Preliminary Draft

The Impact of the Recession on the Wealth of Older Immigrant and Native Households in the United States

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1. Introduction

We examine how the 2008-2009 recession has impacted the wealth and wealth composition of older immigrant and native households in the United States. There are a number of reasons for undertaking this inquiry. First, the older population is a sizeable and ever growing demographic group with limited time to recover from economic shocks like the one recently experienced. Understanding if and how the economic downturn impacted the wealth of this segment of the population is important in order to be prepared for any potentially adverse consequences, including lower consumption levels, limited affordability of certain types of care or retirement delays.

Second, in addition to analyzing the impact of the recession on the level of wealth of older households nearing or in retirement, we attempt to gain a better understanding of how different portfolio mixes may have either accentuated or attenuated the economic shock following the downturn. Were liquid assets, housing assets or business assets most impacted? How did private pensions fare along the spectrum of income levels? For example, were certain demographic groups forced to change their retirement plans due to unfavorable impacts by the recession? Did asset diversification pay off? Or were households with undiversified cash portfolios better protected? Understanding the impact of the recession on the different portfolio components and on different demographic groups can enrich our understanding of various asset accumulation strategies and retirement choices.

Third, there are numerous reasons for examining the impact of the recession on wealth and asset holdings by nativity. Immigrants' and natives' portfolios are likely to differ in substantial ways due to various economic and cultural factors. For example, due to differences in labor market opportunities or risk preferences, immigrants may be more or

less likely to own businesses, hold certain types of financial assets or invest in non-owner occupied housing than natives. As such, immigrants and natives might have either responded to or been impacted by the 2008-2009 economic shock in different ways.

Using data from the 2006 and 2010 waves of the Health and Retirement Study (HRS) –a longitudinal study of U.S. households aged 50 and above, we explore the impact that the recession had on the overall wealth and asset accumulation strategies of older American households. In our analysis, we distinguish among three categories of households according to their nativity –native, immigrant and mixed households. Native households are households in which the household head and, if applicable, the spouse is native-born. Immigrant households are similarly defined as those households where the household head and, if applicable, the spouse is foreign-born. Finally, mixed households are households in which the household heads and the spouses differ in their nativity, with one being native-born and the other foreign-born. If the recession impacted the ownership rates and/or the value of categories of assets differently *and* the wealth accumulation patterns of households differ by nativity, the downturn may have had different impact on these various groups of households. Furthermore, the declines in asset values may be particularly harmful among groups with inadequate safety nets. Due to their undocumented status (now or in the past), shorter work histories or differences in employment patterns, immigrant households might be less likely to qualify for old age social security benefits than natives. If that is the case, immigrants could end up being exposed to significantly greater economic and well-being hurdles.

We find that the so-called Great Recession has made a significant dent on the portfolios of older American households by eroding the value of specific assets to the point of impacting their retirement strategies, as noted by other studies in the literature.

Furthermore, its impacts were unevenly distributed across demographic and economic groups, with mixed households (composed of one native and one immigrant spouse) and households in the bottom of the wealth distribution enduring significantly larger losses than native, immigrant and wealthier households, respectively.

2. Background

Two strands of literature are relevant to our inquiry. The first strand encompasses studies analyzing how recessions impact asset holdings and retirement decisions of older households, whereas the second strand involves a narrower literature examining the differential asset accumulation pattern of immigrants and natives.

Within the first strand of literature, there are some studies exploring the effects of the Great Recession object of study herein. One possibility that has been raised is that older Americans sped up their retirement plans due to financial difficulties faced by firms and due to ongoing job cuts. The need to keep up with mortgage payments and other responsibilities may have caused individuals to choose commencing social security benefits at age 62 or to take an early retirement incentive with its longer-run implication of reduced retirement payouts.[1] In this vein, Coile and Levin (2011) find that unfavorable labor market conditions induce earlier retirements for those aged 62 and above using 30 years of Current Population Survey data, the 2000 Census and subsequent American Community Survey data.

Alternatively, individuals may have delayed retirement due to the impact of the financial crisis on financial asset values (in Keogh and other retirement assets and plans). In that vein, Goda, Shoven and Slovov (2011) find that reductions in the S&P index increased

[1] While such a finding suggests that the eventual rebound in stock values may make delaying retirement a moot point, it still may be the case that, in light of asset values in 2008 and 2009, irreversible decisions affecting the long-run and lifetime income prospect for older Americans were made. For example, individuals may have cashed out equity-based retirement accounts when stock values were severely depressed in order to buy fixed annuities.

the expectation to remain in the workforce at 62 using the 2006 and 2008 waves of the Health and Retirement Study. Nonetheless, much of the change in reported delays remains unaccounted for in their analysis. Likewise, McFall (2011) reports delays in retirement plans using data from the Cognitive Economics study. She makes the case that the 2008 stock and real estate crashes were unanticipated and can be treated as a negative wealth shock. She then relies on a quasi-experimental approach and concludes from her analysis that individuals responded by delaying retirement by a small amount. In sum, studies that specifically examine the past recession report retirement delays, while the study that uses information from a longer time period finds that retirement is hastened by recessions.

The second strand of literature relevant to our study relates to studies examining differences in saving and asset accumulation by nativity. A number of early papers speculated on the saving and wealth accumulation behavior of foreign-born relative to that of native households (*e.g.* Galor and Stark (1990) and Dustmann (1997)) and favored the idea that immigrants might have a greater propensity to accumulate assets. The first papers to empirically test this proposition actually found that the saving and asset accumulation of immigrants tended to fall short of those of the native born (Carroll, Rhee and Rhee (1994) and Amuedo-Dorantes and Pozo (2002)). This empirical finding was corroborated by Cobb-Clark and Hildebrand (2006) in their study of U.S. households' wealth holdings; by Osili and Paulson (2009), who find that U.S. immigrants hold one fourth the total wealth of the native born; and by Mathä, Porpiglia and Sierminska (2011), who find similar asset disparities for immigrant versus native households in Germany, Italy and Luxembourg.

Digging a little deeper in search of explanations for the observed differential in wealth holdings, Osili and Paulson (2008) use data from the Survey of Income and Program Participation from 1996 through 2000. They find a financial services' participation gap

between immigrants and natives. In particular, twenty percent of natives owned stock, while only 8.6 percent of immigrants did. Similarly, fifty-five percent of natives reported ownership of a savings account compared to 40 percent of immigrants. Since, conditional on owning certain assets, the native-immigrant differential is smaller, they concluded that the participation gap is an important explanation for overall asset disparities. Additionally, Osili and Paulson arrived at several other interesting conclusions –including the fact that the financial wealth gap between natives and immigrants is larger than the home equity gap. As such, it appears as if immigrants have a preference for real assets over financial assets.[2]

Immigrant preference for real assets over financial assets has also been observed in Australia by Cobb-Clark and Hildebrand (2008). While they also find that immigrant couples hold substantially less wealth than do native couples, it is interesting that they find no wealth gap between native and mixed (one foreign-born and one native-born) couples. This point is important since, in most cases, mixed households are simply lumped in together along with immigrant or native households depending on the nativity of the household head. In our project, mixed households will be examined separately. Also focusing on Australia, Cobb-Clark and Sinning (2009) find evidence of a large native-immigrant housing appreciation gap. Housing values appreciated by 59.4 percent between 2001 and 2006 for natives –much more than the 41.7 percent appreciation enjoyed by immigrants. It remains to be seen if this result is generalizable to the United States.

Overall, it is amply clear that immigrant, mixed and native households differ in their wealth accumulation patterns. It is also well-accepted that the 2008-2009 recession, from a historical perspective, has been fairly substantial. If the downturn did not affect all assets equally, and given that we have some evidence that the portfolios of immigrants and natives

[2] In a similar vein, Diaz McConnell and Akresh (2010) find that immigrants invest a larger share of their incomes on housing than natives.

tend to differ, the recession may have also impacted immigrant, native and mixed households differently. This is the hypothesis we test in this paper.

3. Data and Some Descriptive Statistics

We use data from the 2006 and 2010 waves of the Health and Retirement Study (HRS) –a longitudinal study of U.S. households aged 50 and above, to assess how older-aged households fared during the Great Recession according to their nativity. Since its launch in 1992, the HRS has collected information on a broad range of topics –including work, income, wealth, retirement and health, every two years from various cohorts. The 2006 wave provides us with a *pre-recession* baseline, whereas the 2010 wave is ideal for assessing how households' wealth fared *post-recession*. Our sample includes information on five cohorts: (1) Initial HRS cohort, born 1931 to 1941. This cohort was first interviewed in 1992 and subsequently every two years; (2) AHEAD cohort, born before 1924, initially a separate study (The Study of Assets and Health Dynamics among the Oldest Old). This cohort was first interviewed in 1993 and subsequently in 1995, 1998, and subsequently every two years; (3) Children of Depression (CODA) cohort, born 1924 to 1930. This cohort was first interviewed in 1998 and subsequently every two years; (4) War Baby (WB) cohort, born 1942 to 1947. This cohort was also first interviewed in 1998 and subsequently every two years; and the (5) Early Baby Boomer (EBB) cohort, born 1948 to 1953. This cohort was first interviewed in 2004. In addition to respondents from eligible birth years, the survey interviewed the spouses of married respondents or the partner of a respondent, regardless of age.[3]

[3] For more information about the study, consult http://hrsonline.isr.umich.edu/

Table 1 provides general characteristics for native, mixed and immigrant households in 2006. A few differences are worth noting. For instance, immigrant households are primarily Hispanic, display lower educational attainment and are less likely to be coupled than native households. Mixed households appear to be the least likely to receive income from an employer pension plan. Nevertheless, if they do receive it, they collect larger sums. This is also the case with regards to public aid as captured by welfare, food stamps or veterans benefits amounts. Finally, native households are the most likely to receive income from an employer pension plan or annuity and, are also, more likely to get larger social security payments than immigrants. Perhaps that helps explain why they generally plan on retiring earlier than their mixed and immigrant counterparts. In sum, older native, immigrant and mixed households differ with regards to their demographic characteristics and safety nets. Hence, their wealth accumulation patterns and responses to the 2008 economic shock are likely to diverge.

In that regard, Table 2 provides evidence of the distinct wealth accumulation patterns exhibited by households according to nativity prior to the economic downturn. In measuring net worth, we consider financial assets (current value of stock holdings, bank accounts, CDs, bonds and other financial wealth), equity in three categories of real estate (primary home, secondary home and other real estate), business holdings, vehicles and retirement saving accounts (such as IRAs and Keogh plans).[4] Native and mixed households are more likely to hold financial assets, IRAs and Keogh plans than immigrant households. Additionally, 9 to 10 percent of native and mixed households held business assets in 2006, relative to 3 percent of immigrant households. Finally, while native and mixed households are more likely to claim equity in primary homes, immigrant households hold a larger share

[4] We lack information on the value of forthcoming social security payments or on other defined benefit pension plans –clearly important components of wealth.

of their wealth (59 percent after adding all real estate equity) in real estate assets than natives (46.2 percent) or mixed households (53.5 percent). Hence, the literature finding that immigrants are more prone to holding real assets is borne out by our data.

Asset accumulation patterns do not only differ according to the nativity of the household, but also across the wealth distribution. Table 3 displays the value of various asset categories at different points along the wealth distribution. The range of net worth is widest for mixed households, and it appears to be primarily driven by the large spread in the financial wealth, other real estate, IRAs and Keogh plans. In contrast, the range in primary home equity is largest among native and immigrant households.

In sum, the figures in Tables 1 through 3 reveal important differences in the characteristics and portfolio composition of older households by nativity and across the wealth distribution that may need to be taken into account when examining how the past recession impacted household's assets and retirement behavior. In that regard, Table 4 reports on changes in asset holdings by the three types of households being examined from 2006 to 2010. On average, households reduced their propensity to hold almost every single type of asset over the 4 year period. Nevertheless, there are a few exceptions. Ownership of bonds, secondary homes, IRAs and Keogh plans increased among mixed households. Likewise, immigrants became more likely to have IRAs and Keogh plans. Overall, however, there were non-negligible reductions in mean and median values for most assets between 2006 and 2010. Net worth fell by 133 thousand dollars for natives, by 220 thousand dollars for mixed households and by 51 thousand dollars for immigrant households. To put these figures in perspective, these reductions amount to approximately 23 percent of total net worth in the case of native households, 28 percent for mixed

households and 11 percent for immigrant households. Hence, the recession clearly dented the nest egg of older Americans regardless of their nativity, although not to the same extent.

5. Methodology

Our primary aim is to learn how the 2008-2009 recession impacted the wealth, wealth composition and retirement plans of older-aged households, whereas our secondary aim is to discern systematic differences in the aforementioned impacts among native, immigrant and mixed households. A natural way to address both goals is to pool the two waves of HRS data and estimate the following model via OLS:

(1) $y_{it} = \delta_0 + \boldsymbol{\delta_1} 2010_t + \beta_1 I_{it} + \beta_2 M_{it} + \boldsymbol{\gamma_1}(I_{it} * 2010_t) + \boldsymbol{\gamma_2}(M_{it} * 2010_t) + Z_{it}\theta + a_i + u_{it}$

where y_{it} = logarithm of net total wealth; the likelihood of owning each type of asset included in the calculation of net total wealth or the logarithm of their net values; and planned retirement year. The variable 2010_t is a dummy indicative of the *post*-recession period, whereas I_{it} and M_{it} are dummies indicative of whether the household is an immigrant or mixed household in a particular year. The year dummy is interacted with the dummies indicative of the household's nativity to provide a difference-in-difference estimate of how the downturn may have impacted native, mixed and immigrant households differently. Equation (1) also includes a variety of time-varying household characteristics captured by Z_{it}, such as the gender, race, age, marital status, and educational attainment of its head, household size, number of children and region of residence. The variable a_i captures all unobserved, time-invariant characteristics impacting y_{it}, and the idiosyncratic error term is denoted as u_{it}.

The problem with estimating equation (1) using pooled OLS is that the coefficient estimates of interest to us: $\boldsymbol{\delta_1}, \boldsymbol{\gamma_1}$ and $\boldsymbol{\gamma_2}$, will be biased and inconsistent if a_i and u_{it} are correlated, which is highly likely since household-level heterogeneity drives much of wealth

accumulation patterns. One option is to estimate equation (1) via fixed-effects by time-demeaning the data and applying the OLS estimator. The time-demeaned equation is given by:

(2) $$\ddot{y}_{it} = \boldsymbol{\delta_1} 20\ddot{1}0_t + \beta_1 \ddot{I}_{it} + \beta_2 \ddot{M}_{it} + \boldsymbol{\gamma_1}(I_{it} * 20\ddot{1}0_t) + \boldsymbol{\gamma_2}(M_{it} * 20\ddot{1}0_t) + \ddot{Z}_{it}\theta + \ddot{u}_{it}$$

Note that any household characteristic that remains constant over time –including the terms $\beta_1 \ddot{I}_{it}$ and $\beta_2 \ddot{M}_{it}$ if there is no change in the couple, will get swept away by the fixed-effects transformation. However, the coefficients of interest to us are still present. In particular, $\boldsymbol{\delta_1}$ measures how wealth accumulation patterns and retirement plans were impacted by the recession –our primary aim; whereas the interaction terms $\boldsymbol{\gamma_1}$ and $\boldsymbol{\gamma_2}$ gauge systematic differences in how the downturn impacted the wealth accumulation and retirement plans of households according to their nativity –our secondary aim.

When estimating equation (2), we add a series of interaction terms between the post-recession dummy and other personal characteristics contained in vector Z_{it}, such as the gender, race and educational attainment of the household head. This allows us to learn about differential impacts of the recession on the wealth accumulation of households according to whether their head was male or female, black, Hispanic or white, and whether s/he had more than a high school education.

Additionally, because of the notable disparities in wealth accumulation patterns between households in the bottom and top percentiles of the wealth distribution observed in Table 3, we also estimate equation (2) for households in the bottom and top wealth quartiles using quantile regression methods. Subsequently, an inter-quartile regression allows us to gauge if the recession impacts, when present, were statistically different for households in the extremes of the wealth distribution –possibly contributing to increasing wealth inequality.

6. The Recession's Impact on Total Wealth and Its Components

Table 5 displays the results from estimating equation (2) for the logarithm of net total wealth. The figures in Table 5 confirm some well-known patterns, such as the fact that couples and larger sized households accumulate more wealth. It also confirms the important correlation between wealth and geographic location, with respondents residing in New England reporting lower values of net total wealth than those in the reference category – South Atlantic.[5] More important for the study at hand is the fact that net total wealth among older Americans declined by 20 percent between 2006 and 2010. This reduction was particularly acute among mixed households, whose wealth dropped by 32 percent. Finally, the results in Table 5 also uncover some additional differential impacts of the recession according to the ethnicity and race of the household head. In particular, just as mixed households, Hispanic-headed households lost about 12 percent more net total wealth than households headed by whites. In contrast, households headed by blacks actually fared significantly better. Their total net worth declined by approximately 9 percent as opposed to the 20 percent reduction experienced by households headed by whites.

What lays behind the differential impacts of the recession on total net worth? For instance, was the choice of asset holdings of mixed or Hispanic households more susceptible to the market value fluctuations that occurred during the economic downturn than those of native and immigrant households? Was geographic distribution of the various demographic groups responsible for the differential impacts, perhaps because housing values declined

[5] The South Atlantic is chosen as the reference category since it is the most popular region in our sample. It includes the states of Delaware, D.C., Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia and West Virginia. The Pacific region includes the states of Alaska, California, Hawaii, Oregon, and Washington. The East North Central region includes Illinois, Indiana, Michigan, Ohio and Wisconsin. The West North Central region includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

significantly more in certain regions of the country? Are some groups shut out of certain classes of assets, contributing to a differential impact? We now address these questions.

A) The Recession's Impact on the Ownership of Various Types of Assets

In order to better understand the impact of the recession on the wealth of older households, it is important to first address how the economic downturn impacted the likelihood of ownership of various portfolio assets and, if owned, their net values. Panel A in Table 6 reports on the recession's impact on the likelihood of ownership of various wealth components. The past economic downturn reduced ownership of non-housing financial wealth among older American households by about 4 percentage points. Furthermore, its impact significantly differed with the nativity of the household. In particular, mixed and immigrant households became 7 to 8 percentage-points less likely to own non-housing financial assets. One may wonder about the cause for the differential impact of the recession on the ownership of financial wealth across older households according to their nativity. And, in particular, one might question if it is at all related to the household's preference for certain types of financial assets. Panel A in Table A in the appendix addresses this question by shedding some light on what financial assets were hit harder by the recession across the demographic groups being considered. The likelihood of owning more volatile financial assets, such as stocks, mutual funds, and investment trusts, fell by 3 percentage points across the board. A similar pattern is observed for less volatile financial assets –such as CDs, saving bonds and T-bills. Ownership of those assets fell by 4 percentage points for all households. Yet, the economic downturn had a differential impact on the ownership of more liquid assets, such as checking, savings and money market accounts. The latter declined by approximately 5 percentage points among native households, but twice as much (10 to 11 percentage points) among mixed and immigrant

households. This is the most popular category of financial wealth for all households. The steep decline in this asset ownership points to the loss of an important cushion further aggravated by a 3 percentage point reduction in the ownership of bonds, bond funds and other savings among immigrant households.

How did other components of total wealth fare? In addition to the reduction financial asset ownership, Panel A in Table 6 reveals significant declines in the ownership of primary homes, other real estate, vehicles, IRAs and Keogh plans by older American households. For instance, primary home ownership dropped by 3 percentage points between 2006 and 2010, ownership of other real estate declined by 1 percentage point, IRA and Keogh plan ownership fell by 2.5 percentage points, and vehicle ownership plummeted by approximately 10 percentage points. And, unlike financial wealth and its asset components, ownership reductions in the aforementioned asset categories were similar across all households, regardless of their nativity. The only exception was vehicle ownership, which declined by 5 percentage points more among immigrant households than among their native or mixed counterparts.

Overall, the recession reduced ownership of some common asset categories, such as vehicles, financial wealth, primary homes, IRAs and Keogh plans, anywhere between 1 to 15 percentage-points for older American households. Due to immigrants' relatively lower propensity to own these assets in the first place during the pre-recession years, immigrants were particularly hard hit with such large reductions. In addition to lowering ownership of various assets, the recession might have particularly lowered net total wealth held in certain asset categories, such as real estate, financial assets and retirement accounts like IRAs and Keogh plans. We now turn to examine such impacts.

B) The Recession's Impact on Net Asset Values

Although the recession's impact on the ownership likelihood of some assets may be considered modest (*e.g.* homeownership, which decreased by 3 percentage points), its effect on the wealth levels of older American households was substantial. According to the figures in Table 6, Panel B, financial wealth declined by 17 percent across the board. As shown in Table A, Panel B, in the appendix, that reduction was primarily driven by losses in the value of stocks, mutual funds and investment trusts, which fell uniformly by 29 percent across all groups. Additionally, mixed households experienced a significant 21 percent reduction in the values of their cash holdings, immigrant households a drop of 35 percent in the value of their bonds, bond funds and other savings and, overall, older American households endured limited access to borrowing –reflected in a 17 percent reduction in their non-housing debt. The latter was especially large among mixed households, for whom non-housing debt declined by 46 percent.

Table 6, Panel B, also informs about wealth losses in non-financial assets. The value of primary housing fell by 15 percent and that of secondary housing by approximately 43 percent. Business wealth was also severely impacted by the recession. On average, the value of business assets declined by approximately 47 percent, except among immigrant households, who experienced reductions of up to 118 percent –effectively turning their business investments into liabilities. Other impacted assets were vehicles, whose value decreased by an average of 24 percent, even more so among immigrant households, for whom the reduction reached 37 percent. Finally, the value of IRAs and Keogh plans fell by 12 percent across all older households, regardless of their nativity.

In sum, the recession lowered the total net wealth of older American households by approximately 20 percent and by an additional 12 percent among mixed households. The

differential impact may be due to their portfolios' composition. Mixed households were more likely to own a primary home. As indicated in Table 2, eighty-seven percent of mixed households owned a primary home, as opposed to 79 percent of native households and 62 percent of immigrant households. The mean value of their home was also significantly higher than those of their native and immigrant counterparts (see Table 2). Given the substantial declines in housing values, it is understandable that mixed households fared so much worse. Additionally, the recession appears to have had a differential impact on the value of businesses owned by mixed households. In contrast, older immigrant and native households appear to have fared similarly with regards to losses in total net worth; even if their wealth holdings in specific types of assets were not affected similarly. Indeed, while both groups lost about 20 percent of their net worth, immigrant households experienced a larger reduction in wealth accumulated in vehicle assets, while reductions in the value of IRAs and Keogh plans lead the net total wealth losses experienced by natives.[6]

Overall, the level of wealth losses has not been trivial and may have been particularly worrisome for poorer households. Is it the case that richer and poorer households endured losses of similar magnitudes? Or were these average effects driven by the recession's impact on richer households? In what follows, we address these questions with an analysis of how the recession's wealth impacts were distributed among poor and better-to-do households, while also accounting for differences in nativity.

7. Did the Recession Impact Rich and Poor Households Similarly?

Table 7 displays the results from estimating equation (2) for households in distinct wealth quartiles using quantile regression methods. The top panel reports on the impact of

[6] While there is no significant difference in IRA declines between comparable immigrants and natives, immigrants are much less likely to hold IRAs than are the native born.

the recession on net total wealth and its sub-categories for individuals in the lowest wealth quartile, whereas the middle panel shows those results for households in the top wealth quartile. To assess if the recession impacts, when present, were statistically different for households in the top and bottom wealth quartiles, the lower panel shows the results from the inter-quartile regressions. The inter-quartile regressions are particularly useful in shedding some light on whether the recession actually increased wealth inequality by impacting differently households at the bottom and top of the wealth distribution.

According to the figures in Table 7, the recession reduced net total wealth in households both at the bottom and top wealth quartiles by similar amounts and, as a result, wealth inequality between these two groups of households does not appear to have been significantly impacted. A similar pattern emerges for some of the main components of wealth, such as the value of secondary housing and businesses. Older American households seem to have experienced similar losses in those assets regardless of their standing in the wealth distribution.

Nevertheless, in other respects, households at the bottom of the wealth distribution appear to have been particularly hard hit by the recession. For instance, losses in financial wealth were concentrated among less wealthy households and, to a larger extent, among immigrant households in the lowest wealth quartile. A closer look at Table B in the appendix sheds some light on what may be generating those coefficients. Households at the bottom of the wealth distribution endured losses of 27 percent of the value of their stocks, mutual funds and investment trusts; 15 percent of the value of their CDs, saving bonds and T-bills; and 6 percent in bonds, bond funds and other savings. Some of those losses were further aggravated among mixed and immigrant households. For instance, immigrant households lost 27 percent of their cash reserves (checking, savings, and money market

accounts), as well as an additional 6 percent in the value of their bonds, bond funds and other savings. Similarly, mixed households lost an additional 9 percent in the value of their stocks, mutual funds and investment trusts, and 20 percent of their cash reserves (checking, savings, and money market accounts). In contrast, financial losses among households in the upper wealth quartile only reached migrant households –who lost 14 percent of the value of their stocks, mutual funds and investment trusts, and immigrant households –who lost 12 percent of the value of their CDs, saving bonds, and T-bills. As such, the inter-quartile regression output in Table B reveals how the recession widened the gap in the amount of wealth held in all sorts of financial assets, form the more volatile assets –such as stocks, mutual funds and investment trusts, to the more liquid assets –such as checking, savings and money market accounts, or the less volatile forms of savings –such as CDs, saving bonds, and T-bills. Hence, the figures in Table 7 show how the financial wealth gap between the two wealth quartiles widened by 7 percent for native and mixed households, and by an additional 16 percent for immigrant households.

Similarly, the recession appears to have lowered the wealth accumulated in various non-financial assets by older households at the bottom of the distribution to a greater extent than that of their wealthier counterparts, leading to increasing inequalities between the two groups of households. Specifically, the downturn widened the gap in primary home equity, other real estate, vehicle and retirement accounts between households at the top and bottom of the wealth distribution by 3 percent, 14 percent, 23 percent and 10 percent, respectively. As with financial wealth, the gap in vehicle wealth was 10 percent wider among immigrant households at the top and bottom of the distribution.

Because households in the lower wealth deciles do not deposit as large of a share of their net worth in some of these assets as wealthier households, overall wealth inequality

may have remained unchanged. Nevertheless, the recession may have set the stage for a distinct recovery and future wealth accumulation pattern for households at the bottom of the wealth distribution by disproportionally altering the weights of these assets in their portfolios.

8. Putting the Results into Context

As noted in the Introduction, we care about the impact of the recession on the wealth accumulation of older Americans because they have less time to recover from a substantial loss of assets that may seriously impact their well-being. After all, older individuals have fewer employment options and, as such, their consumption is constrained by their wealth and by any sources of non-labor income. Hence, we look at how the recession may have impacted the receipt of other sources of non-labor income, such as pension income and capital income. We continue to distinguish older households according to their nativity, as there are reasons to believe that immigrant households may lack some of the safety nets enjoyed by natives. For instance, they may have shorter work histories in the United States and/or their earnings might have been lower upon arrival until they learned the language and acquired U.S. specific human capital. Both of those factors could, in turn, translate into lower social security payments, making pension and capital income even more important.

Table 8 displays the results from estimating equation (2) for the likelihood of earning and the dollar amount earned of both pension and capital income. Overall, the recession reduced the likelihood of earning pension income across all types of households by 1.4 percentage points and the dollar amount received from a pension by 5 percent. Immigrant households were the exception, withdrawing pension receipts that increased by 10 percent. The recession appears to have more seriously dented capital income inflows – possibly resulting from the loss of ownership of financial and real estate assets. Indeed, the

probability of earning some capital income declined by 7.4 percentage points and capital income by 41 percent –except for immigrant households, for whom the reduction in capital income inflows only reached 11 percent. Therefore, the recession impacted both the wealth holdings, as well as some non-labor income sources of older American households, although not equally for native, immigrant and mixed households. Hence, did it also have a differential impact on their retirement planning?

Table 9 addresses that question by examining the likelihood that either spouse has a defined benefit or a defined contribution plan first. Subsequently, we look at the planned retirement year of the individual or, if a couple, the average retirement year for the two spouses. According to the figures in Table 9, the recession lowered the propensity of having a defined benefit or defined contribution plan by 2 to 2.5 percentage points among native households. Mixed and immigrant households, however, became less likely to have a defined contribution plan, but slightly more likely to have a defined benefit plan. Perhaps immigrants, given their typically lower social security income receipts, preferred plans that offered the promise of a defined retirement income inflow in the midst of increased economic uncertainty. Alternatively, natives may have been holding disproportionally jobs offering defined benefit plans before the recession. If those jobs disappeared during the economic downturn, immigrant households may have become relatively more likely to hold such plans.

Finally, Table 9 looks at how the Great Recession may have impacted the planned retirement year of older Americans. As Goda, Shoven and Slovov (2011) and McFall (2011), we find evidence that plans for retirement shifted during the Great Recession. Specifically, the recession delayed the planned retirement year of older households by

almost 2 years. The impact, however, was smaller among immigrant households, for whom the delay averaged just 1 year.

9. Discussion and Conclusion

In this study we explore how the Great Recession may have impacted the wealth and wealth composition of older native and immigrant households in the United States. We find that this last economic downturn lowered the total net wealth of older American native households by approximately 20 percent of immigrant households by a little less than that and that of mixed households by an additional 12 percent. A closer look at one of the main components of household wealth –namely primary home equity, reveals similar wealth losses for all types of households. However, mixed households endured substantially larger reductions in business wealth than native and immigrant households. Additionally, the value of financial assets, which are more prominent in mixed households' portfolios, experienced a larger reduction among mixed households.

We also find that the recession had uneven impacts on the wealth accumulated by older households at the top and bottom of the wealth distribution. While overall net wealth inequality does not appear to have increased, the recession appears to have had differential impacts on the portfolio composition of households at the extremes of the wealth distribution.

Finally, the downturn not only lowered overall wealth, but also flows of non-labor income on which older households often rely upon, such as capital income from financial and real estate investments. As a result, it is not surprising that the recession has caused some retirement delays –thus corroborating the findings of Goda *et al*. (2011) and McFall (2011), but contradicting those by Coile and Levine (2011). Because the Coile and Levine's result was culled from an examination of 30 years of data, while ours and those from Goda

et al. (2011) and McFall (2011) only use data from the Great Recession, the findings may be pointing out the fact that the Great Recession was somewhat different from earlier recessions and, accordingly, elicited a different response.

It is also interesting that, despite enduring similar wealth losses, the recession did not delay the retirement of immigrant households as much as that of their native counterparts. Similarly, despite enduring a net wealth loss 12 percent larger, mixed households behave similarly to native households with respect to retirement expectations. In other words, immigrant and mixed households are not responding as vigorously to wealth reductions as native households. Why might that be so? We can only hypothesize as for why. Perhaps immigrant and mixed households rely more on family networks and, as a result, enjoy a greater sense of security than do native households. Alternatively, immigrants, due to the greater uncertainty they face when starting anew somewhere else, may already anticipate substantial bumps in their wealth accumulation patterns when planning for retirement. As a result, despite enduring greater losses than the native-born, they do not alter their retirement plans to a greater extent than their native counterparts. Yet, another explanation might be that we are not measuring immigrants' portfolios well. It is unclear to what extent the HRS captures wealth holding by immigrants when those holdings are in their home country communities. We know that immigrants often remit money home in order to build nest eggs, support family back home, or to purchase real estate back home among other reasons. If home assets purchased by those immigrants are not reflected in the HRS data, we are not fully addressing the wealth impact of the recession among immigrants, which could be smaller or larger when including foreign-based assets. Overall, one would imagine that the foreign-based assets would help diversify immigrants' portfolios and offset any wealth losses. However, the global nature of the Great Recession suggests that its impact may have

been felt to a greater extent in some other countries. These are all interesting explanations for the differential impact of the recession by nativity that are deserving of further research.

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Table 1: Sample Characteristics for Native, Mixed and Immigrant Households in 2006

Household and Household Head's Characteristics	Native Households	Mixed Households	Immigrant Households
Household Head's Characteristics:			
Male	57.4%	85.7%	51.0%
White	81.5%	85.9%	67.3%
Black	16.7%	8.5%	11.1%
Other Race	3.5%	18.6%	28.4%
Hispanic	4.6%	28.1%	56.4%
HS or less	63.2%	58.5%	75.0%
More than HS	50.0%	63.3%	33.6%
Age:			
55 and Younger	16.8%	31.2%	19.7%
56 to 60	18.3%	25.9%	17.3%
61 to 65	19.8%	24.9%	17.7%
66 to 70	24.1%	28.4%	28.2%
71 to 80	30.2%	23.9%	26.7%
81 and Older	13.3%	9.0%	12.7%
Household Characteristics:			
Couple	54.6%	100.0%	47.3%
No. of HH Residents	2	3	3
No. of Household Children	3	3	4
Non-labor Income:			
Any Income from Employer Pension Plans or Annuities	69.8%	36.2%	64.3%
Income from Employer Pension Plans or Annuities	12,217	23,475	5,169
Any Capital Income	66.8%	68.1%	44.1%
Capital Income	21,840	26,979	26,693
Social Security Income	15,999	18,183	13,179
Unemployment Insurance and Workers' Compensation	5,062	5,633	5,384
Welfare, Food Stamps, Veteran Benefits	8,962	14,415	3,648
Planned Retirement Year	2,013	2,015	2,014
Geographic Location:			
New England	3.9%	4.3%	3.5%
Mid Atlantic	10.6%	12.1%	22.1%
East North Central	18.1%	10.3%	6.5%
West North Central	9.9%	3.8%	1.2%
East South Central	6.9%	1.0%	0.4%
West South Central	9.7%	14.6%	15.1%
Mountain States	6.1%	7.0%	4.5%
Pacific States	11.3%	22.9%	24.9%
South Atlantic	24.0%	24.6%	22.2%
Observations	8,542	398	819

Table 2: Balance Sheet for Households in 2006

Asset Category	Percent of HHs with that Asset	Mean Holding	Share of Total Wealth	Values Conditional on Positive Holding	
				Mean	Median
Native Households					
Financial Assets	91.1%	145,427	26.9%	193,326	36,846
Stocks	27.9%	74,823	13.8%	268,319	65,225
Bank Accounts	86.2%	27,637	5.1%	32,059	8,544
CDs	25.6%	17,042	3.2%	66,683	26,700
Bonds	6.3%	12,357	2.3%	197,677	42,720
Other Financial Wealth	16.2%	17,518	3.2%	108,277	21,360
Home Equity (Primary home)	79.4%	167,731	31.0%	216,625	133,500
Home Equity (Secondary home)	13.4%	25,481	4.7%	190,597	69,420
Home Equity (Other real estate)	14.5%	54,434	10.1%	375,286	106,800
Non-Mortgage Debt	30.9%	3,885	0.7%	12,576	5,020
Business Assets	9.7%	55,770	10.3%	576,038	213,600
Vehicle Assets	85.4%	15,957	2.9%	18,695	10,680
IRAs & Keoghs	40.1%	77,385	14.3%	193,169	67,284
Net Worth	97.2%	540,923	100%	581,861	230,688
Mixed Households					
Financial Assets	92.5%	176,215	22.7%	241,228	54,468
Stocks	30.7%	74,727	9.6%	243,781	106,800
Bank Accounts	87.4%	63,376	8.2%	72,482	10,680
CDs	24.6%	19,433	2.5%	78,920	26,700
Bonds	7.0%	8,838	1.1%	125,631	80,100
Other Financial Wealth	17.8%	16,869	2.2%	95,563	34,176
Home Equity (Primary Home)	87.2%	302,445	38.9%	352,402	213,600
Home Equity (Secondary home)	15.3%	33,148	4.3%	216,277	133,500
Home Equity (Other real estate)	17.6%	78,442	10.1%	445,998	267,000
Non-Mortgage Debt	33.7%	7,001	0.9%	20,794	6,408
Business Assets	8.8%	65,714	8.5%	747,267	160,200
Vehicle Assets	92.0%	17,661	2.3%	19,205	12,816
IRAs & Keoghs	42.7%	103,967	13.4%	243,405	84,906
Net Worth	99.0%	777,488	100%	827,162	390,034
Immigrant Households					
Financial Assets	75.9%	102,728	26.5%	176,751	12,816
Stocks	14.3%	69,830	18.0%	488,808	106,800
Bank Accounts	70.0%	17,728	4.6%	25,338	5,340
CDs	12.8%	7,537	1.9%	58,791	21,360
Bonds	3.4%	3,834	1.0%	112,141	45,390
Other Financial Wealth	10.1%	7,079	1.8%	69,854	25,632
Home Equity (Primary Home)	61.9%	156,946	40.5%	261,913	211,464
Home Equity (Secondary home)	10.7%	25,433	6.6%	236,697	160,200
Home Equity (Other real estate)	11.5%	46,448	12.0%	404,688	160,200
Non-Mortgage Debt	29.1%	3,233	0.8%	11,125	3,738
Business Assets	3.4%	22,283	5.8%	651,786	213,600
Vehicle Assets	64.5%	8,405	2.2%	13,037	7,476
IRAs & Keoghs	19.3%	25,842	6.7%	133,952	64,080
Net Worth	88.3%	387,195	100.0%	468,129	198,114

Table 3: Distribution of Wealth Components in 2006 (in 000's)

Asset Category	Percentile								
	10	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**
Native Households									
Financial Assets	-7.7	1.9	5.6	14.8	26.9	48.4	81.5	130.8	243.7
Stocks	0.2	0.5	1.2	3.4	5.7	12.6	25.9	49.1	109.3
Bank Accounts	1.0	3.3	5.6	9.5	14.2	21.3	29.7	38.9	56.7
CDs	0.1	0.5	1.8	3.2	5.9	10.0	18.4	26.0	43.2
Bonds	0.0	0.0	0.0	0.4	1.2	1.0	1.6	4.8	11.4
Other Financial Wealth	0.2	0.6	0.9	2.2	3.2	6.0	8.3	14.6	26.1
Home Equity (Primary home)	-9.3	10.0	39.5	71.3	106.6	143.4	190.6	237.3	313.5
Home Equity (Secondary home)	0.3	0.3	1.0	2.2	3.2	6.4	14.8	18.1	46.0
Home Equity (Other real estate)	0.3	0.4	1.0	2.7	5.7	9.0	14.3	30.9	61.5
Non-Mortgage Debt	9.1	3.2	4.0	4.1	3.4	2.5	2.4	2.6	2.5
Business Assets	0.1	0.1	0.8	1.2	3.0	6.7	11.5	35.3	60.5
Vehicle Assets	2.6	6.3	8.5	10.7	14.4	17.1	19.3	20.9	26.7
IRAs & Keoghs	0.3	1.1	2.9	6.7	15.0	31.5	48.0	90.2	149.2
Net Worth	-13.4	20.1	59.2	109.4	174.3	261.4	378.9	561.6	897.0
Mixed Households									
Financial Assets	-29.3	-2.4	5.8	22.4	36.0	80.8	102.7	203.9	406.3
Stocks	0.0	0.1	0.5	3.5	10.0	24.1	21.3	76.3	194.5
Bank Accounts	2.2	3.4	4.5	15.4	17.0	26.0	30.9	60.6	116.0
CDs	0.4	1.0	2.2	4.9	9.4	27.8	24.8	36.9	34.2
Bonds	0.0	0.0	0.0	0.0	0.1	1.1	5.5	2.4	11.6
Other Financial Wealth	0.1	0.4	1.2	1.6	6.3	4.6	29.5	29.6	52.7
Home Equity (Primary home)	3.3	29.4	63.3	106.5	192.5	238.2	335.2	370.2	482.7
Home Equity (Secondary home)	0.0	0.7	0.4	12.6	11.8	18.2	45.8	43.3	65.3
Home Equity (Other real estate)	0.0	0.0	0.0	4.1	4.1	11.7	19.6	103.7	138.7
Non-Mortgage Debt	32.1	7.3	2.6	3.0	6.8	2.8	9.2	1.8	2.5
Business Assets	4.1	0.0	0.0	3.3	7.7	6.4	25.2	36.2	29.3
Vehicle Assets	4.4	6.4	10.7	14.9	16.5	23.0	19.6	26.7	22.8
IRAs & Keoghs	0.5	2.3	1.6	8.7	24.2	52.1	45.2	107.0	208.7
Net Worth	-16.9	36.2	81.1	172.4	292.8	430.4	593.3	890.9	1,353.8
Immigrant Households									
Financial Assets	-5.9	0.9	5.4	-2.7	11.4	23.1	33.7	77.9	109.3
Stocks	0.1	0.0	0.6	0.2	2.9	9.7	8.6	24.8	40.6
Bank Accounts	0.6	1.6	4.5	6.3	5.7	8.8	16.9	28.5	32.0
CDs	0.0	0.0	1.1	1.1	3.6	6.1	4.8	18.5	15.2
Bonds	0.0	0.0	0.2	0.0	2.0	0.0	0.4	0.4	9.5
Other Financial Wealth	0.3	0.0	0.3	0.2	1.2	0.3	5.4	7.7	13.5
Home Equity (Primary home)	-6.1	0.0	8.6	50.5	92.0	162.7	235.0	278.0	412.7
Home Equity (Secondary home)	0.0	0.0	0.9	0.5	4.9	0.0	18.1	28.1	41.4
Home Equity (Other real estate)	0.4	0.0	0.6	2.6	5.5	6.4	19.8	23.4	58.0
Non-Mortgage Debt	6.9	0.8	1.3	10.4	4.1	2.0	2.3	2.1	1.7
Business Assets	0.0	0.4	0.3	0.5	1.6	6.2	2.9	1.6	4.8
Vehicle Assets	1.3	1.7	4.8	6.1	8.6	7.9	11.4	16.5	12.9
IRAs & Keoghs	0.0	0.4	1.2	2.0	5.2	11.5	12.0	28.4	53.2
Net Worth	-10.3	3.3	21.7	58.9	127.8	217.2	329.6	452.6	692.2

Table 4: Change in Households' Asset Holdings Between 2006 and 2010

Asset Category	Change in the % of HHs Holding the Asset	Conditional on Positive Holding	
		Mean Difference	Median Difference
Native Households			
Financial Assets	-3.0%	-21,715	-2,181
Stocks	-3.3%	-12,520	10,326
Bank Accounts	-4.1%	3,389	1,332
CDs	-5.0%	1,861	2,187
Bonds	0.0%	-64,580	1,722
Other Financial Wealth	-0.4%	-27,273	1,355
Home Equity (Primary Home)	-2.3%	-45,885	-14,988
Home Equity (Secondary home)	0.1%	-60,940	-10,164
Home Equity (Other real estate)	-2.5%	-119,009	-8,040
Non-Mortgage Debt	0.0%	818	-82
Business Assets	-0.8%	-135,700	-65,460
Vehicle Assets	-6.8%	-2,121	-804
IRAs & Keoghs	-2.9%	-31,789	1,848
Net Worth	-0.8%	-132,897	-36,871
Mixed Households			
Financial Assets	-6.9%	-26,460	19,849
Stocks	-0.1%	-31,554	-8,040
Bank Accounts	-8.8%	-20,890	184
CDs	-6.0%	-12,239	-2,010
Bonds	1.6%	66,924	-30,720
Other Financial Wealth	3.6%	-14,528	-4,548
Home Equity (Primary Home)	-1.9%	-125,509	-45,708
Home Equity (Secondary home)	2.5%	-78,013	-39,678
Home Equity (Other real estate)	0.5%	10,913	-168,240
Non-Mortgage Debt	-0.6%	-6,579	11
Business Assets	-2.7%	-365,183	285
Vehicle Assets	-5.1%	-125	-965
IRAs & Keoghs	4.2%	-52,770	-960
Net Worth	-1.2%	-229,214	-112,025
Immigrant Households			
Financial Assets	-8.4%	-3,083	6,936
Stocks	-1.5%	-128,360	-37,668
Bank Accounts	-13.7%	8,896	586
CDs	-3.2%	-6,394	-1,608
Bonds	-0.6%	123,422	23,742
Other Financial Wealth	-0.4%	34,818	-942
Home Equity (Primary Home)	-1.9%	-61,866	-73,200
Home Equity (Secondary home)	-0.2%	-45,290	-71,316
Home Equity (Other real estate)	-2.2%	-102,919	37,320
Non-Mortgage Debt	-2.4%	-243	1,200
Business Assets	-0.2%	384,294	-50,646
Vehicle Assets	-13.9%	186	-1,550
IRAs & Keoghs	0.1%	45,600	608
Net Worth	-3.0%	-50,686	-63,800

Table 5: Fixed-Effects Estimates of Logarithm of Net Total Wealth

Regressors	**Coefficient (Robust S.E.)**
Age 56-60	-0.021
	(0.033)
Age 61-65	0.048*
	(0.033)
Age 66-70	0.057**
	(0.031)
Age 71-80	0.023
	(0.038)
Age 81+	-0.064
	(0.052)
Couple	0.186***
	(0.051)
No. of HH Residents	-0.015
	(0.019)
No. of Children	0.054**
	(0.024)
Post-Recession	**-0.201*** **
	(0.033)
Post*Migrant HH	**0.023**
	(0.070)
Post*Mixed HH	**-0.122****
	(0.068)
Post*Male	0.001
	(0.031)
Post*Black	0.112**
	(0.050)
Post*Other Race	0.028
	(0.072)
Post*Hispanic	-0.119**
	(0.064)
Post*More than HS	0.002
	(0.029)
New England	-0.633**
	(0.284)
Mid Atlantic	0.201
	(0.245)
East North Central	0.101
	(0.228)
West North Central	-0.08
	(0.359)
East South Central	0.052
	(0.276)
West South Central	-0.376
	(0.356)
Mountain	-0.238
	(0.271)
Pacific	0.045
	(0.240)
N	17497

Notes: The regressions include a constant term. * indicates significance at the 10% level, ** indicates significance at the 5% level and *** indicates significance at the 1% level for two- or one-tail tests. Reference categories are younger than 56, white, and the South Atlantic region.

Table 6: Fixed-Effects Estimates of the Ownership Likelihood and Log Net Value of Various Components of Net Total Wealth

Panel A - Dependent Variable: Likelihood of Owning Various Components of Net Total Wealth							
Key Regressors	**Non-housing Financial Wealth**	**Primary Home**	**Secondary Homes**	**Other Real Estate**	**Businesses**	**Vehicles**	**IRAs/Keogh Plans**
	Coefficient (Robust S.E.)	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**
Post-Recession	-0.038***	-0.032***	0.005	-0.011**	-0.003	-0.097***	-0.025***
	(0.008)	(0.008)	(0.006)	(0.006)	(0.005)	(0.008)	(0.008)
Post*Migrant HH	-0.030**	-0.004	-0.013	0.003	0.01	-0.052***	0.016
	(0.018)	(0.015)	(0.013)	(0.015)	(0.009)	(0.017)	(0.016)
Post*Mixed HH	-0.038**	-0.012	-0.008	0.03	-0.014	-0.004	0.037
	(0.019)	(0.015)	(0.019)	(0.019)	(0.015)	(0.018)	(0.024)
N	19126	19126	19126	19126	19126	19126	19126
Panel B - Dependent Variable: Log Net Value of Various Components of Net Total Wealth							
Key Regressors	**Non-housing Financial Wealth**	**Primary Home**	**Secondary Homes**	**Other Real Estate**	**Businesses**	**Vehicles**	**IRAs/Keogh Plans**
	Coefficient (Robust S.E.)	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**
Post-Recession	-0.169***	-0.154***	-0.425***	-0.158	-0.465***	-0.238***	-0.120**
	(0.058)	(0.022)	(0.136)	(0.151)	(0.166)	(0.035)	(0.067)
Post*Migrant HH	-0.12	-0.065	-0.013	-0.33	0.116	-0.128**	0.174
	(0.119)	(0.048)	(0.191)	(0.235)	(0.296)	(0.075)	(0.145)
Post*Mixed HH	-0.039	-0.062	-0.222	-0.202	-0.708**	0.108*	0.053
	(0.131)	(0.049)	(0.236)	(0.194)	(0.311)	(0.067)	(0.131)
N	13993	14425	2538	2529	1686	15362	7172

Notes: The regressions include a constant term, as well as all the controls included in Table 5. * indicates significance at the 10% level, ** indicates significance at the 5% level and *** indicates significance at the 1% level for a one-tail test.

Table 7: Quantile Regression Estimates of Log Net Total Wealth and Its Main Components

Key Regressors	Net Total Wealth	Non-housing Financial Wealth	Primary Home	Secondary Homes	Other Real Estate	Businesses	Vehicles	IRAs/Keogh Plans
	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)
				1st Quartile				
Post-Recession	-0.169***	-0.121***	-0.156***	-0.187***	-0.208***	-0.213***	-0.284***	-0.153***
	(0.021)	(0.039)	(0.013)	(0.037)	(0.031)	(0.079)	(0.028)	(0.036)
Post*Migrant HH	-0.048*	-0.268***	-0.060***	0	0	0	-0.099**	0.127
	(0.035)	(0.076)	(0.021)	(0.035)	(0.035)	(0.085)	(0.050)	(0.080)
Post*Mixed HH	-0.065*	-0.055	-0.066***	-0.005	0.001	-0.129	0.061	0.065
	(0.050)	(0.110)	(0.023)	(0.035)	(0.045)	(0.096)	(0.051)	(0.072)
N	17497	13993	14425	2538	2529	1686	15362	7172
				3rd Quartile				
Post-Recession	-0.154***	-0.048	-0.129***	-0.187***	-0.068*	-0.155**	-0.157***	-0.057*
	(0.020)	(0.040)	(0.014)	(0.027)	(0.045)	(0.087)	(0.029)	(0.039)
Post*Migrant HH	-0.013	-0.11	-0.073***	0.003	-0.014	-0.115*	0.003	0.077
	(0.037)	(0.099)	(0.029)	(0.029)	(0.063)	(0.085)	(0.053)	(0.078)
Post*Mixed HH	-0.081	0.079	-0.070***	0	-0.051	-0.189	0.046	0.03
	(0.051)	(0.099)	(0.026)	(0.045)	(0.066)	(0.173)	(0.044)	(0.076)
N	17497	13993	14425	2538	2529	1686	15362	7172
				Inter-Quartile				
Post-Recession	0.015	0.073**	0.028**	0	0.140***	0.058	0.127***	0.096**
	(0.024)	(0.042)	(0.017)	(0.041)	(0.057)	(0.093)	(0.032)	(0.043)
Post*Migrant HH	0.035	0.158**	-0.013	0.003	-0.014	-0.115	0.102*	-0.05
	(0.043)	(0.095)	(0.025)	(0.036)	(0.070)	(0.109)	(0.066)	(0.102)
Post*Mixed HH	-0.016	0.134	-0.004	0.005	-0.051	-0.061	-0.015	-0.035
	(0.059)	(0.110)	(0.029)	(0.049)	(0.056)	(0.153)	(0.062)	(0.072)
N	17497	13993	14425	2538	2529	1686	15362	7172

Notes: The regressions include a constant term as well as the same regressors included in Table 5. * indicates significance at the 10% level, ** indicates significance at the 5% level and *** indicates significance at the 1% level for a one-tail test.

Table 8: Fixed-Effect Estimates of the Likelihood and Log Net Value of Various Non-Labor Income Sources

Key Regressors	Any Pension Income	Log(Pension Income)	Any Capital Income	Log(Capital Income)
	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)
Post-Recession	-0.014***	-0.054*	-0.074***	-0.408***
	(0.006)	(0.039)	(0.011)	(0.085)
Post*Migrant HH	-0.012	0.165*	0.006	0.296*
	(0.014)	(0.106)	(0.022)	(0.191)
Post*Mixed HH	-0.028	0.086	-0.004	-0.019
	(0.025)	(0.084)	(0.025)	(0.179)
N	19126	7267	19126	11873

Notes: The regressions include a constant term as well as the same regressors included in Table 5. * indicates significance at the 10% level, ** indicates significance at the 5% level and *** indicates significance at the 1% level for a one-tail test.

Table 9: Fixed-Effect Estimates of the Likelihood of Having Different Types of Pension Plans and Planned Retirement Year

Key Regressors	Defined Benefit Plan	Defined Contribution Plan	Planned Retirement Year
	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)
Post-Recession	-0.020***	-0.025***	1.853***
	(0.005)	(0.006)	(0.422)
Post*Migrant HH	0.030***	-0.003	-1.007**
	(0.012)	(0.013)	(0.601)
Post*Mixed HH	0.036**	0.018	0.139
	(0.021)	(0.023)	(0.560)
N	19126	19126	3914

Notes: The regressions include a constant term as well as the same regressors included in Table 5. * indicates significance at the 10% level, ** indicates significance at the 5% level and *** indicates significance at the 1% level for a one-tail test.

Appendix Tables

Table A: Fixed-Effects Estimates of the Ownership Likelihood and Log Net Value of Various Components of Financial Wealth

Panel A – Dependent Variable: Likelihood of Owning Various Components of Financial Wealth					
Key Regressors	**Stocks, Mutual Funds, Investment Trusts**	**Checking, Savings, Money Market**	**CDs, Saving Bonds, T-bills**	**Bonds, Bond Funds, Other Savings**	**Non-housing Financial Debt**
	Coefficient (Robust S.E.)	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**
Post-Recession	-0.029***	-0.047***	-0.043***	-0.012	-0.013
	(0.008)	(0.009)	(0.009)	(0.009)	(0.010)
Post*Migrant HH	0.002	-0.059***	-0.002	-0.034**	-0.007
	(0.015)	(0.020)	(0.016)	(0.019)	(0.021)
Post*Mixed HH	0.021	-0.051**	-0.02	0.011	-0.02
	(0.025)	(0.023)	(0.024)	(0.025)	(0.029)
N	19126	19126	19126	19126	19126
Panel B – Dependent Variable: Log Net Value of Various Components of Financial Wealth					
Key Regressors	**Stocks, Mutual Funds, Investment Trusts**	**Checking, Savings, Money Market**	**CDs, Saving Bonds, T-bills**	**Bonds, Bond Funds, Other Savings**	**Non-housing Financial Debt**
	Coefficient (Robust S.E.)	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**	**Coefficient (Robust S.E.)**
Post-Recession	-0.290***	-0.03	-0.113	-0.152	-0.168**
	(0.117)	(0.052)	(0.104)	(0.205)	(0.087)
Post*Migrant HH	-0.104	-0.063	-0.187	-0.355*	0.014
	(0.261)	(0.104)	(0.241)	(0.260)	(0.181)
Post*Mixed HH	0.008	-0.210**	0.174	0.142	-0.289*
	(0.185)	(0.114)	(0.281)	(0.278)	(0.213)
N	4883	15767	4243	3783	5864

Notes: The regressions include a constant term. * indicates significance at the 10% level, ** indicates significance at the 5% level and *** indicates significance at the 1% level for a one-tail test.

Table B: Quantile Regression Estimates of the Log Net Value of Non-housing Financial Wealth Components

Key Regressors	Stocks, Mutual Funds, Investment Trusts	Checking, Savings, Money Market	CDs, Saving Bonds, T-bills	Bonds, Bond Funds, Other Savings	Non-housing Financial Debt
	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)
			1st Quartile		
Post-Recession	-0.267***	-0.048	-0.145***	-0.059*	-0.041
	(0.052)	(0.046)	(0.039)	(0.041)	(0.049)
Post*Migrant HH	0.009	-0.266***	-0.015	-0.056*	0.082
	(0.093)	(0.099)	(0.029)	(0.042)	(0.072)
Post*Mixed HH	-0.087*	-0.199**	0.067	0	-0.089
	(0.056)	(0.104)	(0.117)	(0.066)	(0.100)
N	4883	15767	4243	3783	5864
			3rd Quartile		
Post-Recession	-0.078	0.067*	0.063*	-0.015	0.032
	(0.062)	(0.041)	(0.048)	(0.054)	(0.057)
Post*Migrant HH	0.017	-0.041	-0.124**	-0.017	0.117**
	(0.113)	(0.097)	(0.069)	(0.037)	(0.070)
Post*Mixed HH	-0.142**	-0.136	0.054	0	-0.008
	(0.064)	(0.100)	(0.043)	(0.051)	(0.105)
N	4883	15767	4243	3783	5864
			Inter Quartile		
Post-Recession	0.189***	0.115**	0.208***	0.044	0.073
	(0.075)	(0.056)	(0.044)	(0.046)	(0.059)
Post*Migrant HH	0.009	0.225*	-0.109*	0.039	0.035
	(0.115)	(0.117)	(0.063)	(0.046)	(0.081)
Post*Mixed HH	-0.055	0.063	-0.013	0	0.081
	(0.105)	(0.119)	(0.109)	(0.076)	(0.109)
N	4883	15767	4243	3783	5864

Notes: The regressions include a constant term as well as the same regressors included in Table 5. * indicates significance at the 10% level, ** indicates significance at the 5% level and *** indicates significance at the 1% level for a one-tail test.