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Changes in the Wealth of American Households during the 2007-2009 Financial Crisis in the U.S

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Abstract

This paper uses the wealth information and various demographic variables from the Survey of Consumer Finance 2007-2009 panel (SCF) data to investigate the factors and forces that may have caused the changes in the wealth of U.S households during the 2007-2009 financial crisis. This include some, hypothesized to be the main determinants of the U.S households wealth, taking into account the sector of activities in which the head of household operates, other potential factors and their interaction such as variation in characteristics of head of household, family, age, education, and others that are included in the model. More specifically, this paper deviates from previous studies by hypothesizing that the effect of age, for example, on wealth will depend on whether the person is a farmer, a construction worker or a banker. In addition, this analysis helps us whether to confirm the claim made by some researchers, using 2007-2009 SCF panel, that the decreasing house prices and asset values are the main causes of the decreasing wealth for many families during the financial crisis or to reject it.

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The love of wealth is therefore to be traced, as either a principal or accessory motive, at the bottom of all that the Americans do (de Tocqueville, 1841).

Introduction

Before we begin to explore the issue of wealth and its accumulation process, it may be helpful to first pose the question of why should we care about wealth, and how does it relate to household economic and financial well-being?

It is little known, due to the scarcity of data, about wealth, its ownership, distribution, and the process by which it accumulates among American households. Although with the availability of data through surveys and various methods that emerged in the early 1960s, the wealth ownership of individual households in the U.S. began to gain more attention among social scientist and policy makers; yet, additional insight into the process by which wealth accumulates, factors contributing to this process, and their influences in various time frames is necessary (working age, retirement, certain or uncertain times etc.).

Lifelong financial well-being of households in the United States has been investigated and debated among private and governmental agencies, researchers, and policy-makers. Individual households' ability to save and manage their financial resources is crucial to being financially sound after their working years. Hill (2000) states that, the well-being of an individual or a household does not simply depend on their annual income but their wealth (According to Economic terms, wealth is a stock, and income is a flow). He emphasizes the

importance of wealth by saying that, not only wealth generates income in various forms, but also it gives individuals more security, freedom to more efficiently manage their resources, and economic and political power. Wang (1995) points out two reasons for the importance of wealth. First, wealth is the main source of economic development; and second, wealth is the direct link to the well-being of individuals.

Although it is crucial and intuitive for individual households to brace themselves against short term shocks to their income and build a "buffer-Stock" (Carroll 1992, 1997; Deaton 1991), it is also a more necessity and rational to build their wealth over their working life span to smooth their consumption in order to enjoy same level of living standard, a hypothesis presented by the life-cycle theory (see Brumberg and Modigliani 1954, and Friedman 1957 for more detailed discussions).

In order to understand the wealth accumulation process and how it may change, it is imperative to separate the changes to wealth caused by the reduction in consumption (income and savings) from the ones induced by exogenous forces that cause changes in financial asset values (Bicker et al., 2011, 2013). This is important because the distinction allows us to know whose wealth has decreased or increased (particular socioeconomic groups), and whether it is a nationwide phenomenon of redistribution of the wealth.

According to the Survey of Consumer Finances (SCF) 2007-2009 panel, published by the Federal Reserve Board, the first two years of the 'Great Recession' (2007-2009) has had a devastating impact on individual households' financial conditions in the U.S. The impact motivated many researchers to study and identify the systematic and systemic problems that lead to changes in wealth. While the economic crisis continues to be investigated across different sectors of the economy and disciplines, it is curial to investigate, understand, and analyze the

impact of such crisis on different types of households within the household sector. The 2007-2009 SCF panel data allows us to examine the effect of the changes in financial indicators, and consider the possible extended aftermath of the financial disturbances on families' financial decisions and future expectations, in particular, the changes in individual households' wealth.

The descriptive analysis of 2007-2009 SCF panel by several researchers, indicates a broad variation in families' financial experiences within the first two-year period of the financial crisis. The micro data shows that, the changes in wealth have been caused by the changes in asset values more than other type of financial holdings such as, the composition of portfolios and outstanding debt across households, the conclusion that has being reached by various studies after the financial crisis (Bricker et al., 2011, 2013; Levine, 2012).

As it can be seen from Table 1.1 and table 1.2, the mean household wealth decreased from $12939115.34 in 2007 to $9621181.83 in 2009, a 25.64 percent decrease in total wealth of individual households. The mean household debt on the other hand, increased from $294681.87 in 2007 to $326722.34 in 2009, that is, nearly 11 percent increase in total debt of families. The mean household income between 2007 and 2009 saw a 38 percent decline, that is, it decreased to $597445.29 in 2009 from $967621.41 in 2007. The mean household total assets (financial and non-financial assets) plummeted 20 percent during the course of 2007-2009 to $4012210.06 from $5015564.68 in 2007.

Objectives

Most of the studies mentioned above, evaluate the financial well-being of individual households by examining the changes in wealth and savings of families during and after the financial crisis, using different sets of data (for example, SCF 2007-2010, Panel Study of Income Dynamics or PSID, Health and Retirement Study or HRS, American Housing Survey or AHS, and Flow of

Fund Accounts or FFA). As far as I know, the 2007-2009 SCF panel has not been used for any quantitative analysis of financial well-being of households in the U.S. This essay aims to fill this gap and shed light on the changes that occurred during the 2007-2009 and examine the factors and forces that contributed to the wealth alternation quantitatively.

More specifically, this includes some factors thought to be potentially the main determinants of the U.S households wealth (socio-economic), taking into account the sector of activities in which the head of household operates, and their interaction with socio-demographic variables such as variation in characteristics of head of household, family, and education that are included in the model (Most studies assume that households are homogeneous across the households sector). Our analysis deviates from previous studies by hypothesizing that the effect of age, for example, on wealth will depend on whether the person is a farmer, a construction worker or a banker.

Background and Review of Literature

Wealth is an accurate determinant because it provides various avenues and more flexibility to generate income (Handbook on Rural Household's livelihood and well-being, 2007). Also, wealth information provides a better understanding of the economic situation of a certain population (Fries et al. 1998; Kennickell, 2000, 2001; Blank et al., 2004; Berben et al., 2006; Bowles and Bosworth, 2001; Hurd, 2012; Lundy, 2012).

Adjusted-inflation net worth (wealth) in consumer finance literature refers to the difference between gross assets and liabilities. Net worth estimation requires the calculation to move beyond the definition of income and its effect, considering all the personal and household assets, liabilities, and background.

Many researchers have used different data sets, and employed different approaches to study the wealth accumulation process, the distribution of wealth, variations in wealth that occur throughout time, and examine the effects of these changes on the financial well-being of households.

The pioneer work of Brumberg and Modigliani in 1954, and later Friedman in 1957, followed by Weisbrod and Hansen in 1968 set the stage for many researchers to study and examine the wealth concept and its accumulation process. The sizeable body of studies that evaluates the financial well-being of general households in the U.S for the last four decades mentions that understanding the process of wealth accumulation, and factors that influence it (exogenous and endogenous forces) is crucial at the individual and aggregate level (King and Dicks-Mireaux, 1982; Wolf, 1989; Ayers and Martina's, 1996; Starr-McCluer and Sunde'n, 1999; Kennickell, 2000, 2001; Carroll and Kimball, 2008 and many others). It is crucial at the individual level for it (wealth) helps households sustain their standard of living later when their income reduces after retirement-generating income from different avenues; and its importance at the aggregate economy is apparent because of the role of accumulated wealth in the financing of the nation's investment (Bosworth and smart, 2009).

According to Keister (2000), when wealth is chosen, as an indicator of family economic well-being instead of income, a totally different story of advantages and disadvantages unfolds. Traditionally, the evaluation of financial well-being of the U.S. households has been reviewed and investigated through methods that focus on changes in earnings, and their impacts on wealth and savings (Quadrini and Rois-Rull, 1997). But in the recent years, researchers turn to a new type of measure as a more accurate and sound method of measurement-wealth analysis (Freshwater, 2007; Davies et al. 2006).

Lundy (2012) uses Consumer Expenditure Survey (CE) to estimate the changes in the wealth of individual households, and compares it to the results of the Flow of Funds Accounts (FFA), to see whether CE accurately estimates these changes in both, the household level and at the aggregate national level. He finds that CE can effectively estimates the changes at the household level, but not at the aggregate national level compared to FFA.

Sabelhaus and Pence (1999) use various cross-section wealth surveys (e.g. SCF and FFA) to examine the variation of wealth accumulation and saving rates across specific cohort-groups in the early and mid-1990's. They report more dramatic life cycle pattern from their estimated rates of saving and wealth change across cohorts than rates found in past studies. They attribute the differences to the new technique they utilize, and to the oversampling of the wealthiest families in the survey, more specifically the SCF.

In a wealth comparison study, Sierminska et al. (2008) use and compare three well known data sets: the Health and Retirement Study (HRS), the Panel Study of Income Dynamics (PSID), and the Survey of Consumer Finance (SCF). They study the population of age 55 and older. They find that estimates from the PSID and HRS are very similar, and for most of the distribution comparisons with SCF as well. They observe some variations at the bottom of the distribution due to the higher disaggregation that exist in SCF sample design, which permits to better capture small asset holdings in categories like deposit accounts, and other assets and non-housing debt.

Creedy and Tan (2007) use data from the Household, Income and Labor Dynamics in Australian Survey (HILDA) to investigate the changes in the distribution of wealth with age. They find, after controlling for age, the relationship between income and wealth is positive, but for the older age groups, the inequality decreases as age increases; that is, the wealth

accumulation decreases as people get older with the decrease of their income. Also, Poor individuals save in different forms compared with high income individuals of the same age group: Investment of the financial assets, especially equity investments and superannuation are highly concentrated in the hands of high income individuals whereas fixed income investments are more popular among the elderly for all income groups.

Remble et al., (2013) point out that, due to the paucity of data in the past, micro-level wealth accumulation analyses were limited. They argue that the shortcoming of the previous cross-section studies has been the focus on the portion of the yearly incomes that have not been used by the households; this portion is regarded as savings, and the variation in household attributes and demographics is to explain the differences in the saving behavior, which leads to wealth accumulation. In addition, they state that although the adding of repeated observations of the cross-section sheds light on the heterogeneity among households while adjusting their savings levels to mitigate short-term income shocks, it does not provide any discernable differences among different occupations like business-owning families and other households.

Studies covering repercussions of economic outcomes of financial distress of 2007-2009

Since the occurrence of the financial crisis in 2007, there has been a renewed interest among professionals, researchers and policy makers to analyze the effect of the crisis on the wealth changes of households in the U.S. (Kennickell 2009, 2010, 2011, 2012; Labonte 2010; Bricker et al. 2011, 2013; Hurd and Rohwedder 2012; Levine 2012; Henriques and Hsu 2013; Bosworth, 2012; Bucks & Moore 2012; Cooper 2012; Zakrevskaya and Mastracci 2013 and many others).

The fact that the repercussions of the financial crisis varied across individual households is a common consent among all the studies mentioned above, especially in terms of wealth.

Bucks and Moore (2012) for example, state that the magnitude of the variation depended on the working age of the head of households or family members, also if they own or rent their place of residence, and on the composition of the households' financial portfolios. The difference in individual households' experiences is highlighted by the fact that more than 60 percent of individual households lost their wealth during the course of 2007-2009 financial crisis, whereas the rest of the families (nearly one third), in fact saw an increase in their wealth (Bricker et al., 2011, 2013; Kennickell, 2010, 2011, 2012).

The main reason for the variation can be attributed to the plummeting housing prices in different areas of the country than others (Buck and Moore, 2012). Zakrevskaya and Mastracci (2013) point out the asset devaluation (real property and stocks) as the main cause of the changes in household's wealth rather than the composition of investment portfolios and debts.

Labonte (2010) compared the recent recession with the previous recessions such as 1973, 1981, and the two most recent ones (beginning in 1991 and 2001). In terms of consumption and private investment, he points out that, the 2007 recession has shown the greatest decline in consumption and private investment compared to any previous recessions.

Hurd and Rohwedder (2010) use a data set they collected from a survey they administrated in the American Life Panel on the internet in the end of 2008. In their study, they aim to explore the broad impacts of financial crisis on households in the U.S. To better capture the effects of the crisis, they conduct another survey (three months later) tracking the same household. They continued the data collection process monthly since May 2009, three months after the first survey in 2008. They find that, around 40 percent of the households had been unemployed, had negative equity in their house or had been behind in their house payments; the

households spending were lower than the crisis as a result of unemployment, and on average their expectations about the future of the economy were grim.

Levine (2012) uses SCF from 1998-2010 data to investigate the changes in the distribution of wealth. For her analysis, she uses the mean and median approach to compare the changes in both over time. She finds that in the last two decades wealth became more concentrated in the hands of households at the upper bound of the distribution. She also finds that both, the median and the mean of the wealth of households declined from 2007 through 2010. She suggests that, the relatively more deterioration in the median than mean indicates the more severe adverse effects of the recession on households in the bottom half of the wealth distribution than the households at the top of the distribution. Furthermore, she points out that the primary cause for the overall decline in median household wealth from 2007 to 2010 is the broad disruption in house prices, and the decline such as the price of financial assets like stock, played a smaller role.

Henriques and Hsu (2012), employ SCF and FFA data from 1989 to 2010 to discern any variations in the results they obtain from the two data sets. They suggest that macro data from FFA are suited for studying the behavior of the household sector as a whole, while SCF is more appropriate to explore variations in behavior over time and across different types of families. They point out that although the two data sets utilize different approaches, wealth of the families indicates the same general patterns wealth changes over the past two decades. And, the differences in the areas such as owner occupied housing, non-corporate equity, and credit cards might be explained by different methodologies used in the data collection procedures. However, those variations are trivial considering American households' wealth dynamic before and after the financial crisis of 2007-2009.

Cooper (2012) uses PSID data set from 1999 to 2009 to address the question of whether the decreased level of consumption during the 2007-2009 recession was the result of the deleveraging process. Household deleveraging process, where households decide to reduce their debt by substituting debt repayment for consumption, is often blamed for draggy consumption growth during the financial crisis. Cooper finds that the deleveraging had little to do with the families' consumption. Instead, the impact was directed by inconsistencies in households' income and wealth.

Bosworth (2012), uses 2007-2009 PSID to examine the distribution of wealth and job losses during the financial crisis within 2007-2009 time frame, and compares the estimates with the ones of SCF. He concludes that individual decisions are influenced by two factors: the fluctuations in labor market conditions and the value of their wealth. He points out that the oscillation in the conditions of labor market has more effects on their decisions.

And finally, in a more unique study, Atkinson et al. (2013) employs a different approach to investigate the social costs of the "Second Great Contraction" of the U.S economy, the most severe economic downturn since the 1930s, they claim. They investigate the output, wealth, effects of national trauma, and extraordinary governmental intervention costs (what the society gave up). They argue that the unique features of the crisis originate from a relaxed credit standards, and large quantity of financing options that had caused the earlier growth. It was because of this growth that came the imbalances, such as the overexpansion of mortgage financing followed by the inevitable incentives that spur on an increase of intermediary activities in the capital market. As a result, the price of houses declined, which in turn, negatively affected the wealth of most American households.

Conceptual Framework

The conceptual framework is led by the life-cycle model of Brumberg and Modigliani (1954), which involves a utility maximizing household. The individual household maximizes his utility that is reliant on his leisure (L_{it}) and, his wealth (W_{it}), and a vector of factors exogenous to his income (E_{it}):

$$MaxU_t = U(L_{it}, W_{it}, E_{it}) \qquad (2.1)$$

where t is the period of time from $t = 1$……..T and i is the ith head of household. In every period t, the head of household's wealth (W_{it}) is expressed by adding head of household's initial wealth (W_{t-1}) that is obtained from labor income and non-labor income (I_{it}). Labor income is denoted by (ω_{it}, o_{it}), where ω_{it} is a vector of wages earned by the head of household and o_{it} is the time that is devoted to work by the head of household, and C_{it} is consumption of the ith head of household at time t. Thus,

$$W_t = W_{t-1} + \omega_{it} o_{it} + I_{it} - C_{it} \qquad (2.2)$$

The level of utility that a head of household receives is constrained by the head of household's time endowment.

Hence, household's time constrain becomes,

$$\tau_{it} = o_{it} + L_{it} \qquad (2.3)$$

where the total head of household time constrain (τ_{it}) is shared between work and leisure. From here, we can obtain the head of household's utility maximization problem,

$$MaxU_t = U(L_{it}, W_{it}, E_{it}) \qquad (2.4)$$

subject to,

$$W_t = W_{t-1} + \omega_{it} o_{it} + I_{it} - C_{it} \qquad (2.5)$$

and

$$\tau_{it} = o_{it} + L_{it} \qquad (2.6)$$

Empirical Model

The empirical analysis is based on the hypothesis that heterogeneity across the household sector can play a crucial role in determining the wealth of individual households.

Previous studies have explored the factors that affect wealth accumulation such as age, income, household size, and other demographic variables; however, all these studies assumed these factors affect all households similarly and equally, regardless of the sector of activities in which they are occupied and the age of the head of households.

This paper deviates from previous works by hypothesizing that the effect of age, for example, on wealth will depend on whether the person is a farmer, a construction worker or a banker. That is, allowing for interaction between the age and the sector (category assigned for each or semi-similar sectors in which the head of household occupied). The empirical model is constructed as follows:

$$W_{it} = \alpha_0 + \alpha_{1i} Age_{it} \qquad (2.7)$$

$$\alpha_{1i} = \lambda_1 + \lambda_2 D_i + \lambda_k X_i \qquad (2.8)$$

substituting α_{1i} into equation (2.6), we obtain our Model, equation (2.8):

$$W_{it} = \alpha_0 + (\lambda_1 + \lambda_2 D_i + \lambda_k X_i) Age_{it} + \varepsilon_{it} \qquad (2.9)$$

where W_{it} denotes wealth of individual head of household in time t, D_i is dummy variables for risk preferences and future expectations, X_i is our different demographic variables, Age_{it} is the age of individual head of household in time t, and λ s are parameters to be estimated.

Data and Variables

As it is mentioned above, all three essays in this dissertation use the SCF 2007-2009 panel in their analysis. For each essay, we choose the variables, carefully to suit the concept being studied, and procedure being used.

We use some variables such as socioeconomic and demographic variables in all three essays, and some are specifically used, according to methodology and procedure employed. That is, some variables might be chosen to be dependent or independent variables depending on the concept and the model that is being used, or may be used in one procedure and not in the other.

2007-2209 SCF Panel-background

After the occurrence of the 2008 financial crisis, a renewed interest in the measurement of wealth, income, investments, and savings of households in the US has emerged. The most used and relied on data set in recent studies, besides the Flow of Funds Accounts (FFA), and the Panel

Study of Income Dynamics (PSID), has been the Survey of Consumer Finances (SCF) as it collects and provides, rich and detailed information on individual households such as assets, liabilities, income, and demographics variables that is proven to be very practical and fit for the purpose of wealth analysis (Fries et al., 1998).

SCF is a cross sectional data set in nature. The first wave of the data started in 1962 and it was called Survey of Financial Characteristics of Consumers or SFCC. The survey was intended to help measure the elements of net worth (Kennickell, 2000). Though, due to the lack of incentive and high cost of conducting survey, the renewal SFCC was stopped in 1965. It was not until 1983, when the Federal Reserve showed new interest, motivated by the convergence of multiple events at the time to launch the modern SCF. Since then, SCF has been regarded as most credible survey for wealth studies due to its unique dual-frame sample, and as it covers a broad areas in financial and non-financial assets, as well as debt holdings by individual households in the U.S. Sierminska et al. (2008) observe, while comparing HRS, PSID, and SCF data sets, some variations at the bottom of the distribution due to the higher disaggregation that exist in SCF sample design, which permits to better capture small asset holdings in categories like deposit accounts, and other assets and non-housing debt.

The SCF employs a dual-frame sample design to accurately estimate the differences in the financial characteristics that exists in the survey (Kennickell, 2001). The two techniques are combined for random sampling: a geographically based random sample is chosen to accurately cover the individual households' characteristics like, homeownerships that are widely distributed, and a special sample design to oversample wealthy families due to the concentration of ownership of many assets and liabilities (Kennickell, 1999). The particular sample design employed in SCF gives the data the advantage over other data sets by avoiding the truncation of

the upper tail of the wealth distribution that exists in the Panel Survey of Income and Dynamics (PSID) and Survey of Income and Program Participation (SIPP) (Wolff, 1988).

Majority of the questions in the interview target the "primary economic unit" or PEU, a main person or couple and any other individuals in the families who are financially dependent on that person or couple (Survey of Consumer finance code book, 2007-2009; Bricker et al. 2011, 2013).

The SCF is conducted every three years by the Federal Reserve Board (FRB). Though, there was a time exception to the data collection process. To analyze the impact of the 2007 financial crisis on the families that had participated in the 2004-2007 survey, as a representation of the household sector in the U.S, in 2009 the Federal Reserve Board designed and implemented a two-year follow up questioner that helped provide a better measure of how families who participated in 2007 survey were affected.

According to Bricker et al. (2011, 2013), the surveyors in 2009 found substantial changes in the families' structure who participated in the 2007 survey.

To deal with this problem, the following solutions were implemented while conducting the survey in 2009: first, the targeted household was the one that held the respondent who was alive and living permanently inside the U.S. in 2007. Second, scenario would be that, if the participant passed away or living permanently outside the U.S. or the 2007 participant had a spouse or partner who was a part of the PEU and lived permanently in the U.S., then the targeted family would be the one that held the 2007 spouse or partner of the 2007 participant. Third, if the 2007 participant was no longer alive or living outside the U.S. permanently in 2009 then, there were two scenario's to consider the case irrelevant for the purpose of 2009 survey: 1- there was

no spouse or partner of the 2007 PEU, 2- if there was a spouse or partner but was no longer alive nor lived permanently in the U.S.

Wealth (Net Worth) in SCF- The market value of assets minus liabilities-Decomposition of wealth

SCF 2007-2009 includes the following assets: a main residence, other real estates, net business equity, vehicles, trusts in where households have equity interest, annuities in a cash value, pension accounts where the households can withdraw from or take loans against, other assets, and miscellaneous assets. Liabilities are: mortgages on primary and secondary residence, lines of credit, credit card debt, loans for vehicles, other installment loans, loans against pension accounts or life insurance, and all other kinds of personal debts (2007-2009 SCF code books; Bricker et al., 2011, 2013).

According to the population covered by the 2007-2009 SCF panel, the distribution of wealth plummeted across the whole population. The mean declined from $129,000 in 2007 to $96,000 in 2009; but unlike the distribution, changes in the wealth of individual household vary within families.

The lower income families show more variation in wealth changes (Bicker et al. 2011, 2013). The panel data indicates that the effects of crisis on different households were felt in a broader range and different households experienced the outcomes profoundly in various ways; More than 60 percent of households saw their wealth decline substantially; the remaining, on the other hand, saw gains in their wealth instead.

Overall, the changes in wealth in the first two years of the recession, according to 2007-2009 SCF panel seem to be caused mainly by a broad collapse in house prices. The plummeting

asset values also played a crucial role rather than changes in the content of the individual households' portfolios (investments and debt). It is worth mentioning though, that, households' balance sheet restructure and the changes in asset prices resulted in a considerable shift in the composition of their portfolios (Zakrevskaya and Mastracci, 2013).

According to the SCF 2007-2009, households in the poorest quartiles saw an increase in their wealth and the ones within the richest quartile underwent a decline in their wealth (Zakrevskaya and Mastracci, 2013). Considering the indebtedness, the poorest households endured a total decline in their net worth.

General Summary Statistics of the Panel Data

The age of the participants in the 2007-2009 panel survey ranges from 19 to 95 years old. The 2007-2009 SCF panel groups the age of household head as follows, age of 35 and younger is the cohort one, 35 to 44 is cohort two, 45 to 54 cohort three, 55 to 64 cohort four, 65 to 74 cohort five, and 75 and older is categorized as cohort 6.

There was a small reshuffle in the percentage of age categories in the panel from 2007 to 2009. For example, of the age cohorts in 2007, 15. 43 percent were in category one, 18.5 percent category two, 23.31 percent in category three, 21.73 percent in category four, 12.42 percent in category five, and 8.56 percent in category six, whereas in 2009, 12.37 percent were in category one, 17.24 percent in category two, 22.79 percent in category three, 22.82 percent in category four, 14.65 percent in category five, and 10.14 in category six (See Appendix E, table 15).

The race of the head of households in the panel data set is categorized into five cohorts: 1=white non-Hispanic, 2=black/African-American, 3=Hispanic, 4=Asian and it is only available in the internal data set, 5=other. The demographic analysis of the race of families in the panel

data shows that about 80 percent of the participants identified themselves as white, 9 percent black/African-American, 7 percent Hispanic, and 4 percent as others (See Appendix E, table 14).

Marital status of participants from 2007 to 2009 shows some variation as well. In 2007 68.52 percent of participant were married compared to 63.37 in 2009, more than five percent drop. The educational attainment is grouped in four categories: there was no change in category one in 2009 (9.14 percent) where indicates people who have no high school diploma. Category two, people with high school diploma changed from 25.63 percent in 2007 to 25.21 percent in 2009. Category three where people with some college are grouped indicates a small alternation of 15.77 percent in 2007 to 16.12 percent in 2009. Also, category four show some small increase in educational attainment from 49.46 percent in 2007 to 49.53 percent in 2009.

In 2007, the participants were asked if they received any income for unemployment or compensation, and only 3.27 percent of the participant received any form of unemployment or compensation income compared to 5.70 percent in 2009.

In 2009, the participants were asked to compare their overall expenses to a “normal” year (Higher, Lower, or about the same). About 31.50 percent of the participants reported higher expenses, 8.30 percent lower, and the rest (60.20%) were about same or normal.

Families were asked if they were saving at the time of the interview, for any expenses, they had in mind in the future: in 2007, about 47.03 percent reported that they did not expect any major expenses, 27.57 percent indicated that they were saving, 18.24 percent reported that they were not saving, and 7.16 percent showed that they already saved for all the expenses they had in mind for the future. In 2009, we see small changes in the distribution: 45.55 percent reported no

major expenses expected, 28.02 percent saving at the time, 20.07 percent not saving at all, and only 6.35 percent already saved for the future expenses.

In both surveys 2007 and 2009, the participants were asked whether they were behind in their payments for two or more months: about 87.92 percent in 2007 reported did not have any type of payments for any loans compared to 85.72 percent in 2009. More people showed that they were behind in their payments in 2009, a two percent jump to 6.43 percent in 2009 from 4.42 percent in 2007.

Also, Individual households reported more homeownership in 2009 than in 2007; nearly two percent increase in homeownership (75.65% to 76.98% in 2009 from 2007). Head of households or their spouse reported more unemployment spells in 2009 than 2007 survey, that is, 16.98 percent in 2009 compared to 11.70 percent in 2007, a more than five percent increase in unemployment during the first two years of the financial crisis.

In 2007, respondents were asked if they have ever filed for bankruptcy, which is slightly different than the question in 2009. In 2009 survey, the question asked whether the families filed for bankruptcy since January 2007. About 10.19 percent of the respondents in 2007 replied that they had filed, and 1.57 percent answered yes to filling bankruptcy since January 2007 in the follow up survey of 2009.

Of those business owners (farm/ranch, privately held business) who reported their businesses in 2007 survey and were asked if they still had their business in 2009, only 1.61 percent still had their businesses, and the rest either sold (about one percent), gave away to family members (nearly 0.13 percent), or went out of business.

The report regarding the question (in 2009 survey) of whether any foreclosure has been brought against any type of properties the families owned indicate that, 3.16 percent of the families have had the foreclose proceeding brought against them, and about 1.03 of the families lost their homes as a result of the proceedings.

Individual households also were less fond of cards compared to two years before, that is, their response to the question, whether they thought it is a good or a bad idea to buy things on credit cards indicate that the percentage of participants who thought is a good idea decreased by about two percent compared to the two years before (from 28.37% in 2007 to 26.42% in 2009). And, the percentage of respondents who thought it is a bad idea increased more than five percent, that is, from 35.87% in 2007 to 41.51% in 2009.

Moreover, percentage of respondents who carried credit card reduced by about two percent from two years before (from 80.83% in 2007 to 79.41% in 2009). They also seemed less sure about their next year's income compared to 2007: a reduction from 73.07 percent in 2007 to 70.42 percent in 2009.

Table 2.1 indicates the percentage changes of families' ideas about their next year's income and their credit cards possessions below.

Table 2.1

	Idea about Next year's Income	**Have any Credit Cards**
2007	73.07%	80.80%
2009	70.42%	79.41%

An interesting fact is that the 2007-2009 panel data set indicates that less families got their credit card applications denied in 2009 than the two years before despite the fact that less people applied for credit card, which might manifest that the economy at that time was starting

its road of recovery, or participants who already had good credit got approved (from 13.39 % in 2007 to 10.45% in 2009).

In general, individual household were less optimistic for the short run than the two years before in the time of interview in 2007. Most families seemed to be more cautious toward risk, and were expecting the economy to do better in the long run, but not for the next year (tables 1.3 and 1.4).

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