Demography in Crisis: A Cohort Analysis of Retirement Wealth and Preparedness

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DEMOGRAPHY IN CRISIS: A COHORT ANALYSIS OF RETIREMENT WEALTH AND PREPAREDNESS

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ABRSTRACT

In the past several decades, saving for retirement has significantly changed, with the large replacement of Defined Contribution for Defined Benefit plans, as well as the unreliability of Social Security given the aging population. This paper analyzes retirement wealth across three generational cohorts—Baby Boomers (1946-1964), Gen Xers (1965-1980), and Millennials (1981-2000)—in order to compare preparedness and determine whether or not younger cohorts have compensated for the future unreliability of other traditional retirement income sources. The results suggest that levels of retirement wealth do not significantly differ across cohorts at all age profiles. Therefore, younger generational cohorts have not increased the amount of personal saving in order to maintain their pre-retirement standards of living throughout retirement. These results indicate that a change in saving structure and policy may be necessary to ensure that younger cohorts retire out of poverty.

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I. INTRODUCTION

It is said that retirement saving is a three legged stool—Social Security, employer pensions, and private savings. Changing demographics, employment patterns, governmental regulation, and the overall financial landscape in the United States, however, have challenged the foundation to this metaphorical stool. Moreover, the reliability of two of these three legs—Social Security and employer pensions—has weakened, which has and will continue to obstruct the conventional path toward retirement preparedness for many individuals and families in younger generations. Moreover, younger and future generations will have to increase personal retirement savings to remain on track for retirement. In my research, I analyze retirement wealth and preparedness at the same points in the lifecycle for recent birth cohorts, including Baby Boomers (1946-1964), Gen Xers (1965-1980), and Millennials (1981-2000). The overarching question this research seeks to answer is: are the generations that cannot rely as much on Social Security and Defined Benefit plans making any progress in terms of saving independently? This research will therefore shed light on the effectiveness of the current saving structure and reveal if and how the structure should be reformed.

Because there are so many aging Baby Boomers, retirement saving, wealth, and preparedness are extremely important considerations; luckily, many of these aging Boomers will rely on Defined Benefit (DB) pensions for primary retirement income. Younger cohorts, however, will not be able to primarily rely on such pensions, given the shift from DB to Defined Contribution (DC) plans in the 1990s due to increased job mobility, government regulation, and liability risk from recent economic downturns (Nekola, 2014). Occurring simultaneously to the aging crisis, the shift to DC plans has moved retirement planning risk from corporations to individuals, many of who are financially illiterate. Therefore, retirement savings is now primarily

dependent upon employees' personal contribution behavior and investment choices. Consequently, DB pensions are unlikely to be available as retirement income sources for younger generations, requiring such generations to significantly increase personal saving.

Given the aging crisis, younger cohorts also may be less able to rely on Social Security. Currently, Social Security is a substantial income stream for many retirees, as nearly 61 million people will receive approximately $918 billion in benefits in 2016 (SSA, 2016). Of those 61 million beneficiaries, 48 percent of married couples and 71 percent of unmarried individuals rely on Social Security for more than 50 percent of their income, and 21 percent of married couples and 43 percent of unmarried individuals rely on their benefits for over 90 percent of their income (SSA, 2016). As a result of increases in disability claimers, decreases in U.S. Treasury yields from recent stagnant growth, and decreases in the worker to beneficiary ratio, by 2033 the Social Security trust fund will be exhausted and only 76 percent of scheduled benefits will be able to be paid out (SSA, 2016). Therefore, unless significant reforms are passed, Social Security benefits will continue to become an increasingly unreliable retirement income source for younger generations.

With the increasing unreliability of both Social Security and employer pension plans, my research sheds light upon whether or not the younger generations, Gen Xers and Millennials, have made any increases in retirement savings through DC and other private savings platforms, in comparison to Baby Boomers. I utilize data from the Federal Reserve's *Survey of Consumer Finances* (SCF) from years 1989 through 2013 to statistically and graphically analyze the differences in various retirement saving metrics across the three cohorts at certain points in the life cycle. Given this data, my research more specifically concentrates on the fact that younger generations will lack the reliability of DB employer pensions. This research therefore sheds light

upon the ineffectiveness of the current saving structure and reveals that the structure should be reformed. Additionally, given the demographic crisis with aging Baby Boomers and that, worldwide, there will be over one billion people over the age of 60 by 2020 and almost two billion by 2050, my research is important to understand how the change in nature of retirement saving will manifest across generational cohorts, as so many aging individuals will no doubt have significant effects on the economy (Bloom, Canning & Fink, 2011).

In Section II, I review the important literature to provide relevant background to the topic and shed light upon how this paper will enhance such research. Section III describes the data and develops the methodology. Section IV provides a discussion of the statistical and graphical results of my research. Section V concludes that the differences in retirement assets, particularly throughout the cohorts' 30s and 40s, is not significantly different, which suggests that younger generations are not compensating by increasing DC nor private savings despite the future unreliability of employer pensions and Social Security.

II. Literature Review

A vast amount of literature, dating from the 1980s to present day, discusses the economic implications of current demographic trends and savings behavior in the United States. The majority of this literature primarily studies how the aging population will affect the economy, as well as Franco Modigliani's life cycle hypothesis (1954), which theorizes that consumption is smoothed out over the course of an individual's life, meaning that one dissaves when he is young, saves when he is middle-aged and in his prime working years, and finally dissaves in retirement. While these studies provide important empirical evidence for various economic theories and implications, they lack a comparison of saving behavior of different cohorts while

keeping age constant, which is necessary to do for public policy regarding Social Security, healthcare, and other welfare programs. Nevertheless, there are a few studies that have begun to more precisely compare cohorts' retirement saving behavior and preparedness. Ultimately, my research builds upon this growing body of empirical work by more explicitly examining and comparing cohorts' retirement wealth at certain points in the lifecycle, keeping age constant. This literature review discusses cross-cohort analyses of retirement saving and preparedness, and then reviews studies specifically focused on the effects of aging on saving, economic growth, and retirement wealth.

Cross-Cohort Retirement Saving

With the financial crisis and subsequent Great Recession of 2007 to 2009, all generational cohorts have struggled to accumulate wealth in their attempts to ensure retirement preparedness. Therefore, Munnell, Hou, and Webb (2014) use the National Retirement Risk Index (NRRI) to analyze the age at which the vast majority of American households will be equipped to retire (Munnell et al, 2014). The NRRI, a measure of American households that are "at risk" of being underprepared to maintain their pre-retirement standard of living in retirement, is calculated by comparing households' projected replacement rates, or the retirement income as a share of lifetime earnings, with target rates that would enable them to maintain their living standards throughout retirement. Retirement income consists of financial wealth, pensions, defined contribution/401(k) wealth, Social Security, and housing, and assumes people retire at age 65. This study finds that, in wake of the Great Recession, 52 percent of 2013's working households were considered at risk of being unprepared for retirement (Munnell et al, 2014). Older cohorts are significantly more prepared for retirement than their younger counterparts, as

59 percent households aged 30-39 in 2013 were considered at risk of being unable to maintain pre-retirement standard of living in retirement, while only 45 percent of households aged 50-59 would be at risk in the same year (Munnell et al, 2014). This finding is particularly important to my research question, as Munnell et al. (2014) analyzes the effects of aging on retirement wealth on a cross-cohort level, and ultimately finds that younger cohorts are significantly less prepared for retirement than their older counterparts.

In addition to Munnell et al (2014), several studies have analyzed savings behavior, wealth levels, and retirement preparedness by cohort, including DeVaney and Chiremba (2005), Fidelity (2016), and Financial Finesse (2016).

In an effort to test two different savings behavior theories, the life cycle hypothesis and theory of planned behavior, DeVaney and Chiremba (2005) employ a cross-cohort analysis of the savings behavior of the Swing Cohort (1928-1945), Older Boomers (1946-1954), Younger Boomers (1955-1964), and Gen X and Y (1965-1987). The theory of planned behavior, which may coincide with the life cycle hypothesis, is a psychological theory, suggesting that individuals are more likely to behave consistently with their intentions when they have control over the factors involved. Moreover, if individuals have been previously involved in savings behavior, he or she will be more likely to save in the future. Therefore, the LCH and theory of planned behavior may both hold, but within certain age groups, only certain people behavior the way we expected based upon the control or perceived control they have. Using data from the 2001 *Survey of Consumer Finances* (SCF), DeVaney and Chiremba (2005) conducted Chi-squared tests after regressing logistic and tobit models in which retirement savings was a function of attitude, subjective norms, perceived control, and past experience, in order to compare savings behavior of Baby Boomers to that of other age cohorts. Ultimately, the results

support both Modigliani's life cycle hypothesis and the theory of planned behavior. On the one hand, the life cycle hypothesis was supported, as the youngest generations were least likely to hold a retirement account and the older cohorts were most likely to have the most savings in their respective accounts. At the same time, the theory of planned behavior was also supported, as increased tolerance for risk when saving or investing, reporting being a saver, being married, more education, being a homeowner, and reporting spending less than income were all significantly related to having a retirement account and the amount saved in such account.

While DeVaney and Chiremba (2005) utilize a cohort analytical framework to study savings behavior, Fidelity and Financial Finesse studies employ cohort analyses to uncover specifics about retirement preparedness. The Fidelity biennial study (2016) calculates a single score, similar to the NRRI, which measures a household's ability to cover expenses throughout retirement, in order to analyze Americans' cross-generational retirement preparedness. The findings strongly support Modigliani's life cycle hypothesis. While the number of people able to afford essential expenses during retirement has increased by 7 percent since 2013, 55 percent of households are unprepared to cover all of their living expenses during retirement, such as housing, food, and health care (Fidelity, 2016). Millennials have shown the greatest increase in their average savings rate, saving 7.5 percent compared to 5.8 percent in 2013, which reflects how increasing numbers of Millennials are entering the workforce and therefore now have a greater ability to save. While Gen Xers and Baby Boomers still save a greater percentage of their income than Millennials, these two cohorts have not experienced increased rates of saving. Nevertheless, Millennials still need to improve their saving behavior in order to remain on track for retirement—while they are nearly caught up to Gen Xers, they still remain 12 points behind Baby Boomers on the retirement preparedness scale.

Similar to Fidelity (2016), Financial Finesse (2016) examines the instability of retirement preparedness across three cohorts—Baby Boomers, Gen Xers, and Millennials. According to the study, Baby Boomers have shown the largest increase since 2014 (from 17 to 20 percent) in being unaware of their retirement preparedness, having debt management issues, lacking long-term care insurance, and generally struggling to make investment decisions (Financial Finesse, 2016). Nevertheless, Boomers still remain the best-positioned cohort for retirement. Contrarily, Gen X has increased awareness of retirement savings and investing, and is the only birth cohort to have significantly increased the number of individuals who are on track for retirement since 2014 (up 2 percent). At the same time however, Gen X has displayed increasing issues with money management, as well as declining homeownership, insurance, and estate planning, which can be attributed to competing financial priorities between children's education and parent's retirement. Finally, Millennials' finances reflect myopic prioritization of short term over the long term, as 61 percent are on top of their short-term credit, while only 43 percent of non-sponsored workers save. Moreover, Millennials continue to fall behind in retirement planning and investing, as many lack not only DB plans, but in fact any employer-sponsored retirement benefits at all.

The Aging Population, Saving & Economic Growth

Overall, the literature regarding cross-cohort retirement wealth is fairly united around the current status of the various generations' preparedness, with the eldest generations more prepared than their succeeding cohorts, as predicted by the life cycle hypothesis. Therefore, because differences in savings behavior and general retirement preparedness across generations

exist, it is also important to consider economic research around the relationship and effects of the aging population on the return on assets, levels of saving, and economic growth.

Hagemann and Nicoletti (1989), Disney (1996), and McKinsey & Company (2005) all suggest that the aging population is associated with lower saving rates, slower investment growth, and reduced growth rates of gross domestic product. Therefore, these adverse effects suggest two principal issues relevant to my research study. First, it is possible that the reduction in the return on assets, as an adverse effect of the aging population, has lowered each cohort's saving rate by reducing their incentive to save, as well as the rate at which those savings can grow. Additionally, Northwestern Mutual (2016) found in a study that younger generations favor overly conservative financial planning approaches, which also may contribute to lower return on assets. Second, given the slowdown in macroeconomic growth due to the aging population, there is a reduced amount of available funds to save for retirement. Both of these greater economic effects of the aging population therefore pose threats and possible explanations for decreases in retirement wealth across generations. Overall, while the exact magnitude of negative effects on the economy by the aging population is disputed, numerous economic studies suggest that the aging population has reduced the return on assets and therefore the savings rate, as well has reduced the available funds to save because of its adverse effects on economic growth.

Wrap Up: Literature Review

Upon reviewing literature that regarding generational retirement wealth and preparedness, the aging population, and the effects on economic growth, there is a clear opportunity to enrich such studies by analyzing retirement savings behavior and general retirement preparedness on a cross-cohort basis, keeping age constant. While the current

literature provides a lot of useful information regarding savings theories and potential impacts on gross domestic product (GDP), these studies have not yet provided an adequate or fair comparison of current and future retirement wealth and preparedness across generations. Moreover, this research is necessary because as saving theories such as the Modigliani's life cycle hypothesis explain, it is inevitable that the eldest generations have accumulated the greatest retirement wealth thus far, especially as many Millennials have not yet entered the workforce. Therefore, this paper compares retirement wealth of older generations to that of younger cohorts, and in doing so, determines if younger cohorts are making any progress in terms of saving at the same ages.

III. Methodology

In my research, I utilize data sets from the Federal Reserve's *Survey of Consumer Finances* (SCF), which was used in DeVaney and Chiremba (2005). First conducted in 1983, this triennial, cross-sectional survey collects data on U.S. families' assets and liabilities. Each survey consists of a sample size of about 6,500 families and contains a variety of data variables relevant to my research question.

More specifically, I use the SCF's summary extract data sets from the years 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010, and 2013, which all contain variables inflation-adjusted to 2013 dollars. These extract data sets were first created in 1989, and provide key variables of interest to my study. Additionally, each data set uses multiple imputations to supply estimates for any missing data points. I use all available SCF extract variable data sets in order to capture the greatest overlap between the three cohorts, as well as allow each cohort to more significantly age between each survey.

Utilizing Stata, I appended the five data sets, assigned the correct birth cohort to each observation depending on year of the survey and age reported, top-coded the seven key financial metrics to the value of the 98th percentile to prevent outliers from skewing my results, and finally calculated means and medians of wealth and saving variables for every age for every cohort. After calculating this macroeconomic data from the microeconomic survey, my analysis concentrates on seven key variables which relate to various forms of retirement saving, as well as other measures of wealth such as financial assets, home equity, and net worth. Table 1 provides a set of descriptions for each key variable conducted in my analysis. I then break down the analysis further by incorporating other demographic factors such as race, college degree attainment, marital status, sex, and number of children. Overall, the statistical and graphical analysis I conduct attempts to shed light upon the research question at stake: how do younger cohorts' retirement wealth compare to that of older cohorts at certain points in the life cycle?

One additional and important note about this research is that because many Millennials have not yet begun working, and because the SCF was only first conducted in 1983, data of younger Millennials and older Baby Boomers will not be captured in this analysis. Table 2 captures this information in a timeline of the cohorts' ages at each SCF's year. The youngest Baby Boomers captured in the various surveys are 25, and the oldest Millennials captured are 32. Therefore, Baby Boomers often have higher averages throughout their 20s, given the lack of data from their earliest working years, and Millennials often have skewed lower averages in their 30s, given the lack of data from most of their 30s. Therefore, in order to compare cohorts with the most overlap of age profiles, I often only compare Gen Xers to Millennials in their 20s, as Baby Boomer data is subject to outliers, and I often only compare Gen Xers to Baby Boomers throughout their 30s and 40s. While the Baby Boomer cohort does not overlap with Gen Xers

nor Millennials throughout their 50s and 60s, I include this data, as understanding how retirement wealth progresses as Boomers age is a useful part of understanding trends, and a key ingredient in projecting how retirement wealth will progress for subsequent cohorts. Additionally, as seen in Table 2, I impose an age restriction in my analysis, in which I only consider individuals who are at least 18 years old.

Table 1. Key Variable Descriptions

Variable	Description
saving	Total value of savings accounts held by household, 2013 dollars
retqliq	Total value of quasi-liquid held by household, 2013 dollars - Includes IRAs, Keoghs, thrift-type accounts, and future and current account-type pensions
retnopen	Total value of quasi-liquid held by household, 2013 dollars - Includes IRAs, Keoghs, and thrift-type accounts; excluding future and current account-type pensions
irathrift	Total value of IRA/Koegh accounts and account-type pension accounts, 2013 dollars
networth	Total net worth of household, 2013 dollars
fin	Total value of financial assets held by household, 2013 dollars - Consists of liquid assets, certificates of deposit, directly held pooled investment funds, stocks, bonds, quasi-liquid assets, savings bonds, whole life insurance, other managed assets, and other financial assets
homeeq	Total value of equity in primary residence of household, 2013 dollars

Table 2. Timeline of Cohort Ages by SCF Year

SCF Year	Baby Boomers (1946-1964)	Gen Xers (1965-1980)	Millennials (1981-2000)
1989	25 - 43	18 - 24	-
1992	29 - 46	18 - 27	-
1995	31 - 49	18 - 30	-
1998	34 - 52	18 - 33	-
2001	37 - 55	21 - 36	18 - 20
2004	40 - 58	24 - 39	18 - 23
2007	43 - 61	27 - 42	18 - 26
2010	46 - 64	30 - 45	18 - 29
2013	49 - 67	33 - 48	24 - 32

IV. Results

General Saving by Cohort

To begin a discussion of the statistical and graphical analysis of this study, I have created a line graph of the mean total value of savings accounts held by households excluding money market assets across age for each cohort, as seen in Figure 1. Median saving figures were omitted for this variable, as the graph was subject to outliers, given the fact many individuals lacked any savings at all. While the majority of previous research has indicated that younger generations seem to be less prepared in terms of retirement saving than elder cohorts, this data suggest that younger cohorts are outsaving older cohorts.

Figure 1. Mean Total Saving Across Age

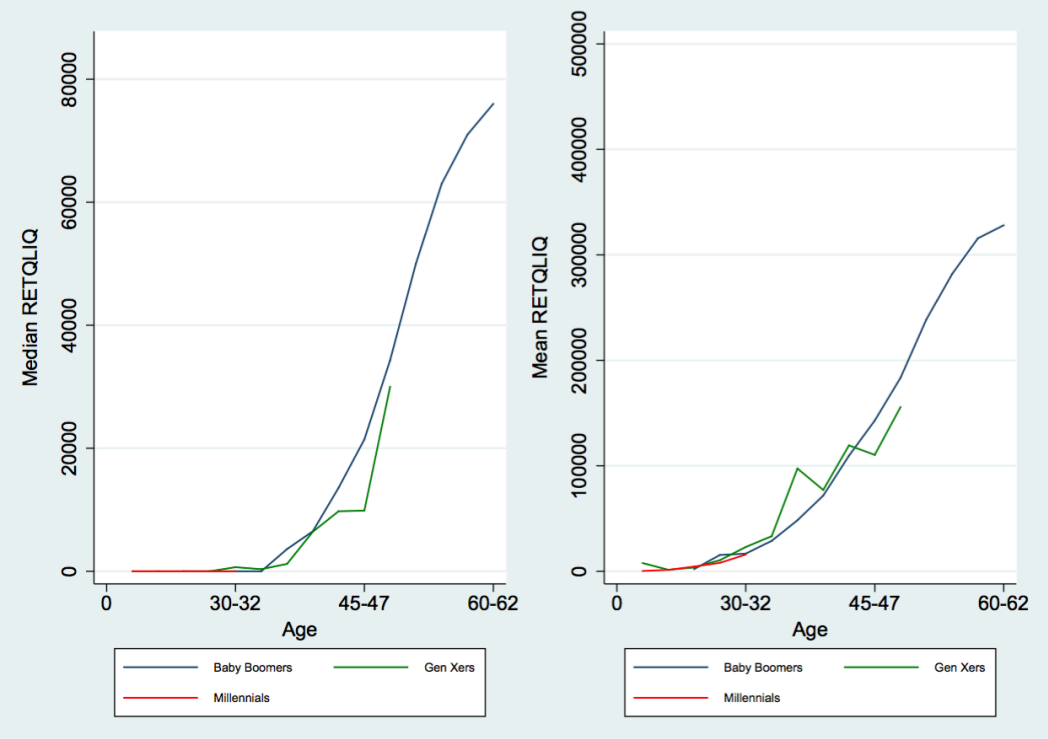
Data Source: *Survey of Consumer Finances*, 1989-2013

As seen in Figure 1, in their early 20s, Gen Xers saved on average $1,458, while Millennials on average saved $2,416. Throughout their 30s, Baby Boomers saved on average $4,985, while Gen Xers saved on average $6,929. Finally, in their 40s, Baby Boomers and Gen Xers saved on average $11,402 and $14,704, respectively. Therefore, this data suggest that younger cohorts have slightly strengthened total saving behavior in comparison to elder generations throughout their 20s, 30s, and 40s. This finding is interesting, given that the majority of economic research, as well as my own analysis below, suggest that younger cohorts end up with less retirement wealth. Therefore, because cohorts are seemingly saving more but ending up with less retirement wealth, this data suggest that younger cohorts face lower returns on assets, given their lag behind in retirement wealth.

Retirement Wealth Accumulation by Cohort

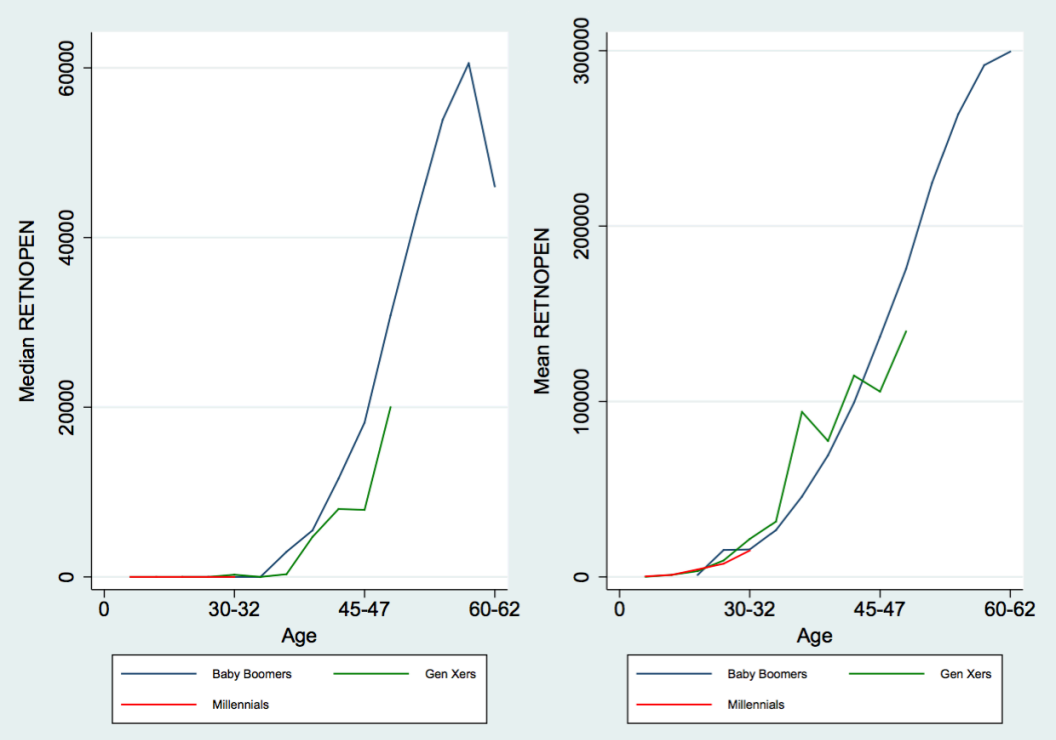
To analyze retirement wealth, I have created line graphs showing various retirement wealth metrics across age for each cohort. Figures 2 and 3 show median and mean total retirement liquid assets and total retirement liquid assets without pension wealth, respectively. Figure 5 shows mean IRA, Keogh, and Thrift, or DC, assets, for each cohort across age profiles. Median figures in Figure 4 were omitted, as the graph was largely affected by outliers, given varying rates of participation in DC plans. Appendix A provides mean (or median if noted) values for each variable, cohort, and age. Additionally, Appendix B provides participation rates for both DC and DC plans.

Figure 2. Median and Mean Total Liquid Retirement Assets Across Age



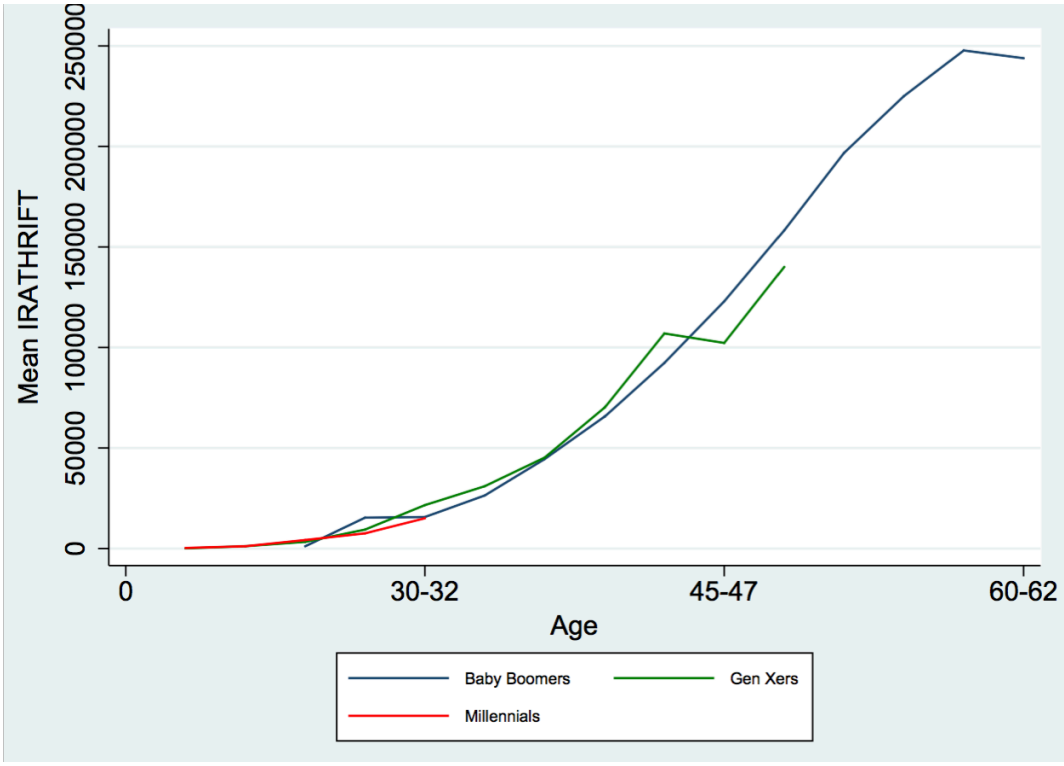
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 3. Median and Mean Liquid Retirement Assets Without Pensions Across Age



Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 4. Mean IRA/Keogh and DC Account Assets Across Age



Data Source: *Survey of Consumer Finances*, 1989-2013

The above graphs generally indicate that with regards to the various retirement wealth metrics, throughout one's 20s, 30s, and 40s, retirement preparation behavior does not vastly differ across the three cohorts, though the eldest generations generally have accumulated slightly more wealth than younger cohorts.

More specifically, with regard to total retirement liquid assets in Figure 2, when the various cohorts were in their 20s, Baby Boomers accumulated on average $8,773, whereas Gen Xers accumulated $5,832 and Millennials accumulated $3,528. This data overall suggest that retirement liquid assets throughout their 20s were statistically similar, with elder cohorts slightly ahead.

In their 30s, Baby Boomers, Gen Xers, and Millennials accumulated total retirement assets on average of $41,401, $57,671, and $15,827, respectively. These numbers, as well as the graph depicted in Figure 2, suggest that Gen Xers have steadily accumulated slightly more total liquid retirement wealth than the Baby Boomers throughout their 30s. While there is greater discrepancy between the two elder cohorts and the Millennials, these average numbers are slightly misleading, as previously explained, as the data only capture Millennials aged 30 to 32 (this caveat is consistent for all graphs shown and is the reason I may exclude values for Millennials during their 30s). Therefore, compared to Baby Boomers and Gen Xers in their early 30s, Millennials have similar retirement asset accumulation.

Finally, in their 40s, Baby Boomers and Gen Xers accumulated total retirement assets on average of $168,634 and $128,445, respectively. The accumulation trend throughout their 30s therefore reversed in their 40s, with Baby Boomers accumulating more liquid retirement wealth than Gen Xers by a slightly larger margin than the difference between the two cohorts in their 30s.

Similar to Figure 2, Figure 3 depicts comparable trends of the same metric, liquid retirement assets across cohorts, but excludes current and future pension wealth. This metric is critical to understand how younger generations are compensating for the decreased future reliability of DB retirement plans. Disregarding the slight uptick in Baby Boomers' assets in their late 20s, this data suggest that retirement wealth excluding pension wealth is comparable across the generations throughout their 20s. Throughout their 30s, Gen Xers steadily accumulate more assets than Baby Boomers; however, this trend reverses in their 40s when Baby Boomers steadily demonstrate higher accumulation of assets compared to the Gen Xers. Overall, in comparison to Figure 2's total retirement liquid assets, Figure 3's figures excluding pension

wealth are slightly lower in value, which is expected, as most pension wealth is accumulated later in the life cycle. While the values are lower, Figure 3 demonstrates how retirement assets excluding pensions are not significantly different, as well as that the general trends in retirement assets when including or excluding pension wealth are almost identical. Therefore, this data suggest that the younger generations have not accumulated significantly more retirement wealth with the exclusion of pension wealth than the Baby Boomers—this finding prompts significant concerns for the future retirement preparedness of the younger cohorts.

To understand these differences between trends in total liquid retirement assets including and excluding pension wealth, it is pertinent to examine the trends for IRA, Keogh, and Thrift, or DC, assets in Figure 4, as younger cohorts could increase private saving via these retirement saving platforms, given the future unreliability of DB and Social Security income. In their 20s, Baby Boomers, Gen Xers, and Millennials on average accumulated IRA, Keogh, and DC assets of $8,238, $3,492, and $3,315, respectively. In their 30s, Baby Boomers, Gen Xers, and Millennials accumulated average assets of $38,015, $41,955, and $15,024, respectively. In their 40s, Baby Boomers and Gen Xers accumulated average assets of $142,566 and $116,421, respectively. This data suggest that while Gen Xers slightly outsaved Baby Boomers in their mid-30s, elder generations have accumulated more IRA, Keogh and DC combined assets than younger generations. The cohorts, however, do slightly trade off between IRA and Keogh assets and DC assets, as Boomers demonstrate less DC saving, but more IRA and Keogh saving, especially compared to Xers throughout their 30s and 40s. Overall, Figure 4 suggests that younger generations are not accumulating a more significant amount of private retirement wealth through their 20s, 30s, and 40s as compared to the Baby Boomers.

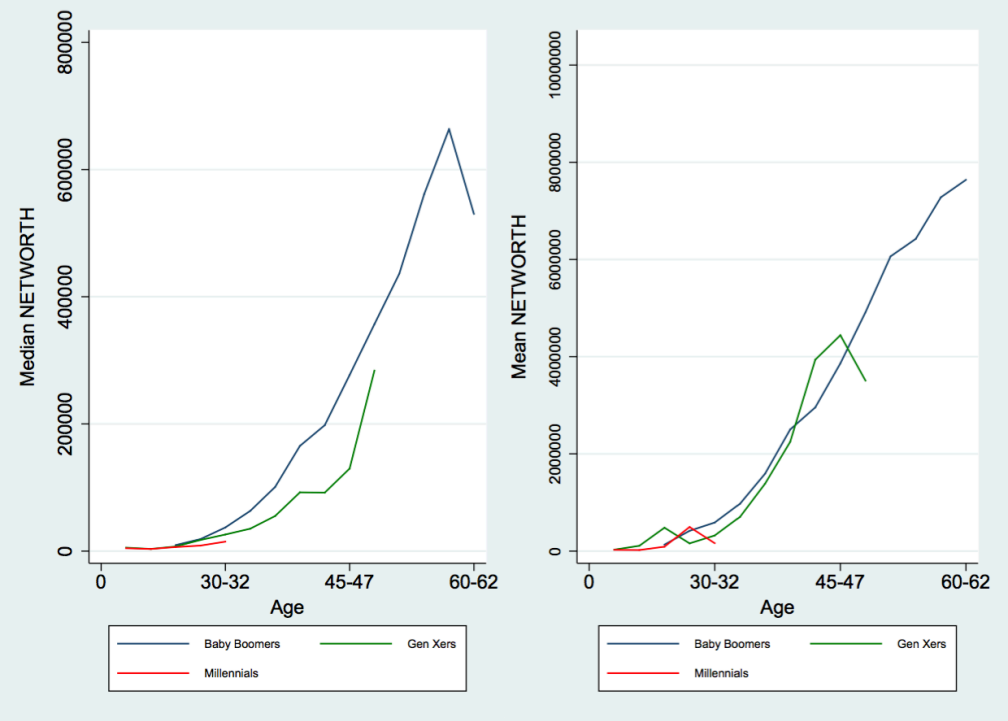
Figure 4's implications are important to discuss within the context of changing participation rates in DC and DB plans, which can be found in Appendix B. Particularly apparent when comparing participation rates of Baby Boomers and Gen Xers, participation rates in DC plans have increased for younger cohorts, while DB participation rates have declined, especially throughout the cohorts' 30s and 40s. For example, in their 30s, DC plan participation for Baby Boomers and Gen Xers were 40 and 42.4 percent, respectively, while DB plan participation for the two cohorts were 28.3 and 17.5 percent, respectively. Therefore, while DC plan participation has increased for younger generations in comparison to elder cohorts, and while DC asset accumulation has slightly strengthened for Gen Xers as compared to Baby Boomers, overall IRA, Keogh, and DC assets together have fallen behind that of elder generations, even when accounting for age. This is concerning, as IRA and Keogh assets are typically rolled over DC assets from past employers or saving by people who are not offered DC plans. Overall, this data suggest increased participation rates, but smaller balances in such plans for younger cohorts as compared to elder cohorts.

Total Wealth Accumulation by Cohort

In addition to examining retirement saving across cohorts, it is important to consider other forms of wealth, which the various cohorts have prioritized differently, and which could potentially be tapped into for retirement income. Therefore, I have created line graphs showing the trends in net worth, financial assets, and home equity across age for all cohorts. These metrics are useful to examine in the context of the cohorts' retirement trends, as they may insinuate reasons for different levels of retirement wealth at different ages. Figures 5, 6, and 7 display the median and mean net worth, total financial assets, and total primary home equity

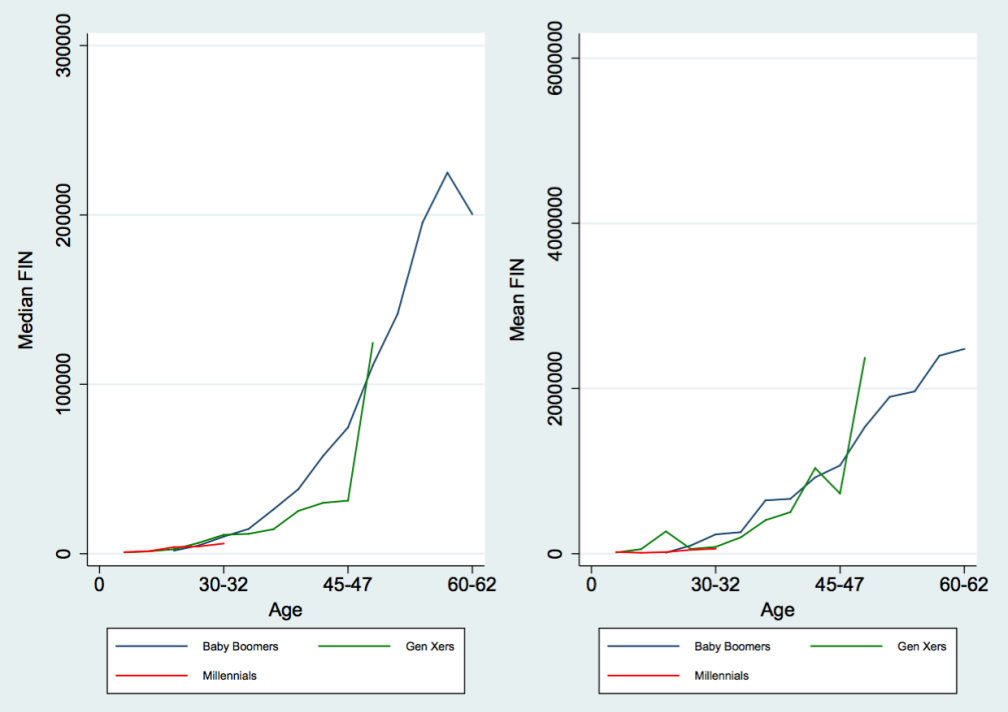
across ages for all cohorts, respectively. Additionally, Appendix A provides mean (or median if noted) values for each variable, cohort, and age.

Figure 5. Median and Mean Net Worth Across Age



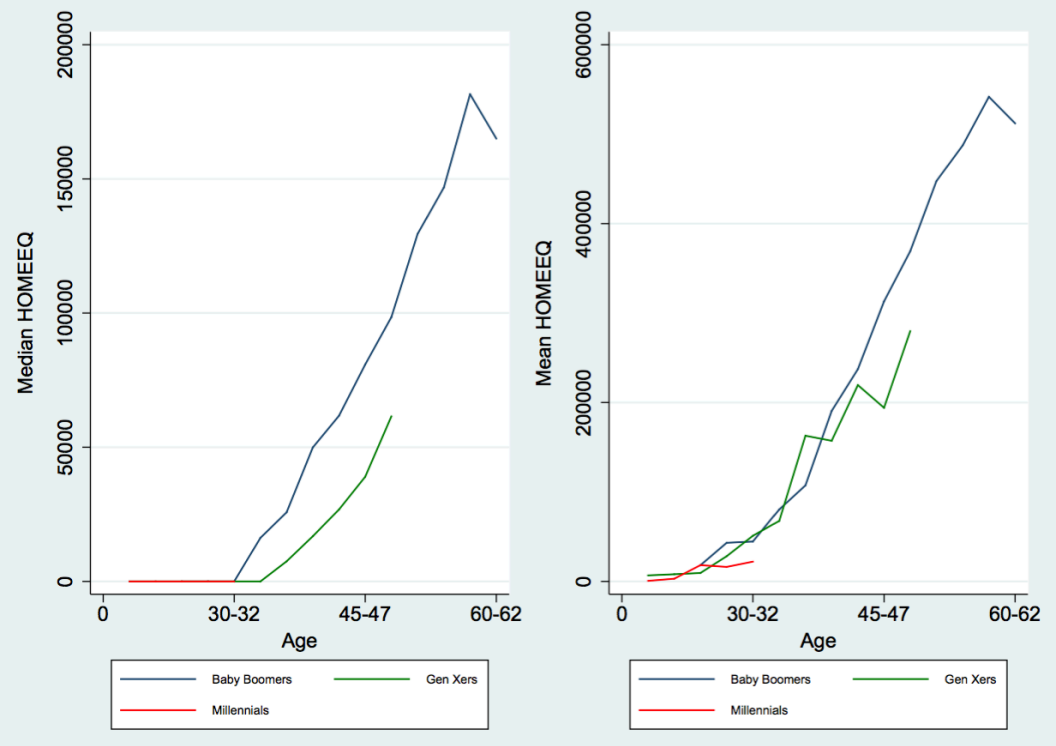
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 6. Median and Mean Total Financial Assets Across Age



Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 7. Median and Mean Total Home Equity for Primary Residence Across Age



Data Source: *Survey of Consumer Finances*, 1989-2013

Similar to the trends in retirement wealth, the above graphs generally indicate that Gen Xers fall behind Baby Boomers with respect to net worth, financial assets, and home equity across all age profiles. Additionally, the graphs reveal that Millennials fall behind both elder cohorts more significantly with respect to all three mean metrics in their late 20s and early 30s.

With respect to net worth, my analysis concentrates on the median net worth figures, as the mean analysis, despite top-coding the data, is misleading with outliers skewing the data. Throughout their 20s, Baby Boomers, Gen Xers, and Millennials accumulated median net worth of $14,209, $8,444, and $5,750, respectively. Furthermore, as depicted in Figure 5, throughout their early 20s, all three cohorts demonstrated similar net worth accumulation; however, in their late 20s and early 30s, Gen Xers and Baby Boomers increased their net worth in comparison to Millennials, with Baby Boomers having the greatest net worth. This trend continues throughout their 30s with Baby Boomers and Gen Xers accumulating median net worth of $91,678 and $52,223, respectively. Finally, in their 40s, the gap in net worth between the Baby Boomers and Gen Xers continues to widen, with the two cohorts accumulating median net worth of $316,983 and $168,545, respectively. Overall, net worth data suggest that elder generations have greater median net worth across all age profiles.

Breaking down this net worth analysis by examining median total financial assets is useful to analyze what has influenced the trends in net worth across the three cohorts. Furthermore, total financial assets could be tapped into as future retirement income with capital gains and interest, and therefore it is an important metric to analyze with respect to retirement wealth and preparedness. Figure 6 captures this analysis of total financial assets across cohorts. In their 20s, Baby Boomers, Gen Xers, and Millennials accumulated median financial assets of $3,341, $2,804, and $2,645, respectively. In their 30s, Baby Boomers and Gen Xers accumulated

median financial assets of $22,220 and $15,652, respectively. In their 40s, Baby Boomers and Gen Xers accumulated $96,273 and $61,899, respectively. This data suggest that the older generations have on average slightly more total financial assets than younger generations, and this gap in assets widens as the cohorts age. This trend may therefore also indicate how successive generations face lower returns on assets compared to elder cohorts.

In addition to total financial assets across the three cohorts, home equity is also an important component of net worth to examine, as it is often a large portion of one's total net worth, as well as a potential future source for retirement income through a reverse mortgage. Mean home equity data in Figure 7 generally show how older generations have greater home equity, especially as cohorts age into their 40s. In their 20s, Baby Boomers, Gen Xers, and Millennials had average home equities of $30,663, $13,105 and $9,537, respectively. In their 30s, Baby Boomers and Gen Xers had average home equities of $105,711 and $109,672, respectively. It is interesting to note that average home equity of Gen Xers slightly surpasses that of Baby Boomers at this point in the life cycle; however, from median analysis, Gen Xers actually lag behind Baby Boomers. Finally, in their 40s, Baby Boomers and Gen Xers had average home equities of $341,740 and $231,116, respectively. Overall, mean home equity data suggest that older generations have greater home equity, especially as the cohorts age into their 40s. The data also suggest that Millennials more significantly lag behind the elder cohorts during their late 20s and early 30s. These lower mean figures for younger generations, however, are not extremely surprising given lower homeownership rates of younger cohorts across all age profiles, as shown in Appendix G.

Furthermore, Figure 7 reflects the tendency for younger generations to rent rather than buy throughout their 20s, 30s and 40s. Therefore, the data suggest that younger generations are

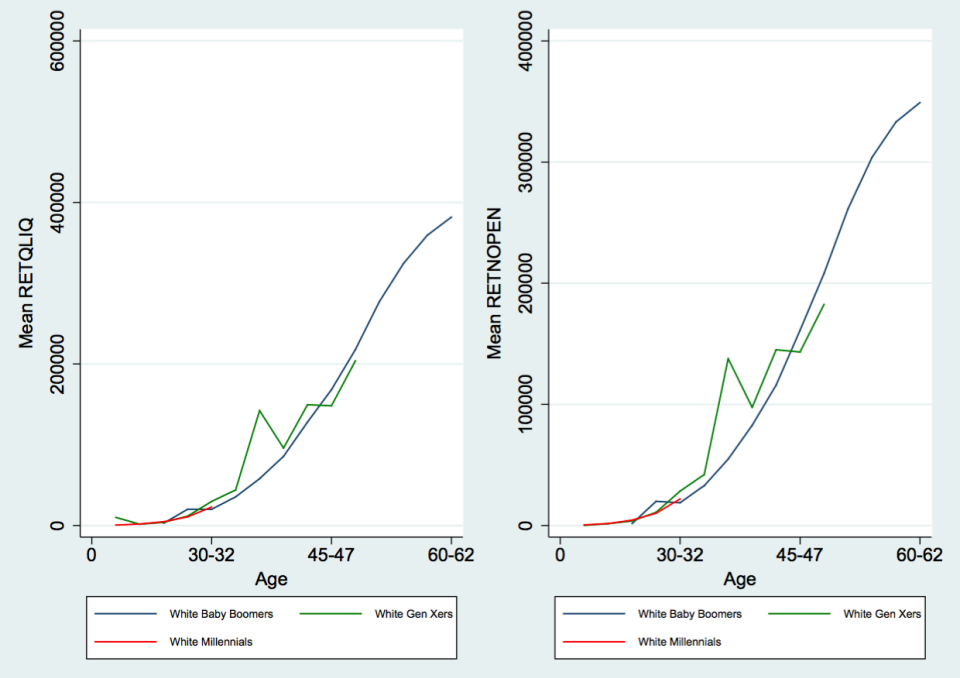
not investing in real estate as alternate means of future retirement income. Many factors have contributed to this trend, especially since the Great Recession. Many young Gen Xers and aging Millennials have struggled to access affordable mortgages as easily as elder generations, giving declining numbers of young people getting first mortgages (Hancock & Passmore, 2011). Additionally, many Gen Xers and Millennials have struggled with competing financial priorities of both paying down payments and simultaneously saving for retirement—many Gen Xers and Millennials fail at both (Financial Finesse, 2016). Additionally, Gen Xers bear the additional burden of competing financial priorities between expensive elderly care costs for their aging parents and increasing education costs for their children (Financial Finesse, 2016). Finally, Millennials face high costs of living in places in which they want to settle down, such as New York, San Francisco, Los Angeles, Washington D.C., which all have significant Millennial populations, as well as are ranked in the top fifteen least affordable places to both buy and rent (Davidson, 2014).

Retirement Wealth by Race, College, Sex, Marriage, and Number of Children

In addition to my overall study of the seven key wealth variables in my study, I further break down my analysis by examining the differences between total retirement liquid assets and retirement assets excluding pension wealth by the following demographic sub-groups: race, college, sex, marital status, and number of children. Similar to my previous analysis, I have created line graphs comparing retirement assets, both including and excluding pension wealth, for Baby Boomers, Gen Xers, and Millennials for each sub-demographic category. Figures 9, 10, 11, and 12 depict mean total retirement liquid assets and mean total retirement liquid assets excluding pension wealth for White, Black, Hispanic, and Other survey respondents,

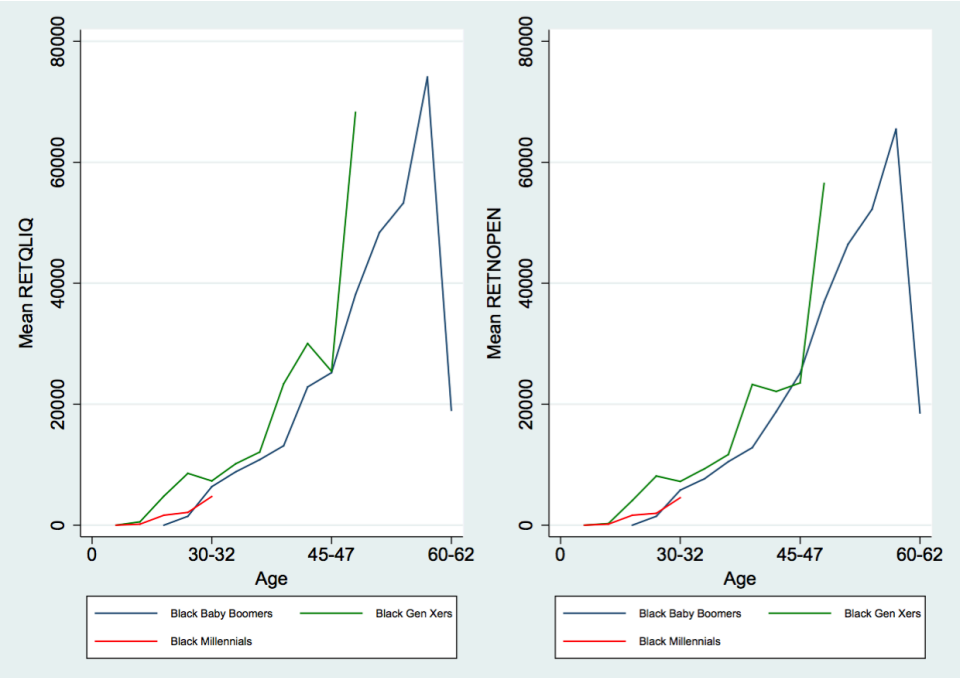
respectively. Figures 13, 14, 15, 16, and 17 depict the same two variables for respondents who are college graduates, non-college graduates, married, single or not living with a partner males, and single or not living with a partner females, respectively. Finally, Figures 18, 19, 20, and 21 depict the two variables for respondents with no children, one child, two children, and three or more children, respectively. For supplemental information regarding means and medians for cohorts, demographic sub-groups, and ages, see Appendices C, D, E, and F.

Figure 9. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for White Respondents



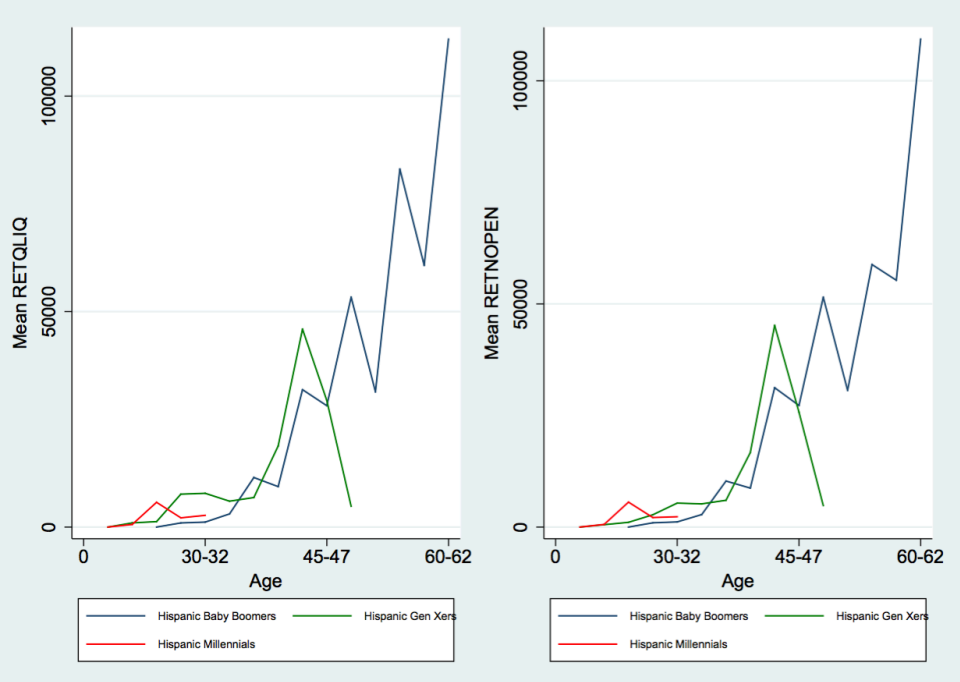
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 10. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Black Respondents



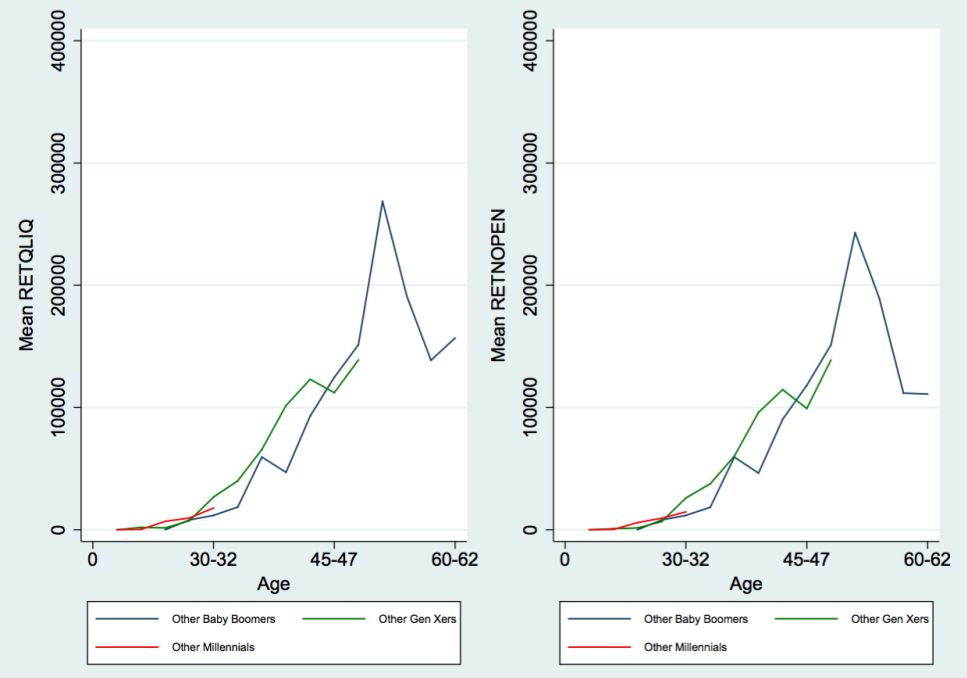
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 11. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Hispanic Respondents



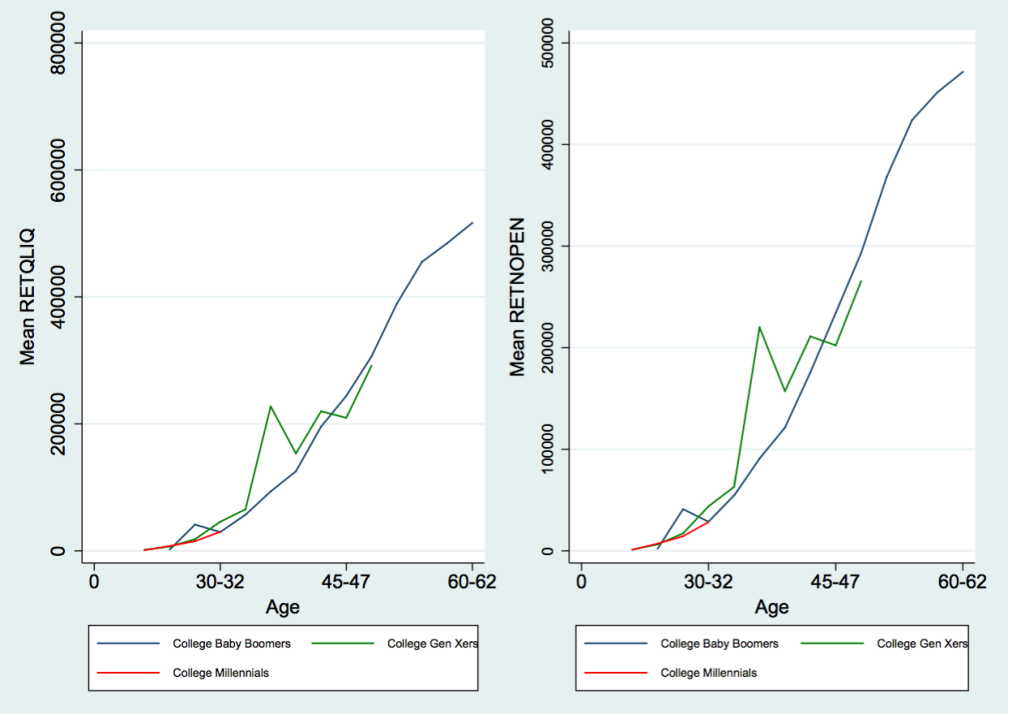
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 12. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Other Respondents



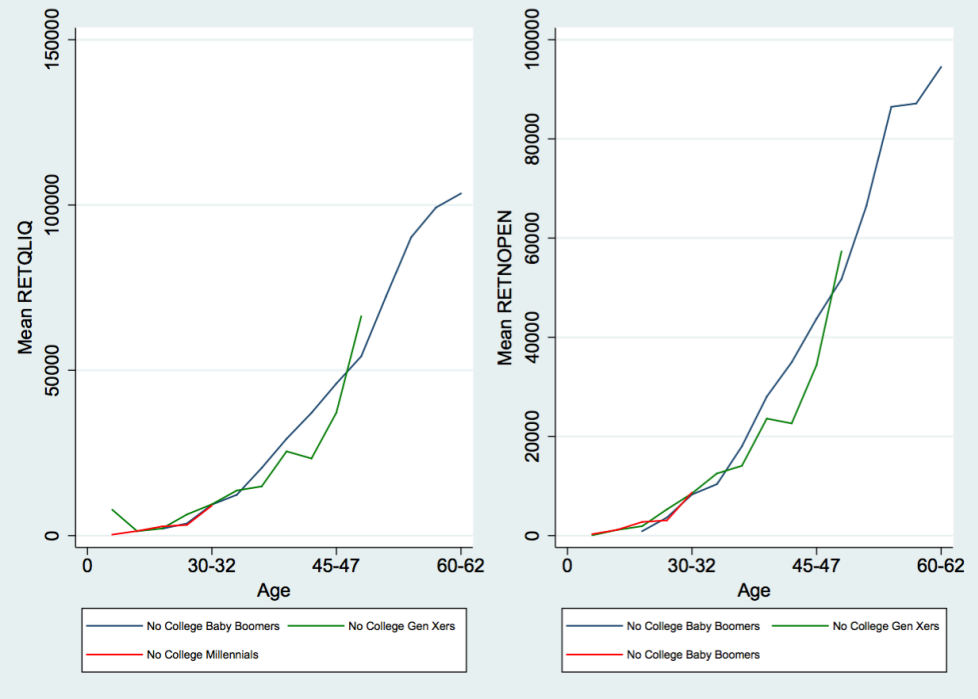
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 13. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for College Graduates



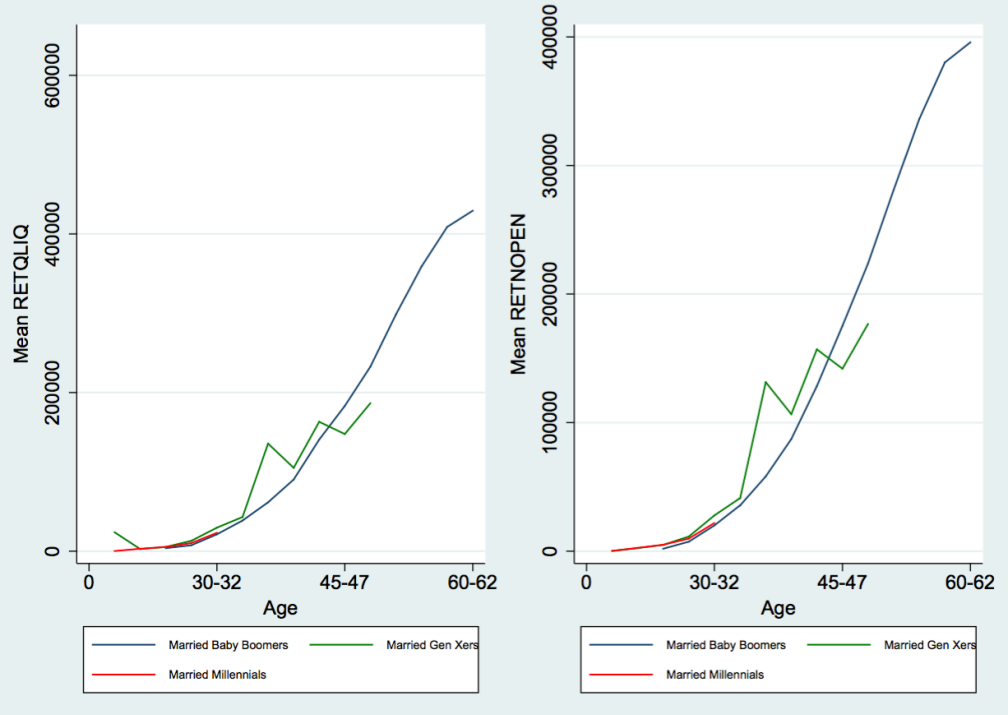
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 14. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets



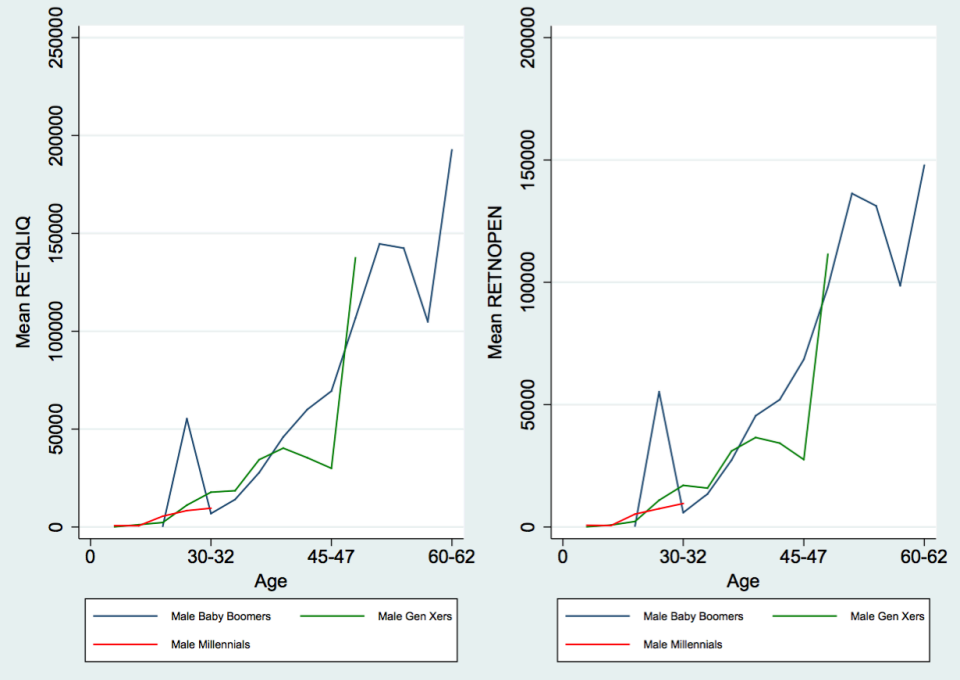
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 15. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Married Respondents



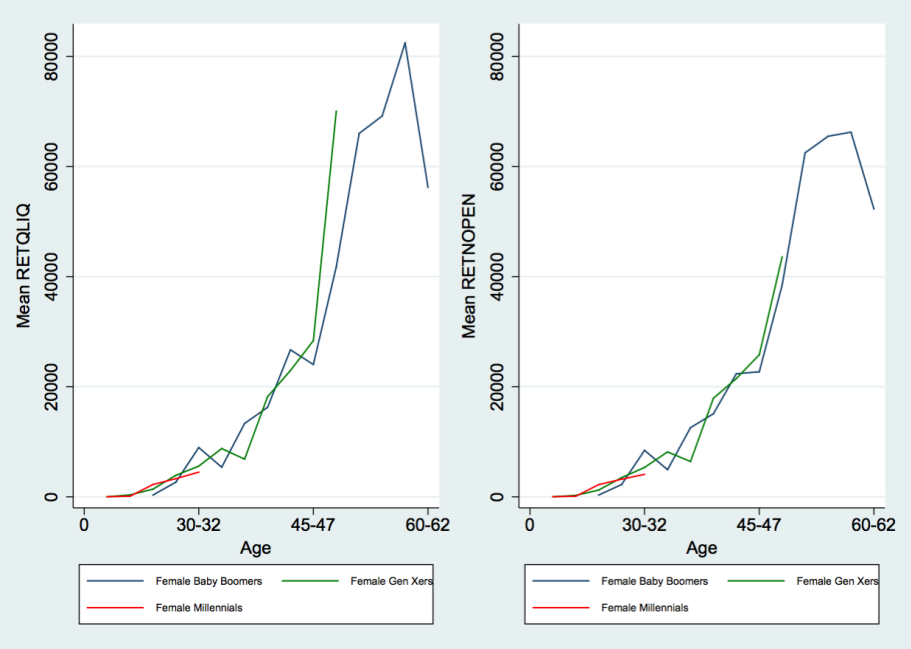
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 16. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Single Male Respondents



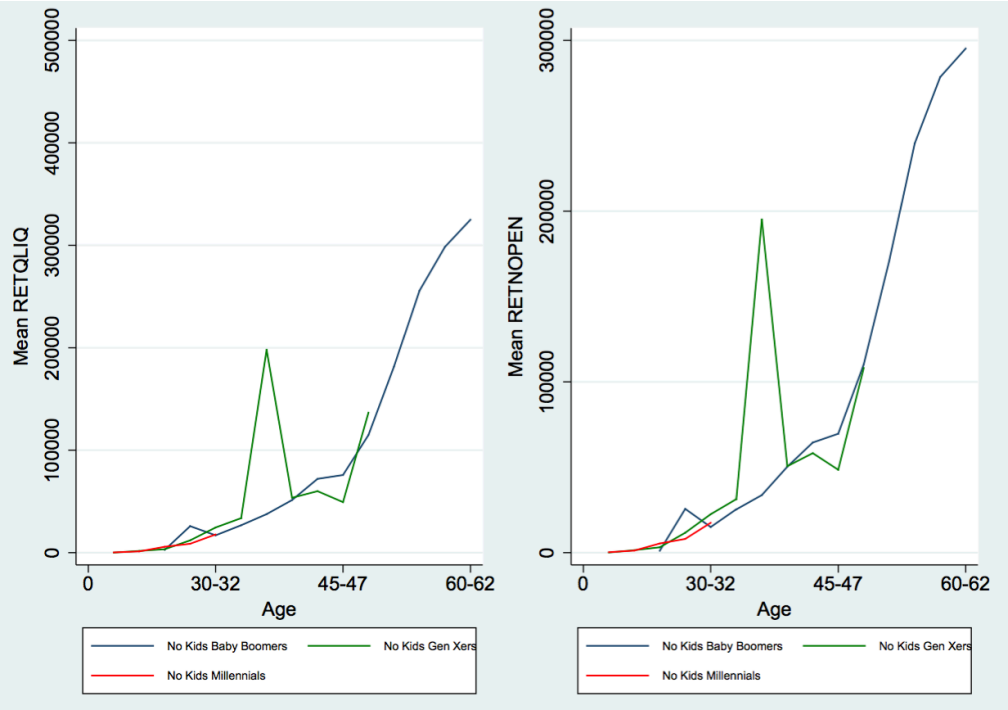
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 17. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Single Female Respondents



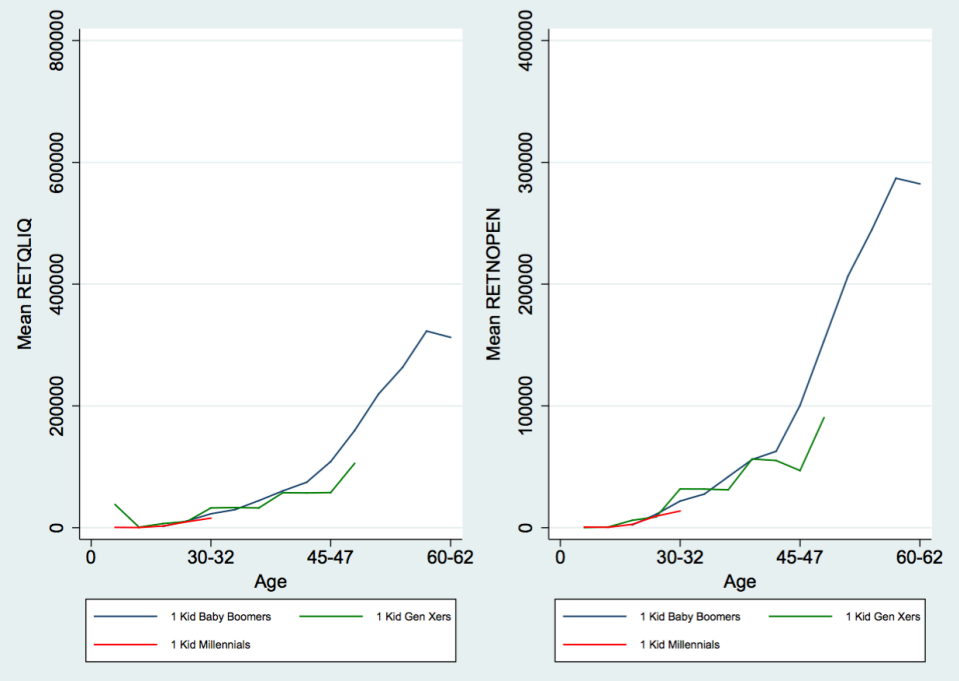
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 18. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Respondents With No Children



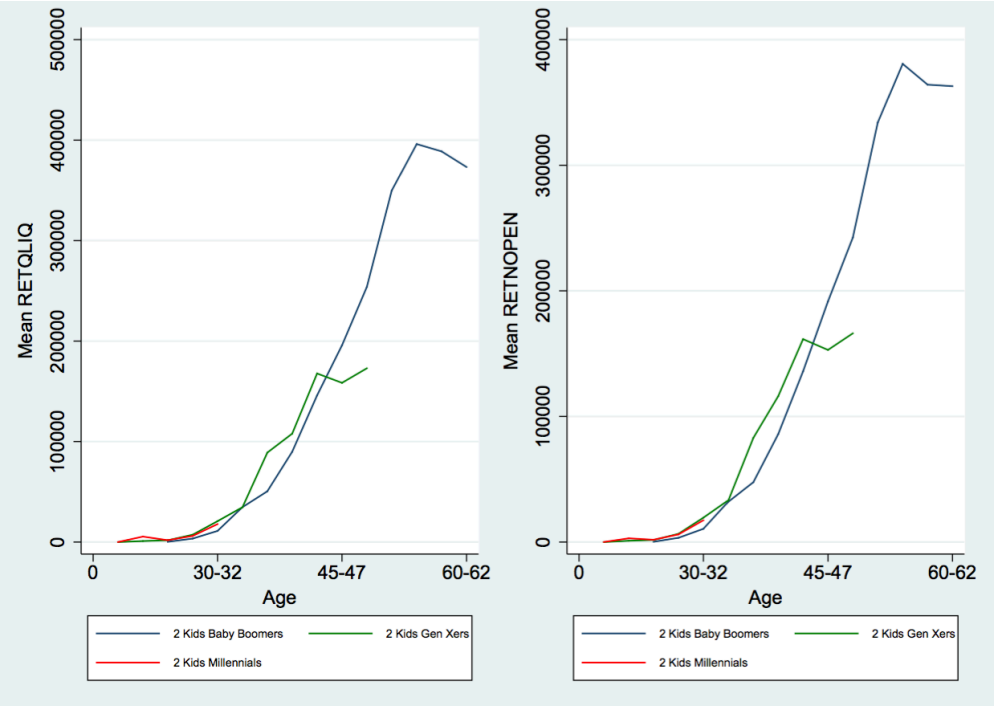
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 19. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Respondents With One Child



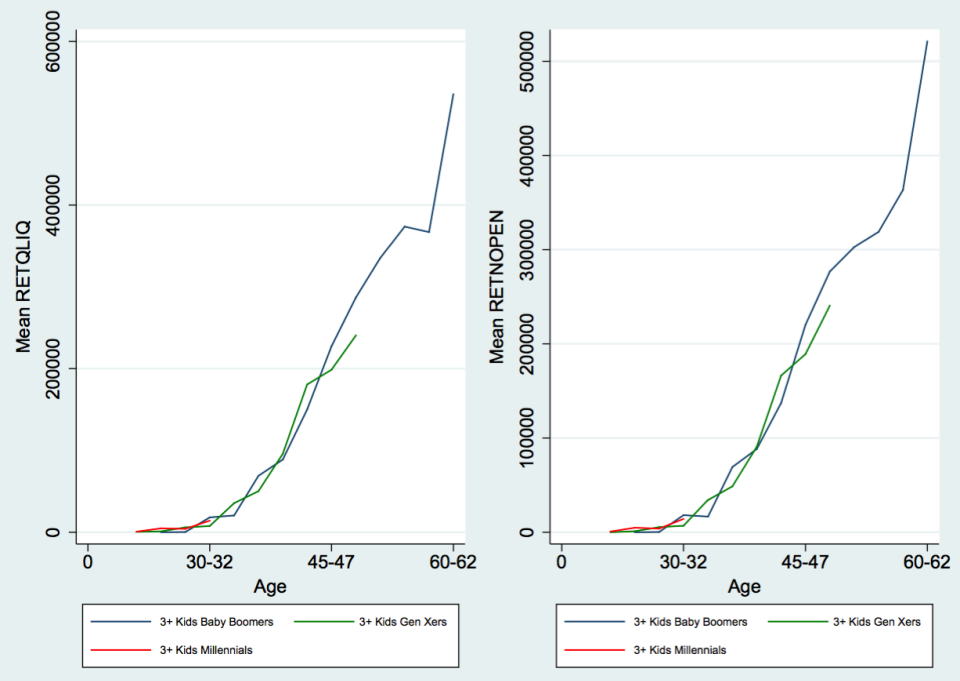
Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 20. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Respondents With Two Children



Data Source: *Survey of Consumer Finances*, 1989-2013

Figure 21. Mean Total Retirement Liquid Assets and Mean Liquid Retirement Assets Without Pensions, Across Age for Respondents With Three or More Children



Data Source: *Survey of Consumer Finances*, 1989-2013

From Figures 9, 10, 11, and 12, total retirement assets, both including and excluding pension wealth, for White, Black, Hispanic, and Other respondents, mirror my original overall analysis of the two variables, with all three cohorts demonstrating fairly comparable asset accumulation both including and excluding pension wealth. Therefore, none of the four racial sub-groups of younger cohorts demonstrate a significant increase in retirement asset accumulation, despite the fact that DB plans will not be a future reliable retirement income source. Black individuals from young cohorts, however, demonstrate very slight improvement. Additionally, while the levels of assets for White and Other respondents are similar to the overall averages across all age profiles, the levels of assets for Hispanic and Black respondents are significantly lower than the overall averages. For example, the overall averages of the two retirement asset metrics for Baby Boomers, Gen Xers, and Millennials in their 30s were approximately $40,000, $57,000 and $15,000, respectively. Black Baby Boomers, Gen Xers, and Millennials in their 30s, however, had on average about $9,500, $13,000 and $4,500, respectively, and Hispanic respondents of the three cohorts had on average about $6,000, $9,000, and $2,500, respectively. Therefore, the data suggest that both Black and Hispanic races on average have significantly smaller amounts of assets in comparison to White and Other races, particularly throughout their 30s and 40s. Nevertheless, each racial sub-category demonstrates similar trends to that of my original analysis, in which the discrepancy between retirement assets including and excluding pension wealth is small.

Figures 13, 14, 15, 16, and 17 also reflect similar trends to my original analysis, in which all three cohorts for each sub-category—college degree, marital status, sex, and number of children—do not accumulate significantly different amounts of retirement assets including pension wealth as compared to retirement assets excluding pension wealth, at the various points

in the lifecycle. Similar to Black and Hispanic respondents, however, those who did not graduate college, are either female or male and neither married nor living with a partner, and have fewer than two children, have lower mean averages for both retirement asset metrics. Single males, however, had accumulated more assets across all age profiles than single females, although their accumulation still lagged behind those who were married. Therefore, similar to the racial sub-groups, college, sex, and marital status sub-categorical analysis shows similar overall accumulation trends across cohorts for each age profile, but depending on the specific category, some have significantly lower levels of assets.

Finally, from Figures 18, 19, 20, and 21, total retirement assets including pension wealth do not significantly differ from retirement assets excluding pension wealth, regardless of the number of children. Respondents with two or more children, however, had on average more retirement assets, both including and excluding pension wealth, as compared with the overall averages. On the other hand, respondents with fewer than two children had slightly lower retirement assets than the overall analysis. This finding is particularly apparent when the cohorts were in their 30s and 40s. Additionally, particularly in their 30s and 40s, elder generations accumulated greater retirement wealth than younger cohorts. Overall, depending on the number of children, levels of retirement wealth significantly differed from the overall averages, across all age profiles. Nevertheless, the difference between retirement assets including and excluding pension wealth did not greatly differ depending on the number of children of a respondent.

From this demographic analysis of the two retirement asset metrics, it is apparent that regardless of demographic subcategories except for the number of children, different sub-demographic cohort groups do not significantly demonstrate different asset accumulation behavior at the same points in the life cycle, as shown in my initial analysis. Moreover,

retirement assets including and excluding pension wealth are very similar, regardless of the sub-demographic group. The data, however, do show that the overall levels of such assets can greatly differ depending on the sub-group. Nevertheless, in that particular subgroup, consistent asset levels, both including and excluding pension wealth, are evident across cohorts at certain ages.

Discussion in Terms of Preparedness Benchmarks

Given that the younger generations—Gen Xers and Millennials—have not thus far shown an increase in retirement assets, despite the future unreliability of pension and Social Security income, it is important to consider retirement preparedness benchmarks in the context of these results. As previously discussed, the National Retirement Risk Index (NRRI) suggest that about half of today's working families are at risk of maintaining their pre-retirement standard of living throughout retirement (Munnell et al, 2014). In order to maintain such standard of living, however, the NRRI predicts that families of all income levels must on average seek a target replacement rate of 73 percent (Munnell et al, 2014). Given the future unreliability of both pensions and Social Security benefits, however, my analysis indicates that it is worrisome for younger cohorts, as their retirement asset and wealth accumulation does not greatly differ from that of the Baby Boomers, and in many instances, actually lags behind. Therefore, my analysis confirms that younger cohorts seem to be less prepared for future retirement, given the similarity in levels of retirement assets at the same points in the life cycle across cohorts. With very little difference in saving behaviors between generations, younger generations will be incapable of retiring with a 70 percent replacement rate if they do not increase private saving.

V. Conclusion

The overarching question this research seeks to answer is: because younger generations will not be able to rely as much on Social Security and Defined Benefit plans for retirement income as older generations, are the younger cohorts making any progress in terms of saving for retirement on their own? While there are many related economic studies about the savings behavior of different cohorts, such literature lacks dynamic analyses of how retirement saving and preparedness compare at certain points in the lifecycle across cohorts. Therefore, I use the Federal Reserve's *Survey of Consumer Finances* (SCF) to analyze how retirement wealth and preparedness at certain ages varies amongst three different cohorts: the Baby Boomers (1946-1964), Gen Xers (1965-1980), and Millennials (1981-2000). Ultimately, I find that while younger cohorts, including Gen Xers and Millennials, outsave older generations, these younger cohorts have not significantly accumulated greater retirement wealth than Baby Boomers at early points in the lifecycle. This finding suggests that younger cohorts have lower returns on their savings as compared to elder generations. This finding is consistent across the five demographic subgroups in my analysis, including race, college, sex, marital status, and number of children.

There are possibilities of further research beyond this study. Given the different points of the lifecycle of the various three cohorts, overlap of the three generations is limited, which therefore limited my study. As Millennials continue to age throughout their 40s, 50s, and 60s, a more dynamic analysis can be conducted to compare retirement saving and preparedness to that of elder cohorts. Additionally, changes in the state of Social Security and private savings will no doubt continue to persist, which will provide interesting context as the younger cohorts age.

This current study has important implications for future policy. Understanding the differences in retirement wealth accumulation across generations at various points in the life

cycle will help inform policy makers when certain generations have fallen behind and therefore when those cohorts could benefit from changes in the saving structure. Moreover, because younger cohorts' retirement preparedness mirrors that of elder cohorts across age profiles, and because such younger cohorts cannot expect as much as out of the sources of retirement income upon which the elder ones most rely, changes to the saving structure are necessary. A possible exploration for policy makers to consider is auto-escalation, which would automatically force individuals to contribute increasing amounts to their retirement saving accounts. Auto-escalation is relevant given the increasing participation rates of younger cohorts in DC plans despite their lower balances. Additionally, exploring policy to increase returns for younger generations, especially given their tendency to conservatively invest, will be key to increasing their retirement wealth. Therefore, while this study sought to examine whether retirement saving and wealth has changed over time for different cohorts, future works that model what retirement wealth levels would be by cohort if auto-escalation were in place would be helpful for policy makers.

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VII. APPENDICES

Appendix A: Mean (or Median if noted) Values for Nine Key Variables by Cohort and Age

	BABY BOOMERS			*GEN XERS*			*MILLENNIALS*		
	20s	**30s**	**40s**	**20s**	**30s**	**40s**	**20s**	**30s**	**40s**
TOTAL SAVINGS	$ 2,432	$ 4,985	$ 11,402	$ 1,458	$ 6,926	$ 14,704	$ 2,416	$ 5,274	
TOTAL RETIREMENT ASSETS	$ 8,773	$ 41,401	$ 168,634	$ 5,832	$ 57,671	$ 128,445	$ 3,528	$ 15,827	
RETIREMENT ASSETS EXCL. PENSION	$ 8,238	$ 39,348	$ 159,137	$ 3,492	$ 56,180	$ 120,107	$ 3,315	$ 15,024	
IRA/KEOGH ASSETS	$ 1,755	$ 18,092	$ 72,865	$ 1,216	$ 16,217	$ 45,107	$ 1,135	$ 3,292	
DC/THRIFT ASSETS	$ 6,483	$ 19,923	$ 69,701	$ 2,276	$ 25,738	$ 71,314	$ 2,180	$ 11,732	
NET WORTH *Median Figures	$ 14,209	$ 91,678	$ 316,983	$ 8,444	$ 52,223	$ 168,545	$ 5,750	$ 14,900	
FINANCIAL ASSETS *Median Figures	$ 3,341	$ 22,220	$ 96,273	$ 2,804	$ 15,652	$ 61,899	$ 2,645	$ 6,000	
HOME EQUITY	$ 30,663	$ 105,711	$ 341,740	$ 13,105	$ 109,672	$ 231,116	$ 9,537	$ 22,127	

Data Source: Author's calculations from the *Survey of Consumer Finances*, 1989-2013

Appendix B: Rates of DC and DB Plan Participation by Cohort and Age

	BABY BOOMERS	*GEN XERS*	*MILLENNIALS*
Either head or spouse/partner has any type of DC plan on current job			
20s	24.4%	21.2%	20.0%
30s	40.0%	42.4%	37.2%
40s	45.5%	46.3%	
Either head or spouse/partner has DB plan on current job or some type of pension from a past job to be received in the future			
20s	18.1%	10.0%	7.9%
30s	28.3%	17.5%	13.0%
40s	29.3%	21.5%	

Data Source: Author's calculations from the *Survey of Consumer Finances*, 1989-2013

Appendix C: Retirement Assets (Including and Excluding Pensions) by Cohort, Age & Race

	BABY BOOMERS		*GEN XERS*		*MILLENNIALS*	
	RETQLIQ	**RETNOPEN**	**RETQLIQ**	**RETNOPEN**	**RETQLIQ**	**RETNOPEN**
Overall						
20s	$ 8,773	$ 8,238	$ 5,832	$ 3,492	$ 3,528	$ 3,315
30s	$ 41,401	$ 39,348	$ 57,671	$ 56,180	$ 15,827	$ 15,024
40s	$ 168,634	$ 159,137	$ 128,445	$ 120,107		
White						
20s	$ 11,502	$ 10,578	$ 6,809	$ 4,050	$ 4,483	$ 4,190
30s	$ 49,792	$ 47,273	$ 77,965	$ 76,385	$ 22,849	$ 21,930
40s	$ 197,793	$ 186,585	$ 167,200	$ 156,910		
Black						
20s	$ 738	$ 738	$ 3,484	$ 3,126	$ 985	$ 948
30s	$ 9,785	$ 9,193	$ 13,231	$ 12,871	$ 4,752	$ 4,543
40s	$ 33,645	$ 31,822	$ 41,243	$ 34,044		
Hispanic						
20s	$ 480	$ 479	$ 2,471	$ 1,090	$ 2,124	$ 2,082
30s	$ 6,276	$ 5,750	$ 9,881	$ 8,316	$ 2,725	$ 2,315
40s	$ 36,188	$ 35,145	$ 26,702	$ 25,247		
Other						
20s	$ 4,068	$ 4,068	$ 2,729	$ 2,283	$ 4,216	$ 3,922
30s	$ 34,189	$ 33,972	$ 58,499	$ 54,958	$ 17,808	$ 14,642
40s	$ 159,406	$ 150,684	$ 124,685	$ 117,568		

Data Source: Author's calculations from the *Survey of Consumer Finances*, 1989-2013

Appendix D: Retirement Assets (Including and Excluding Pensions) by Cohort, Age & College

	BABY BOOMERS		*GEN XERS*		*MILLENNIALS*	
	RETQLIQ	**RETNOPEN**	**RETQLIQ**	**RETNOPEN**	**RETQLIQ**	**RETNOPEN**
Overall						
20s	$ 8,773	$ 8,238	$ 5,832	$ 3,492	$ 3,528	$ 3,315
30s	$ 41,401	$ 39,348	$ 57,671	$ 56,180	$ 15,827	$ 15,024
40s	$ 168,634	$ 159,137	$ 128,445	$ 120,107		
No College						
20s	$ 2,873	$ 2,269	$ 4,419	$ 2,107	$ 1,923	$ 1,823
30s	$ 17,864	$ 16,167	$ 15,866	$ 14,669	$ 9,091	$ 8,685
40s	$ 52,446	$ 49,224	$ 42,275	$ 38,099		
College						
20s	$ 21,768	$ 21,609	$ 8,942	$ 8,260	$ 8,050	$ 7,550
30s	$ 76,326	$ 73,800	$ 123,011	$ 120,980	$ 29,970	$ 28,334
40s	$ 283,638	$ 267,708	$ 240,251	$ 226,306		

Data Source: Author's calculations from the *Survey of Consumer Finances*, 1989-2013

Appendix E: Retirement Assets (Including and Excluding Pensions) by Cohort, Age & Sex

		BABY BOOMERS		*GEN XERS*		*MILLENNIALS*	
		RETQLIQ	RETNOPEN	RETQLIQ	RETNOPEN	RETQLIQ	RETNOPEN
Overall							
	20s	$ 8,773	$ 8,238	$ 5,832	$ 3,492	$ 3,528	$ 3,315
	30s	$ 41,401	$ 39,348	$ 57,671	$ 56,180	$ 15,827	$ 15,024
	40s	$ 168,634	$ 159,137	$ 128,445	$ 120,107		
Married							
	20s	$ 5,640	$ 4,650	$ 11,219	$ 4,708	$ 4,713	$ 4,398
	30s	$ 52,933	$ 50,249	$ 78,335	$ 76,747	$ 23,180	$ 21,934
	40s	$ 213,691	$ 202,066	$ 165,760	$ 158,524		
Single Male							
	20s	$ 27,844	$ 277,843	$ 3,683	$ 3,519	$ 3,811	$ 3,516
	30s	$ 23,665	$ 23,033	$ 27,741	$ 25,133	$ 9,607	$ 9,607
	40s	$ 95,199	$ 88,708	$ 67,610	$ 57,755		
Single Female							
	20s	$ 1,502	$ 1,284	$ 1,423	$ 1,263	$ 1,418	$ 1,389
	30s	$ 10,983	$ 10,265	$ 9,848	$ 9,456	$ 4,490	$ 4,093
	40s	$ 39,638	$ 36,509	$ 40,468	$ 30,297		

Data Source: Author's calculations from the *Survey of Consumer Finances*, 1989-2013

Appendix F: Retirement Assets (Including and Excluding Pensions) by Cohort, Age & Number of Children

		BABY BOOMERS		*GEN XERS*		*MILLENNIALS*	
		RETQLIQ	RETNOPEN	RETQLIQ	RETNOPEN	RETQLIQ	RETNOPEN
Overall							
	20s	$ 8,773	$ 8,238	$ 5,832	$ 3,492	$ 3,528	$ 3,315
	30s	$ 41,401	$ 39,348	$ 57,671	$ 56,180	$ 15,827	$ 15,024
	40s	$ 168,634	$ 159,137	$ 128,445	$ 120,107		
No Children							
	20s	$ 14,278	$ 13,371	$ 4,284	$ 4,093	$ 3,984	$ 3,729
	30s	$ 33,153	$ 31,093	$ 77,451	$ 74,883	$ 17,767	$ 17,494
	40s	$ 111,012	$ 103,777	$ 81,990	$ 71,646		
One Child							
	20s	$ 6,629	$ 6,629	$ 13,957	$ 3,897	$ 3,355	$ 3,278
	30s	$ 39,341	$ 36,807	$ 38,866	$ 37,771	$ 15,692	$ 13,703
	40s	$ 140,596	$ 130,770	$ 73,475	$ 64,109		
Two Children							
	20s	$ 1,855	$ 1,807	$ 2,536	$ 2,313	$ 3,356	$ 2,742
	30s	$ 46,557	$ 44,047	$ 63,090	$ 62,915	$ 17,886	$ 17,351
	40s	$ 236,382	$ 225,987	$ 166,355	$ 160,224		
Three+ Children							
	20s	$ 137	$ 137	$ 2,506	$ 2,147	$ 3,238	$ 3,142
	30s	$ 49,115	$ 48,089	$ 47,311	$ 45,126	$ 14,171	$ 14,171
	40s	$ 249,875	$ 234,191	$ 206,596	$ 198,623		

Data Source: Author's calculations from the *Survey of Consumer Finances*, 1989-2013

Appendix G: Homeownership Rate by Cohort and Age

Homeownership Rate

	BABY BOOMERS	*GEN XERS*	*MILLENNIALS*
20s	35%	22%	18%
30s	61%	55%	36%
40s	77%	68%	

Data Source: Author's calculations from the *Survey of Consumer Finances*, 1989-2013