The right column instead provides percentages for the subset of owners who responded in Year 4. The percentages shown are column percentages. For example, 51.7% of Year 4 survey respondents are male, compared with 57% of the larger CAP sample.

Table 9 indicates that there are significant differences between these two groups with respect to all of the variables considered. Compared to the larger profile of CAP borrowers, our set of Year 4 survey completers under-represents males, Hispanics, and higher-income (as a percentage of area median income) borrowers. With respect to race, Hispanics represent 19% of the portfolio but only 11% of the panel. Whites represent 56% of the CAP sample yet 68% of the current CAP panel. Thus, the 2007 owners panel over-represents Whites, females, and low-income borrowers. With respect to borrower and loan characteristics, our set of Year 4 survey completers over-represents first-time homebuyers and borrowers with high origination loan-to-value ratios but under-represents borrowers with low or missing credit scores.

These results indicate that our 2007 CAP panel is mostly but not completely representative of our target generalization sample of CAP borrowers. The most worrisome difference lies in race: our panel over-represents Whites and under-represents minorities, especially Hispanics. We will employ sample weights to correct for these biases.

Table 9: Owners Panel Compared to All Self-Help Borrowers

Variable	Self-Help Loan Portfolio	Community Advantage Panel Year 4 Completers
Sex*		
Male	56.8	51.7
Female	43.2	48.3
Race*		
White	55.6	67.5
Black	18.5	18.3
Hispanic	18.9	11.2
Other	7.0	3.0
Identified as First-time Homebuyer*		
Yes	42.9	53.9
No	57.1	46.1
Age*		
25 or less	21.1	21.1
26-30	20.3	17.6
31-35	20.4	31.0
36-40	12.5	9.5
41 or older	25.7	20.8
Income as Percentage of AMI*		
0-50% AMI	30.5	32.9
51%-80%AMI	59.4	59.6
>80% AMI	10.1	7.5
Loan to Value*		
0-90%	16.2	10.5
91-95%	9.0	7.1
96-97%	40.8	40.8
>97%	34.0	41.6
Borrower credit score*		
No Credit Score or Missing	5.4	3.6
Less than 580	4.5	4.1
581- 620	10.8	11.7
621-660	21.5	22.6
661-720	31.4	31.9
Greater than 720	26.4	26.1
Borrower credit score (mean)*	643.7	654.2
LTV at origination (mean)*	94.6	96.1
N	24,733	1,945

Note: Percentages shown are column percentages.

* represents χ^2 significant, $p < .05$

Conclusions

Our analyses of attrition and sample representation do raise some concerns that we will need to address analytically. Even with continued retention efforts, including field tracing, priority scoring, and incentives for respondents and interviewers, we do anticipate that some attrition bias will persist through the end of data collection in 2008. Given current trends, we expect higher attrition among respondents who are male or minority or who were less educated or younger at baseline.

Such attrition biases are not unusual in panel data collection, and methods to deal with these problems include weighting and multiple imputation. Upon completion of data collection in 2008, we will use sampling weights to minimize the impact of biases resulting from higher attrition across various demographic groups. We also plan to impute missing values within cases as necessary. Both the sample weights and the imputed data points will be incorporated into the final panel data set. We have provided RTI International with specifications for creating a publicly available version of the final data set, which we expect to be ready in 2010.

Appendices A – C

- A Owners Attrition: Demographics by Year 4 Completion Status
- B Renters Attrition: Demographics by Year 4 Completion Status
- C Owners Attrition: Demographics and Loan characteristics by Year 4 Completion Status

Appendix A
Owners Attrition: Demographics by Year 4 Completion Status

Variable	All		Dropped-out		Completed	
Sex **						
Male	1,980	54.0%	938	47.4%	1,042	52.6%
Female	1,686	46.0%	672	39.9%	1,014	60.1%
Age						
25 years old or less	711	19.4%	318	44.7%	393	55.3%
26 – 30 years old	858	23.4%	374	43.6%	484	56.4%
31 – 35 years old	646	17.6%	297	46.0%	349	54.0%
36 – 40 years old	484	13.2%	222	45.9%	262	54.1%
41 years old or more	967	26.4%	399	41.3%	568	58.7%
Race **						
White	2,265	61.8%	896	39.6%	1,369	60.4%
Black	712	19.4%	334	46.9%	378	53.1%
Hispanic	564	15.4%	320	56.7%	244	43.3%
Other	125	3.4%	60	48.0%	65	52.0%
Marital status						
Married or living with partner	2,092	57.1%	954	45.6%	1,138	54.4%
Widowed, divorced, separated	720	19.6%	298	41.4%	422	58.6%
Never married	854	23.3%	358	41.9%	496	58.1%
Number of Children**						
No child	1,740	47.5%	726	41.7%	1,014	58.3%
1	841	22.9%	353	42.0%	488	58.0%
2	674	18.4%	313	46.4%	361	53.6%
3 or more	411	11.2%	218	53.1%	193	46.9%
Education **						
11 th grade or less	311	8.5%	190	61.1%	121	38.9%
High school graduate/GED	775	21.1%	389	50.2%	386	49.8%
Some 2 year college	618	16.9%	256	41.4%	362	58.6%
2 year degree	556	15.2%	253	45.5%	303	54.5%
Some 4 year college	476	13.0%	201	42.2%	275	57.8%
Bachelor's degree	543	14.8%	187	34.4%	356	65.6%
Some graduate school or more	387	10.5%	134	34.6%	253	65.4%
Income						
Less than \$10,000	32	0.9%	14	43.7%	18	56.3%
\$10,000-\$14,999	83	2.3%	42	50.6%	41	49.4%
\$15,000-19,999	253	6.9%	122	48.2%	131	51.8%
\$20,000-\$24,999	526	14.4%	230	43.7%	296	56.3%
\$25,000-\$34,999	1,023	27.9%	467	45.6%	556	54.3%
\$35,000-\$49,999	1,258	34.3%	530	42.1%	728	57.9%
\$50,000-\$74,999	390	10.6%	162	41.5%	228	58.5%
\$75,000 or greater	101	2.7%	43	42.6%	58	57.4%
Employment						
Employed	3,388	92.4%	1,484	43.8%	1,904	56.2%
Unemployed, looking for work	116	3.2%	55	47.4%	61	52.6%
Unemployed, not looking for work	62	1.6%	31	50.8%	30	49.2%
Retired	101	2.8%	40	39.6%	61	60.4%

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Borrower credit score**

Credit score=0 or missing score	232	6.3%	132	56.9%	100	43.1%
Less than 580	169	4.6%	87	51.5%	82	48.5%
580- 619	422	11.5%	202	47.9%	220	52.1%
620-659	854	23.3%	402	47.1%	452	52.9%
660-719	1,151	31.5%	504	43.8%	647	56.2%
720 or greater	838	22.8%	283	33.8%	555	66.2%
Age (mean)	35.0		34.8		35.2	
Borrower credit score (mean)*	674.4		666.8		680.1	
N^	3,666		1,610		2,056	

Note: Percentages shown are in columns 2 and 3 are row percentages.

* represents χ^2 or t-test significant, $p < .05$; ** $p < .01$

Appendix B
Renters Attrition: Demographics by Year 4 Completion Status

Variable	All		Dropped-out		Completed	
Sex*						
Male	404	28.5%	170	42.1%	234	57.9%
Female	1,014	71.5%	355	35.0%	659	65.0%
Age **						
25 years old or less	270	19.0%	127	47.0%	143	53.0%
26 – 30 years old	203	14.3%	93	45.8%	110	54.2%
31 – 35 years old	169	11.9%	75	44.4%	94	55.6%
36 – 40 years old	150	10.6%	53	35.3%	97	64.7%
41 years old or more	626	44.2%	177	28.3%	449	71.7%
Race **						
White	610	43.0%	190	31.1%	420	68.9%
Black	463	32.7%	145	31.3%	318	68.7%
Hispanic	280	19.7%	157	56.1%	123	43.9%
Other	65	4.6%	33	50.8%	32	49.2%
Marital status*						
Married or living with partner	662	46.7%	267	40.3%	395	59.7%
Widowed, divorced, separated	407	28.7%	127	31.2%	280	68.8%
Never married	349	24.6%	131	37.5%	218	62.5%
Number of Children**						
No child	734	51.8%	236	32.2%	498	67.8%
1	308	21.7%	115	37.3%	193	62.7%
2	224	15.8%	108	48.2%	224	51.8%
3 or more	152	10.7%	66	43.4%	152	56.6%
Education **						
11 th grade or less	265	18.7%	131	49.4%	134	50.6%
High school graduate/GED	447	31.5%	181	40.5%	266	59.5%
Some 2 year college	222	15.7%	69	31.1%	153	68.9%
2 year degree	119	8.4%	31	26.1%	88	73.9%
Some 4 year college	120	8.5%	34	28.3%	86	71.7%
Bachelor's degree	175	12.3%	60	34.3%	115	65.7%
Some graduate school or more	70	4.9%	19	27.1%	51	72.9%
Income[^]**						
Less than \$10,000	312	22.3%	110	35.3%	202	64.7%
\$10,000-\$14,999	200	14.3%	70	35.0%	130	65.0%
\$15,000-19,999	208	14.9%	73	35.1%	135	64.9%
\$20,000-\$24,999	169	12.1%	54	32.0%	115	68.0%
\$25,000-\$34,999	311	22.2%	122	39.2%	189	60.8%
\$35,000-\$49,999	156	11.1%	59	37.8%	97	62.2%
\$50,000-\$74,999	35	2.5%	16	45.7%	19	54.3%
\$75,000 or greater	9	0.6%	4	44.4%	5	55.6%
Employment **						
Employed	895	63.1%	345	38.5%	550	61.5%
Unemployed, looking for work	171	12.1%	74	43.3%	97	56.7%
Unemployed, not looking for work	69	4.9%	14	20.3%	55	79.7%
Retired	283	19.9%	92	32.5%	191	67.5%
Age (mean)**		38.8		35.6		40.6
N[^]		1,418		525		893

Note: Percentages shown are in columns 2 and 3 are row percentages. [^] Due to missing data, income has a smaller sample size for drop-outs (508) and retainees (892). * represents χ^2 or t-test significant, $p < .05$; ** $p < .01$

Appendix C
Owners Attrition: Demographics and Loan characteristics by Year 4 Completion Status

Variable	All		Dropped-out		Completed	
Sex **						
Male	1,913	53.9%	911	47.6%	1,002	52.4%
Female	1,633	46.1%	651	39.9%	982	60.1%
Age						
25 years old or less	689	19.4%	310	45.0%	379	55.0%
26 – 30 years old	828	23.4%	361	43.6%	467	56.4%
31 – 35 years old	627	17.7%	289	46.1%	338	53.9%
36 – 40 years old	470	13.3%	218	46.4%	252	53.6%
41 years old or more	932	26.3%	384	41.2%	548	58.8%
Race **						
White	2,190	61.8%	870	39.7%	1,320	60.3%
Black	686	19.3%	321	46.8%	365	53.2%
Hispanic	555	15.7%	315	56.8%	240	43.2%
Other	115	3.2%	56	48.7%	59	51.3%
Marital status						
Married or living with partner	2,027	57.2%	930	45.9%	1,097	54.1%
Widowed, divorced, separated	697	19.7%	289	41.5%	408	58.5%
Never married	822	23.2%	343	41.7%	479	58.3%
Education **						
11th grade or less	301	8.5%	183	60.8%	118	39.2%
High school graduate/GED	748	21.1%	381	50.9%	367	49.1%
Some 2 year college	601	16.9%	249	41.4%	352	58.6%
2 year degree	547	15.4%	248	45.3%	299	54.7%
Some 4 year college	466	13.1%	196	42.1%	270	57.9%
Bachelor's degree	517	14.6%	179	34.6%	338	65.4%
Some graduate school or more	366	10.3%	126	34.4%	240	65.6%
Employment						
Employed	3,273	92.3%	1,438	43.9%	1,835	56.1%
Unemployed, looking for work	114	3.2%	54	47.4%	60	52.6%
Unemployed, not looking for work	61	1.7%	31	50.8%	30	49.2%
Retired	98	2.8%	39	39.8%	59	60.2%
First-time homebuyer						
Not a first-time homebuyer	1,619	45.7%	695	42.9%	924	57.1%
First-time homebuyer	1,927	54.3%	867	45.0%	1,060	55.0%
Income as percentage of AMI**						
0 – 50 % AMI	1,211	34.2%	565	46.7%	646	53.3%
51 – 80% AMI	2,044	57.6%	845	41.3%	1,199	58.7%
> 80% of AMI	291	8.2%	152	52.2%	139	47.8%
Borrower credit score**						
No credit score	150	4.2%	99	66.0%	51	34.0%
Less than 580	191	5.4%	98	51.3%	93	48.7%
581- 620	404	11.4%	199	49.3%	205	50.7%
621-660	834	23.5%	386	46.3%	448	53.7%
661-720	1,140	32.1%	506	44.4%	634	55.6%
> 720	827	23.3%	274	33.1%	553	66.9%

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Origination year*							
1999	84	2.4%	34	40.5%	50	59.5%	
2000	870	24.5%	391	44.9%	479	55.1%	
2001	1,087	30.7%	512	47.1%	575	52.9%	
2002	1,385	39.1%	586	42.3%	799	57.7%	
2003	120	3.4%	39	32.5%	81	67.5%	
Loan to value**							
0 – 90%	384	10.8%	161	41.9%	223	58.1%	
91 - 95%	304	8.6%	131	43.1%	173	56.9%	
96 - 97%	1,642	46.3%	786	47.9%	856	52.1%	
> 97%	1,216	34.3%	484	39.8%	732	60.2%	
State**							
Other states	816	23.0%	382	46.8%	434	53.2%	
Arizona	114	3.2%	72	63.2%	42	36.8%	
California	153	4.3%	82	53.6%	71	46.4%	
Illinois	177	5.0%	85	48.0%	92	52.0%	
Michigan	107	3.0%	49	45.8%	58	54.2%	
Mississippi	105	3.0%	69	65.7%	36	34.3%	
North Carolina	922	26.0%	357	38.7%	565	61.3%	
Ohio	427	12.0%	170	39.8%	257	60.2%	
Oklahoma	417	11.8%	158	37.9%	259	62.1%	
South Carolina	97	2.7%	43	44.3%	54	55.7%	
Texas	98	2.8%	56	57.1%	42	42.9%	
Virginia	113	3.2%	39	34.5%	74	65.5%	
N^		3,546		1,562		1,984	

Note: Percentages shown are in columns 2 and 3 are row percentages.

* represents χ^2 significant, $p < .05$; ** $p < .01$