Wealth and Demographics:

Demographics by Wealth and Wealth by Demographics using the Survey of Consumer Finances

*** DRAFT March 11, 2013 ***

Jeff Thompson* Economist Microeconomic Surveys Federal Reserve Board 20th & C Street NW, Washington, DC 20551 Jeffrey.p.thompson@frb.gov

* The analysis and conclusions set forth are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors.

1. Introduction

This paper explores wealth and demographics using the Survey of Consumer Finances (SCF). Specifically, the paper compares the net worth of different demographic groups over recent decades, and also traces the changing demographic composition of different portions of the distribution of wealth. The questions answered in the paper include:

- "Who" are the wealthy, and how has their group composition changed over time?
- How does the wealth of different groups compare?
- How has the wealth of different groups changed over time, both over the longterm and relative to the 2008-09 economic downturn?

Most of the findings of this paper are unsurprising. The wealthy are older, more highly educated, and more likely to be married and to be white. Low-wealth families, on the other hand are younger, less well educated, and more likely unmarried and to be non-white. Many of these differences, however, have been relatively constant over time. One category where the wealthy have diverged dramatically from the general population over the last 20 years is in education. High wealth households have increased their education attainment much more dramatically than other groups.

The findings regarding levels and changes in wealth are also by and large noncontroversial. Wealth is rising in age, and tends to be higher among married couples without children, for the more highly educated, and for white families. Also, the 2008-09 financial crisis and recession resulted in large losses in net worth for most groups. The only groups whose 2010 net worth remains at or near levels from 2007 includes older households, and those headed by someone with an advanced degree. Most other groups experienced losses that lowered median net worth back to levels previously seen in the early 1990s or late 1980s.

The paper proceeds describing the data, and then by documenting the demographic composition of different portions of the wealth distribution. The final section discusses the net worth of different demographic groups.

2. The data: Survey of Consumer Finances

The Survey of Consumer Finances (SCF) is a household survey that collects detailed information on household finances. ¹ It is unique in the level of detail of information on household assets and debts, and also because it is representative for very high net-worth households. The SCF is conducted by the Federal Reserve Board (FRB) as a triennial cross-sectional survey, with the most recently published version reflecting asset levels from mid-2010.² Since 1992, data for the SCF have been collected by NORC, a research organization at the University of Chicago, roughly between May and December of each survey year.

The majority of statistics included in this paper are related to characteristics of "families." As used here, this term is more comparable with the U.S. Census Bureau definition of "households" than with its use of "families," which excludes the possibility of one-person families. The survey collects information on families' total income before taxes for the calendar year preceding the survey. But the bulk of the data cover the status of families as of the time of the interview, including detailed information on their balance sheets and use of financial services as well as on their pensions, labor force participation, and demographic characteristics. Except in a small number of instances, the survey questionnaire has changed in only minor ways relevant to this article since 1989, and every effort has been made to ensure the maximum degree of comparability of the data over time.

The need to measure financial characteristics imposes special requirements on the sample design for the survey. The SCF is expected to provide reliable information both on attributes that are broadly distributed in the population (such as homeownership) and on those that are highly concentrated in a relatively small part of the population (such as closely held businesses). To address this requirement, the SCF employs a sample design, essentially unchanged since 1989, consisting of two parts: a standard, geographically based random sample and a special oversample of relatively wealthy families. Weights are used to combine information from the

¹ Additional information about the survey is available at www.federalreserve.gov/econresdata/scf/scf_2010.htm. ² In mid-2009 the previous cross-section (from 2007) was re-interviewed, creating a short panel reflecting household finances before and at the trough of the Great Recession There is an earlier history of the collection of panel data. The collection of wealth data at the FRB began with the 1962 Survey of Financial Characteristics of Consumers and the 1963 Survey of Changes in Financial Characteristics of Consumers, which re-interviewed the earlier survey participants. The current SCF series was started in 1983, and respondents to that survey were re-interviewed briefly in 1986 and more extensively in 1989. Until the re-interview in 2009 with the participants of the 2007 SCF, no further SCF panel interviews had been conducted.

two samples to make estimates for the full population. In the 2010 survey, 6,492 families were interviewed, and in the 2007 survey, 4,421 were interviewed.³ All dollar amounts from the SCF used in this paper are adjusted to 2010 dollars using the "current methods" version of the consumer price index for all urban consumers (CPI-U-RS).

This paper focuses on the net worth of various demographic groups, and the demographic composition of different portions of the distribution of net worth. Net worth is simply the sum of all assets minus the sum of all liabilities of the family. The demographic characteristics collected by the SCF and available in the public use version of the data include age, race, family structure, gender/family-type, and educational attainment. Some statistics are also presented using income. The SCF income concept is somewhat broader than the more familiar one used by the Census Bureau; SCF income includes realized capital gains as well as the near-cash "food stamps" benefits, in addition to standard wage, salary, interest, rents, dividends, and transfer payments, but is not net of taxes paid or transfer payments administered through the tax code.

The demographic variables in the SCF are not as extensive as in some other household surveys, and a relatively limited sample size leads to imprecise estimates of the means of some relatively small demographic groups. Despite these limitations, the existing demographic detail, coupled with the extensive high quality wealth data, make the SCF an ideal data set to explore wealth and demographics, particularly at the top of the distribution, as Kennickell (2002) demonstrated in his analysis of demographic shifts in the distribution of wealth in the 1990s.

3. Demographics by Wealth

The section compares the demographic composition of different portion of the distribution of net worth, and considers how the composition of these groups has changed over time. In several figures the full range of net worth is included, but in most of this section net worth is clustered into four broads of an adjusted version of net worth representing low-wealth, middle-wealth, upper-middle wealth, and high wealth households. These groups are defined as, respectively, the bottom and middle thirds of the distribution, and the 66th through 95th

³ Differences between estimates from earlier surveys as reported here and as reported in earlier Federal Reserve Bulletin articles are attributable to additional statistical processing, correction of minor data errors, revisions to the survey weights, conceptual changes in the definitions of variables used in the articles, and adjustments for inflation.

percentiles and the top 5 percent of the distribution. Net worth is adjusted so that households with extremely large negative net worth are not classified as "low" net worth. Households can potentially have a net worth that is negative by millions of dollars. This can occur among highly leveraged households, who have can have very large assets, but even larger debts. For example, among the households with net worth below -\$1 million in 2010, average financial assets were nearly \$3 million, but average debt exceeded \$6 million. For the comparison of demographic composition, we do not categorize these families in the "low net worth" group, and exclude them. Specifically, for this section, we truncate the net worth distribution at -\$25,000. The break points between these four net worth groups, for each of the SCF years between 1989 and 2010 are shown in Table 1.

3A. Age by Wealth

Age is increasing in wealth, though not monotonically. **Figure 1** shows, for several selected years of the SCF, how the average age tends to rise across the distribution of wealth. The average age fluctuates at the bottom of the wealth distribution, but rises more or less steadily above the 30th percentile. Below the 30th percentile, where young households just starting out combine with low-wealth retirees and widows, the average age fluctuates between 34 and 48, depending on the year. In 1989, 2001, and 2010, the age-wealth profile rises in tandem between the 30th and 60th percentiles, climbing from 42 to 52 (using the 2010 values). In 2010, the average age of the top third of the wealth distribution is consistently higher compared to earlier years.

Figure 2 Panel A focuses specifically on the top 5 percent of the wealth distribution, showing how younger households make up a smaller part of high-wealth families over time, while the share of older families has tended to rise. The notable exception is that the 65 to 74 year old group share declined each year between 1989 and 2007, before rising slightly to 11 percent in 2010. High-wealth households are getting older over time, but the rest of the population is aging as well. Between 1989 and 2010, the average age of household heads in the SCF rose from 47.9 to 50.5. (**Appendix Figure A1** shows the same age composition for low, middle, and upper-middle portions of the wealth distribution).

While high wealth households have always been older, on average, than the general population, the difference has been increasing since 2001. Households headed by someone age

55 or older accounted for 56 percent of households in the top 5 percent in 1989 and 2001, but 67 percent in 2010 (Panel A). The above 55 age share among high wealth households was 21 percentage points greater than the population average in 1989, 22 percent greater in 2001, and 27 percent greater in 2010 (Panel B.)

Figure 2 Panel B indicates that the middle of the age distribution among high wealth households has been "hollowing out" relative to the rest of the population. Again, relative to the population average, high wealth household have become older, on average, as the 55+ age share has risen. The share of "younger" households – with heads under age 35 – has fallen less among high wealth households than the rest of the population, and the share of "middle" aged households – heads between 45 and 54 – has risen less.

3B. Race by Wealth

The racial composition of America has changed in recent decades. The racial profile of family heads in the SCF reflects these changes, as the share headed by blacks and Hispanics has risen, particularly since 1998 (**Figure** 3). Among all households, the share headed by an African American rose from 12 percent to 14 percent between 1998 and 2010. Over the same period the share headed by a Hispanic rose from 7 percent to 11 percent, and the share headed by a member of some other racial group rose from 3 percent to 5 percent. The non-white share of all households rose from 22 percent in 1998 to 29 percent in 2010.

High wealth households are much more likely to be white-headed than the rest of the population; 91 percent of the top 5% of wealth distributions is white compared to 71 percent of all families. Non-white representation among high-wealth households, however, has also increased, rising from 7.5 percent in 1989 and 1998 to 9.2 percent in 2010. These small changes in the racial profile among high-wealth households, though, have not been driven by Black and Hispanic families – the small increase in the non-white share in the top 5% of net worth is a result of other racial groups. (Appendix Figure A2 shows the race composition for the other net worth groups.)

3C. Family Structure and Gender by Wealth

Families headed by married (or otherwise partnered) couples have systematically higher levels of net worth than those headed by lone parents or single individuals. Slightly more than 80 percent of high wealth families were headed by a married couple in 2010, compared to 58 percent of all families (**Figure 4**). The difference between high-wealth households and the overall population is most acute among married couples without children in the home (**Figure 5**). In 2010, high wealth households only had one percentage point higher share of married couples with kids, but 22 percent greater share of married couples without children. These differences in family structure between the wealth groups are stark, but there are no strong signs of differential changes over time.

There are systematic differences in family composition across the wealth distribution, and there are also important differences in the gender composition of the unmarried families. Among high-wealth households, the vast majority are married, but the unmarried families are just as likely to be female as male (**Figure 6**). In the bottom third of the wealth distribution, there are far fewer single males than females, with the single female share essentially as large as the married couple share. Two primary factors account for this imbalance in gender shares of unmarried households with low wealth. The SCF is household survey of the non-institutionalized population. Young, low-wealth males are far more likely to be institutionalized than females. Differential life expectancy by gender also results in more elderly female single households than elderly male single households.

3D. Education Attainment by Wealth

High wealth families are substantially more highly educated than low wealth families, and these differences have increased greatly in recent decades. Nearly half of all families in the top 5% of the wealth distribution were headed by someone with a Master's degree or higher level of education in 2010, compared to less than four percent among those in the bottom third of the wealth distribution (**Figure 7**). "Advanced" education includes PhD, MD, JD, and MBA, whiel "MA" includes other Masters' degress (MA and MS) as well as some nursing degrees. High school includes GED holders, and "AA or no BA" refers to those with either a 2-year college degree or some attendance at a four year college or university without a degree.

The education gap between high wealth family heads and those lower down the wealth distribution has also grown over time, but the gap is isolated to "advanced" education. In 1989 heads of high wealth families were 10 percentage points more likely to have an advanced degree than the head of the average family, but by 2010 this advantaged has nearly tripled to 29 percent

(**Figure 8**). The difference in achieving a BA or an MA between high wealth families and other families was essentially unchanged over the same period.

3E. Income by Wealth

The final portion of this section describes the incomes of the wealth categories we have been using in the paper. Wealth and income are not the same thing. Income is a flow of resources over time, while wealth is the available store of assets at a point in time. High wealth households need not be high-income households. A large estate may generate little or no rental income, and a large collection of valuable art might generate zero dollars of revenue over an owners' lifetime. Also, high income families need not be high wealth families. Highly compensated individuals might decide to consume all – or more – of their income and have no assets.

These scenarios are all possible, and indeed do show up in the data, but they are not typical. Typically, high wealth families are also high income families, and low wealth families are also low income families. Eighty percent of high wealth families are in the top 20 percent of the income distribution; seventy percent of low-wealth families are in the bottom 40 percent of the income distribution (**Figure 9**). There are some differences between the factors driving high (low) income status and high (low) wealth status, but it remains largely true that high wealth families also tend to be high income families.

4. Wealth by Demographics

This section explores the level and trends in wealth for different demographic groups, including some discussion of inequality of wealth. Similar to the structure of the previous section, we consider wealth by age, by race, by family structure, and by educational attainment.

4A. Wealth by Age

Wealth is increasing in age. Consistent with the broad outlines a "lifecycle" understanding of consumption and savings, mean net worth wealth rises with age up through typical retirement age (**Figure 10**). Starting in the late 60s or early 70s, net worth starts to decline, although it never (on average) gets close to zero in the sample. In 2010, mean net worth does not exceed \$200,000 until age 40, and it peaks at nearly \$1 million at age 60. Largely a result of the financial crisis and economic downturn in 2008, nearly every point in the wealth/age profile in Figure 10 lies below levels from 2007. Only wealth levels at the very highest ages in the sample remain at their 2007 levels.

Despite the dramatic losses in wealth observed in 2008-2010, average real wealth for ages 45 and higher remains at or above age-adjusted levels from 2004 and considerably higher than levels from 1998 or 1989. For families with younger heads (age 45 and below), the 2010 wealth/age profile has fallen below levels as far back as 1998 and 1989 at every point.

These basic trends are also replicated in **Figure 11**, which uses medians of wealth among different age groups. By 2010, median wealth is considerably lower than any previous level for families with heads under 35 and those with heads ages 35 to 44. Among older families, the declines in median wealth are much less severe, relative to pre-2008 levels, even if the dollar amounts of the declines are greater. Households with heads aged 75 or older saw essentially no decline median net worth between 2007 and 2010.

4B. Wealth by Race

Median wealth declined for each of the race categories that can be displayed. Median wealth of white families fell from \$171,000 to \$124,000 (**Figure 12**). Among black families the median fell from \$18,000 to \$15,500 and among Hispanics it fell from \$22,000 top \$15,000. Since the "other" racial group shown in the previous section contains a number of groups with very different wealth characteristics, we do not reproduce a level or trend for the "other" group here. When expressed by race category, median net worth has returned to levels very close to those from the late 1980s and early 1990s for all groups.

4C. Wealth by Family Structure

Net worth is dramatically higher for married couples with no kids in the home than any other family structure group, with a median of \$200,000 in 2010 (**Figure 13**). Median wealth of married couples with children is much more similar to that of unmarried childless families with a head ages 55 or older. The two groups experienced similar declines in net worth between 2007 and 2010, and have similar median in 2010. The most notable differences between the medians for these two groups is that the net worth of the older, childless group remains above levels from the late 1980s and early 1990s, while for married couples with kids median net worth is now at

its lowest point measured by the SCF. Other unmarried groups also experienced losses in median net worth that take them back to the lowest levels measures in the survey, the late 1980s. Starting with such low levels of median net worth, though, the declines do not stand out as starkly in the figure.

4D. Wealth by Education Attainment

Median net worth is below \$100,000 for all years for educational attainment levels below a bachelor's degree (**Figure 14**). Each of the three lower educational attainment group saw losses in median net worth that returned wealth to levels below the late 1980s. The only education group to still have net worth higher than levels experienced more than 20 years earlier is "advanced" education, which includes PhDs, MDs, JDs, and MBAs. In fact, the median net worth for the highest education group jumped more than \$150,000 between 2007 and 2010, similar to the 2010 median net worth level for families headed by someone with a BA.

The median level of wealth among highly-educated family heads is higher than other education groups, and the distribution is also more dispersed (**Figure 15**). The 90th percentile of net worth among those with advanced education is \$5.3 million, compared to just over \$500,000 for those with and AA or some college.

	1989	1992	1995	1998	2001	2004	2007	2010
33rd Ptile	\$21,300	\$23,600	\$27,000	\$29,000	\$33,900	\$32,900	\$34,400	\$18,000
66th Ptile	\$163,400	\$148,000	\$148,000	\$180,000	\$218,000	\$224,000	\$255,000	\$179,000
95th Ptile	\$947,000	\$846,000	\$838,000	\$1,005,000	\$1,378,000	\$1,422,000	\$1,573,000	\$1,645,000

Table 1. Break points of adjusted net worth distribution groups in the SCF



Figure 1. Average Age by Percentiles of the Net Worth Distribution

Note: Figure is based on smoothed data. Age on vertical axis is a running average of 5-percentiles of net worth (e.g. the average age shown at the 30th percentile is actually the average of the 28th through 32nd percentiles). Source: SCF various years



Figure 2. Age Composition of Top 5 Percent Panel A. Level and Change in Age Composition of Top 5%





Source: SCF various years



Figure 3. Non-White Share of Family Heads for Total Population and Top 5% of Net Worth

Source: SCF various years



Figure 4. Family Structure by Net Worth Category and Year



Figure 5. Difference between Top 5% and Population Average for Family Structure Composition

Source: SCF various years



Figure 6. Gender/Couple Status Composition by Net Worth Category and Year



Figure 7. Education Attainment of Family Head by Net Worth Category and Year

Source: SCF Various Years





Source: SCF Various Years



Figure 9. Income Category Composition by Net Worth Category and Year

Source: SCF Various Years





Source: SCF Various Years



Figure 11. Median Net Worth by Age Group of Family Head and Year (2010\$)

Source: SCF Various Years



Figure 12. Median Net Worth by Race of Family Head and Year (2010\$)

Source: SCF Various Years



Figure 13. Median Net Worth by Family Structure and Year (2010\$)

Source: SCF Various Years

Figure 14. Median Net Worth by Education Attainment of Family Head and Year (2010\$)



Source: SCF Various Years



Figure 15. Conditional Distribution of Net Worth by Educational Attainment of Family Head: 10th, 25th, 50th, 75th, and 90th Percentiles of the Distribution in 2010.

Source: 2010 SCF

Appendix Figures



Figure A1. Age Distribution by Net Worth Category and Year

Source: SCF Various Years



Figure A2. Race Distribution by Net Worth Category and Year

References:

Kennickell, Arthur B, 2002. "Demographic Shifts in the Distribution of Wealth, 1992 to 1998: Evidence from the Survey of Consumer of Finances," Federal Reserve Board, *August 2002. http://www.federalreserve.gov/econresdata/scf/files/wealthiariw2001.pdf*