

Puerto Rico Survey of Consumer Finances

Top-line Report

CNE

Center for a New Economy
SAN JUAN, PUERTO RICO

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Summary of key findings from the Puerto Rico Survey of Consumer Finances carried out between December 2007 and April 2008.

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Letter from the President

The publication of the Top-Line Report for the **Puerto Rico Survey of Consumer Finances** (PRSCF) marks an important milestone in CNE's research history, and signals the arrival of an important and unprecedented data source for scholars, policymakers, and private sector actors interested in Puerto Rico's future. The PRSCF is the first-ever survey that provides detailed information on the socioeconomic dynamics of household and individuals in the island. As such, it helps fill major information gaps on critical topics that are central to CNE's mission of advancing Puerto Rico's socioeconomic development.

We are privileged to publish the first product of a major survey instrument that was produced in collaboration with the Federal Reserve Bank of New York. As is the case with any ambitious undertaking, it took us several years to turn a great idea into a useful and near faultless tool. We are extremely grateful to all the project partners and staff members who dedicated their time, resources and energy to produce this notable contribution, and to Banco Popular and FirstBank for helping to underwrite the endeavor. Our most heartfelt appreciation goes out to Dr. Harold Toro-Tulla, the report's author, whose drive and dedication throughout the past years helped us break new ground in our research agenda, and led to this impressive text, and to Deepak Lamba-Nieves who broke ground on the project.

As its readers will note, the rich data presented in the report will certainly stimulate original research, and will hopefully lead to new understandings of the complex economic lives of Puerto Rico's people. Our current state of economic crisis requires that we come up with new ideas and solutions to long-standing problems. To do this, we need to inspire the soundest minds and muster the best information. That is what we hope to accomplish with this project.

Miguel A. Soto-Class

President

Center for a New Economy

November 2013

Acknowledgements

The financial support of the Ford Foundation, the Federal Reserve Bank of New York, Banco Popular of Puerto Rico, and First Bank of Puerto Rico made possible all data collection efforts for the PRSCF. The Center for a New Economy also wishes to acknowledge the collaboration and support of many disinterested individuals: Gustavo Bobonis of the University of Toronto and Frederico Finan of the University of California, Berkeley designed the questionnaire. Gustavo Bobonis has also provided invaluable input throughout the entirety of the project. Juan Lara as friend, colleague, and senior fellow of CNE has always made his considerable talents available to CNE staff since the inception of the PRSCF. Together with Deepak Lamba—during whose tenure as research director of CNE the PRSCF was conceived and data collection carried out—as members of the PRSCF advisory board both have provided important feedback in the course of writing the top line report. Javier Silva, Erica Groshen and Wilbert Van der Klaauw at the Federal Reserve Bank of New York have provided important guidance at various junctures of the entire project. Arthur Kennickel, assistant director of the Research and Statistics Division of the Federal Reserve Bank, has been an invaluable resource in many technical aspects of data correction, re-weighting, and post-stratification of the PRSCF data. The technical support of various CNE research assistants facilitated the extensive and difficult tasks involved in handling and managing a large and complex data set such as is the PRSCF data; in particular Nilvea Malavé, Angélica Meinhofer and Ioana Dan, devoted many long hours and energy to data cleaning, estimation, raking, bootstrapping, analysis, and to fixing glitches in enormous computer algorithms. Without them the PRSCF research and data production effort would have never materialized. We also wish to thank many others who, along the tortuous way researchers travel from an initial idea to the final results, have aided or supported the project of the PRSCF in innumerable ways: Jon Stiles of the University of California, Berkeley data archive; Ricardo Toro, vice-president of Banco Popular of Puerto Rico, Tamara Kay sociology professor at Harvard University, and María Enchautegui of the Urban Institute.

Note regarding tables: All results reported herein are based on weighted and imputed data.

Executive Summary

The Puerto Rico Survey of Consumer Finances (PRSCF) was carried out between December 2007 and April 2008. It collected detailed information on household income sources, household-specific patterns of asset ownership for both financial and non-financial assets, household indebtedness, and net worth. The survey and data are the result of a collaborative effort between the Center for a New Economy in Puerto Rico and the Federal Reserve Bank of New York to gain a deeper understanding of the financial status of households in Puerto Rico and to provide a rich data base for future analysis and academic research.

Some of the key findings are:

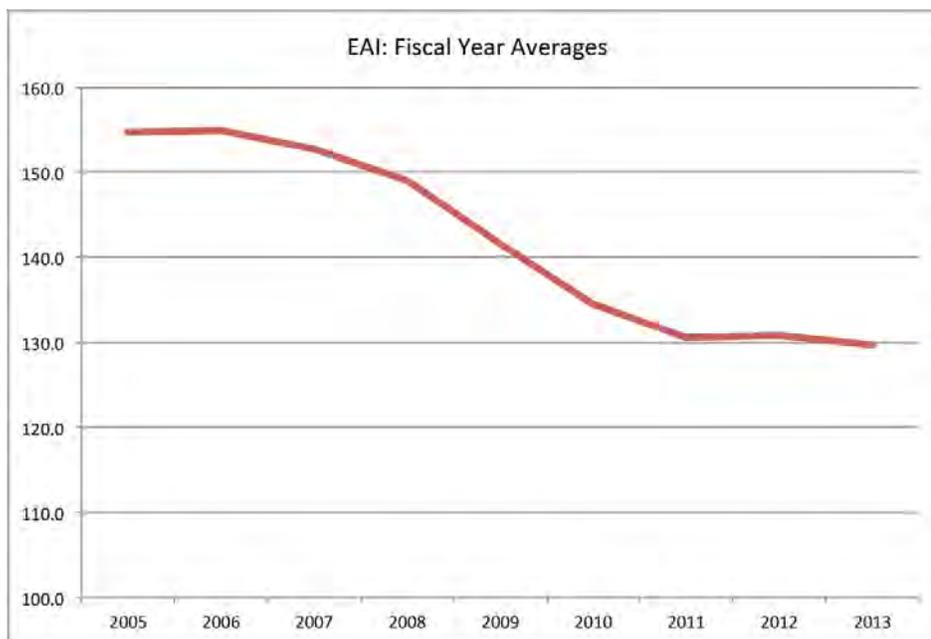
- Average after-tax monthly income for all families reporting having any income in Puerto Rico during the time of the survey was 1,439 dollars a month (equivalent to 17,268 dollars on an annual basis).
- For all households, 62 percent of all income is derived from wage earnings and about 24 percent from retirement sources.
- Households that reported saving constituted approximately 43 percent of all Puerto Rico households. Among those households reporting any saving activity 64 percent save primarily for unexpected emergencies.
- Across all households in Puerto Rico in 2007 the average net worth was 67,193 dollars.
- Sixty percent of families in Puerto Rico hold some sort of financial assets.
- Savings and checking accounts contain approximately 44.7 percent of the total value of financial assets held by households with such assets.
- 45 percent of families have savings accounts and 29 percent have checking accounts.
- Approximately 9 percent of households reported having some unbanked cash.
- 38 percent of households reported not having a bank account of any kind.
- 86.25 percent of all non-financial household wealth across all households is concentrated in the value of the primary residence.
- 68.1 percent of all households reported owning the primary residence.
- Across all observations, the median value of all nonfinancial assets was 83,650 dollars. Across all households, residential values constitute 85.22 percent of the value of all assets.
- The median value of the primary residence for households that reported owning a primary residence was 90,831 dollars.
- 62.7 percent of all households reported having any debt. When segmented by the type of debt, 68 percent of the value of outstanding debt was incurred with the purpose of buying a residence or re-financing one.
- In Puerto Rico the educational attainment of the head of the household is positively associated to higher leverage ratios whereas in the United States leverage ratios decline with education.
- 23 percent of all families in Puerto Rico reported having any credit card outstanding balance. This was about 82 percent of all credit card holders.

Puerto Rico's Macroeconomic and Financial Situation (2005-2013)

The Puerto Rico Survey of Consumer Finances was executed during December of 2007 through April of 2008, in the midst of a prolonged economic contraction that lasted longer than the Great Recession in the United States.¹

Figure 1 presents the level over time of the Economic Activity Index (EAI) for Puerto Rico's economy for the most recent data available.² The trend in the level of the EAI suggests at least four waves or phases of economic activity since 2005. Between June of 2005 and July of 2006 the EAI stabilized, reflecting the initial sputtering of economic activity in Puerto Rico.³ This period of relative stagnation lasted until July of 2007, the date that constitutes the onset of a sustained decline and the beginning of the Great Recession in Puerto Rico. This period of economic contraction lasted until July of 2011, the date that marked the end of the first phase of the decline. The third phase, during which the change in the value of the index turned positive, lasted between July 2011 and November 2012. However, since December 2012 the EAI has decreased for nine months in a row, suggesting the Puerto Rican economy has entered a new contractionary phase. To summarize, since 2006 Puerto Rico experienced (1) a sustained decline in economic activity that lasted 5 years, (2) followed by a yearlong period of relative stability and modest, limited growth, and (3) another contractionary phase that has lasted since December 2012 until the present. Various reports and studies on Puerto Rico's economy have documented the combination of structural and cyclical factors linked to this protracted contraction (ECLAC, 2004; Collins, Bosworth, and Soto- Class, 2006; Federal Reserve Bank of New York, 2012).

Figure 1: Economic Activity Index (Puerto Rico, 2005-2013)



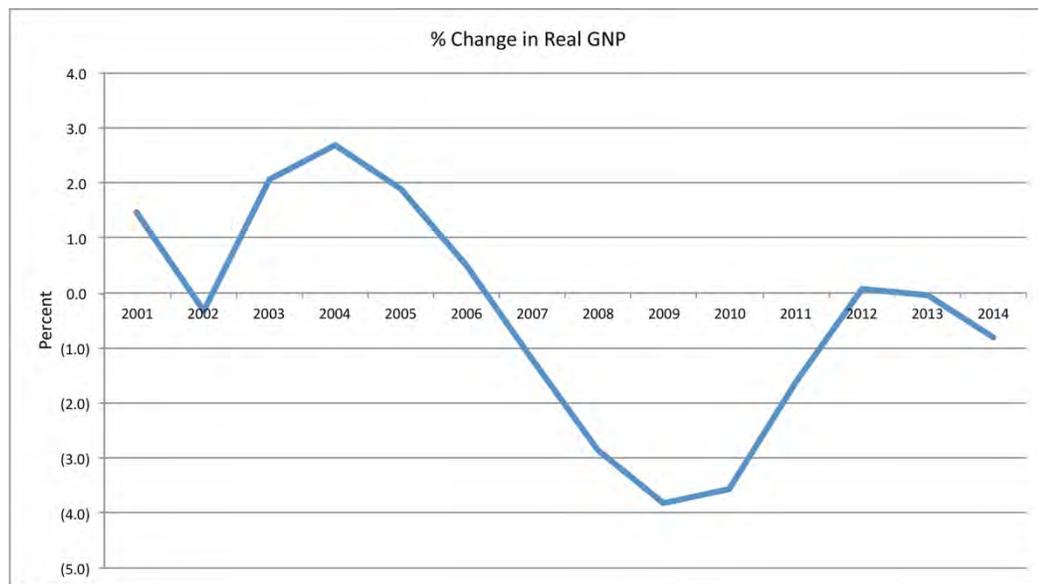
¹ <http://www.gdb-pur.com/economy/pr-monthly-economic-indicators-time-series.html>

² The EAI is seasonally adjusted, and constructed on the basis of four indicators that track closely monthly changes in economic activity: non-farm salaried employment, sales of gasoline, electricity use, sales of cement.

³ According to the Government Development Bank, the EAI, on an annualized basis, is highly correlated to both the level of real GNP (with a Pearson correlation coefficient of 0.9883, for FY1981-FY2012) and to the real GNP growth rate (with a Pearson correlation coefficient of 0.9461, for FY1982-FY2012).

Figure 2, reports GNP in real terms from fiscal year 2001 until 2014 (the figures for 2013 and 2014 are forecasts). The timing of the decline in GNP is consistent with the trend of the EAI reported in figure 1. More generally, the trend in the inter-annual rate of change of GNP reflects the slow growth rates of Puerto Rico’s economy predating the recession. Economic events in 2006 may have induced an earlier starting point for Puerto Rico’s economic contraction. First, Puerto Rico’s banking sector came under the scrutiny of the Securities and Exchange Commission (SEC) as early as 2005. The SEC investigations centered on how several local banks had accounted for mortgage sale transactions.⁴ As a result of this inquiry, several local banks were forced to restate their financial statements, in some cases as far back as five years.

Figure 2: Real GNP for Puerto Rico



Second, the Puerto Rico government’s fiscal situation has influenced aggregate economic performance over the short term. Since at least 2004, the Puerto Rico government has run a deficit of over 1 billion dollars, or approximately 31 percent of total government revenues.⁵ In the context of this long-standing practice, the inability in May 2006 of the governor and the local legislature to agree on short-term financing ended with the central government closing for two weeks, and the imposition of a new sales tax of 7%. These events seem associated to a shift in lending behavior by financial institutions partially induced by the perception that Puerto Rico’s government shutdown indicated—but would also exacerbate—heightened economic uncertainty. In 2009, facing a larger structural deficit, immediately after the onset of the global financial crisis, and under pressure from bond rating agencies, the government of Puerto Rico implemented a series of austerity measures, culminating with the enactment of a broad package of budget cuts, tax increases, and layoffs of government employees in March of that

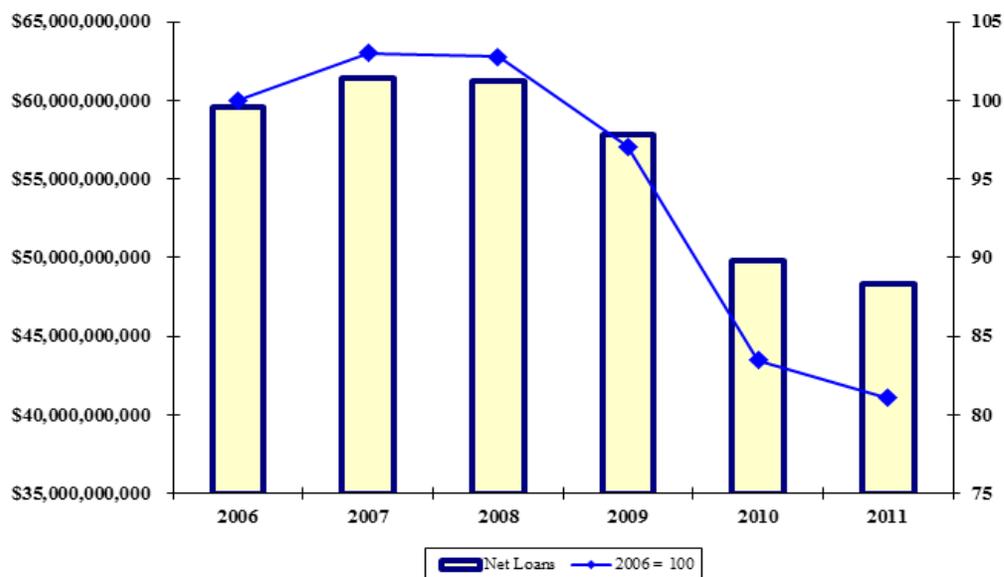
⁴ The initial investigation in 2005 focused on First-BanCorp (First Bank) and its transactions with R&G financial Corporation as well as transactions with Doral Financial Corporation dating as far back as 2000. (http://www.bnamericas.com/news/banking/SEC_orders_full_investigation_into_First_BanCorp_mortgage_transactions). See also: <http://www.sec.gov/news/press/2007/2007-161.htm>; and <http://www.sec.gov/litigation/litreleases/2006/lr19837.htm>.

⁵ See Commonwealth of Puerto Rico. 2011:42; for historical series see tables in schedule of financial trends (pgs.: 290-295).

year.⁶ The combination of tight credit and fiscal consolidation generated significant downward pressure on already declining economic activity, employment and investment. These local events interacted adversely with the macro-economic effects of the 2008-09 financial crisis, which affected short-term funding rates for local banks and weakened the secondary market for mortgages in Puerto Rico.

Third, the residential real estate sector was undergoing a period of “irrational exuberance”, with banks financing new construction with little or no economic due diligence. As a result, with the onset of the global financial crisis in 2008, found Puerto Rico’s banks in an already weakened state. In April 2010, the Puerto Rico Commissioner of Financial Institutions announced the closing of three local banks and appointed the FDIC as trustee. The FDIC, in turn, negotiated the sale of the assets of the intervened institutions. In sum close to 20 percent of banking assets in Puerto Rico changed hands as a result of these transactions. This has resulted in on-going de-leveraging by commercial banking institutions. Figure 3 reports net bank loans in Puerto Rico between 2006 and 2011. The level of the total value of issued loans was stable through 2008, and then proceeded to decline to its lowest level for the period in 2011 Taking 2006 as a starting point with total loans issued valued at \$59.6 billion, as of the second quarter of 2011 loans issued amounted to \$48.3 billion, a reduction of \$11.3 billion, or 18.9%.

Figure 3: Commercial Bank Loans



⁶ Among the most salient were: Law 7 of 2009 which reduced the number of employees across central government agencies; expenditure restrictions on government agencies, the temporary freeze on public sector salaries; and various privatization efforts for highways, airport, etc.)

Table 1 reports aggregate employment and summarize GNP and the EAI for the recession period. Since 2006, Puerto Rico’s GNP has declined by 12%, employment has decreased by 16%, and economic activity, as measured by the Government’s Development Bank Index of Economic Activity, has fell more than 17 percent.

Table 1:
Puerto Rico Economic Indicators (2006, 2011)

	2006	2011	% Change
GNP (1954 Prices)	7,055,500,000	6,192,500,000	-12.2
Total Employment*	1,289,100	1,079,900	-16.2
Economic Activity Index**	151.9	124.9	-17.8

* September

** August

Source: Puerto Rico Planning Board,
PR Labor Department, and Governmental Development Bank

The financial data obtained from the first ever Puerto Rico Survey of Consumer Finances that is presented hereinafter should be interpreted and analyzed in the context of this complicated economic background.

Aims of Survey

The Puerto Rico Survey of Consumer Finances (PRSCF) is the result of a collaborative effort between the Center for a New Economy in Puerto Rico and the Federal Reserve Bank of New York. The survey was carried out with three primary aims: First, to gain a deeper understanding of the financial status of households in Puerto Rico and of their interactions with Puerto Rico’s banking system; second, to enhance our understanding of household economic behavior more generally and to provide a rich data base for future analysis and academic research. More specifically, the PRSCF breaks new ground in Puerto Rico by transcending the current state of knowledge regarding family-specific patterns of asset ownership, indebtedness and net worth. It also facilitates international comparisons of Puerto Rico with other countries that have carried out similar surveys, such as Mexico, Spain, Italy, France, Germany, Australia, and the United States.⁷ Finally, the PRSCF was designed and carried out with the aim of filling, albeit partially, the gap between Puerto Rico’s general understanding of social and economic behavior on the one hand, and on the other hand the need for well informed, and empirically grounded social and economic policy.

Structure of Survey

The PRSCF consisted of a six-module questionnaire administered to a probability sample of 2400 households in Puerto Rico between December of 2007 and April of 2008. All households were asked from each module.

- Module 1 was subdivided into five sub-modules,
 - Sub-module on household characteristics (HR): covered demographic attributes and household characteristics, including size, and age distributions.
 - Sub-module on Labor status (LS) covered employment status, hours, occupation and employment-related sources of income.
 - Sub-module on characteristics of the residence (CV) covered characteristics of a household’s living quarters.
 - Sub-module NNA covered family businesses;
 - Sub-module on income (IN) asked questions on additional sources of income for the household.

- Module 2 focused on two general types of assets: property and savings. It was segmented into two sub-modules:
 - Sub-module on property (PRO) examined residential and other non-residential property.
 - Sub-module on savings (AH) asked questions on household savings, transaction accounts, pensions, and general attributes of non-financial assets.

⁷ For Mexico see the Mexico Family Life Survey: <http://www.ennvih-mxfls.org>. For Australia see the Household Income and Labor Dynamics Survey (HILDA); <http://www.rba.gov.au/publications/bulletin/2012/mar/3.html>. For Spain see the Spanish Survey of Household Wealth; In Spanish: Encuesta Financiera de las Familias (EEF); (Bover, 2008). For the United States see: Fries, Gerhard, Starr-McCluer, and Sundén: 1998. Other relevant surveys on household assets and wealth, but not used directly in the formulation of definitions and questions for the PRSCF are: France (Enquête Patrimoine: <http://www.insee.fr/fr/methodes/default.asp?page=sources/ope-enquete-patrimoine.htm>); and for Italy: Survey of Household Income and Wealth (SHIW); <http://www.bancaditalia.it/statistiche/indcamp/bilfait>; for Germany, the Panel on Household Finances (PHF) carried out by the Bundesbank.

- Module 3 asked questions on household loans and credit taken by the household in addition to questions on types of debt and indebtedness as well as refinancing behavior.
- Module 4 covered unbanked status and relationship to banks, (including check-cashing activity, and holding of checking and/or saving accounts).
- Module 5 focused on risk (RO) and asked questions on risk and risk preferences.
- Module 6 asked questions regarding trust of banking institutions and generalized trust (module CO).

Unit of observation

Households constitute the unit of observation in the PRSCF, although data was gathered for individuals living in all selected households, the survey was not designed to be representative of the universe of adult individuals residing in Puerto Rico at the time of the survey. The survey was designed with the aim of being representative of households in Puerto Rico. A household for the purpose of the survey refers to a single person or group of persons who, regardless of being consanguineal family members, can be considered to live together and usually share meals prepared under the same budget and in the same kitchen and who share the same utensils in the preparation of meals. This definition is similar to the one used in the U.S. census, as well as that used in the Mexico Family Life Survey (MXFLS).⁸

⁸ In the 2000 census, the definition of household refers to an individual within a given housing unit and/or to all those persons that share living quarters whether related by consanguineal ties or not. (U.S. Department of Commerce, Bureau of the Census, 2000: B-14).

Income

The Puerto Rico Survey of Consumer Finances collected information on various components of household income. To obtain total household income we have added all income from recurrent sources such as: government transfer payments, alimony, and pensions, earnings from wages and salary from all occupations for all household members that reported having a current occupation, all business sources of income, and all income from non-recurrent sources, or extra-ordinary income, such as sales of property, sales of durable goods, and sales of machinery.⁹ All respondents were asked to report income on an after-tax basis.

Income and Demographic Characteristics

Table 2 reports the mean and median values for monthly income across a variety of demographic characteristics as well as the mean and median values across percentages of the distribution of after-tax income, and the distribution of net worth. We report also distributions of median income and mean income by house ownership status. Additionally, table 2 reports the number of sample families and the percent within each category of interest of all families that reported having any savings.

The average after-tax monthly income for all families reporting having any income in Puerto Rico during the time of the survey was 1,439 dollars a month. If annualized this is equivalent to 17,268 dollars in a year. The mean across rubrics in the income distribution reflects the presence of high inequality. For instance, the mean monthly value of the top ten percent of households was 4,598 after-tax dollars. This was 22.2 times greater than the average income of the bottom quintile, which had on average a monthly income of 198 dollars. However, this low value includes approximately 2 percent of households that reported zero income.¹⁰

Across the age distribution, average income starts at around 1,364 dollars for those under 35, and shifts upward slightly at ages 45 to 54 when the average reaches 1,775 dollars. The elderly, defined as those in households where the head was 75 or older, reflect the lowest average monthly income of 1,032 dollars. Median values reflect a similar trend, albeit from a lower starting point for those younger than 35 years of age.

Married couple households had an average monthly income of 1,811. This is higher than that of single adults younger than 55 without children by approximately 600 dollars. Those older than 55 living alone reflect the lowest average income, as well as the lowest median monthly income.

⁹ Only positive proceeds from such sales are considered income. In the raw data, no respondent reported negative proceeds from such sales.

¹⁰ Published census tables based on the Puerto Rico Community Survey for 2010 reflect a more unequal distribution of household income, but census figures refer to income before taxes. The bottom quintile for annual household income in the PRACS-2010 in Puerto Rico was 2,452 dollars, for the top quintile the figure was 81,859, for a ratio of 33.38 times on an annualized basis. The top five percent of all households reported an average annual income in the PRACS-2010 of 150,751 for a level 61.5 times greater than the bottom quintile. For the U.S. the equivalent ratio is 30 times. (Mean Household Income Quintile Estimates. U.S. Census Bureau, 2010 American Community Survey; Table: B19081 for Puerto Rico and for all households in the United States).

Those with college or more had on average about 2,304 dollars in monthly income, which was about 2.5 times the average monthly income of those without a completed high school education. In annual terms, the after tax annual income of those with college or more would have been about 27,648 dollars. All other households where the head had less than a college education reported monthly after-tax income below 2000 dollars (or annualized incomes under \$24,000).

Household income patterns by the working status of the head of the household reflect the up-take in average income induced by self-employment. Although the self-employed comprised about 3.3 per cent of the heads of households on which information was obtained, their average income was about 63 percent higher than that of salaried employees (3,147/1,932). However, this high average income hides wider differences in income among the self-employed than among salaried employees. Among the self-employed the average was 2.04 times the median monthly income, whereas among salaried employees this ratio was 1.26. Those not working constituted about 31 per cent of all heads of household and their incomes were the lowest of those declaring a permanent non-work status with a monthly average income of 760 dollars.

The relative importance of owning a home in Puerto Rico is reflected in the fact that of all households about 68.1 percent owned their residence. Monthly average incomes were about 25 percent higher for owners than for renters (1,550/1,120).

Net worth refers to the difference between the value of all assets reported in the survey and the total debt of each household. Monthly income across household quintiles in the net-worth distribution reflects the particularity of a non-small portion of high net-worth homes among those with high income but with reported negative net worth. For the lowest quintile of households in the distribution of net worth the average monthly income was 1,308. This value is close to that of the second lowest quintile, but higher than the monthly income of households in the third quintile, and higher than that of households between the 75th and the 90th percent of households in the distribution of net worth. This pattern reflects the effect on the measure of net worth of high levels of negative net-worth among high income households in 2007.

TABLE 2: AFTER-TAX MONTHLY FAMILY INCOME, AND PERCENTAGE OF FAMILIES THAT SAVED, AND DISTRIBUTION OF FAMILIES, BY SELECTED CHARACTERISTICS OF FAMILIES, PRSCF 2007

	Income		Observations		Percent	
	Median	Mean	Savings	Total Income	Of families that saved	Of all families
Total	1,017	1,439	1,030	2,400	42.9	100.0
<i>Percentile of income</i>						
Less than 20	153	198	116	520	22.2	21.7
20 - 39.9	637	662	151	531	28.5	22.1
40 - 59.9	1,047	1,098	208	497	41.9	20.7
60 - 79.9	1,599	1,667	228	453	50.2	18.9
80 - 89.9	2,480	2,531	151	216	70.1	9.0
90 - 100	3,800	4,598	176	183	96.3	7.6
<i>Age Group of Head (years)</i>						
Less than 35	1,083	1,364	146	360	40.6	15.0
35-44	1,255	1,677	175	381	45.8	15.9
45-54	1,200	1,775	197	434	45.4	18.1
55-64	1,000	1,327	193	479	40.3	20.0
65-74	887	1,280	182	435	41.7	18.1
75 or more	710	1,032	138	311	44.3	13.0
<i>Family structure</i>						
Single person w. children	830	1,086	100	375	26.8	15.6
Single person younger thn 55 (no children)	900	1,203	129	214	60.2	8.9
Single older thn 55 (no children)	677	929	240	538	44.6	22.4
Couple (with children)	1,500	1,861	226	536	42.1	22.3
Couple (no children)	1,272	1,811	336	737	45.5	30.7
<i>Education of Head</i>						
Less than High School	719	924	278	897	30.9	37.4
High School	1,063	1,424	285	724	39.3	30.2
Some College	1,255	1,819	230	449	51.3	18.7
College or more	1,987	2,304	238	330	72.1	13.8
<i>Working Status of Head</i>						
Working for someone else	1,530	1,932	474	888	53.4	37.0
Self-Employed	1,546	3,147	37	79	46.8	3.3
Retired	958	1,307	330	681	48.5	28.4
Other not working	531	760	189	752	25.1	31.3
<i>Housing Status</i>						
Owner	1,117	1,550	816	1,634	49.9	68.1
Renter or other	798	1,120	215	766	28.0	31.9
<i>Percentile of net worth</i>						
Less than 20	980	1,308	160	506	31.7	21.1
20 - 39.9	961	1,338	185	548	33.7	22.8
40 - 59.9	912	1,226	179	485	36.8	20.2
60 - 74.9	925	1,281	164	340	48.3	14.2
75 - 89.9	1,200	1,601	201	317	63.5	13.2
90 - 100	1,200	2,318	141	204	69.2	8.5

Note: results generated using poststratification weights.

Values in 2007 US dollars

Income Sources

Table 3 summarizes the percentage share of each source of income across cut-off points in the net-worth distribution. For all households 62 percent of all income is derived from wages and about 24 percent from retirement sources. Income from retirement sources comprises public and private pensions, as well as social security monthly income. Transfer payments, constitute about 6 percent of all income sources for all households¹¹. Table 3 highlights substantive differences between net worth percentiles that are not apparent in the aggregate shares of income by source. The data suggest a three-fold segmentation of households when considering the differentiation of income sources across the net worth distribution. First, for those in the bottom 40 percent of the net worth distribution, over 70 percent of income is derived from wages, and transfer payments are approximately 9 percent. Retirement sources are comparably less important than for those in the middle and top of the net worth distribution. A second segmentation is reflected in households between 40 and 74.9 percent of the net worth distribution. For these households, retirement income jumps to between 31 and 35 percent of all income, and transfer payments remain of comparable importance at around 8 percent. These higher shares of income drawn from retirement and transfer payment sources imply that for the middle of the net worth distribution, wages drop below 60 percent of all income sources. Those above the 75th percentile of net worth reflect the persistent importance of retirement sources but transfer payments drop to 3.8 percent and to 1.8 percent respectively for household between 75th and 90th percentile and for those above the 90th percentile of net worth. Capital gains—which include the proceeds from sales of land, stock, and machinery—comprise a small percentage of total income across all households, but it is 4.7 percent of all income sources for families in the second quintile of net worth. The top decile of net worth seems distinct from all others: First, business income is 15 percent of all income sources, whereas for other households below the top decile of net worth no group obtains more than 3 percent of their income from business activity. Second, the category subsuming other income, as it contains inheritance disbursements, is proportionately most important for the top decile of net worth for which it comprises 3.1 percent of income. Approximately 11.5 percent of households (all falling in the bottom quintile of the distribution of net worth) had a negative net-worth estimated value.

TABLE 3: AMOUNT OF AFTER-TAX FAMILY INCOME, DISTRIBUTED BY INCOME SOURCES, BY PERCENTILE OF NET WORTH, PRSCF 2007 (IMPUTED)

Income Source	Percentile of Net Worth						All families
	Less than 20	20 - 39.9	40 - 59.9	60 - 74.9	75 - 89.9	90 - 100	
Wages	76.0	70.0	58.4	52.3	61.5	55.2	62.9
Rent	0.6	†	0.2	0.1	0.5	1.1	0.4
Business	0.9	0.7	0.1	2.8	0.9	15.4	3.4
Capital gains	0.6	4.7	†	1.0	0.0	0.3	1.2
Retirement	10.0	6.0	31.9	35.9	31.4	23.2	23.7
Transfers payments	9.7	8.8	8.2	7.0	3.8	1.8	6.6
Other Income	2.1	1.7	1.2	0.9	1.9	3.1	1.8
Total	100	100	100	100	100	100	100

†: Less than 0.10 percent

Note 1: Transfer payments refer to income from food stamps, unemployment insurance, worker disability, and alimony.

Note 2: Other income: miscellaneous category that includes: inheritance in monetary gifts, rents, educational scholarships, life payments.

Note 3: Capital gains refers to gains from the sale of machinery, land, and securities.

¹¹ Transfer payments include: alimony, food stamps, unemployment benefits, and worker disability benefits. Other income refers to a miscellaneous category that never the less includes important items: inheritance, in monetary gifts, rents, educational scholarships, and life payments.

Saving

The data on saving behavior in Puerto Rico suggest that households save to mitigate unanticipated events. Contingency-oriented saving prevails as the determinant of savings among those who do save, in the context of a generalized pattern of no saving (or low saving) among most households. Families that reported any savings constituted about 43 percent of all families. Table 4 reports the most important reasons given by respondents for families' saving behavior given such behavior. This universe is broader than the one reporting having a savings account since not all those with a positive balance reported savings behavior, and as such were not included in the estimates for table 4. Among families reporting any savings the most common reason given was mitigation in the case of emergencies, which obtained 64 percent of respondents' choice as the most important reason. Saving for retirement or purchasing of the primary residence was selected by 4.4 and 4.6 percent respectively as the most important reason. The priorities given by households in Puerto Rico in 2007 contrast with those reported for the United States in the SCF report for 2007. In that year 33.9 per cent of U.S. households adduced retirement as their primary reason for saving and another 32 percent adduced liquidity (Bucks, et al, 2009: A10). It is possible however that savings to maintain a high level of liquidity is motivated by the same set of concerns that plausibly drive reasons for savings in Puerto Rico.

The proportion of households reporting savings increases with the age of the head of the household up to ages 55-64, but then declines at high ages (see the lower proportion of savers among those 75 or more as reported in table 2), a pattern associated with being retired or being an employee. Savings behavior was also associated with being a homeowner, with higher levels of education, with higher shares of income, and with greater shares of net worth.

TABLE 4: MOST IMPORTANT REASONS FOR SAVING AMONG FAMILIES BY TYPE OF REASON, PRSCF 2007 (IMPUTED)

	No.	Pct.
Emergencies	660	64.1
Cover Miscellaneous Expenses	75	7.3
Other ¹	56	5.4
Make Home Improvements	52	5.1
Buy House/Appt for Primary Residence	48	4.6
For Retirement	45	4.4
Vacation	43	4.2
Pay for Education	19	1.8
Leave to family/Inheritance	18	1.7
Buy Secondary Property	14	1.4
Total families reporting any savings	1,030	100
Percent of All Families		42.9

¹ Includes reasons to save for Open/Start a business, for weddings, to buy household items, and observations with no specific reason to save including DNK (Do not know)

Net Worth

Table 5 reports the net worth of households by general demographic characteristics of the head of the household, as well as by the location of households in the income distribution. Across all households in Puerto Rico in 2007 the average net worth was 67,193 dollars. This reflects the average difference between the value of all assets reported in the survey and the total debt of each household. As with savings, net worth increases with age. However, the net worth of elderly households was about 7 times greater than that of households where the head was younger than 35 years of age. Across household types Puerto Rico households reflect usual patterns in that households with kids tend to have low net worth, but single householders older than 55 reflect the highest levels of net worth with on average 92,865 thousand dollars. Both, the age distribution, and to a lesser extent, the distribution of net worth across household types, reflect life-cycle dynamics that are associated with lower savings and higher debt early in life when households are larger and adults have children to raise. But when households age and become smaller, they accumulate assets and reduce debt burdens.

It is important to mention the additional potential confounding of cohort-specific effects with the patterns of asset accumulation associated with aging of the population. In the specific case of Puerto Rico, it is likely that adults whose early productive years coincided with the economic development boom of the 1950s through the 1970s were disproportionately better off when gauged by their life-time asset accumulation than those belonging to more birth cohorts. The data do not allow for the specific evaluation of cohort effects but age-specific arrays in the distribution of assets in the case of Puerto Rico may be the result of cohort-specific asset accumulation possibilities.

The distribution of median and average net worth across levels of educational attainment reflects an odd pattern where those with less than high school reflect median net worth higher than those with any other level of education excepting those with at least a college education. This might reflect the greater levels of debt incurred by those in the middle of the educational distribution who possess enough education and disposable income that indebtedness at higher levels is possible, but not sufficient education for a fast enough rate of capital accumulation. An additional underlying determinant of the education-net worth profiles observed in the data is the socio-economic background of the parents of the head of the household. The socio-economic status of parents has long been known to constrain the occupational and educational attainment of children. In this instance it very likely conditions the need for indebtedness among those heads of households coming from low socio-economic status families.

Net worth is also positively associated to retirement status, a pattern to be expected given the needed accumulation of assets for retirement and the drawing down of debt as families become older. Curiously, those with the lowest average net worth were those reporting self-employment.¹² In fact, for households headed by a self-employed adult, the average is lower than the median, reflecting a left skew in the net worth distribution. This net-worth distribution among the self-employed may owe to the effect on the average of high levels of negative net worth for the self-employed.¹³

¹² This suggests the possible role of high levels of debt incurred for small business activity. This and other empirical questions not explored in this report are highlighted in the conclusion.

¹³ Among the self-employed, those with negative net worth comprised 13 percent. The average value of negative net worth reported among these observations was -584,979, whereas the average negative net worth reported for employees, retired or those not working was never above 87,000.

One important feature of the data is the presence of households with negative net worth in the lowest quintile. The average net worth for families in the lowest quintile was (-42,841), reflecting substantial losses late in 2007 and early 2008. As with income, the dispersion in net worth is quite wide.¹⁴ For instance, households in the top 10 percent of the net worth distribution had a net worth on average of 293,885 dollars. This was approximately 24.7 times greater than the average net worth of the second quintile.

TABLE 5: FAMILY NET WORTH BY SELECTED CHARACTERISTICS OF FAMILIES (DOLLARS) P.R. 2007 (IMPUTED)

	Median	Mean
Total	55,660	67,193
<i>Percentile of income</i>		
Less than 20	21,715	56,381
20 - 39.9	48,100	61,867
40 - 59.9	63,700	75,085
60 - 79.9	64,634	70,974
80 - 89.9	72,775	75,270
90 - 100	64,950	68,024
<i>Age Group of HH Head</i>		
Less than 35	6,280	16,271
35-44	17,200	24,494
45-54	55,660	65,023
55-64	67,902	86,016
65-74	85,755	101,631
75 or more	86,418	107,699
<i>Family structure</i>		
Single person w. children	11,520	48,290
Single person younger thn 55 (no children)	13,210	40,498
Single older thn 55 (no children)	73,200	92,865
Couple (with children)	27,350	37,182
Couple (no children)	77,381	88,364
<i>Education of Head</i>		
Less than High School	59,557	66,455
High School	51,145	64,100
Some College	30,359	55,774
College or more	77,450	90,630
<i>Working Status of Head</i>		
Working for someone else	22,500	43,711
Self-Employed	50,065	43,128
Retired	87,600	114,589
Other not working	51,073	58,641
<i>Housing Status</i>		
Owner	79,350	88,136
Renter or other	3,300	6,927
<i>Percentile of net worth</i>		
Less than 20	-4,408	-42,841
20 - 39.9	8,456	11,907
40 - 59.9	57,241	59,412
60 - 74.9	88,420	89,727
75 - 89.9	119,790	124,085
90 - 100	208,500	293,885

Note: Values in 2007 US dollars

¹⁴ The negative net-worth of households in the lowest percentiles of the distribution is also present in the United States (Bucks, Kennickel, March, and Moore. 2009: A15; table 4).

Assets

Financial Assets (General Financial Assets)

Table 6-A provides information on the general distribution of the value of all holdings across families by type of financial asset. While 60 percent of families in Puerto Rico hold some sort of financial asset, about 44.7 percent of all value of financial assets across households holding any financial asset are contained in savings and checking accounts (transaction accounts). Retirement accounts—which in this instance refer to pensions, 401k accounts, Keogh, and IRAs—along with life insurance contain another 28.8 per cent of the value of all financial assets in Puerto Rico. Traded stocks and bonds contain approximately 5 percent of all financial assets and the remainder is in managed assets, generally referring to shares of cooperatives, and in life insurance, which together comprise about 16 percent of households' financial asset value. The distribution of financial asset value by type of financial asset is very different from that for the United States. For U.S. households in 2007, about 11 percent of all value was in transaction accounts, stocks and bonds contained about 22 percent, and retirement accounts contained the highest share of all value with 34 percent.¹⁵

TABLE 6-A: VALUE OF FINANCIAL ASSETS OF ALL FAMILIES, DISTRIBUTED BY ALL ASSETS, (PERCENT) P.R. 2007 (IMPUTED)

<i>Type of financial assets</i>	Pct.
<i>Percent of Families with financial assets</i>	60.8
Transaction Accounts	44.7
Retirement Accts	28.9
Life Insurance	10.4
Managed Assets	5.4
Certificate of Deposits	5.0
Bonds	3.2
Traded Stocks	1.8
Unbanked Cash	0.6
Total	100.0

Note 1: Transaction accounts refer to the sum of deposits in any of the following accounts: checking, saving, money market, christmas, summer, or mutual funds.

Note 2: managed assets: shares in cooperatives.

Note 3: retirement accts: individual retirement accounts (IRAs), 401k accounts, keogh accounts, and pensions.

¹⁵ Bucks, Kennickel, March, and Moore. 2009: A15; table 5.

Financial Assets by Socio-Demographic Characteristics

Tables 6-B and 6-C report holdings of financial assets for households in Puerto Rico, and mean and median values across various demographic, work status, and income characteristics of households. Financial assets refer to family holdings of all cash accounts, retirement accounts, and life insurance policies, as well as to financial instruments such as stocks and bonds.¹⁶ The sum total of these assets constitutes the financial holdings of families. Of all families with financial assets, 56.7 percent held transaction accounts.

The most aggregated distribution in table 6-B refers to the right-most column, which reports the percent of those holding any financial asset across demographic categories. The top-most row reports the percentage of families holding specific types of asset by asset type. These aggregated columns reflect the relative importance of asset types as measured by the diffusion of ownership. Because general holdings of financial assets such as stocks and bonds are so low across the population, these characteristics tend to be of less interest than cash holdings. For instance, across family types, and across education of the head and his/her work status, overwhelmingly households have their financial assets in cash in transaction accounts, and secondarily as un-banked cash. Approximately 9 percent of households reported having some un-banked cash.

When examining the diffusion of asset ownership by asset type across demographic and socio-economic attributes two important aspects of asset holding in Puerto Rico stand out. First, the percentage of families with transaction accounts across income percentiles is positively correlated with the increasing levels of disposable income as one moves up the income distribution. Also, across the age distribution of the head of the household, the majority of families seem to hold just transaction accounts, in a distant second place unbanked cash, and thirdly managed assets. This distribution in the relative importance of transaction accounts, unbanked cash, and managed assets is reflected across all socio-economic and demographic attributes detailed in table 6-B. It seems that those who are young and in single households, working for someone else, and with some college education or less tend to have a higher proportion of holders of un-banked cash.

¹⁶ Financial Assets in this section refer to various categories of assets: transaction accounts refer to checking and savings accounts of any kind including joint accounts, so called Christmas and summer club accounts, money market accounts, and mutual funds. Bank certificates of deposits are listed separately, as are bonds and traded stock, even though the latter were not an instrument reported by many households. Life insurance refers to the value of life-insurance policies by type of policy (whether cancer, life, funeral, etc.) that would be given to the beneficiary in the event of the holder's death whether such policies were of fixed or variable value. Bonds herein refer to all financial instruments with fixed yields; retirement accounts groups reported values for pensions, IRA, Keogh and 401k accounts reported for all members of the household. Note that no attempt was made to estimate the accumulated value of potential future disbursements of social security. Pensions do include private individual or employer-provided plans, as well as government pensions. Finally, unbanked cash refers to any holdings of cash not deposited with any formal banking institution, including cooperatives. Managed assets in this instance refer to shares in cooperatives even though the term could be construed more broadly to refer to holdings of government bonds held indirectly through brokerage accounts. Specific details of brokerage account holdings were not asked directly. For all assets (including direct holdings or holdings of bonds) questions were asked to ascertain the financial institution through which the asset was held. To the extent that holders of specific types of assets are unaware of the details of such holdings, reported values are underestimates due to the underreporting of actual holdings of indirectly held financial assets. This could be the case for mutual funds that are comprised largely of government bonds wherein the respondent may or may not be aware of the actual value of such bonds in his/her mutual fund accounts.

In general, the proportion of households holding any financial assets is increasing in household income. Whereas 33 per cent of those in the lowest income quintile hold any financial assets, 89 percent of the top households in the highest income decile hold any financial assets. Similar patterns can be seen in the distribution of families by cross-section of income shares and type of asset. Consistent with the general pattern, the second highest proportion of assets held across all income groups refers to unbanked cash.

For those in the bottom quintile of the income distribution, 30 percent have transaction accounts, but of those households in the top decile 86.7 percent had transaction accounts. Percentiles in between these two groups reflect increasing shares of transaction account possession. Retirement accounts, unbanked cash, life insurance policies, and managed assets reflect a similar pattern. Other patterns are worth highlighting: For the bottom 80 percent of the income distribution holding of retirement accounts is very low, never above 5 percent of households with any financial assets. Certificates of deposit, bonds and traded stock are held by a small percentage of households and this is reflected in the breakdown of holders of such assets across all income, demographic and net worth attributes of households.

Transaction accounts, cash and retirement accounts reflect distributions that seem associated with the economic capacity to hold them. For instance, across the educational distribution all these types of assets reflect more generalized ownership for those households headed by a college-educated adult than for any other educational group. The levels of ownership nonetheless reflect wide differences across assets even among those with a college education. For example, among such households, 84 percent reported having a transaction account, 5.4 percent a certificate of deposit, 13 percent a retirement account, 11 percent unbanked cash, and 12.4 percent any managed assets. A similar distribution pattern of asset ownership seems present across the residential owner-renter divide and across the distribution of net worth.

Ownership patterns for unbanked cash and retirement accounts are consistent with typical demographic patterns. Households headed by young adults are more likely to have unbanked cash than are elderly households. Retirement accounts are most prevalent among households headed by a middle-aged adult, followed by young households and are least prevalent among elderly households for which retirement accounts are only held by 2.3 percent of those headed by an adult 75 or older. A similar pattern is found across different family types. Those without children are more likely to have unbanked cash although the differences relative to families with children are not large. Eleven percent of couples without kids have unbanked cash, and about 12 percent of single households without children. For comparable groups with children the percentages are 9.5 and 7.03 respectively.

The final section of table 6-B reports the diffusion of asset types by shares of net worth. Those below the 75th percentile of the net worth distribution reflect very few families with any financial assets other than transaction accounts. Few families across the distribution of net worth (for families holding any financial asset) seem to hold any traded stocks or managed assets. This suggests a bifurcated regime of asset-holding wherein transaction accounts are the overwhelming item possessed by households, but high-net worth households attain greater diversification of asset types. Additionally, direct holdings of bonds are highly concentrated. This is reflected in the absence of respondents with bonds except in the top decile.

Median values of Financial Assets

Table 6-C reports the median value of financial assets for families holding any such assets. The top-most row reports median values by type of asset and the right-most column reports median values across demographic and socio-economic attributes for households with any financial assets. The median value across all households and across all asset types is reported at the intersection of the first row and last column, namely 800 dollars. Across the first row, the most widely held assets—transaction accounts and unbanked cash—have comparatively low median values of 600 and 100 dollars respectively. Median values were 8,000 dollars for CDs, and 7,000 dollars for both life insurance, and traded stocks. Together, these three types of financial assets constitute the most valuable financial assets across all financial assets (excepting bonds directly held which are discussed below). Across demographic and socioeconomic characteristics, median values for any assets held reflect no specific discernible pattern except the positive association of the median value with income, age, education, and net worth. Across household types, median values for any assets held are highest for single adults without children, and for couples without children. In terms of reported work status median values for any assets held by the self-employed and by those retired (each with a median value of 1000 dollars) are marginally higher than the median for employees.

When examining detailed distribution by asset types, it is easiest to segment the analysis by the diffusion of ownership of specific assets. Taking again transaction accounts as a starting point medians tend to be in the hundreds of dollars except for households in the top decile of the income distribution (for whom the median value was 2,000 dollars), for those with a college education, and at the very top of the distribution of net worth who are retired, married and without children. Median values in unbanked cash hover in the hundreds of dollars across all socio-economic and demographic dimensions but do not seem correlated with income or with net-worth.

For less commonly held assets such as retirement accounts, CDs, life insurance, and managed assets, median values are in general in the thousands of dollars, but there are no clear patterns in the data. Nonetheless, in the case of retirement accounts, an interesting pattern emerges in the data wherein median values seem mildly positively correlated to income but inversely correlated to net worth. For managed assets, median values suggest a positive correlation between the value of such assets and both income and net worth. In the case of life insurance, median values by income rubric vary widely. For example, for those in the lowest income quintile, the median value is 75,000 dollars, but drops as low as 1,000 dollars for those households in the second decile of the income distribution, only to increase to 100,000 dollars for the top decile. Partially reflecting the capacity of high socio-economic status household to own diverse financial assets, life insurance values are highest for those with a college-educated head, and those households at the top of the net-worth distribution. Considering CDs as closer to a savings account than to an investment instrument as are stocks and bonds, allows making partial sense of the distribution of values. For instance, while not widely held at the bottom of the income distribution (only 1 percent of such households held CDs as opposed to 3 percent of households in the top decile of the income distribution), the median value of CDs for those low-income households holding CDs was 15 thousand dollars, 3 times greater than the median value for households at the very top of the income distribution. Although not as clear cut, a similar pattern seems present in the distribution of median values for CDs across shares of net worth.

All blank cells in this table reflect the absence of respondents. This impacts the estimation of median values for traded stocks and bonds, the most closely and least held assets. In the case of bonds, fewer than 1 tenth of one percent of households reported direct ownership. Hence the high single value of 115 thousand dollars is the only value reported across all demographic attributes, equivalent to the overall median (except in the case of the age and the income distribution). This single value is in part an artifact of the few observations that reported bond holdings.¹⁷ Traded stocks are slightly more widely held than bonds with 4 tenths of one percent of all households owning stocks directly. As with bonds, stocks are more commonly held in the upper thresholds of the income and net worth distributions, and median values in traded stock seem to increase with income and net worth. The pattern of values also seems to increase with age but with a downward turn at high ages of the household head.¹⁸

When examining table 6-C from the standpoint of specific demographic and economic characteristics of households various arrays in the data stand out. Family types vary in the sort of assets they own and in the locus of value they hold. For example, single persons younger than 55 with no kids have high median values in certificate of deposits (15,000), and in retirement accounts (19,000), but nothing in bonds or life insurance. Among single adults older than 55 who have traded stocks, have high median values (101,000). Families with kids tend not to have any bonds, but have a median value of 25,000 in life insurance, even when the overall median holding across asset types is 600 dollars. Couples with no kids tend to have greater diversification with median values present for traded stocks and bonds, as well as for highly liquid asset types like transaction accounts and certificates of deposit.

Across categories of working status, the self-employed have overall high median values for those holding any asset. The highest value is in life insurance where the self-employed had a median value of 100 thousand dollars. Employees and those not working have highest median values of approximately 10 thousand dollars in retirement accounts. The division between home-owners and renters tends to favor owners, in that median values are higher across most all asset types. However, renters have a median value of 35,000 dollars in certificates of deposit, and about double the amount of owners in retirement accounts. This suggest that renters in fact acquire assets but through different vehicles or instruments than residential property owners.

¹⁷ Low response on the value of bonds in part reflects respondents not knowing whether bonds are partly owned through investments in mutual funds. The survey did not ask respondents explicitly to detail the types of bonds held. In the United States, in 2007, the median value of bonds was 80,000 dollars, lower than in Puerto Rico, but bond ownership reflects the same ownership patterns, at the top of the net worth distribution and concentrated among highly educated households above the 40th percentile of the income distribution. Given the different methodologies for sample selection in the PRSCF and in the SCF, the specific values of assets affected by high ownership concentration at the top of the income and net worth distribution should be treated with caution in the case of the Puerto Rico survey (Bucks et al, 2009: A-19).

¹⁸ The U.S. Survey of Consumer Finances asks respondents the number of directly held stock (Bucks et al, 2009: A-23). Eighty-four percent of households reported owning stock in less than 9 companies, and 36.4 reported owning stock in one company (most commonly that of the company that employed or had employed the household head). Although the PRSCF did not ask specific questions on the number of companies on which stock was held, patterns for Puerto Rico should not be dissimilar. Those reporting stock ownership were explicitly asked to exclude mutual fund stocks (PRSCF questionnaire: questions AH-09 through AH-13, items j through l).

TABLE 6-B: FAMILY HOLDINGS OF FINANCIAL ASSETS BY SELECTED CHARACTERISTICS OF FAMILIES AND TYPE OF ASSET, P.R. 2007 (PERCENTAGE OF FAMILIES HOLDING ANY FINANCIAL ASSET)

	Transaction Accts	Certificate of Deposit ¹	Bonds ¹	Traded Stocks ¹	Retirement Accts	Unbanked Cash	Life Insurance ¹	Managed Assets	Any Financial Assets
Total	56.7	1.7	0.1	0.4	4.6	9.1	1.0	7.3	60.8
<i>Percentile of income</i>									
Less than 20	29.9	1.04	*	0.2	0.3	5.5	0.4	2.8	33.0
20 - 39.9	43.0	0.71	*	*	1.5	8.5	0.5	4.4	49.4
40 - 59.9	57.8	1.19	0.2	0.2	2.3	8.8	0.7	6.2	63.0
60 - 79.9	70.4	2.49	0.2	0.4	5.0	10.9	1.7	9.2	73.0
80 - 89.9	77.7	2.80	*	2.0	10.2	10.4	1.7	14.6	82.5
90 - 100	86.7	3.06	*	1.0	17.7	13.1	2.1	13.6	88.5
<i>Age Group of Head (years)</i>									
Less than 35	54.8	0.3	*	1.5	4.6	9.2	0.6	6.4	59.4
35-44	56.2	0.9	*	0.2	5.6	8.9	2.1	8.3	61.5
45-54	54.0	1.1	*	0.3	5.4	10.9	0.6	9.4	58.1
55-64	54.3	1.6	0.2	0.2	5.8	9.8	0.8	8.0	59.7
65-74	59.4	3.5	0.2	0.6	3.0	7.4	0.9	7.3	62.5
75 or more	64.2	2.8	*	*	2.4	7.4	1.4	2.6	65.2
<i>Family structure</i>									
Single person w. children	45.9	*	*	*	4.5	7.0	0.4	3.7	49.1
Single person younger thn 55 (no children)	56.1	0.9	*	1.1	4.0	11.8	*	5.9	60.7
Single older thn 55 (no children)	55.9	1.7	*	0.3	2.1	6.8	0.6	4.3	58.5
Couple (with children)	57.8	1.1	*	0.1	5.8	9.6	1.9	8.3	62.2
Couple (no children)	61.8	3.2	0.3	0.7	6.1	10.4	1.4	11.5	67.2
<i>Education of Head</i>									
Less than High School	42.1	0.4	*	*	1.5	8.6	0.7	4.8	46.9
High School	54.8	0.9	*	0.4	3.2	7.8	1.1	7.6	58.7
Some College	67.7	2.6	0.4	0.7	6.5	10.8	1.8	8.2	72.5
College or more	84.0	5.4	*	1.2	13.2	10.5	0.7	12.4	85.8
<i>Working Status of Head</i>									
Working for someone else	65.7	1.1	*	0.9	7.1	11.6	1.1	8.6	70.7
Self-Employed	60.6	2.9	*	*	12.3	8.3	2.9	13.2	65.0
Retired	67.3	4.0	0.3	0.2	3.7	8.4	1.3	7.5	70.2
Other not working	36.1	0.3	*	0.1	1.5	6.7	0.5	5.0	40.2
<i>Housing Status</i>									
Owner	60.4	2.0	0.1	0.5	5.3	9.2	1.2	8.6	64.3
Renter or other	46.1	0.7	*	0.4	2.7	8.6	0.5	3.6	50.7
<i>Percentile of net worth</i>									
Less than 20	51.5	0.9	*	0.7	4.4	5.4	0.7	5.7	53.9
20 - 39.9	53.1	0.6	*	0.3	3.4	10.8	0.6	3.9	58.5
40 - 59.9	48.5	1.1	*	*	1.7	9.6	1.0	8.5	54.1
60 - 74.9	59.8	1.5	*	0.4	3.2	8.4	0.3	8.4	61.9
75 - 89.9	67.6	3.0	*	0.7	7.7	12.6	0.4	12.2	71.5
90 - 100	69.6	4.9	0.7	0.7	10.8	7.6	4.4	6.3	74.9

* No observations

¹ No imputation was performed

TABLE 6-C: FAMILY HOLDINGS OF FINANCIAL ASSETS BY SELECTED CHARACTERISTICS OF FAMILIES AND TYPE OF ASSET, P.R. 2007 (MEDIAN VALUE OF HOLDING FOR FAMILIES HOLDING ASSET)

	Transaction Accts	Certificate of Deposit	Bonds ¹	Traded Stocks ¹	Retirement Accts	Unbanked Cash	Life Insurance ¹	Managed Assets	Any Financial Assets
Total	600	8,000	115,000	7,000	6,000	100	7,000	1,193	800
<i>Percentile of income</i>									
Less than 20	500	15,000	*	700	60	100	75,000	539	500
20 - 39.9	300	10,000	*	*	5,000	100	25,000	640	335
40 - 59.9	523	5,000	200,000	*	5,000	100	7,000	739	540
60 - 79.9	454	6,000	115,000	15,000	6,000	50	2,000	654	730
80 - 89.9	900	10,000	*	700	8,000	100	1,080	1,400	1,543
90 - 100	2,000	5,000	*	11,400	10,500	350	100,000	2,500	3,750
<i>Age Group of Head</i>									
Less than 35	560	2,500	*	700	10,500	100	5,000	700	599
35-44	500	5,000	*	700	8,000	150	1,080	1,000	720
45-54	600	15,000	*	11,400	5,000	100	3,000	1,000	850
55-64	689	6,000	115,000	101,000	5,000	50	50,000	2,003	870
65-74	650	10,000	200,000	9,000	9,216	100	960	1,000	810
75 or more	873	8,000	*	*	4,800	50	2,000	739	1,000
<i>Family structure</i>									
Single person w. children	364	*	*	*	9,500	100	7,000	800	400
Single person younger thn 55 (no ch.)	800	15,000	*	700	19,000	200	*	700	1,000
Single older thn 55 (no children)	510	8,000	*	101,000	5,000	60	2,000	500	606
Couple (with children)	500	5,000	*	*	8,000	100	25,000	1,000	600
Couple (no children)	1,000	10,000	115,000	11,400	5,000	100	10,000	2,000	1,250
<i>Education of Head</i>									
Less than High School	400	10,000	*	*	10,000	50	2,000	500	500
High School	500	8,000	*	814	5,000	100	25,000	900	659
Some College	600	5,000	115,000	11,400	5,000	100	1,080	1,800	870
College or more	1,425	8,000	*	700	6,000	350	75,000	1,592	2,434
<i>Working Status of Head</i>									
Working for someone else	600	5,000	*	814	10,000	100	5,000	1,400	940
Self-Employed	800	5,000	*	*	6,000	330	100,000	3,590	1,000
Retired	1,000	8,000	115,000	101,000	5,000	50	7,000	1,231	1,000
Other not working	300	15,000	*	7,000	9,216	60	2,000	640	395
<i>Housing Status</i>									
Owner	650	6,000	115,000	9,000	6,000	100	10,000	1,323	988
Renter or other	473	35,000	*	7,000	11,000	100	2,000	700	500
<i>Percentile of net worth</i>									
Less than 20	300	5,000	*	700	10,000	100	10,000	1,400	391
20 - 39.9	505	15,000	*	7,000	5,000	100	2,000	640	600
40 - 59.9	500	19,000	*	*	10,000	50	3,000	900	600
60 - 74.9	850	4,000	*	11,400	6,000	50	900	1,000	1,000
75 - 89.9	900	10,000	*	814	6,000	150	35,000	1,250	1,500
90 - 100	2,000	8,000	115,000	101,000	5,000	150	75,000	3,900	2,500

Note: Values in 2007 US dollars

¹ No imputation was performed

Transaction Accounts

Since transaction accounts constitute so important a feature of all financial assets, table 7 specifies in greater depth the distribution of families by type of transaction account. Of all families holding transaction accounts 47.7 percent reported holding checking accounts and 73.5 percent hold saving accounts. When considering more broadly families with transaction accounts relative to all families, 45 percent of families have saving accounts¹⁹ and 29.2 percent have checking accounts. This suggests that families hold the most highly liquid instruments among transaction accounts. Other types of transaction accounts, such as Christmas and summer club accounts, as well as those considered closer to savings or investment vehicles (such as money market accounts and mutual funds), constitute a miscellaneous set of transaction accounts with very low levels of ownership.

TABLE 7: FAMILIES HOLDING TRANSACTION ACCOUNTS BY TYPE OF ACCOUNT

	No.	Pct. of all Families	Pct. of Families rel to tr. accts
Saving	1,079	45.0	73.5
Checking	700	29.2	47.7
Christmas/ Summer Accts	179	7.5	12.2
Other ¹	†		
Families with accounts	1,469	61.2	100

¹ Includes Mutual Funds and Money Market accounts.

†: Less than 0.10 percent

Original; No Imputation was needed

¹⁹ Note that the sub-sample for table 7 and that for table 4 are not the same. Some households that reported saving did not have a saving or checking account and were therefore not included in table 4 on savings behavior. In the case of table 7 the converse applies. Many households that reported having a saving account with a larger than zero balance reported no savings behavior.

Reasons for not having Checking Accounts (table 8)

In considering the importance of un-banked cash as a feature of general holdings of families in Puerto Rico, table 8 reports the reasons given by households without transaction accounts for being outside the banking system, in this instance defined as not having bank accounts. Of all households 38.1 percent reported not having a bank account of any kind. Overwhelmingly, of those households without banking accounts 74.7 percent reported the absence of enough money to be held in the bank account as the primary reason. Twelve percent reported not wanting or needing a bank account and 5 percent reported disliking banks. These two aforementioned reasons could potentially imply the first one, and consequently do not have a clear interpretation. Although not large by comparison, or taken separately, those reporting not having a transaction account due to banking balance minimums or service charges comprised in combination 8 percent of those households without a bank account. About 2.7 percent replied as an obstacle the savings cap needed to qualify for welfare payments.²⁰

TABLE 8: DISTRIBUTION OF REASONS CITED BY RESPONDENTS FOR THEIR FAMILIES' NOT HAVING A CHECKING ACCOUNT, BY REASON, PR 2007

	Perc.	Count
I don't have enough money	74.7	695
I don't want/need a bank account	12.1	112
I don't like dealing with banks	5.1	47
The service charges are too high	4.7	43
I don't write enough checks for it to be worth it	4.4	41
The minimum balance is very high	3.3	30
I can't manage/balance a checking account	3.3	30
I don't meet the banking institution's requirements	3.2	29
I am not able to have a bank account (savings cap to qualify for welfare)	2.7	26
I haven't taken the time to open one	1.9	18
Credit problems/bankruptcy	1.5	14
Other	6.3	58
Banks/coops don't have convenient hours/locations*	*	*
Total	100	915
Families not having a checking account:	38.1	915

Note: Universe for this table are all households that reported not having a checking account. Checking account: includes regular checking, savings, and christmas or summer club accounts.

* No observations

Original-No Imputation was needed

Table produced with post-stratification weights.

²⁰ In generating these responses interviewees were asked why no one in the household had a transaction account and then shown a card with all possible responses. The interviewee was then asked to indicate all applicable possibilities (see PRSCF questionnaire: Unbanked Module; and cards CR43 and CR46).

Retirement Accounts

Table 9 reports the percent of families by type of retirement account held by any member of the household. The percent of families that reported holding any retirement account was 2.9 percent. This percentage seems low and might reflect underreporting due to the manner in which the question was framed. The PRSCF asked respondents if they or anyone in the household had a retirement account by type and how many. This formulation may lead to underreporting if the respondent lacked sufficient information on the retirement accounts of the head of household or of others in the household. The number of IRA accounts in Puerto Rico, as reported at the end of 2007 was 333,644.²¹ While this number is not reflective of the actual number of account holders since individuals tend to have more than one IRA account, it suggests that the proportion of households with at least one IRA is quite likely higher than the 3 percent reported in table 9.²²

TABLE 9: TYPE OF RETIREMENT ACCOUNT DISTRIBUTION OF ALL FAMILIES; P.R. 2007 (IMPUTED)

	Count	All Families (%)	Families Holding (%)
IRA	40	1.7	41.7
401(k)	32	1.3	33.3
Keogh	†	†	†
Households reporting at least one retirement acct.	70	2.92	

†: Less than 11 observations

²¹ Information provided by the Office of the Commissioner of Financial Institutions; Commonwealth of Puerto Rico.

²² In 2007 the number of adults 25 or older was approximately 2,536,986 or about 65% of the entire population. Assuming two IRA accounts per holder gives an ownership rate of 6.6 percent of the adult population. The number of non-vacant households according to the 2007 PRACS was 1,204,284. Assuming that there are two IRA accounts per household (to account for ownership clustering) would give an ownership rate of 14 percent as an upper bound estimate. A more aggressive assumption for clustering of four IRA accounts per household would give an IRA ownership rate of 6.9 percent.

Non-Financial Assets

Table 10 reports values of non-financial assets by general class of assets. Non-financial assets refer to the household's primary residence, other secondary properties, vehicles, and items more precisely regarded as possessions rather than assets such as televisions, computers, and household appliances. The most salient aspect of non-financial asset holding in Puerto Rico is the concentration of household wealth in the value of the primary residence with about 86.25 percent of all non-financial asset value across all households. The combined value of non-residential possessions constituted 4 percent of the value of non-financials reported in the survey. Vehicles are about 2 percentage points above this with a share of 6.5 percent of the value of all non-financial assets.

TABLE 10: VALUE OF NONFINANCIAL ASSETS OF ALL FAMILIES, DISTRIBUTED BY TYPE OF ASSET (PERCENT) P.R. 2007

Vehicles	6.5
Primary Residence	86.3
Other Nonfinancial	4.3
Other Properties	3.0
<i>All financial assets as share of all assets</i>	3.2
<i>All non-financial assets as share of all assets</i>	96.8

Note: Other properties might be of secondary use or commercial use.

Nonfinancial Assets by Socio-Demographic Characteristics

Table 11-A reports the extent of non-financial asset ownership by socio-demographic characteristics of households and the percentage of families holding specific types of assets. In contrast to the possession of financial assets, nonfinancial assets are widely owned. Almost all households reported having at least some type of non-financial asset, and about 75 percent reported owning a vehicle and/or a residence. By far the most important non-financial asset in Puerto Rico is the main residence. For residential ownership, 55 percent of households in the lowest income quintile own a residence. These percentages increase for higher income groups. Among older households the proportion of homeowners reaches approximately 78 percent for those 45 to 64, and for households where the head is older than 65, ownership reaches 87 percent.

Patterns of home ownership by education reflect substantial differences between those households where the head reported at least a college education and those where he/she had less than a full college degree. Households where the head reported having a college education had ownership rates of 80 percent. All other households reflected ownership rates at or below 75 percent. Households in which the head reported being retired have the highest rate of ownership at 90 percent. The distribution of homeownership by net worth reflects again the fact that the lowest quintile contains a heterogeneous composition of household not truly reflective of low asset ownership and including households with high indebtedness. Among those at or above the third quintile of net worth homeownership is above 97 percent.

Focusing on vehicles, generalized ownership seems not to hold at the lowest levels of income. While for the top income quintile vehicle ownership is above 95 percent and residential ownership is above 90 percent, among the lowest income quintile it is just below 48 percent. Across the age distribution older households tend to be less likely to own a vehicle even though a majority of those where the head is 75 or older own one (54%).

Both vehicle and residence ownership over the age distribution seem consistent with a life-cycle pattern. The life-cycle pattern however seems to interact with the type of family to produce a more complex distribution of household ownership. Whereas couples, regardless of having children have home ownership rates of 71 percent or more, single heads with children have ownership rates of 55.6 percent.

TABLE 11-A: FAMILY HOLDINGS OF NONFINANCIAL ASSETS AND OF ANY ASSETS, BY SELECTED CHARACTERISTICS OF FAMILIES AND TYPE OF ASSET, PR 2007 (PERCENTAGE OF FAMILIES HOLDING ASSET) (IMPUTED)

	Primary Residence	Vehicles	Other Properties	Other Nonfinancial	Any Nonfinancial asset	Any asset
Total	74.2	75.7	2.6	99.7	99.9	99.9
<i>Percentile of income</i>						
Less than 20	55.1	48.0	1.3	99.5	99.7	99.7
20 - 39.9	65.9	60.0	1.7	100.0	100.0	100.0
40 - 59.9	75.3	81.5	2.3	99.8	100.0	100.0
60 - 79.9	83.0	91.2	2.9	100.0	100.0	100.0
80 - 89.9	91.2	96.5	3.4	99.0	99.7	100.0
90 - 100	92.2	98.9	6.3	100.0	100.0	100.0
<i>Age Group of Head (years)</i>						
Less than 35	40.0	81.4	0.3	99.7	99.7	99.7
35-44	67.5	87.8	2.0	99.8	99.8	99.8
45-54	78.1	80.4	3.4	99.5	99.9	100.0
55-64	79.7	77.2	2.6	99.8	100.0	100.0
65-74	87.4	66.9	3.5	99.8	100.0	100.0
75 or more	87.2	54.0	3.7	100.0	100.0	100.0
<i>Family structure</i>						
Single person w. children	55.6	67.6	1.5	99.2	99.5	99.5
Single person younger thn 55 (no children)	59.8	75.4	1.5	100.0	100.0	100.0
Single older thn 55 (no children)	82.3	51.7	2.4	99.8	100.0	100.0
Couple (with children)	71.0	93.0	1.4	100.0	100.0	100.0
Couple (no children)	84.7	86.6	4.7	99.6	99.9	100.0
<i>Education of Head</i>						
Less than High School	75.3	59.6	2.0	99.5	99.7	99.8
High School	70.9	81.9	2.2	100.0	100.0	100.0
Some College	72.9	84.2	2.7	99.8	100.0	100.0
College or more	79.9	93.3	4.9	99.8	100.0	100.0
<i>Working Status of Head</i>						
Working for someone else	69.7	90.8	2.1	99.7	99.9	99.9
Self-Employed	70.6	91.3	9.7	99.1	99.1	100.0
Retired	89.4	72.6	3.6	100.0	100.0	100.0
Other not working	67.3	58.0	1.7	99.6	99.9	99.9
<i>Housing Status</i>						
Owner	100.0	79.4	3.5	99.8	100.0	100.0
Renter or other	0.0	65.0	0.0	99.6	99.6	99.7
<i>Percentile of net worth</i>						
Less than 20	47.5	66.8	1.7	99.3	99.5	99.7
20 - 39.9	27.4	78.1	0.0	100.0	100.0	100.0
40 - 59.9	97.2	70.1	1.2	99.6	100.0	100.0
60 - 74.9	98.9	75.5	1.7	100.0	100.0	100.0
75 - 89.9	99.6	84.9	3.4	99.7	100.0	100.0
90 - 100	100.0	86.5	12.7	100.0	100.0	100.0

*No observations

Table 11-B specifies median values for non-financial assets for households that reported holding such assets. As in previous tables, the top-most row reports the median values of non-financial assets across type of non-financial asset for all households. The two right most columns summarize median values for households by demographic characteristics for all those holding any non-financial assets, and for those holding any asset (financial or non-financial). The most salient aspect of these two right-most columns is the small difference between them. The median value in non-financial assets is marginally different from the median value for families holding any asset. And this holds true in the aggregate as well as in the detailed distributions. Across all observations the median value of all nonfinancial assets was 83,650 dollars or about 80 thousand dollars greater than the comparable figure for all appliances, furniture, and computers combined. This median value is only 7 thousand dollars below the median value of the primary residence across all observations (90,831 thousand). The last column in table 11-B reports median values across all assets financial and nonfinancial combined. This column constitutes a summary measure of the value of all asset holdings across households. The median value of all assets for households holding any assets was 85,465 dollars, or about 1,800 dollars more than the median value of all non-financials. The relatively small difference between this last column and the value of residential property illuminates the importance of residential property in Puerto Rico as a key determinant of the value of all household assets.

The median value of the primary residence across all households that reported having a primary residence was 90,831 dollars. Across the income distribution the median value of the top decile is approximately 68 percent higher than that of the bottom quintile. For the bottom quintile the median value of the primary residence was 80 thousand dollars and for the top decile it was 135 thousand dollars. Across various demographic attributes the dispersion of residential values is less steep. Across the age distribution, the highest median value is 95 thousand and the lowest was 90 thousand. Across various types of family, the highest median value was 100 thousand dollars for couples without kids, but 85 thousand dollars for single older folks without kids.

The median value of nonfinancial assets reflects a high level of dispersion across the distribution of educational attainment of the head of the household. For those where the head of the household reported having a college education or more, the median value of the main residence was 130 thousand. For those where the head reported having less than high school the median home value was 76.9 thousand. By working status, as with other assets, the median value of the primary residence is highest for the self-employed at 110 thousand dollars. The median value among those who reported not working was the lowest at 80 thousand dollars.

The widest distribution in the value of the main residence is present across shares of net worth where the median value of the second and third lowest quintile was 40 thousand dollars and 60 thousand respectively. But for the top decile of net worth the median value of the main residence was 200,000 dollars.

The distribution of median values for “other” properties reflects a different underlying group of owners within categories so it does not refer to the same set of owners as those reporting a primary residence. This is the main reason why the values are highest among households in the lowest net worth quintile. The median value in “other” properties for households that reported owning such properties was 100,000 dollars or about 10,000 dollars above the median value of the primary residence for all respondents. The dispersion across demographic attributes is wider than when considering the main residence. For example, across the age distribution the lowest median value was 68.9 thousand for those 35 to 44 and the highest was among those 75 or older at 145.6 thousand. The dispersion in this instance was much wider than for the main residence. For other properties the oldest households have

secondary residences with a median value for the group of 145.6 thousand, more than double the 65,000 dollars of the 55 to 64 age group who had the lowest median value.

For the main residence, the widest dispersion was 4,300 dollars between the highest median value and the lowest, and these referred to different age groups. Couples with children that reported other properties had the lowest median value at 68.9 thousand dollars. The highest value for secondary properties was found among young single persons without kids and among couples without kids. These value patterns across types of households are consistent with life-cycle dynamics in the value of assets since one would expect families with kids to have less disposable income to invest in secondary properties as well as expect couples without kids to have an easier time acquiring the requisite credit and having the required disposable income to finance and pay for higher value secondary properties. However, in ascribing an interpretation to the high median value for secondary residences of single persons without kids, as well as for single persons with kids, it is important to keep in mind that these family types are highly self-selected when considering which among them have secondary residences. In fact we suspect that among families with children, greater distinctiveness prevails between those selecting to own secondary residences and those owning a single primary residence versus the differentiation that would be observed among other types of families.

Median values of secondary residences by working status of the head suggest the idiosyncratic position of the self-employed who, along with households headed by retirees, had median values of 130,000 dollars. This was 75 thousand dollars higher than the lowest median value (those who reported not working), and about 49 thousand dollars higher than among employees.

Households in the lowest percentile of net worth had the highest median value in secondary properties. This potentially reflects the correlation between a greater degree of indebtedness and owning high value secondary properties. In fact, among households in the lowest net worth quintile that reported having secondary properties, the median value of secondary properties is higher than the median value of the primary residence. This pattern is true as well for households in the third quintile of net worth. These relative disparities across holders of secondary residential properties by net worth relative to those reporting the median value of their main residence result from large amounts of heterogeneity in the underlying populations that comprise these groups.

Other non-financial assets—largely appliances, computers and furniture—do not reflect large distinctions across age or across family structure, and the highest median values, as might be expected, are found among households with the highest shares of income, net worth, and highest level of education of the head of the household. The pattern is to be expected given the higher levels of human capital and resources in such households. However, relative differences between median values do reflect greater disproportionality than is present for more valuable assets. While absolute differences between groups reflect the fact that the category “other” nonfinancial assets subsumes less valuable assets than residences or perhaps automobiles, relative differences in median values are wider than for residential values. For example, households in the lowest income quintile had a median value in “other” nonfinancial assets of 1,700 dollars, those in the highest income decile had a median value in nonfinancial assets of 5,600 dollars or approximately 3.3 times higher. The comparable relative difference in the value of the primary residence was 1.7.

TABLE 11-B: FAMILY HOLDINGS OF NONFINANCIAL ASSETS AND OF ANY ASSET, BY SELECTED CHARACTERISTICS OF FAMILIES AND TYPE OF ASSETS, PR 2007 (MEDIAN VALUE OF HOLDINGS FOR FAMILIES HOLDING ASSETS; IMPUTED)

	Primary Residence	Vehicles	Other Properties	Other Nonfinancial	Any Nonfinancial asset	Any asset
Total	90,831	5,000	100,000	2,800	83,650	85,465
<i>Percentile of income</i>						
Less than 20	80,000	2,500	85,170	1,700	41,800	43,100
20 - 39.9	80,000	3,000	65,733	2,000	59,000	59,800
40 - 59.9	85,000	4,000	86,319	2,870	79,700	80,900
60 - 79.9	95,000	5,533	75,000	3,484	95,950	96,800
80 - 89.9	120,000	10,000	150,000	5,250	129,400	133,030
90 - 100	135,000	9,500	140,000	5,600	146,600	156,300
<i>Age Group of Head (years)</i>						
Less than 35	90,000	5,000	88,903	3,200	17,050	17,980
35-44	95,000	5,000	68,995	3,400	80,330	80,460
45-54	90,000	5,000	125,000	3,400	85,250	86,550
55-64	90,000	5,000	65,000	2,550	88,650	92,100
65-74	94,397	5,000	99,040	2,330	95,356	95,900
75 or more	93,229	4,381	145,634	2,180	93,089	93,313
<i>Family structure</i>						
Single person w. children	90,000	4,000	100,000	2,380	46,200	48,201
Single person younger thn 55 (no children)	85,000	4,000	125,000	2,900	52,800	55,260
Single older thn 55 (no children)	90,000	4,000	99,040	1,900	81,700	82,879
Couple (with children)	98,909	5,000	68,995	3,600	87,500	88,563
Couple (no children)	100,000	6,000	120,000	3,500	101,950	102,854
<i>Education of Head</i>						
Less than High School	76,921	3,000	63,755	1,925	68,131	68,531
High School	90,000	4,357	100,000	2,884	81,230	82,089
Some College	104,120	6,000	99,040	3,890	103,100	103,960
College or more	130,000	9,000	150,000	4,600	129,600	133,303
<i>Working Status of Head</i>						
Working for someone else	100,000	5,500	86,319	3,700	87,000	89,632
Self-Employed	110,000	5,000	130,000	5,100	105,140	101,793
Retired	100,000	5,000	130,000	2,587	101,160	102,100
Other not working	80,000	3,000	55,000	2,050	62,633	62,799
<i>Housing Status</i>						
Owner	90,831	5,000	100,000	3,050	103,297	104,263
Renter or other	---	4,000	---	2,200	4,400	4,750
<i>Percentile of net worth</i>						
Less than 20	110,000	5,000	190,250	1,925	10,700	11,239
20 - 39.9	40,000	4,500	3,100	3,100	9,900	10,970
40 - 59.9	60,541	3,500	120,000	2,400	68,187	70,340
60 - 74.9	90,000	4,000	47,494	2,500	95,300	96,297
75 - 89.9	110,000	6,000	55,000	3,600	127,637	133,030
90 - 100	200,000	9,000	125,000	4,850	221,700	233,636

Values in 2007 US dollars

* No observations

Note: Other nonfinancial refers to computers, furniture, animals, and appliances.

Residential Property

Table 12 reports the current value of the household as a percentage of the value of all assets for percentiles of the income distribution. Across all households, residential values constitute 85.22 percent of the value of all assets. For the lowest income quintiles the residence is close to 88 percent of the value of all assets. As income quintiles shift upward this percentage slowly approximates the percent for the population as a whole. Only for the highest income decile is the residence only 75 percent of the value of all assets. This reflects a greater degree of asset diversification at the very top of the income distribution.

Table 12 also reports the share comprised by capital gains as percent of the current value of the primary residence. Unrealized capital gains were constructed based on information provided by respondents on the original price of purchase and on their corresponding assessment of the current price of the property. These questions were not asked for any other asset. Therefore, unrealized capital gains in the survey refer to the appreciation in value of residential properties, based on estimated changes in the nominal price of the main residence. This measure is an approximation to net shifts in capital-value appreciation for the main residence. While this is not the typical way of measuring capital gains, it highlights the wealth gains (or losses) in the most important household asset. The difference in capital gains due the appreciation of the value of residential properties hovers near 37 percent but this varies substantially across the income distribution and becomes comparatively more important with rising income.

TABLE 12: RESIDENCE VALUE AS PERCENTAGE OF ALL ASSETS OF GROUP; P.R. 2007 (IMPUTED)

Percentile of income	Shares	
	Residence current val. as share of total assets	Unreal. Cap. Gains as pct. of residence current value
Less than 20	89.0	36.0
20 - 39.9	88.6	27.9
40 - 59.9	85.2	28.93
60 - 79.9	84.1	44.6
80 - 89.9	80.6	52.4
90 - 100	75.2	46.7
Total	85.2	37.0

Note: Unrealized capital gains were constructed strictly for residential properties. PRSCF did not provide information for other assets on which households might have capital gains. For a broader definition and additional items that could have been included in the construction of capital gains see: Federal Reserve Bank of New York "Changes in U.S. Family Finances from 2004 to 2007 Evidence from the Survey of Consumer Finances" pp A-36:A-37. Available from: <http://www.federalreserve.gov/pubs/bulletin/2009/pdf/scf09.pdf>

Miscellaneous Non-financial Assets

Table 13 reports the extent of ownership of various non-residential, non-financial assets. It provides a sense of what households actually own. Appliances and furniture are owned respectively by 99.7 and 98.3 percent of all households. A surprisingly high 7.1 percent of households reported owning non-pet animals. Direct computer ownership was reported by approximately 35 percent of households.²³ This is low compared to household computer ownership rates in industrialized countries. In the UK, for example, the Office of National Statistics reported that close to 80 percent of households reported owning a home computer. For the United States, data from the Bureau of Labor Statistics, Consumer and Expenditure Survey shows computer ownership by households to be close to 76 percent in 2008.²⁴

TABLE 13: HOLDINGS OF OTHER NON-FINANCIAL ASSETS BY TYPE OF OTHER NONFINANCIAL ASSETS FOR ALL FAMILIES (PERCENTAGE) P.R. 2007

	Percent
Household Appliances	99.7
Computers	34.7
Furniture	98.3
Animals (exc. Pets)	7.1
Other nonfinancial	5.9
Total	100.0

No Imputation was needed

²³For data on computer ownership see: <http://www.ons.gov.uk/ons/rel/family-spending/family-spending/family-spending-2011-edition/sum-consumer-durables-nugget.html>. Ireland had a rate lagging that of the UK, but with a steep increase since 2007. The Central Statistics Office reported a 16-point increase between 2007 and 2011, from 65 to 81 percent.

²⁴(http://www.bls.gov/opub/focus/volume1_number4/cex_1_4.htm.)

Capital Gains

Table 14 reports two ratios. The first column reports the ratio of capital gains to all assets at their current value (but excluding capital gains from the denominator). Thus it provides a sense of how much of the current value of all assets is due to the appreciation in price of such assets. Since capital gains could only be estimated for residential property, table 14 also reports the ratio of capital gains to the current value of real estate assets. In general, both reflect a consistent story in which capital gains approximate 35 to 38 percent of the current value of all assets. When examining the relative importance of capital gains in the value of residential property across age, we can discern a tendency for younger and single adults to have a smaller share of their total assets coming from capital appreciation. A similar pattern is evident when examining change in the share of capital gains relative to the value of all real estate assets. For those younger than 35 years of age the former ratio is 19.2 percent, and the latter one is 25.6 percent. Among older adults the ratios are correspondingly 38.6 and 42. For older households at the top of the income distribution, with higher levels of education, where the head is retired or self-employed the share of all assets and of residential assets comprised by capital gains (as defined above) constitutes a greater share of assets than for other households. Although not as distinct, a similar increase is observed when moving up the distribution of net worth.

TABLE 14: FAMILY HOLDINGS OF UNREALIZED CAPITAL GAINS FOR SELECTED ASSETS. (REAL ESTATE AND ALL ASSETS) , P.R. 2007 (IMPUTED)

	As share of Total Assets (exc. Unrealized Cap Gains)	As share of Real Estate Assets
Total	33.0	38.3
<i>Percentile of income</i>		
Less than 20	32.1	35.1
20 - 39.9	24.8	27.4
40 - 59.9	24.7	28.1
60 - 79.9	37.5	43.6
80 - 89.9	42.2	50.5
90 - 100	35.1	43.5
<i>Age Group of Head (years)</i>		
Less than 35	19.2	25.6
35-44	27.7	32.6
45-54	30.2	35.7
55-64	38.1	43.8
65-74	35.3	39.8
75 or more	38.6	42.0
<i>Family structure</i>		
Single person w. children	26.0	29.9
Single person younger thn 55 (no children)	31.3	36.8
Single older thn 55 (no children)	37.7	41.4
Couple (with children)	26.8	32.3
Couple (no children)	35.8	42.0
<i>Education of Head</i>		
Less than High School	20.4	22.6
High School	32.8	38.1
Some College	37.8	44.9
College or more	44.5	53.0
<i>Working Status of Head</i>		
Working for someone else	29.5	35.7
Self-Employed	40.2	51.1
Retired	41.4	46.6
Other not working	23.9	26.5
<i>Housing Status</i>		
Owner	33.8	38.3
Renter or other	*	*
<i>Percentile of net worth</i>		
Less than 20	25.8	30.2
20 - 39.9	6.8	11.1
40 - 59.9	20.3	23.1
60 - 74.9	32.0	35.7
75 - 89.9	32.5	37.4
90 - 100	47.7	54.0

Note: Unrealized Capital Gains were computed based on value of real estate assets.

* No observations

Liabilities

Table 15 summarizes the value of all household debt for all families holding such debt and details the relative weight of the value of debt held across all families by purpose of debt. Respondents were asked to report their monthly payment including principal, insurance, and interest on up to four non-commercial properties, including the main residence. The estimate of total debt was based on this information and on the number of months and years remaining for the full payment of mortgage debt. This is the basis for the percentages reported on table 15. Approximately 62.7 percent of all households reported having any debt. When segmented by type of debt, 68 percent of the value of outstanding debt was incurred with the purpose of buying or re-financing the primary residence.²⁵ This value is low relative to the share of household debt secured by the primary residence in the United States, which was 74.7 percent in 2007.²⁶ The remaining non-commercial properties comprised 4.9 percent of the value of all household debt in Puerto Rico. Questions as formulated in the PRSCF questionnaire do not allow further specification on whether such debt was incurred with the aim of purchasing second homes for recreational use (such as summer or beach houses or apartments) or as residential property that had been purchased with the intent of deriving a rent. Respondents were only asked to specify which property was the main residence. As such debt for residential property not including the main residence is subsumed under the rubric “other residential” loans, but the purpose of such debt may be commercial in the sense of an investment of the household to generate rent income. Debt on credit-cards refers to outstanding debt unpaid, and comprised about 1.6 percent of all debt across households. Debt for vehicles and educational loans together constituted 4.4 percent of all debt. Other debt refers to miscellaneous personal loans, loans for debt consolidation, construction, and store accounts. These miscellaneous debts comprised about 21 percent of all debt value. Sixty-three percent of the value of such debts was concentrated in personal loans (analysis not reported in tables).

TABLE 15: AMOUNT OF DEBT OF ALL FAMILIES, DISTRIBUTED BY PURPOSE OF DEBT, PR 2007 (FOR ALL FAMILIES HOLDING DEBT) (IMPUTED)

<i>Families Holding Debt</i>	62.7
Main Residence	68.2
Other residential debt	4.9
Vehicles	4.3
Education	0.1
Credit cards	1.6
Instalment debt	0.2
Other Debt	20.6
Total	100.0

Note: The percentages refer to the value of such debt with respect to all debt

Instalment debt refers to lay away plans.

Other debt: Misc. personal loans, loans for debt consolidation, loans for construction, and store accounts.

²⁵ In contrast for the United States, in 2007, 69.5 percent of all household debt was obtained for purchase of the main residence (Bucks, et al., 2009: A48).

²⁶ Bucks, et al., 2009: A37.

Leverage Ratios

The leverage ratio refers to the ratio of total debt to total assets for households. Table 16 reports leverage ratios across socio-demographic attributes of households. In the first column the leverage ratio is computed using all households regardless of whether households reported having debt or not. This column provides a general sense of overall indebtedness and it is reported as a benchmark useful to the reader when analyzing leverage for households holding debt. Across all households, total debt amounted to 40 percent of all household assets. The second column details leverage ratios for the sub-set of households holding debt. Although by construction debt ratios in the second are higher than in the first column, trends in the data across socio-demographic characteristics are similar in both columns.

Households holding debt had a leverage ratio of 52.33 percent in the aggregate. Across socio-demographic characteristics, leverage ratios increase, albeit not consistently, with income but decline consistently with rising age and net-worth. Among households with low income the leverage ratio was 33 percent, higher than for the second income quintile with 29.7 percent. One possible interpretation of this non-monotonic array is that the lowest income quintile hides low income, high net worth households that can leverage their assets. Along with these households in the lowest quintile are found other households with low levels of income and also low net worth that should show lower leverage ratios closer to those of the second income quintile. From the second income quintile to the top income decile leverage increases consistently from the aforementioned 29 percent to 70.4 percent. While in general households with more income tend to have higher debt ratios, some degree of under-reporting asset values

TABLE 16: LEVERAGE RATIO OF GROUP BY SELECTED FAMILY CHARACTERISTICS, P.R. 2007 (IMPUTED)

	All Families	Families Holding Debt
Total	40.0	52.3
<i>Percentile of Income</i>		
Less than 20	15.7	33.1
20 - 39.9	17.8	29.7
40 - 59.9	25.3	34.5
60 - 79.9	44.8	54.1
80 - 89.9	59.7	67.8
90 - 100	67.2	70.4
<i>Age Group of Head (years)</i>		
Less than 35	81	102
35-44	79	94
45-54	48	57
55-64	29	37
65-74	20	27
75 or more	12	21
<i>Family structure</i>		
Single person w. children	42.2	54.9
Single person younger thn 55 (no children)	55.7	75.0
Single older thn 55 (no children)	14.7	22.3
Couple (with children)	67.5	77.0
Couple (no children)	37.1	47.8
<i>Education of Head</i>		
Less than High School	19.0	32.1
High School	37.8	48.3
Some College	59.5	67.4
College or more	49.6	59.1
<i>Working Status of Head</i>		
Working for someone else	63.6	72.2
Self-Employed	77.4	90.4
Retired	19.6	27.3
Other not working	23.4	37.9
<i>Housing Status</i>		
Owner	39.7	51.8
Renter or other	54.4	79.9
<i>Percentile of net worth</i>		
Less than 20	170.0	171.0
20 - 39.9	67.9	83.9
40 - 59.9	30.4	43.4
60 - 74.9	16.1	24.4
75 - 89.9	14.1	18.7
90 - 100	10.9	14.7

Leverage ratio: Sum of debt of families over sum of value of assets.

Measure of solvency.

Percentages larger than 100, imply over 100 percent of debt value over value of assets.

plausibly impacts the distribution of leverage ratios across the income distribution. However, such under-reporting is positively correlated with income and with the value of assets. As such, it is more likely that ratios for high-income households are lower than those reported in table 16.

The distribution of the leverage ratio across groups of households with progressively higher levels of net worth also suggests similar anomalies as those suspected to affect the relationship between leverage and income. For example, among household in the lowest quintile of net worth, the leverage ratio is 171 percent. In essence, for every dollar in assets this group of households has 1.7 dollars in debt outstanding.²⁷ The estimates for household leverage ratios in Puerto Rico suggest that the difference between households with debt and those without becomes increasingly marginal (non-distinct) with increasing percentiles of income, and with increasing shares of net worth. This being said, the leverage ratio of all families in Puerto Rico—40 percent—was 2.68 times higher than that of all families in the U.S. mainland.²⁸

Leverage ratios decline as the head of the household becomes older, starting as high as 102 percent for households where the head is younger than 35, but declining to 21 percent for elderly households. Among different family structures—again, referring to those families holding debt, couples with kids have the highest leverage ratio at 76.9 percent. The extent of leverage across educational groups reflects the capacity of those households where the head is more educated to take on more debt per dollar of assets.

The distribution of leverage ratios across the education of the head of the household is increasing but only up to those holding an incomplete college education. Across education levels those with some college education tend to be more leveraged than those with a completed college education with ratios of 67.38 and 59.07 respectively. Among all households, leverage ratios also varied considerably by work status with the self-employed and employees having leverage ratios of 77.4 and 63.5 percent respectively, but those retired with ratios at 23.4 percent. As with other dimensions of financial situation, differences across the home ownership-renter divide are quite marked.

Leverage ratios in Puerto Rico are much higher than in the United States. Whereas in Puerto Rico the leverage ratio of all families was 40 percent, in the United States it was 14% (Bucks et al., 2009: A-38). However, across demographic attributes and income the leverage ratio has similar patterns: non-monotonic rise with income, and declines with age. The one exception seems to be educational attainment of the head of the household. In Puerto Rico this is positively associated to higher leverage ratios. In the United States leverage ratios decline with education.²⁹

²⁷ It is important to keep in mind in this instance that the adjustment to debt values in the PRSCF is conservative in the sense that imputation strategies were less effective in generating imputation models of comparable explanatory power to those used in the generation of imputed asset values. As such, the leverage ratio of households reflects a conservative estimate of financial balance sheets of households.

²⁸ Bucks et al., 2009: A37.

²⁹ Bucks et al., 2009: Table 12, A38.

Family Holdings of Debt by socio-demographic Characteristics

Table 17-A reports the percentage of households holding specific types of debt by socio-demographic characteristics. In the aggregate families with any type of debt in Puerto Rico constituted 62.7 percent of all households, a percentage considerably lower than in the United States where in 2007 the comparable figure was 76.4 percent.³⁰ Median values by type of debt and socio-economic and demographic characteristics are specified in table 17-B (discussed below).

The top row on table 17-A summarizes the most commonly held debt across all households. Across all types of debt, credit card and real estate debt were most diffusely held at approximately 23 percent of all households for each type of debt. Miscellaneous debts not specifiable under any clear-cut rubric were the most commonly held at 47.8 percent of all households.³¹

The last column in table 17-A reports the percentage of households with any type of debt across socio-demographic and economic characteristics. Borrowing among the poorest households was the least common as only 35 percent of all such households reported any debt. The percent of households with debt increases substantially and peaks at 90 percent for the top income decile. The lowest percentage of indebted households is found among those who are poor, single older than 55 without children and with low levels of education. Couples with children, where the head of the household is between 45 and 54 years of age with at least a college education, tend to be the group with the highest percentage of households with debt, a pattern that seems to hold true across types of debt.

In terms of the distribution of net worth, debt ownership is most common among the highest 25 percent and for the lowest net worth quintile for which 70.86 percent of households reported having any debt. Across the distribution of net worth, a similar pattern can be observed for real estate debt and for vehicles.

The diffusion of debt by type of debt and characteristics of the household

The generality of mortgage-based debt is consistent with the patterns of diffusion of any debt by household characteristics reported in the last column of table 17-A. Consistent with life cycle patterns mortgage debt is most common for households where the head is between 35 and 54 years of age and where the couple have children, and least common for those older than 55 without children. Among the former age groups the percentage of families with residential or mortgage-based debt was about 30 percent, but for those above 55 the rate drops below 21 percent, and for elderly households the percent of families with such type of debt was 12.1 percent.

Mortgage-based debt is most common among those employed with at least a college degree and with high levels of income. Among employees mortgage-based debt was prevalent among 32 percent of households, but as low as 18.2 percent among retired heads of household. Among those with a college education such debt was held by 39.7 percent of households, but only by 9 percent of those households where the head had less than a high school education. Sixty percent of families in the top income decile had mortgage-based debt, but only 8.8 percent of the poorest income quintile households had such debt.

³⁰ Bucks et al., 2009: A38.

³¹ In this instance "other" loans refers to miscellaneous personal loans, loans for debt consolidation, loans for construction, and store accounts.

Far more common, than residential-based debt are credit card debt and the miscellaneous category “other loans”, intended to subsume a wide range of personal and household loans, whether for debt consolidation, personal consumption, or home equity borrowing. For example, among families with children, ownership in this miscellaneous category rises to 56.8 percent, among employees it is 58.8 percent, and among household owners it is 51.8 percent. Credit card debt is also widely held but not to the same extent as miscellaneous debt. In the top income decile credit card debt was held by 47.52 percent of families and “other” loans were held by 69 percent of families. Except at the very top and bottom of the age distribution 24 and 28 percent of families hold credit card debt in each age sub-group. Credit card debt was held by 47.4 percent of those households where the head had at least a college education, about 15 points above those with some college, the educational group with the second most widely shared level of credit card debt.

Credit card debt is not a reflection of credit card ownership. As in the United States where 73 percent of families had credit cards but only 60 percent of such families reported having outstanding balances,³² in Puerto Rico many holders of credit cards do not carry debt outstanding in their cards. Approximately 23 percent of all families in Puerto Rico reported having any credit card outstanding balance. This was about 82 percent of all credit card holders. However, households with credit cards were about 28 percent of all households (table not reported).³³

Installment borrowing in the case of the PRSCF refers to debt incurred for lay-away plans and for various sorts of fixed-term store credits. No attempt was made to construct a more comprehensive measure of what might be termed installment debt.³⁴ This type of debt seems more widely owned as income rises but declines at the very top of the income distribution. It also seems held by approximately equal shares of households across the age distribution. Educational groups are not far apart in the extent to which they hold installment debt. For instance, only 6.9 percent of those households where the head has less than high school owned installment debt, not too far from the 8.9 percent of households where the head had a college education reporting such type of debt. Installment debt is most common among the self-employed in the top 25 percent of the distribution of net worth. However installment borrowing is owned by less than 10 percent of households across the entire net-worth distribution, and is also in the single digit ownership rates across types of households.

Median Values of Debt by Type of Debt

Table 17-B reports median values of debt by type of debt and socio-demographic characteristics for all families with debt. As in previous tables reporting median values, the right-most column reports medians for any debt held across all debt types for households that share a given common characteristic. In the aggregate, the median value across all households with any outstanding debt in 2007 was 18,500 dollars. The top-most row reports median values for all household by type of debt for all households with such debt. The highest median values are found in debt incurred for the purchase of other non-commercial residential properties different from the main residence. Among those holding this type of debt, the median value was 226,896 dollars. Although not explicitly reported in table 17-A, the percentage of families with this type of debt was less than 1 percent of all households.

³² Bucks et al., 2009: A46.

³³ No questions were asked specifically on the type of credit cards held.

³⁴ For a broader measure of installment debt (Bucks et al., 2009: AA-45, footnote 49).

The second highest median value is in debt incurred for the purchase of the primary residence at 102,600 dollars. Mortgage debt against the main residence was held by 22.3 percent of all households. By socio-demographic characteristics, median values for primary residential debt rise with income and with education, and is highest at 212,160 dollars for households where the head reported being self-employed. Median debt values tend to decline with age, going from 144,768 for households where the head indicated being younger than 35 and as low as 35,712 for those older than 75 years of age. The dispersion of median values across the distribution of net worth sheds light on previous results on low net worth households. The lowest quintile of net worth reflects almost double the median debt value for the primary residence as those in the highest net worth decile (163.4k to 84k).

Among non-real-estate debt, the highest median value was generally in vehicle loans.³⁵ Vehicle-related debt rises with income and education, but declines with age. However, the dispersion of median values is much narrower than when examining mortgage debt. For instance, the median value in households where the head reported a college education is 19,000 dollars in total vehicle-related debt. This is 1.35 times greater than households where the head reported less than a high school degree. College-educated households had double the median mortgage debt of the least educated households. Interestingly the highest median values in vehicle-related debt were for single households younger than 55 years of age without children. This group had the same median value of 18,000 dollars as couples without children.

Table 17-B reports education-related debt separately from other fixed-term installment loans because of the importance of educational attainment in Puerto Rico (Rivera-Batiz, 2006). The median value of education-related debt was 4,000 dollars across all households. This type of debt tends to rise with income, and declines with age. However, the median value for those in the lowest income quintile is 1,000 dollars below that of the highest income decile. Furthermore, it seems constant across the educational distribution excepting the case of those households with some college education, group with a median debt value of 7000 dollars, or approximately 1.75 times that of those college-educated households.

Outstanding credit card balances are highest for those groups with the most disposable income: households in the highest income category, couples without children, and the self-employed. College-educated households tend to have slightly lower median credit card outstanding values than those with only some college education.

As in table 17-A “other” loans refer to a miscellaneous category that subsumes home improvement loans, debt consolidation loans, personal lines of credit, store account debt, and construction-related debt for residential purposes. Given its heterogeneous nature it results in a widely held set of loan types, and also in the second highest median debt value across households in all non-residential debt. Although at lower median values, median value patterns across demographic and socio-economic characteristics resemble patterns across households with any type of debt. These loan values rise with the income and education of the head of the household, but decline with age and with rising net worth. Couples tend to have higher levels of miscellaneous debt than single persons excepting single person with children.

³⁵ In this instance vehicles refer to cars and boats, although car loans are by far the most common.

TABLE 17-A: FAMILY HOLDINGS OF DEBT BY SELECTED CHARACTERISTICS OF FAMILY, AND TYPE OF DEBT (PERCENTAGE OF FAMILIES HOLDING DEBT); P.R. 2007 (IMPUTED)

	All properties (primary residence and other)	Vehicles	Education	Credit card	Installment ¹	Other loans	Any Debt
Total	22.6	9.4	0.7	23.1	7.0	47.8	62.7
<i>Percentile of income</i>							
Less than 20	8.8	3.1	0.5	8.4	3.5	25.3	34.8
20 - 39.9	9.4	6.2	0.2	12.5	6.6	36.9	49.8
40 - 59.9	14.0	8.0	0.5	21.7	6.6	50.2	64.4
60 - 79.9	28.0	10.1	1.2	27.7	7.7	59.3	75.2
80 - 89.9	44.8	20.9	0.6	42.6	13.1	65.5	88.6
90 - 100	60.6	18.1	1.6	47.5	8.4	69.1	90.0
<i>Age Group of Head (years)</i>							
Less than 35	18.5	15.2	1.7	15.5	6.9	49.6	60.8
35-44	31.0	7.4	1.2	25.8	7.5	50.3	66.5
45-54	31.5	13.3	0.3	28.3	6.6	52.5	68.2
55-64	22.0	7.6	0.7	23.5	6.7	47.0	62.4
65-74	15.0	7.2	*	24.7	7.2	49.1	62.5
75 or more	12.1	5.4	0.3	15.7	7.5	33.9	50.9
<i>Family structure</i>							
Single person w. children	19.8	8.9	1.7	16.0	6.0	41.8	55.6
Single person younger thn 55 (no children)	20.8	17.8	1.9	20.7	2.5	46.3	57.3
Single older thn 55 (no children)	11.6	4.2	0.2	17.3	6.0	38.2	51.0
Couple (with children)	32.1	8.6	0.6	25.3	8.6	56.9	72.5
Couple (no children)	26.7	11.0	0.2	30.6	9.1	52.4	70.6
<i>Education of Head</i>							
Less than High School	9.4	5.5	0.1	11.0	6.9	36.8	48.5
High School	22.9	9.2	0.3	20.4	6.5	50.7	62.8
Some College	35.0	11.9	0.8	32.6	6.7	58.3	75.7
College or more	39.7	16.4	2.7	47.4	8.9	56.5	82.3
<i>Working Status of Head</i>							
Working for someone else	32.5	14.0	1.2	30.2	7.9	58.8	75.3
Self-Employed	28.9	10.9	*	33.5	13.4	48.5	66.8
Retired	18.2	6.8	*	25.9	6.4	48.2	64.8
Other not working	13.4	5.7	0.6	10.9	5.9	33.9	45.0
<i>Housing Status</i>							
Owner	30.4	9.7	0.6	26.2	7.5	51.9	69.1
Renter or other	*	8.6	1.0	14.1	5.6	36.1	44.3
<i>Percentile of net worth</i>							
0-19.9	46.7	11.9	1.0	23.7	6.5	53.0	70.9
20 - 39.9	11.3	8.1	0.3	17.0	6.1	39.5	49.5
40 - 59.9	19.7	5.3	1.2	20.3	6.3	46.8	60.4
60 - 74.9	17.5	8.8	0.6	19.9	8.9	43.9	60.0
75 - 89.9	16.7	12.1	0.3	32.7	7.5	56.8	71.7
90 - 100	19.4	12.0	0.5	29.9	7.9	48.2	67.9

* No observations

1 Financed Retail Purchases refers to lay-aways plans or any other financed purchase excluding credit cards.

2 Other Loans refers to any loan excluding mortgages, credit cards, and financed retail purchases.

TABLE 17-B: FAMILY HOLDINGS OF DEBT BY SELECTED CHARACTERISTICS OF FAMILY, AND TYPE OF DEBT (MEDIAN VALUE OF DEBT FOR FAMILIES HOLDING DEBT); P.R. 2007 (IMPUTED)

	Primary Residence	Other Properties	Vehicles	Education	Credit Card	Other loans	Any Debt
Total	102,600	226,896	17,000	4,000	1,000	8,000	18,500
<i>Percentile of income</i>							
Less than 20	85,680	*	14,000	7,000	500	3,000	6,896
20 - 39.9	44,856	*	12,838	2,345	800	5,000	7,200
40 - 59.9	70,992	182,400	13,000	4,000	800	7,300	12,000
60 - 79.9	95,040	348,000	17,000	3,500	1,000	9,000	23,400
80 - 89.9	133,584	226,896	26,000	2,500	1,500	13,000	55,000
90 - 100	132,000	360,000	20,000	8,000	1,800	14,000	107,000
<i>Age Group of Head (years)</i>							
Less than 35	144,768	*	16,000	10,000	1,100	9,000	18,600
35-44	149,184	369,504	20,000	8,000	1,000	8,500	37,444
45-54	101,916	187,500	17,500	2,000	1,100	10,000	31,165
55-64	60,000	226,896	15,000	4,000	1,800	8,500	17,540
65-74	68,880	360,000	14,000	*	650	6,000	10,500
75 or more	35,712	118,248	17,000	3,000	525	8,000	9,000
<i>Family structure</i>							
Single person w. children	108,192	73,440	16,000	3,500	1,000	5,835	17,000
Single person younger thn 55 (no children)	127,980	187,500	18,000	2,500	800	8,000	24,608
Single older thn 55 (no children)	59,400	182,400	14,000	7,000	800	7,000	9,000
Couple (with children)	123,228	360,000	15,000	4,000	1,000	9,000	27,000
Couple (no children)	92,400	348,000	18,000	3,000	1,300	9,500	21,000
<i>Education of Head</i>							
Less than High School	66,768	73,440	14,000	3,000	700	5,000	7,560
High School	83,460	182,400	16,000	3,500	1,000	9,000	19,200
Some College	124,800	187,500	17,000	7,000	1,200	10,000	32,000
College or more	132,000	226,896	19,000	4,000	1,000	11,500	45,000
<i>Working Status of Head</i>							
Working for someone else	132,000	360,000	17,000	4,000	1,100	10,000	32,000
Self-Employed	212,160	187,500	20,000	*	1,547	20,000	48,000
Retired	54,756	226,896	18,000	*	950	8,000	12,000
Other not working	69,840	39,000	14,000	7,000	800	5,400	10,000
<i>Housing Status</i>							
Owner	102,600	226,896	18,000	3,500	1,000	9,000	26,660
Renter or other	*	*	15,000	4,000	800	5,000	5,400
<i>Percentile of net worth</i>							
Less than 20	163,440	360,000	20,000	8,000	1,500	11,000	139,912
20 - 39.9	88,200	*	16,000	2,500	800	6,000	10,000
40 - 59.9	59,436	205,740	15,000	10,000	1,000	9,000	18,700
60 - 74.9	28,800	226,896	17,000	3,000	1,200	6,000	11,000
75 - 89.9	32,400	39,000	18,000	4,000	1,000	8,000	12,552
90 - 100	84,000	118,248	18,000	3,500	1,000	8,800	12,200

* No observations

1 Financed Retail Purchases refers to lay-aways plans or any other financed purchase excluding credit cards.

2 Other Loans refers to: lay-away plans, home improvement loans, and miscellaneous other debt including debt taken for investment purposes, home equity loans, construction loans, and loans borrowed to consolidate outstanding debt.

Conclusion

The financial condition of households in Puerto Rico in 2007-2008 makes evident the central importance of home ownership as central feature of asset-building in Puerto Rico over the course of the last fifty or sixty years. Additionally, a picture begins to emerge of what might be called an asset-holding regime, where regime refers to a highly structured configuration of diversity in types of assets and to highly patterned arrays of relationships between economic and social characteristics and the value of such assets. However, further research would be needed into the specificity of this regime and into the causal mechanisms that generate it. A variety of questions emerge from this report that we simply highlight in this conclusion: First, the mysterious role of high income low net worth households, who are they, are the conditions of these households reflective of the timing of the survey or is it the case that over time a constant proportion of households fall into this situation. Second, a variety of myths seem called into question by the findings. Among these the role played by welfare transfers in income support in Puerto Rico should be reassessed given what seems like a supplementary role that operates in combination with other income sources including labor market earnings. Additionally, the role of residential investment in Puerto Rico seems limited as a source of wealth enhancement for households. It is worth investigating what importance does such additional non-residential (non-commercial) property actually play among other determinants of wealth acquisition in Puerto Rico. Finally, the relationship between indebtedness and education seems unusual relative to the United States. It is worth exploring more in depth if this positive correlation is unique to Puerto Rico or more general to middle income countries and why does it emerge. We leave these and many other questions to future researchers that endeavor to exploit successfully the first survey of consumer finances in Puerto Rico.

Methodological Appendix

PRSCF Sampling Design and Strategy

The Puerto Rico Survey of Consumer Finances was carried out between December 2007 and April 2008. A sample of 2,400 households was selected by stratified, multistage cluster sampling, where clusters had an unequal probability of selection (Lohr, 1999: 179-181). The sampling design comprised a three-stage selection process. After segmentation of Puerto Rico into 6 geographic sampling strata, the number of interviews in each was determined by each area's population in the 2000 census.³⁶ Within each region or strata, census block-groups were used as the primary sampling unit (psu). The probability of selection of block-groups was proportional to the count of owner and renter-occupied households in the 1990 census in block groups within each of the six geographic regions. The pre-fixed number of interviews in each region generates a constant skip step across block-groups. The selection of blocks within block-groups constituted the second stage in the sampling design and was carried out with equal probability. The survey firm used its own block segmentation of block groups. Thus, the number of survey-firm blocks constitutes the basis for the calculation the second stage probability.

Finally, the selection of five households within each block was carried out using quota selection within blocks. In practice this implies that the selection of households at the block level takes as its population basis the number of households at the time the survey was carried out, that is approximately, the number of households within blocks in 2007. Although the survey firm did attempt to re-contact in instances where there were no initial first contacts, the survey firm did not collect information on refusals or any such other information that might allow adjustments for biases induced by rates of non-response. Furthermore, there were no counts of the total number of households in a given block thereby preventing the direct estimation of household selection probabilities at the block level.

Sources of Bias

When surveying a population a key precondition for obtaining interpretable results is carrying out a correct sampling process by which to obtain the units or observations to be surveyed. The ultimate aim is to infer population parameters from the values observed in a sample drawn from the population as a whole. Whether the observed value or summary statistic represents the underlying population parameter depends on satisfying certain conditions in the process of the selection of the sample.

All observations have to have a measureable chance of selection, and the chance across observations cannot be correlated. That is, selecting one sample should not affect positively or negatively the probability of selecting any other set of observations.

In practice, sample selection can induce, whether intentionally (via the very design of the sample) or unintentionally (via issues that emerge in the execution of the selection of the sample), violations of the aforementioned conditions. The chance of each observation being selected might not be equal, and the observations, and/or set of observations might have correlated chances of selection. If either or both of these situations emerge then, the sample values (mean, median, mode, standard deviation and variance, etc.) might not reflect the underlying population values, instead reflecting bias.

³⁶ The closest population counts available at the block level for Puerto Rico in 2007 when the survey was carried out are those found in the 2000 census, Summary File 1

The original intent of the sampling design of the PRSCF was to generate a self-correcting sample—where the more likely chance of falling in the sample due to residing in a high density area would be canceled by the less likely chance of being selected at the block level where the chance of selection was based on simple random sampling.³⁷ A self-correcting sample implies that from the standpoint of sampling probabilities, there would not be any bias induced by asymmetric chances of falling in the sample based on geography. In other words, a self-correcting sampling design implies an equal chance of selection for all potential households that could be in the sample.

In carrying out the sample selection for the PRSCF, various practices of the survey firm did not generate a self-correcting sample. This implied that without proper adjustments the resulting estimates of population parameters have bias. The simultaneous combination of one set of population baselines in the definition of strata with a different one for the estimation of population totals at the block group and block level induce asymmetric chances of household selection (Lohr, 1999: 135-159). One possible issue affecting the selection of sampling points is a possible change in their size over time. An increase (decrease) in the size of a block-group would alter the rank-order of all block-groups. That is, while in 1990 the probability of selection of block group A was p , now it is $p-z$ (a probability smaller than p), but conversely the probability of block B was $p-z$ in 1990, but in 2000 it was p . The non-correcting nature of the sample would still hold even though the household selection probability (at the census block level) would adjust for the underestimation of region-specific proportions based on 2000 household values. In practice the selection of households at the block level induces bias and standard errors that are incorrect.

Additionally, in the selection of households within blocks, the survey firm introduced a number of practices that violate the assumption of randomness in the selection of households at the block level. First, the entry point into the block is not selected randomly, it is supposed to be selected systematically (the southwest corner of each block) but this procedure was not always followed. For example, in the selection of households in rural sampling points, the interviewer would select those houses closest to the road. This probably introduces some non-measurable bias since households close to the road are likely to be more prosperous. Second, there was no overall count of households within a block that would allow a determination of the correct skip step in the selection of 5 households per block.

Finally, the procedure for the replacement of households assumes that the replaced household and the unavailable household (or the household that refused to participate) are interchangeable. To the extent that this is incorrect then the replacement procedure violated the assumption of randomness and introduced into the sample households whose characteristics are possibly distinct from those of the unavailable household. To the extent that the unavailable and the replaced household differ along unknown dimensions that are correlated to the probability to participate and to the attributes measured in the survey, then the measurements in the survey contain systematic bias in favor of households likely to participate, thus not a true representative sample of the population. More specifically, this practice possibly introduces some degree of bias since unavailable residents are probably systematically correlated with age and with income. Attempts were made to re-contact households, but when that did not work the interviewer proceeded to the next house. Under ideal, and more costly, circumstances information on reasons for refusal, and information on the attributes of refusing and of unavailable households is collected that is then used to estimate a probability of non-response which is then used to adjust the relative importance of observations in the final sample.

³⁷ Since the number of selected households at the block level was constant, more dense areas at the block level imply a smaller chance of selection of households in such areas but a higher chance of selection for households in more sparsely populated blocks.

Post-stratification weights and Raking

To mitigate the potential biases induced in the sampling process, post-stratification weights have to be used to correct for over-sampling of certain types of units (Kalton and Flores, 2003: 82). In the case of the PRSCF these were in general older households, households where residents were most likely to be at home at time of interview. The potential biases induced by the original sampling design, in addition to bias evidenced by regional differences between the PRSCF sample and the 2007 Puerto Rico Community Survey in gender-age population shares led to the need for post-stratification weights.

Post-stratification weights can be thought of as a column of values that contain for each observation a number that reflects the correct level of importance of each observation in the overall sample. Weights for each observation can be considered as the specific “true” number of observations that the observed unit reflects relative to others. Implicitly, when computing an average each observation is presumed to have a value of 1. In the case of the unweighted PRSCF sample the column of weights would add up to 2400: the total size of the sample, but would be unimportant since each weight equals 1. In the case of a weighted sample, a new column of values will also sum to 2400 but for each observation the weights column will provide a number reflecting how many “sample units” it represents. Observations twice as important as their unweighted value will have a weight of 2. Those less important than their unweighted value will all have weights less than 1 but higher than zero.

These weights are intended to correct for any bias induced by sampling design, but could be thought of as the resulting adjustment for two distinct but unknown probabilities that affect survey estimates; the probability of being in the sample induced by the selection of sampled units (a design effect) and the probability of responding to the survey (non-response effect) (Deming, 1943; Lohr, 1999; Kalton and Flores, 2003). When computing estimates of summary statistics, these weights provide a corrective measure that mitigates the biases induced by sampling design, under-reporting (in this case referring to non-response, or refusal to participate), and under-coverage (or over-coverage) of segments of the population.

In producing post-stratification weights for the PRSCF-07, we have simply concerned ourselves with mitigating the potential bias that could have been induced by the design effect and survey non-response. No attempt has been made to adjust for item non-response, an issue that in a survey focused on household financial condition induces under-estimates for high net-worth individuals. There is also no viable way of correcting for a key issue of concern in this kind of survey: under-coverage of wealthy individuals or households.

Geographic stratification of the PRSCF

Columns 1 through G of Table A-1 summarize the information used in the process of selecting geographic sampling points in the sampling design for the PRSCF. Column A reports the six independent regions or geographic strata that form the basis for the sampling design. Column B gives the total population of each region based on census 2000 population totals. Column C reports the percentage of households in each region based on the 1990 census. Columns D and E report the percent and corresponding number of interviews per region out of 2400. Column F reports the number of primary sampling units (PSUs) or sampling points within each stratum. PSUs refer to the number of census block-groups to be drawn within a given strata, which we know prior to the draw. The number of PSUs within a region is given by the share of interviews to be done in a given region divided by 5 (the desired number of households per PSU). These five households selected, times the number of PSUs, give the resulting number of desired households to be interviewed per region reported in column E. Column G reports the number of households that are skipped per strata so as to obtain the desired number per strata. Column H presents the number of total block-groups with occupied households in the region, and column I reports the possible number of samples of size X (reported in column F) that could be drawn out of the total given in column H. This is given by (H/F). However, it is unclear which was the algorithm used in the selection of a given sample.

Table A-1
Puerto Rico Survey of Consumer Finances (Basis for Sampling Design)

A	B	C	D	E	F	G	H	I
Sampling Strata	Population	Estimated Total Households	Total desired interviews (%)	Theoretical Sample of households per strata (rounded)	Sampling Points in Strata	Skip Step	Block Groups w. occupied households	Possible Samples of units (col. F) out of Block Groups (col H.)
San Juan Metro Area	1,220,303	383,345	34	810	162	2,366.7	993	6
San Juan Suburbs	563,197	159,322	14	335	67	2,377.9	279	4
Mayagüez	546,857	167,755	15	355	71	2,362.7	370	5
Ponce	632,622	178,370	16	375	75	2,378.3	444	6
Arecibo	304,190	91,204	8	195	39	2,338.6	211	5
Caguas	530,368	155,477	14	330	66	2,355.7	287	4
Total	3,797,537	1,135,473	100	2400	480	----	2,584	31

Notes:

Skip step: Equal to the number of households that would have to be skipped in each strata to arrive at the desired number of interviews per strata. It arises from dividing the total estimated households by the desired sample (Col. C/Col.E)

Raking

Post-stratification weights are generated through a procedure called *raking*. Raking involves adjusting the marginal distribution of the sample along a given set of dimensions (e.g.: age, race, region, sex, etc.), to match the marginal distribution of a sample, which is presumed to have no systematic errors. In the case of the post-stratification weights generated for the PRSCF, the marginal distributions of the 2007 Puerto Rico Community Survey (PRACS-07) were taken as a correct representation of underlying population distributions.

The raking process is carried out iteratively. Specifically, in a first round the survey sample marginal distribution along a dimension of interest (e.g.: age) is multiplied by a factor that forces the marginal distribution of the sample to equal that of the population. To establish the population standard a pre-existing data set that serves as a benchmark is considered to reflect accurately the proportional distributions in the underlying population. In the case of raking the PRSCF the Puerto Rico Community Survey of 2007 was deemed the ideal population standard for cell adjustments. Once a given dimension is adjusted, a second dimension is adjusted to reflect population proportions (say home ownership). The process is carried iteratively across a pre-specified number of dimensions until all dimensions reflect the same relative distribution as is found in the data set reflecting the population of reference (Kalton and Flores, 2003: 86). This is basically iterative proportional fitting, and the weights should be used to generalize to population level values.

Need for post-stratification corrections

Analyses of census data and data from the PRSCF provided evidence of typical sources of under (over) coverage. Small single-person households, and households headed by young adults, tend to have a smaller proportion in the PRSCF than would be expected given proportions reflected in available census data. Households without any children were also under-covered but only relative to the 2000 census, result potentially due to the association of older households with the absence of children. Households with one under-age person in the household were under-covered relative to either the Puerto Rico Community Survey (2007) or the 2000 Census. Differences between the PRSCF and the Puerto Rico Community Survey tended to be less severe than relative to the 2000 census. However, this might reflect issues in the sampling as well as in the weighting used in the case of the Community Survey-07. Population-level age distributions reflected the same pattern of under-coverage of young persons as found for heads of households. Regional distributions in the PRSCF survey reflected mildly skewed inter and intra-regional population patterns by sex. Regional age distributions for heads of households and for the population as a whole suggested more severe under-coverage for specific sampling regions (Mayagüez and Ponce). Patterns per age group across regions also reflected under-coverage but more so for the relative balance of heads of households in the Ponce region.³⁸

These results led to three considerations in constructing weights. First, no regional adjustments could be carried out due to the sparseness of the data. The weights to be constructed were to be constructed to generate corrected island-level distributions. Thus, the data could not be used to carry out region-specific analyses. Second, the ideal data set to be used in generating post-stratification weights is the 2007 Puerto Rico Community Survey. Finally, in constructing weights, three dimensions would be used, a construct of the person of reference, whether the residence was owned or rented, and the age of the reference person.

³⁸ A more extensive memo documents the preceding analysis: Toro-Tulla, Harold J. 2010. "Unadjusted Distributions in the Puerto Rico Survey of Consumer Finances (PRSCF-07): Comparison to Census Data Sources." San Juan: Center for a New Economy.

Household Weights (Raking dimensions)

Households were first divided into single households, two-adult households, and other. In two-adult the oldest person was identified as the reference person. When both adults were of the same age, the male adult was selected as the reference person. A similar procedure was used for 3-adult households. No consideration was given to differentiation based on number of children. The age of the reference person was then grouped into six categories: "18-29", "30-39", "40-49", "50-59", "60-69", and "70 and over".

Households were then classified by size, into single person households, two-person households, three-person, and sizes larger than three. Ownership was constructed as a dichotomous categorical variable of owners vs. renters. Household were arrayed in a three-dimensional space of 48 (4 x 6 x 2) cells. A finer gradation was also used which segmented age of the reference person into 13 sub-groups and correspondingly arrayed households into 104 (4 x 13 x 2) cells. The raking process based on comparable arrays for census data, converged in 5 iterations.

Individual-Level Weights

In addition to household-level weights, CNE staff generated individual-level weights. Finer gradations of age were used in the creation of individual-level weights since in total the data contains information on 5,672 household members. As with household-level weights, both a coarse version was generated by using a smaller number of age categories for the individuals. Specifically, 8 categories detailed below were used for coarse the coarse age dimension, and 16 age-categories were used for fine-grade individual-level weights. Individuals were then segmented by gender, to in produce coarse-type weights in 16 cells, and fine-type weights in 32 cells. The raking process was also adjusted to generate an equal number of individuals in married households as the number that would emerge in the analysis of household-level data.

Age Categories used in the construction of individual-level weights.

For fine-type weights		For coarse-type weights
1 "0-4"	9 "45-49"	1 "0-9"
2 "5-9"	10 "50-54"	2 "10-17"
3 "10-17"	11 "55-59"	3 "18-29"
4 "18-24"	12 "60-64"	4 "30-39"
5 "25-29"	13 "65-69"	5 "40-49"
6 "30-34"	14 "70-74"	6 "50-59"
7 "35-39"	15 "75-79"	7 "60-69"
8 "40-44"	16 "80 and over"	8 "70 and over"

All data in this report were produced with household-level coarse weight. While data that will be made publicly available will contain fine-type weights, these seem to be far more sensitive to the amount of information across raking dimensions. Thus, researchers are advised to use coarse weights.

Standard Errors and Replicate Weights

One final question is whether the lack of an adjustment for a design weight prior to applying a post-stratification weight induces incorrect standard errors for variables in the survey even if the post-stratification weight adjustments permit generating correct point estimates. To aid researchers in the estimation of measures of confidence, CNE will make available as well algorithm files for replicate weights needed in the computation of adjusted standard errors. CNE has followed as much as possible the procedures used by the census in the construction of replicate weights. The weights are not provided together with the data due to space limitations.

References

- Bover, Olympia: 2008. *The Spanish Survey of Household Finances: Description and Methods of the 2005 Wave*. Madrid: Banco de España.
- Bucks, Brian K., Arthur B. Kennickel, Traci L. March, and Kevin Moore. 2009. "Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances." Washington DC: Federal Reserve Board of Governors.
- Collins, M. Susan, Barry P. Bosworth and Miguel A. Soto-Class: 2006. *The Economy of Puerto Rico: Restoring Growth*. Washington DC: Brookings Press
- Commonwealth of Puerto Rico. 2011. *Comprehensive Annual Financial Report*. San Juan: Puerto Rico Department of the Treasury.
- Deming, W. Edwards. 1943. *Statistical Adjustment of Data*. New York: Wiley and Sons.
- Economic Commission for Latin America and the Caribbean: 2004. *Globalización y Desarrollo: Desafíos de Puerto Rico frente al Siglo XXI*. New York: United Nations.
- Fries, Gerhard, Martha Starr-McCluer and Annika Sundén: 1998. "The Measurement of Household Wealth Using Household Data: An Overview of the Survey of Consumer Finances." Washington DC: Federal Reserve Board of Governors.
- Federal Reserve Bank of New York: 2012. *Report on the Competitiveness of Puerto Rico's Economy*. New York: Federal Reserve Board of Governors.
- Kalton, Graham, and Ismael Flores-Fernandez. 2003. "Weighting Methods." *Journal of Official Statistics* 19 (2): 81-97.
- Lohr, Sharon L. 1999. *Sampling Design and Analysis*. Pacific Grove: Duxbury Press.
- Rivera-Batiz, Francisco. 2006. "Education and Economic Development in Puerto Rico," in Susan M. Collins, Barry Bosworth and Miguel Soto-Class, editors, *The Puerto Rican Economy: Restoring Growth*, Brookings Institution Press, Washington, D.C., 189-238. (With Helen F. Ladd)
- Toro-Tulla, Harold J. 2010. "Unadjusted Distributions in the Puerto Rico Survey of Consumer Finances (PRSCF-07): Comparison to Census Data Sources." San Juan: Center for a New Economy (unpublished).
- U.S. Department of Commerce, Bureau of the Census. 2000. Public Use Microdata Sample: 5% sample; Technical Documentation.

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