Can Homeownership Help Low-Income Senior Households Preserve Wealth? *

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ABSTRACT

We show that the U.S. Department of Housing and Urban Development's Housing Choice Voucher Homeownership program leads low-income senior homeowners to experience no change in total wealth but significant reductions in liquid wealth. Home equity generates wealth for households with dependent children, reducing wealth disparities between households. Minority homeowners exhibit similar wealth dynamics but retain more wealth accumulated as renters. We apply a within-treatment framework to establish that these wealth dynamics occur for the same households relative to their tenure as renters. Thus, we provide causal evidence that home equity can help low-income senior households preserve wealth.

Keywords: Seniors, Homeownership, Wealth Inequality, Housing Choice Vouchers

JEL Classifications: G51, J15, R21

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As the U.S. population ages, low-income senior households face rising housing costs and stagnant incomes.[1] In 2019, 33% of U.S. seniors living with dependent grandchildren were responsible for their care, indicating that childrearing responsibilities remain an ongoing concern for many seniors.[2] Racial wealth disparities also persist among seniors and can negatively affect minority seniors' well-being.[3] In theory, home equity can help seniors preserve wealth against declines in income and liquid wealth (i.e., dissaving) (Modigliani (1986)), suggesting that homeownership may alleviate these challenges. Because financial stability, aging-in-place, and intergenerational communities can enhance seniors' well-being, in practice, the economic benefits of low-income seniors owning their homes may be understated. However, causal evidence of these wealth dynamics is limited, as few studies focus on low-income seniors or track households prior to homeownership. To address this gap, we investigate whether transitioning from tenant to homeowner aids wealth preservation for low-income senior households and if this transition equally benefits households with dependent children ("coresident") and those led by minorities.

We study the wealth outcomes of senior households enrolled in the U.S. Department of Housing and Urban Development's (HUD's) Housing Choice Voucher (HCV) Homeownership program from 2000 to 2020. The HCV program provides households equal housing assistance for renting or owning a home. This policy setting allows us to apply household fixed effects in our research design. That is, we directly compare a household's wealth as a homeowner versus a renter, reducing the influence of household-specific attributes, like financial planning and savings habits, on differences in wealth preservation. Thus, we identify the causal effects of homeownership on wealth preservation among low-income seniors, a significant yet understudied segment of the U.S. economy.

[1] In 1999, Congress formed the Commission on Affordable Housing and Health Facility Needs for Seniors in the 21st Century. Their report deemed low-income seniors' housing needs to be a "Quiet Crisis in America," citing the rising percentage of senior households and the scarcity of affordable housing. U.S Census data shows a 38% increase in the population aged 65 and older from 2010 to 2020, more than double the previous decades' growth. Engelhardt and Eriksen (2022) found that 40% to 50% of seniors die as homeowners, highlighting the importance of senior homeownership.

[2] Refer to, the 2019 U.S. Census American Community Survey report, accessed on September 1, 2024: https://www.census.gov/acs/www/about/why-we-ask-each-question/grandparents/

[3] See, for example, Oliver and Shapiro (2013), Kermani and Wong (2021), Wong, Pennington, and Kermani (2023) and Moulton et al. (2022).

Our longitudinal study provides the first evidence that low-income seniors can preserve wealth by becoming homeowners through HUD's HCV program. The average homeowner in our sample shows no significant change in total wealth relative to renting, but the transition reduces liquid wealth by an average of $5.0K. The findings indicate that home equity stabilizes households' total wealth. Coresident households that become homeowners accumulate $6.5K less than households without children while renting but $5.9K more as homeowners, reducing this wealth disparity by about 89%. The results demonstrate that home equity can help lessen wealth disparities between households with and without dependent children. Minority households experience equal declines in liquid wealth as homeowners but retain $9.8K more in total wealth accumulated as renters than their White counterparts. The findings suggest that home equity is a channel for wealth retention for minority households in our sample.

We also find novel evidence that senior households reduce their labor supply (i.e., wage earnings) as homeowners but partially offset this decrease with pension income. In contrast, coresident households increase their labor supply, suggesting childrearing responsibilities limit their ability to sustain liquid wealth and income declines. In addition, the age at which seniors become homeowners, along with the timing and location of homeownership, significantly affects wealth preservation. Homeownership before the age of 62 allows coresident households to gain $8.0K, reversing a $7.9K wealth disparity. After the age of 62, the transition only affects coresident households, maintaining a $10.8K wealth gap between minority and White households. Neighborhood poverty levels also influence wealth preservation, with coresident and minority households moving to low-poverty neighborhoods accumulating $7.7K and $6.5K in wealth as homeowners, respectively. Additionally, we find some evidence that a neighborhood's economic connectedness (Chetty et al. (2022a; 2022b)) influences wealth preservation, but the effect is less impactful than poverty. Collectively, the findings demonstrate that households in our study are likely to make tradeoffs between affordability and neighborhood qualities that support aging in place and child-rearing.

To our knowledge, we present the first causal evidence that home equity can improve the financial stability of low-income senior households. The findings contribute new insights into economic theory and public policy. First, portfolio choice theories suggest that households can build wealth over time by holding

illiquid assets like homes (Dimmock, Wang, and Yang (2023); Jansen and Werker (2022)). This suggests that purchasing a home earlier in life aids wealth preservation. Additionally, because liquidity premiums vary with market conditions, the theories suggest that national housing market cycles also influence homeowners' wealth preservation. Our evidence aligns well with both timing implications.

Second, the illiquidity theories also suggest that households with greater flexibility to adjust spending across time periods (i.e., higher elasticity of intertemporal substitution) allocate more wealth to illiquid assets, leading to greater wealth accumulation. This implies that spending flexibility enhances homeowners' wealth preservation. However, our data appear to contradict this theoretical implication. For example, coresident households, which should have less spending flexibility than households without dependent children, are expected to invest less in homes and preserve less wealth. Instead, the transition from renting to owning reduces liquid wealth similarly across our sample, but coresident households achieve greater wealth gains as homeowners, which is the opposite of the spending flexibility predictions.

Last, our evidence shows that home equity can help low-income minority senior households retain significantly more wealth than comparable White households. Furthermore, we find evidence that moving to low-poverty neighborhoods creates wealth for minority seniors in our study. Similarly, minority seniors have been shown to face challenges in securing loans for home equity or home improvements as they age in place (Walk-Morris (2024)).[4] Notably, we have not seen evidence of home equity as a vehicle for minority seniors' wealth creation discussed in other studies. In fact, our findings contrast recent research that shows that the transition from renting to owning a home can widen racial wealth gaps among low-income working-age households (Eldemire, Luchtenberg, Wynter (2022)). Thus, our results provide a unique perspective into how home equity can serve as a vehicle for wealth creation for low-income minority senior households.

[4] For example, between 2018 and 2022, the Investigative Project on Race and Equity found that 48% of older-age Black residents in Chicago were denied a mortgage loan, compared to 23% of older-age White applicants, highlighting the difficulties that minority seniors can face in accessing home equity or refinancing as they age in place. "Chicago's legacy of racial segregation and redlining by banks influences access to mortgage lending, harming older Black neighbors who want to age in place and pass on generational wealth," states the report (as cited in Walk-Morris (2024)).

One concern with our causal interpretation of the evidence that home equity can help preserve wealth is that becoming a homeowner is not a random event. Buying a home requires substantial planning and financial resources. As our within-treatment research design relies on variation in the timing of eventual homeowners' tenancy, the nonrandom transition may present a threat to our identification strategy. However, the households participating in the HCV program cannot simply leave tenancy because they have saved and want to purchase a home, as there is no guaranteed transition period for the program. In other words, we study households for whom the timing of the treatment (i.e., transitioning from renting to owning a home) is somewhat uncertain and outside of the households' control. Thus, we are able to draw causal inferences from the transition to homeownership.

Another concern with the interpretation of our findings that the transition stabilizes seniors' total wealth is that the nonsignificant changes in wealth may be due to measurement error, rather than wealth preservation. We find this concern implausible, however, as we observe that the transition significantly decreases households' liquid wealth. Similarly, our interpretation of nonsignificant differences in wealth effects across households may be due to a small sample, rather than home equity decreasing wealth gaps between seniors, which is the positive policy outcome to which we ascribe our findings. For example, if coresident and minority households are scarce in our sample, we may not observe significant differences across these household types. We also find this concern implausible, as 38.6% of our sample households include dependent children and minorities head 52.4%. Therefore, we are confident that the decreased wealth disparities observed in our sample are due to home equity preserving wealth equally across households rather than our tests' inability to identify significant differences in wealth outcomes.

We provide novel insights into several strands of literature. We demonstrate that home equity can help stabilize low-income seniors' wealth and reduce disparities between households, which is not obvious. First, this evidence advances the literature on how households manage illiquid wealth. In the standard portfolio choice framework, well-resourced and financially sophisticated investors, like university endowments, earn a liquidity premium by allocating their resources to illiquid assets (Dimmock, Wang, and Yang (2023); Jansen and Werker (2022)). Remaining unclear, however, is whether that framework

categorizes senior households in our study, that use federal housing assistance because they lack sufficient wealth to meet their housing burdens. If these households lack the liquidity and financial expertise to transition to homeownership smoothly, for example, becoming a homeowner may decrease their wealth. Thus, our findings highlight the importance of home equity in helping low-income senior households preserve wealth, contributing an unexpected real-world insight to studies of illiquid wealth.

Second, we provide new evidence that home equity can preserve wealth for coresident households, which face ongoing childrearing expenses during a stage in life in which households generally expect savings and earnings to decrease (Browning and Crossley (2001)). Although intergenerational households are not a new phenomenon, grandparents are increasingly being charged with raising grandchildren when their own children are incapable of doing so (Burton (1992); Poe (1992); Minkler and Roe (1993); Strom and Strom (1993); Doucette-Dudman and LaCure (1996); Fuller-Thomson, Minkler, and Driver (1997); Edwards (1998)). We show that because of home equity, senior households with dependent children actually accumulate more wealth than those without children during homeownership, despite similar reductions in liquid assets. These findings contrast with the expectation that wealth disparities between coresident and non-coresident households would increase over time due to childrearing costs. Our findings advance scholarship on intergenerational households (Sodini et al. (2023)), and seniors with dependent children (Edwards (1998); Eisenberg (2015); Henig (2018); Stern (2021)).

Third, we provide evidence that low-income minority senior households can build wealth through home equity, contrasting the racial disparities in the benefits of homeownership shown in recent studies (e.g., Newman and Holupka (2016); Haurin, Moulton, and Shi (2018); Wainer and Zabel (2020); Bond and Eriksen (2021); Kahn (2021); Kermani and Wong (2021); Wong, Pennington, and Kermani (2023)); Eldemire, Luchtenberg, and Wynter (2022)). Similarly, our findings suggest that moving to low-poverty neighborhoods can help minority seniors create wealth through home equity. Given the lack of focus on minority senior households in economic mobility research, these wealth dynamics are not easily inferred from existing literature. For example, Chetty et al. (2022a; 2022b) emphasize economic connectedness as the key driver for economic mobility. In our data, however, neighborhood poverty appears more critical for

wealth preservation among senior minority households, which has policy implications different from those of the findings in current research. Thus, we offer new insights into how home equity can create wealth and economic mobility for low-income minority seniors.

Fourth, our findings complement the large literature on the private outcomes from government housing assistance (e.g., Katz, Kling, and Liebman (2001); Kling, Liebman, and Katz (2007); Eriksen and Ross (2013); Ludwig et al. (2013); Chetty, Hendren, and Katz (2016); Collinson and Ganong (2018); Kole (2022)). This research, however, does not examine how a federal homeownership intervention affects the wealth of senior households, which is the focus of our study. We advance the literature by providing evidence that federal housing assistance can preserve low-income seniors' wealth through home equity while reducing wealth disparities among households. Furthermore, research suggests seniors aging in place can be more cost-effective than alternative housing solutions.[5] Hence, the financial stability and reduced wealth gaps we document likely underestimate the overall economic benefits of the homeownership intervention.

Last, while our micro-level evidence shows that home equity can be a driver of financial stability for low-income senior households, homeownership is not a panacea for the senior housing crisis or the senior racial wealth gap. The age at which seniors purchase homes and the timing of home purchases significantly affect wealth disparities, as does neighborhood poverty, which is consistent with the evidence that when and where households purchase their homes affects the financial benefits of homeownership (e.g., Immergluck, Earl, and Powell (2019); Wainer and Zabel (2020); Eldemire, Luchtenberg, and Wynter (2022)). The findings indicate that the context in which households become homeowners can limit access to wealth preservation. Thus, our findings show that owning a home may not unilaterally preserve wealth among low-income senior households.

In the sections that follow, we first provide the institutional background on the HCV program and develop our hypotheses. We then discuss our data and methodology. Finally, we report our findings and

[5] See, for example, the 2013 HUD report on the potential cost savings from aging in place, accessed on September 1, 2024: https://www.huduser.gov/portal/periodicals/em/fall13/highlight2.html#title

conclude.

I. Institutional Details

In this section, we provide the institutional details of the HCV Homeownership program. First, we briefly discuss the program's origin and structure. Then, we close by discussing the demographics of the senior households in the program.[6]

A. HCV Homeownership Program Overview

HUD's current system of providing housing assistance originated with the U.S. Housing Act of 1937. Enacted after the Great Depression, this act authorized and funded Public Housing Agencies (PHAs) to provide housing assistance to low-income and disabled households. In 1974, Section 8 of the HCV program shifted from building and maintaining public housing projects to providing rental assistance via vouchers to rent privately owned residences. In another marked change, the Quality Housing and Work Responsibility Act of 1998 authorized PHAs to consider providing housing assistance in the form of a voucher used toward homeownership under the HCV Homeownership program. The program was approved and implemented in 2000.

The rental and homeownership programs provide qualifying households with the same level of housing assistance for rental and mortgage payments. Although both voucher programs offer households the same level of financial support, the administration of the rental and homeownership programs differs in ways that matter for our study. First, unlike rental assistance, PHAs are not required to offer homeownership vouchers, and HUD requires participating households to be served by a PHA that does. Thus, the PHA determines whether a household can access the program, and the household chooses whether to participate in it.

[6] See Eldemire, Luchtenberg, and Wynter (2022), U.S. Department of Housing and Urban Development (2019), and HUD's website for additional information on the HCV Homeownership Program. (https://www.hud.gov/program_offices/public_indian_housing/programs/hcv/about/fact_sheet).

Second, HUD does not specify whether funding should be used to administer tenant-based or homeownership vouchers, and PHAs have flexibility in selecting which families are eligible to participate in the HCV Homeownership program. Therefore, participation in the program should reflect a household's interest in becoming a homeowner rather than the PHA's funding status.

Last, in addition to other requirements, the homeownership program requires households to complete homeownership and credit counseling, maintain at least two years of continuous full-time employment, and qualify for mortgages that meet the participating lenders' underwriting standards. These financial and economic interventions are intended to address many of the structural challenges that low-income families can encounter as they transition from renting to owning a home. The interventions are also fairly resource intensive. As a result, far fewer households participate in the homeownership program than in the rental program.

B. Demographics of Seniors in the Homeownership Program

According to HUD's homeownership enrollment report as of February 2021, only approximately 20% of PHAs have active HCV Homeownership programs with at least one participating household.[7] Thus, the HCV Homeownership program is much smaller than the tenant-based HCV 2022 enrollment of 1.7 million households. Households headed by seniors (62 years of age and older) comprised 25% of the 8,508 total households participating in the HCV Homeownership program in 2022.

II. Theoretical Framework

In this section, we discuss the theoretical background of our study and develop hypotheses. We begin with a review of research that assesses the HCV Homeownership program. We then discuss research focusing on the portfolio tradeoffs between investing in illiquid versus liquid assets. We conclude with research that identifies the channels through which homeownership may preserve seniors' wealth.

[7] Our calculation from Homeownership Enrollment data from HUD.gov.

We note that predictions for the many observable and unobservable time-invariant household-specific characteristics that likely affect wealth preservation are absent from the discussions that follows. To reduce the effects of such influences on seniors' wealth outcomes, we include household fixed effects in our research design. We detail our research design in later sections of the paper.

A. Homeownership and the Preservation of Wealth among Low-Income Senior Households

While a wealth of literature has evaluated HUD's HCV program (e.g., Reeder (1985); Jacob (2004)), HUD's HCV Homeownership program has received much less attention. In the HUD-sponsored Voucher Homeownership Study Vol. I and II, Abbenante et al. (2006), and Locke et al. (2006) observe that participating households had low foreclosure and default rates and moved to marginally better neighborhoods with less poverty and more single-family homes. Although these early studies highlight the program's effectiveness, recent longitudinal research finds that transitioning from renting to owning a home led to greater racial wealth disparities among low-income working-age households (Eldemire, Luchtenberg, and Wynter (2022)).

While the discussed empirical studies establish that the HCV Homeownership program can lead to improved housing outcomes and inequitable wealth outcomes, they do not focus on seniors. Because the wealth dynamics of working-age and senior-age households likely differ (see, e.g., Browning and Crossley, 2001), their empirical findings do not provide much insight into whether the program confers wealth benefits to senior homeowners, which is the central question of our research.

Thus, we turn to economic theory to guide our study. In particular, we focus on theories that imply that homeowners earn a liquidity premium as compensation for holding an illiquid asset (e.g., Dimmock, Wang, and Yang (2023); Jansen and Werker (2022)). In this framework, the unfungibility of illiquid wealth may lead households to manage their liquid and illiquid wealth differently (Bernstein and Koudijs (2023)). For example, in the model of Jansen and Werker (2022), investors cannot borrow against their illiquid assets, meaning that investors would finance consumption primarily through their liquid wealth. Consistent with this mechanism, Bernstein and Koudijs (2023) find that households leave their liquid wealth untouched

as they gain housing wealth through mortgage amortization but cut their consumption and leisure, implying that households distinguish between liquid and illiquid wealth. Thus, owning a home may help a senior household preserve wealth through, for example, the forced savings of an amortizing mortgage or the financial cushion of home equity. In these examples, housing wealth could protect a household against declines in income and savings (Modigliani (1986)). Given that we focus on households that access housing vouchers, we would not expect the typical household's liquid wealth to fully meet its financial and housing burdens, all else being equal. Thus, we may observe that home equity preserves wealth as liquid wealth declines. This portfolio-choice framework motivates our first hypothesis:

> Hypothesis 1: Senior homeowners who participate in the homeownership program experience wealth preservation due to home equity as liquid wealth declines during their tenure as homeowners relative to their tenure as renters.

We note that this illiquidity framework also predicts that coresident and minority seniors may face greater challenges in wealth preservation due to childrearing's financial obligations reducing spending flexibility (Dimmock, Wang, and Yang (2023)) and persistent racial inequities in liquid wealth and income. We next discuss how differences in childrearing responsibilities and race can lead to wealth disparities among senior households that use a homeownership voucher.

B. Coresident Seniors and Wealth Outcomes

The HCV Homeownership program may not reduce the disparities in wealth among low-income senior homeowners with dependent children. Specifically, Dimmock, Wang, and Yang (2023)'s portfolio choice theory implies that investors with higher intertemporal elasticity, or greater flexibility to adjust spending over time periods, invest more in illiquid assets and therefore gain greater wealth. Thus, because childrearing reduces a household's spending flexibility (Baker, Silverstein, and Putney (2008)), their theory predicts that low-income seniors who are raising children may allocate less wealth to home owning and therefore build less wealth than low-income seniors who are not. For example, in addition to abandonment, drug abuse by their own children has forced grandparents to step in as caregivers (Wallace, Jeanblanc, and

Musil (2019)).[8] In such circumstances, grandparents with dependent children may be forced to spend savings meant for retirement on childrearing, education, etc. Similarly, traditional senior communities often explicitly prohibit children from residing in them. Therefore, coresident seniors may be denied access to affordable senior housing.[9] The findings demonstrate that the many financial and housing challenges of seniors responsible for children can reduce spending flexibility, which motivates our second hypothesis:

> Hypothesis 2: Senior homeowners with dependent children who participate in the homeownership program preserve less wealth relative to their tenure as renters than those without dependent children who participate in the program.

C. Minority Seniors and Wealth Outcomes

The HCV Homeownership program may not reduce racial wealth disparities among low-income senior homeowners. HUD's program is designed to alleviate housing difficulties for low-income households in a race-neutral manner. Therefore, it may not fully address the persistent inequities in wealth creation that can affect minority seniors. Research has shown that, in general, older minority-headed households have significantly less wealth than older White households (Oliver and Shapiro (2013); Kermani and Wong (2021)). These studies demonstrate that minority seniors can face persistent impediments to wealth creation compared with White seniors. The cause of these racial disparities in wealth is still under debate. However, Chetty et al. (2020) find that intergenerational transfers help explain racial disparities in the United States. They found that Black and Hispanic families received significantly fewer intergenerational transfers than White families, contributing to their lower levels of wealth. We complement this work by asking how nonwage income (i.e., welfare and pensions) can also influence the racial wealth disparities among seniors who become homeowners (Gale (1998); Chetty et al. (2014); Wroński (2023)).

[8]Magazines such as Forbes (Eisenberg (2015)) and The Atlantic (Henig (2018)) and legislation such as the Grandparent-Grandchild Medical Leave Act (2021) and the Grandparent-Grandchild Medical Leave Act of 2023 have highlighted the challenges coresident senior households face.

[9]These housing problems occur in sufficient numbers to encourage a new type of housing community – one that caters to seniors raising children, which is increasing across the United States (Stern (2021)).

Similarly, because home equity is one of the primary sources of retirement wealth (Poterba, Venti, and Wise (1996); Poterba, Venti, and Wise (2011); Eggleston et al. (2020); Bernstein and Koudijs (2023)), racial discrimination in housing and mortgage markets can also lead to greater racial disparities in wealth among senior homeowners. Consistent with this insight, recent evidence shows that for working-age households, the homeownership program leads to wealth creation for White homeowners but not minority homeowners (e.g., Eldemire, Luchtenberg, and Wynter (2022)). Furthermore, Moulton et al. (2022) find that the ability to borrow against home equity contributes to better health outcomes for older homeowners, suggesting that lower home equity levels can have negative consequences. Their evidence suggests that racial disparities in housing wealth can have negative effects on the well-being of minority seniors compared with White seniors.

Overall, these studies indicate that significant racial disparities exist between minority and White senior households that have important implications for households' financial security and well-being. To the extent that these racial disparities may limit the spending flexibility of minority senior households relative to White households, this discussion informs our third hypothesis:

Hypothesis 3: Minority seniors who participate in the homeownership program preserve less wealth relative to their tenure as renters than White seniors who participate in the program.

Next, we outline the channels through which senior households may preserve wealth through the homeownership program: labor market supply, timing, and neighborhood selection. We detail what our hypothesis predicts for each.

D. Channels for wealth preservation: labor market supply and non-wage income

One labor-market implication of the discussed illiquidity theories is that because illiquid assets can be costly to sell, households may finance consumption with liquid wealth or increased labor supply (Jansen and Werker (2022)). For example, Bernstein and Koudijs (2023) find that first-time homebuyers in the Netherlands increase their labor supply and leave their other savings untouched to facilitate homeownership. Their findings suggest that households increase their labor supply to make mortgage

payments. That logic predicts positive wage changes as households transition from renter to homeowner. However, in their sample of first-time home buyers, the oldest member in the household had a median age of 36, indicating that those labor-market dynamics may not necessarily generalize to our retirement-age households. Furthermore, seniors in our sample are also likely to rely on non-wage income, like pension income and welfare.

Thus, while the theoretical and empirical findings do not offer a precise directional prediction on the relationship between wage income and seniors' homeownership, we expect that seniors reduce their labor supply and offset the decrease with non-wage income as homeowners.

E. Channels for wealth preservation: timing

One timing implication of the illiquidity theories is that because liquidity premiums can accrue through time, becoming a homeowner earlier in life should preserve more wealth. The logic is straightforward: holding everything constant, home equity should increase through time and hence generate greater wealth. Despite having a younger sample of households, Bernstein and Koudijs (2023) find evidence consistent with this prediction. They find positive wealth accumulation from home appreciation in the subsample of households where the oldest household member is over the age of 50. Thus, we expect to find greater wealth preservation for households that purchase homes earlier in life compared to those that purchase homes later in life, holding all else equal.

Another timing implication of the illiquidity theories is that because liquidity premiums vary over time, the timing of home purchases can have material effects on homeowners' wealth preservation. Consistent with this logic, previous studies have shown that timing not only matters but also can have differential results for different racial groups. Wainer and Zabel (2020) find that people who purchased their homes in the years preceding the Global Financial Crisis did not experience wealth gains, while those who bought in the 1990s, when the housing market was less unstable, were able to accumulate wealth. More surprisingly, when studying the home price recovery period of 2012-2017, Immergluck, Earl, and Powell

(2019) found higher home appreciation for Black and Latino homebuyers when the housing market was strong but had lower home appreciation in poor housing markets. Similarly, Newman and Holupka (2016) find that Black first-time homebuyers had significantly larger losses in wealth than White homeowners during the subprime crisis. Given the evidence that the timing of home purchase affects wealth accumulation, we expect that, all else equal, the wealth preserved by home equity to vary by when homes are purchased.

F. Channels for wealth preservation: neighborhood selection

The final channel that we detail is neighborhood selection. Research finds that neighborhood quality influences home appreciation and, therefore, influences wealth through home equity (Rappaport (2010). As discussed previously, home equity is also typically one of the largest components of household wealth (Haurin and Rosenthal (2004); Poterba, Venti, and Wise (2011); Bernstein and Koudijs (2023)). Newman and Holupka (2016) find that Black homeowners purchase homes in areas where home values do not appreciate as much as the areas where White homeowners purchase, demonstrating that variation in neighborhood quality also matters for racial disparities in housing wealth.

Taken together, the discussed studies predict that the wealth preserved by home equity should vary by the quality of the neighborhood in which it is purchased, holding all else equal.

III. Data

A. Wealth Measurement

To examine whether homeownership helps build wealth for low-income seniors, we need to define what we mean by "wealth." Smith, Zidar, and Zwick (2020) find that the wealth of the most affluent Americans varies widely by measurement method. Although the households in our study are of much more modest means, the measurement of the dependent variable is paramount to achieving robust results. Recent research suggests three main ways to quantify wealth (Kopczuk (2015); Smith, Zidar, and Zwick (2020)). The first method entails collecting data from estate tax filings and population mortality statistics and

estimating the wealth inherited by living descendants (Kopczuk (2015), Smith, Zidar, and Zwick (2020)). The second method infers wealth by capitalizing income reported in tax returns (Giffen (1913); Stewart (1939); Saez and Zucman (2016); Smith, Zidar, and Zwick (2020)). The third method of measuring wealth involves collecting wealth from surveys such as the Panel Study of Income Dynamics (Wolff (1998); Turner and Luea (2009); Bricker et al. (2016); Newman and Holupka (2016); Wainer and Zabel (2020)). While the first two methods are helpful for estimating the wealth of high-net-worth households, we employ the third because it is more appropriate for the low-income households we study.

B. HUD Form 50058

HUD's Public and Indian Housing Information Center (PIC) maintains detailed records of households participating in the HCV program using the family report, HUD Form-50058. One of the benefits of using the HUD PIC database is that, unlike survey data such as the Panel Study of Income Dynamics, we can be assured that income data are neither inflated nor deflated. HUD validates wage income using its Enterprise Income Verification System. Furthermore, nonwage income must be supported by third-party documentation, such as account statements, and be validated by either landlords or PHAs for rental and homeownership vouchers, respectively.[10] Landlords who do not comply with these verification procedures risk losing their ability to participate in or receive payments from the HCV program. Therefore, we expect these income data to be accurate. We obtained these data from January 2000 to December 2020 through a data license agreement with HUD.

C. Data Limitations

Despite being verified and reliable, the HUD data are limited because the reported assets include only liquid financial assets. Form-50058 data do not report any information about liabilities or home equity. Home equity is a significant factor in determining a homeowner's wealth, so we supplement the data with

[10] Income verification procedures are discussed in further detail in Chapter 5 of the HUD Occupancy Handbook.

imputed home equity using Zillow's Home Value Index (ZHVI) zip-code-level data.

Another potential shortcoming of these data is that the assets are self-reported. Although public housing officials verify income and family composition with the Social Security Administration and the Internal Revenue Service, landlords are primarily responsible for verifying a household's assets. As landlords may be less able to verify asset values accurately, concerns may arise about rental voucher recipients misreporting assets, which could introduce measurement errors into our data. For example, if HUD's reporting guidelines incentivize households to underreport their assets as renters but not as homeowners, we may observe artificial changes in wealth when households transition to homeownership. HUD's guidelines indicate that for assets exceeding $5,000, either the actual income received from the assets or 2% of the asset's value is added to the total household income. As housing support is based on income, owning assets above $5,000 could potentially reduce the support provided to households with rental vouchers. However, this threshold is less significant for homeownership voucher holders because the program structure provides continued mortgage support, regardless of minor changes in income. If this misreporting occurs, we would expect to find a clustering of assets around the $5,000 threshold. We investigate whether asset values cluster around this $5,000 threshold but find no evidence of misreporting.

D. Sample

We create the sample by taking the universe of households receiving housing assistance from HUD through the HCV program for both assistance in paying rent and homeownership. As we examine wealth accumulation in senior households, the head of household must be a homeowner 62 years or older. For example, if a homeowner begins receiving rental assistance at the age of 55 but then is approved for homeownership assistance and purchases a home at age 65, we will include the household’s years of rental assistance and homeownership assistance in the sample. Alternatively, we exclude households that continue as renters and do not enter the homeownership program from the sample. Appendix A presents a complete listing of variable definitions.

Panel A of Table I reports the summary statistics from the total sample, and Panel B presents one-year pre- and post-homeownership statistics. As Panel A shows, of the 29,120 household-years in the sample, coresident households account for almost a fifth, or 6,042 household-years. Coresident households are generally younger than households without children by approximately four years. The median coresident household has one minor child at home.

The dummy variable, Minority, takes the value 1 if the head of household identifies as Black, non-White Hispanic, Asian, or Native American and 0 otherwise. One of the advantages of using the HCV population of low-income households is that, in contrast with studies using the Moving to Opportunity experiment, we are able to observe substantial racial diversity.[11] Our sample is approximately evenly split between minority and White households, which ensures that we can observe any racial disparities in wealth accumulation in these senior households. Minority households are significantly more likely to be caring for minor dependents than White households, as 65% of coresident households are led by racial or ethnic minorities.

Finally, these univariate results show that compared with coresident households, households without children have higher wealth as renters. This gap reverses in homeownership, providing early evidence that homeownership may be particularly beneficial in helping coresident households build wealth. Panel B of Table I reports summary statistics when we limit the sample to the year before and after becoming a homeowner. Panel B reports that in the final year before the transition from renting to owning a home, coresident and non-coresident households have $1.7K and $3.0K in wealth, respectively. In the first year of homeownership, coresident and non-coresident households have $13.1K and $10.6K in wealth respectively. The reversal in wealth disparity appears due to home equity, as households with and without children accrue $10.7K and $7.0K in home equity, respectively. These results mirror those in Panel A and support that homeownership helps coresident households build wealth as the coresident households have

[11] The Moving to Opportunity experiment affords insight into the benefits of moving to higher-quality neighborhoods, but the households participating were mostly members of a racial or ethnic minority. See Katz, Kling, and Liebman (2001), Kling, Liebman, and Katz (2007), and Ludwig et al. (2013).

higher increases in wealth from the year before purchasing the home to the year afterward than households without children.

Figure 1 plots the range of total wealth accumulated for each year, in event time, relative to becoming a homeowner. The plots suggest that home equity is the channel through which owning a home preserves seniors' wealth. The plots show that liquid assets appear to decrease in response to homeownership. Conversely, total wealth remains stable, and home equity increases over the course of home owning. These wealth dynamics suggest that home equity helps stabilize wealth, as liquid assets do not appear to increase relative to renting. We note, however, that these plots do not compare the same household to itself, nor do they compare effects across households, as we do in our within-treatment multivariate analysis. We discuss this investigative approach next.

IV. Methodology

This section outlines our empirical approach to exploring how homeownership may contribute to or reduce wealth disparities among senior households. Our analysis is based on a within-subject treatment design for the effects of homeownership, in which we collect the treatment and control observations from the same households over a continuous period of time. The primary benefits of this design are that it avoids confounding effects due to variations in unobserved characteristics from different households and reduces the standard DiD treatment effect regression to a simple ordinary least squares (OLS) panel regression.

We build on the baseline OLS panel regression model by first applying a more traditional DiD framework to examine the effects of childcare responsibilities on household wealth accumulation. Here, we observe households without children (control group) and with children (treated group) as they all transition through the baseline within-subject treatment of homeownership. Next, to disentangle any confounding effects of race on household outcomes, we use an augmented DiD, or triple difference (DDD), framework:

$$Wealth_{i,t} = \beta_1 HCVHomeowner_t + \beta_2 HCVHomeowner_t \times Minority + \beta_3 HCVHomeowner_t \times Children + \beta_4 HCVHomeowner_t \times Minority \times Children + \beta_5 Minority + \beta_6 Children + \gamma_1 X_{i,-1} + \nu_i + \rho_s + \varepsilon_{i,j,t} \quad (1)$$

In our specification, the primary variable of interest, $HCVHomeowner_{i,j,t}$, is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rent payment. The dependent variable, $Wealth$, is the cash value of a household's financial assets as disclosed on HUD Form-50058 plus the estimated value of home equity. We calculate home equity by subtracting the estimated mortgage debt from the home's market value. We infer mortgage debt from the mortgage payment reported on Form-50058 when we assume a 30-year Federal Housing Administration loan, a 3.5% down payment, and the average 30-year fixed interest rate from Federal Reserve Economic Data for the year the home was purchased. The home's market value is the estimated purchase price (original mortgage debt plus down payment), escalated by changes in home prices as reported in Zillow's ZHVI. *Children* and *Minority* are indicator variables that take the value 1 if the household includes dependent children or has a non-White head of household, respectively, and 0 otherwise.

The model also includes per-capita income and employment to control for local economic conditions. We calculate per-capita income, *Income/PC*, by scaling the total personal income of a county by its total population. Similarly, we calculate *Employment/PC* as the total number of jobs in the county scaled by the total population and multiplied by 100. Both variables are at the county level and are sourced from the Bureau of Economic Analysis. We include household fixed effects (ν_i) to control for unobserved household characteristics that may influence wealth accumulation and year fixed effects (Bernheim, Garrett, and Maki (2001); Ameriks, Caplin, and Leahy (2003)). Furthermore, we cluster at the PHA level to address the possibility of serial correlation of residuals within households under the same local housing authority as in Bertrand, Duflo, and Mullainathan (2004).

V. Results

In Table II, we estimate Equation 1 with wealth and liquid wealth (i.e., wealth that excludes home equity) to test our hypotheses. In column 1, we estimate Equation 1 with wealth, and we find that within a

given household, the transition to owning a home has no significant effect on wealth. However, when we estimate Equation 1 with liquid wealth, we find evidence that the transition significantly reduces savings. Column 2 shows that home owning decreases savings by $5.0K relative to renting. The results suggest that home equity helps stabilize wealth, as low-income senior homeowners experience significant decreases in liquid wealth relative to renting. The findings are consistent with our hypothesis that owning a home can preserve wealth as home equity offsets decreases in liquid wealth.

Since childrearing can reduce households' intertemporal spending flexibility, illiquidity theories suggest that this wealth preservation may increase disparities between households with and without dependent children. However, our data do not support that prediction. Table II, column 1 shows that the transition reduces the disparity in wealth between coresident and non-coresident households from $6.5K as renters to $669.78 as homeowners. The $5.9K decrease in disparities is statistically significant and indicates that coresident households gain more wealth as homeowners than non-coresident households. This reduction appears entirely driven by home equity, as column 2 shows that the transition maintains a $2.7K disparity in savings between coresident and non-coresident households, which aligns with childrearing reducing spending flexibility. Nonetheless, our results suggest that home equity reduces wealth disparities by helping households with dependent children to create wealth.

A possible concern is that a general reduction in disparities between coresident households may not extend to minority households. For example, research on low-income working-age households shows that homeownership's wealth benefits can worsen racial disparities in wealth (e.g., Eldemire, Luchtenberg, and Wynter (2022)). By contrast, columns 1 and 2 show that homeownership does not significantly affect racial disparities in wealth or liquid savings, as the differences in wealth preservation between minority and White homeowners are not statistically significant. Notably, column 1 shows that as renters, minority households preserve an average of $9.8K more wealth than White households. Similarly, column 2 shows that minority households maintain $4.0K more in liquid wealth as renters relative to White households. The findings demonstrate that minority and White households in our sample can experience unique paths to

wealth stability. Still, the results suggest that home equity can help reduce racial disparities between low-income senior households by helping minority households preserve wealth.

The findings presented in Table II are consistent with the hypothesis that the transition from renting to owning a home stabilizes low-income senior households' wealth as liquid wealth decreases. At the same time, home equity appears to decrease the wealth disparities experienced by coresident households and minority households. These findings provide new evidence that owning a home can be a significant driver of wealth stability for low-income older-age households. One concern with this causal interpretation is that these positive policy outcomes may be driven by prior wealth dynamics, rather than homeownership. To investigate this possibility, we next use additional time-series tests to compare wealth preservation across households relative to the event-time of switching from renting to owning.

Figures 2 and 3 report wealth differences by year, before and after the homeownership transition. In Figure 2, we plot coefficient estimates of Equation 1, from column 1, Table II, but modified so that the homeownership indicator is replaced with indicators for each year relative to the transition to homeownership, and the Children variable is interacted with the event-year indicators. Similarly, Figure 3 reports coefficient estimates of Equation 1, from column 1, Table II, with the Minority and Children indicators interacted with the event-year indicators. In both Figures, we see few differences in wealth prior to the transition to homeownership, which calms pre-trend concerns. After the transition to homeownership, these results mirror those reported in Table II. Figure 2 shows that coresident households accumulate more wealth after the transition to homeownership than households without coresident children. Figure 3 reports few racial differences in wealth, providing further support that both minority and White households share the wealth preservation of homeownership.

Altogether, we find evidence that home equity helps preserve wealth as liquid wealth declines among senior homeowners. This wealth preservation reduces wealth disparities between coresident and minority households, which is opposite of the implications from illiquidity theories and prior research. We do not find evidence consistent with this wealth preservation occurring prior to homeownership, suggesting that home equity causes the reduced disparities among households in our study.

A. Labor market supply and non-wage income

In Table III, we explore whether senior households that become homeowners adjust the labor supply. We estimate Equation 1, but replace wealth with households' wage, welfare, and pension income in columns 1, 2, and 3, respectively. We expect that seniors decrease their labor supply and offset the decrease with non-wage income, which is the opposite of Bernstein and Koudijs (2023)'s finding that first-time homebuyers in the Netherlands increase their labor supply and leave their other savings untouched. However, we would expect our sample of low-income retirement-age households to rely more on welfare and pension income than the working-age households in their study. Moreover, we find evidence that liquid wealth decreases relative to renting in our sample (Table II, Column 2), which is the opposite of their finding.

Column 1, Table III, shows that wages fall for non-coresident homeowners relative to their tenure as renters. Among households without children, after the transition, wages in a given minority and White household are $174.17 and $554.31 lower, respectively. The difference ($380.14) is statistically significant and suggests that the minority seniors may work more in retirement than the White seniors in our sample. In contrast to these wage decreases, wages for households with dependent children increase by $922.58 relative to renting, reducing the disparity in wages between coresident and non-coresident households from $2.6K to $1.6K. The wage differentials suggest that seniors with children increase their labor supply in response to homeownership, much like the younger households in the Bernstein and Koudijs study. The results suggest that seniors with and without dependent children, and to a lesser extent minority and White seniors, manage their labor supply differently as they transition to homeownership, which suggests that family structure and race influence senior households' labor decisions.

Column 2, in Table III, shows that on average welfare income does not significantly change for households in our sample, regardless of family structure or race. We also find that seniors with dependent children receive a higher amount of welfare income, as both renters and homeowners, than households without dependent children ($1.2K). As welfare benefits are based in part on the number of people in the

household, a higher amount of welfare income for senior households with dependent children makes sense.

The last source of income we examine is pension income, in column 3 in Table III. Pensions are a significant source of income in retirement-age households. Increases in pension income may allow households to meet regular household expenses and accumulate wealth. Thus, because pension income is earned after retirement age, pension income should be positively related to homeownership. Overall, we find this to be true, as pension income increases by $284.94 relative to renting. As with welfare, we observe no significant disparities in pension income after homeownership, but households with children receive higher pension income than households without children, as renters and as homeowners ($988.01).

Collectively, the evidence supports the prediction that senior households reduce their labor supply and offset the decrease with non-wage income after becoming homeowners. However, senior households with dependent children increase their labor supply, suggesting that childrearing responsibilities may limit the ability to sustain decreased wage income and savings.

B. Timing of home purchase: earlier versus later in life

In Table IV, we investigate our prediction that households that transition to homeowning earlier in life preserve more wealth. We partition our sample into cohorts that became homeowners before and after the age of 62 and then estimate Equation 1 within the subsamples. As with Table II, we report results for wealth (columns 1 and 3) and liquid wealth (columns 2 and 4) as the dependent variable for each partition.

Columns 1 and 2, in Table IV, show that access to home equity before the age of 62 can help coresident households create wealth. Column 1 shows that as renters, seniors with dependent children had less wealth than those without ($7.9K), but after homeownership, this disparity is eliminated ($8.0K). The difference ($55.2) is statistically significant and demonstrates that home owning before the age of 62 is especially helpful for coresident households' wealth preservation. Column 2 shows that the transition reduces liquid wealth ($4.6K) equally across coresident and non-coresident households. The results demonstrate that the wealth gained by coresident households over the course of home owning is largely due to home equity reversing the disparities between households. The transition does not significantly affect

racial disparities in wealth or liquid savings, indicating that households that become homeowners earlier in life experience equal wealth changes across racial groups. The findings establish that timing matters for senior households' wealth preservation, particularly for households with dependent children.

Table IV reports results for households that transition after the age of 62 in columns 3 and 4. We find evidence that purchasing homes later in life perpetuates racial disparities between households with dependent children. Column 3 shows that becoming a homeowner after the age of 62 has no significant effect on the wealth of households without dependent children, regardless of racial identity. In contrast, the transition maintains a $10.8K disparity in wealth between minority and White households with dependent children. We find no evidence that the transition from renting to owning reduces this disparity. The results suggest that, among households that become homeowners after the age of 62, homeownership does not provide minority households with dependent children a means to catch up to the wealth of comparable White households.

The key takeaway from this series of tests is that access to home equity earlier in life matters, particularly for coresident households. Our results also show that becoming a homeowner later in life maintains racial disparities in wealth among coresident seniors, which further demonstrates that childrearing responsibilities and race can conjointly limit the financial benefits of homeownership among seniors with low incomes.

C. Timing of home purchase: national trends in housing market

Next, in Table V, we examine our prediction that the timing of home purchase affects wealth preservation due to national trends in the housing market. Following the literature, we separate our sample into cohorts that purchase homes within the same housing cycle. We then estimate Equation 1 within the cohorts. We designate the "boom" period as 2000 to 2006, the "bust" period as 2007 to 2012, and the "recovery" period as 2013 to 2020, which is when our sample ends. As before, we report results for wealth (in the odd-numbered columns) and liquid wealth (in the even-numbered columns) for each partition.

Table V reports the results for the boom (columns 1 and 2), bust (columns 3 and 4), and recovery periods (columns 5 and 6). Similar to the findings of Wainer and Zabel (2020), columns 1 and 2 show that senior households that purchased during the run-up to the Global Financial Crisis experienced no significant changes in wealth or liquid wealth. In contrast, column 3 reports a gain of $11.1K among households that purchase homes during the bust period, the largest gain from homeownership in our sample. Although the transition maintains a wealth disparity of $7.8K between households with and without dependent children, we find no disparities in the wealth households gained throughout home owning. Column 4 shows that purchasing a home during the bust period had no significant effect on liquid savings, indicating that home equity drives the wealth gained among the cohort. Finally, households that purchased their homes during the recovery period, as reported in column 5, experienced negative wealth effects ($11.9K). Column 6 shows that these households experienced no significant change in liquid wealth, which establishes that the home equity led to wealth losses among the recovery cohort.

Altogether, the results provide evidence that national trends in the housing market can significantly influence the wealth low-income senior households preserve through homeownership. The evidence supports the timing implications of the illiquidity theories.

D. Neighborhood selection: poverty and economic connectedness

We next examine whether the neighborhood in which senior households become homeowners influences wealth preservation relative to renting. To the extent that neighborhood quality is likely to affect seniors' well-being and financial stability, categorizing this selection criteria is important. However, the discussed illiquidity theories do not provide much guidance as to how low-income seniors may, for example, balance affordable housing with community qualities that support aging in place or childrearing.

To identify whether the choice of neighborhood affects wealth preservation, we estimate Equation 1 within cohorts based on neighborhood quality and split the sample into above and below-median groups. We classify neighborhoods by their poverty rate and economic connectedness. We focus on poverty rates because previous qualitative studies of HUD's HCV Homeownership program suggest that participating

households select into neighborhoods, in part, by the poverty level (Abbenante et al. (2006)); Locke et al. (2006)). We focus on economic connectedness because research finds that it strongly influences low-income households' economic mobility (Chetty et al. (2022a; 2022b)), which has direct implications for our study. We obtain poverty rates from the U.S. Census that are matched at the Census-tract level via HUD. We obtain connectedness at the zip-code-level form Chetty et al. (2022a; 2022b). As before, we separately report results for total and liquid wealth.

Table VI presents sample splits by neighborhood poverty. The table shows that buying homes in low-poverty neighborhoods helps preserve the wealth of coresident and minority households. Column 1 reports that purchasing homes in low-poverty neighborhoods decreases the wealth gap between seniors with and without children from $8.7K as renters to $1.0K as homeowners. The $7.7K decrease is statistically significant and identifies approximately an 88% reduction in this disparity. Minority households that purchase in low-poverty areas gained $16.4K in wealth, retaining $10.9K more than White households as renters and additional $6.5K more as homeowners. Column 2 reports a $5.4K decrease in liquid wealth across households, suggesting that home equity causes the reduction in disparities. Conversely, column 3 shows that purchasing in high-poverty neighborhoods increases racial wealth disparities, as minority homeowners accumulate $3.5K less wealth than White homeowners. Column 4 indicates no significant effect on liquid wealth from high-poverty area purchases, regardless of family structure or race. Overall, the findings illustrate that low-income seniors can find it challenging to select into neighborhoods that are affordable and also preserve wealth.

Table VII shows that selecting into neighborhoods with lower versus higher economic connectedness can influence coresident households' wealth preservation. Columns 1 and 2 show that buying into low-connection neighborhoods has no significant effect on wealth or liquid wealth but does help minority households to retain $12.1K more wealth than White households as renters. In contrast, column 3 reports that transitioning into high-connection neighborhoods affects only coresident households, which accumulate $221.27 in wealth. Households with children gain $6.1K more in wealth than households without children as homeowners, eliminating a $5.9K wealth disparity from renting. Home equity appears

to explain the wealth gains, as Column 4 shows that buying into high-connection neighborhoods reduces liquid wealth by $7.0K across households. These results suggest that selecting into neighborhoods with higher economic connections helps preserve wealth, especially for seniors with dependent children.

Taken together, the findings in Tables VI and VII support the idea that neighborhood poverty and economic connectedness affect the wealth preserved by owning versus renting a home. The results demonstrate that home equity serves as an important mechanism through which neighborhood selection can influence low-income seniors' access to wealth preservation.

E. Which neighborhood quality matters more: poverty versus economic connectedness

Our final set of tests aims to disentangle the neighborhood-selection effects of poverty and economic connectedness on the wealth that homeowners preserve relative to renting. To separate these channels, we independently double-sort households into cohorts by neighborhood poverty and economic connectedness, and then estimate Equation 1 within the double-sorted, above and below, median groups. As our previous findings establish that neighborhood selection mainly affects wealth preservation through home equity, we only report results for total wealth in these tests.

Table VIII reports the results of our double sorts. Columns 1 and 2 present low-connection neighborhoods, split by below and above median poverty, respectively. Columns 1 and 2 show that transitioning into low-connection neighborhoods does not affect wealth relative to renting, regardless of neighborhood poverty. Interestingly, we find evidence that purchasing into low-connection low-poverty neighborhoods does help minority households to retain $11.1K more wealth than White households from renting but also maintains an $11.6K wealth disparity between coresident and non-coresident households. The findings demonstrate that minority households in our study that transition into low-connection low-poverty neighborhoods still preserve wealth as homeowners, suggesting that neighborhood poverty has a more significant impact on their wealth preservation than economic connectivity.

Columns 3 and 4 of Table VIII split high-connection neighborhoods by poverty. The columns provide further evidence that economic connectivity seems to matter less than neighborhood poverty in our

study, particularly for minority households. Column 3 shows that purchasing homes in high-connection low-poverty neighborhoods only affects minority households, leading minority households to accumulate $6.9K more wealth as homeowners relative to White households. Conversely, Column 4 reports that buying into high-connection high-poverty areas increases racial disparities, as minority homeowners gain $4.3K less wealth than White homeowners. Additionally, the transition maintains a racial disparity of $11.6K between households with dependent children from renting, illustrating that purchasing homes in neighborhoods with high-connection, but high-poverty can significantly limit minority households' wealth preservation.

To the extent that better connected communities may help seniors age in place or provide better resources for childrearing, one may expect that these characteristics matter more for wealth preservation than neighborhood poverty. In contrast, the results from Table VIII suggest that relative to economic connectedness, neighborhood poverty has a stronger influence on the wealth preserved through home owning. Although our results contrast with prior research that economic connectedness is more important for low-income households' financial stability (Chetty et al. (2022a; 2022b)), the findings further demonstrate that neighborhood selection can affect low-income seniors' wealth preservation in response to homeownership.

VI. Conclusion

We provide causal evidence that the HUD HCV Homeownership program led to wealth preservation for low-income senior households that became homeowners. We apply a within-treatment research design to investigate whether access to homeownership affects older-aged households' wealth stability and increases wealth disparities for coresident and minority households. We find that the typical senior household experiences no change in total wealth over the course of homeownership, but significant decreases in liquid wealth. The evidence establishes that home equity helps preserve low-income seniors'

wealth as savings declines, which is a new finding. Our results also suggest that owning a home facilitates wealth creation for coresident and minority households, mainly through home equity.

We find evidence that seniors' wages decrease as they leave tenancy for homeownership. Pension income offsets some of the decreases in wage income. At the same time, childrearing responsibilities and race appear to influence the degree to which households reduce their labor supply after they become homeowners. The results illustrate how family structure and race can limit the ability to sustain reductions in savings and income as seniors gain illiquid wealth via home equity.

Our findings suggest that owning a home can help senior households preserve wealth and reduce disparities in wealth. However, we also find strong evidence that transitioning earlier in life, timing of home purchase, and neighborhood selection affect senior households' wealth preservation and the differences in wealth outcomes of coresident and minority households. The findings provide new micro-level evidence that homeownership can be a driver of financial inclusion among senior households with low incomes.

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Appendix A Variable Descriptions

Panel I: Household Demographics	
Renter Tenure	The number of years that a household's Housing Choice Voucher (HCV) is applied to their renter (tenant) housing expense, before transitioning into homeownership.
Homeowner Tenure	The number of years that a household's Housing Choice Voucher (HCV) is applied to the mortgage on their primary residence.
HCV Homeowner	A treatment indicator set to 1 during each year that a household's Housing Choice Voucher (HCV) is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rent payment.
Bedrooms	The number of bedrooms of the household's dwelling.
Minority	An indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise.
Age of HoH	The age of the head of household.
Children	An indicator variable set to 1 if the household includes family members under the age of 18.
Disability	An indicator variable set to 1 if at least one of the household's family members is classified as having a disability.
Panel II: Household Income, Assets, and Wealth	
Annual Income	The sum of the household's income from all sources (e.g., wages, pensions, welfare, alimony, child support) as reported and verified by HUD on Form-50058.
Wages	The sum of the household's wage income from employment as reported and verified by HUD on Form-50058.
Welfare	The sum of the household's welfare income as reported and verified by HUD on Form-50058.
Pension	The sum of the household's pension income as reported and verified by HUD on Form-50058.
Other Assets	The total cash value of assets excluding home equity (other) at year t.
Home Equity	Calculated as the net of estimated home values from Zillow's Home Value Index (ZHVI) and the mortgage debt inferred from the mortgage payment amount reported on Form-50058; assuming a 30-year FHA loan (3.5% down payment and average FHA interest rate at year *t*).
Total Wealth	The sum of the cash value of financial assets (*Other Assets*) as reported on HUD Form 50058 plus imputed Home Equity at time t.
Non-Equity Wealth	Calculated as *Total Wealth* minus home equity.
Panel III: Neighborhood Characteristics	
Income/PC	County-level total personal income from the Bureau of Economic Analysis scaled by the county's total population.
Employment/PC	County-level total employment (number of jobs) from the Bureau of Economic Analysis scaled by the county's total population.
Pvrty Prcnt	The percent of population below poverty level relative to the Census Tract in which a household is located.

Appendix A Variable Descriptions – continued

Econ. Connected.	County-level proportion of above-median-income friends among people with below-median incomes (Chetty et al. 2022a; 2022b). We transform this continuous variable into an indicator (Low Econ. Connected.) set to 1 if the observation is lower than the state median and 0 otherwise.
Boom	An indicator set to 1 for homes purchased in 2001-2006.
Bust	An indicator set to 1 for homes purchased in 2007-2012.
Recovery	An indicator set to 1 for homes purchased in 2013-2020.

Table I: Panel A: Household and Neighborhood Demographics

Table I- Panel A reports summary statistics for the senior households that participate in HUD's Housing Choice Voucher (HCV) Program as renters and homeowners from 2000 to 2020. Observable household characteristics $X_{i,t-1}$ include *Num. of Children*, the number of family members under the age of 18; *Age of HoH*, the age of the head of household; *Children*, an indicator set to 1 if the household includes family members under the age of 18; *Disability*, an indicator variable set to 1 if at least one family member is classified as having a disability; and *Minority*, an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Renter Tenure* and *Homeowner Tenure* are the number of years that a household's HCV is applied to their renter or homeownership expense, respectively. *Bedrooms* reports the number of bedrooms of the dwelling. *Annual Income* is the sum of the household's income from all sources (i.e., wages, pensions, welfare, other) as reported and verified by HUD on Form-50058. *Wages*, *Welfare*, and *Pension* are the household's annual income from employment, welfare, and pension, respectively, as reported and verified by HUD on Form-50058. *Total Wealth* is the sum of the cash value of financial assets (*Other Assets*) as reported on HUD Form 50058 plus imputed Home Equity at time t. *Non-Equity Wealth*, calculated as *Total Wealth* minus *Home Equity*, calculated as the net of estimated home values from Zillow's Home Value Index and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year FHA loan (3.5% down payment and average FHA interest rate at year *t*). County-level controls are for the counties in which the households reside: *Income/PC* is county-level per-capita income, personal income from the Bureau of Economic Analysis (BEA) scaled by the county's total population. *Employment/PC* is county-level total number of jobs from the BEA scaled by the county's total population. Neighborhood level characteristics are reported for the census tract in which a household is located: *Pvrty Prcnt* is the percent of population below poverty level relative to the Census Tract in which a household is located. *Econ. Connected.* is the county-level proportion of above-median-income friends among people with below-median incomes (Chetty et al. 2022a; 2022b).

	As Renters						As Homeowners					
	No Children			Children Coresidents			No Children			Children Coresidents		
	mean	p50	sd	mean	p50	sd	mean	p50	sd	mean	p50	sd
Age of HoH	60.28	60.00	7.13	56.48	56.00	6.74	65.51	65.00	7.32	61.63	61.00	7.15
Num. of Children	0.00	0.00	0.00	1.82	1.00	1.18	0.00	0.00	0.00	1.66	1.00	1.00
Children	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00
Disability	0.52	1.00	0.50	0.40	0.00	0.49	0.26	0.00	0.44	0.32	0.00	0.47
Minority	0.46	0.00	0.50	0.65	1.00	0.48	0.47	0.00	0.50	0.67	1.00	0.47
Renter Tenure	7.27	6.00	3.70	6.84	6.00	3.23	.	.	.	.	.	.
Homeowner Tenure	.	.	.	.	.	.	11.29	12.00	3.85	11.53	12.00	3.82
Bedrooms	1.82	2.00	0.74	2.84	3.00	0.83	2.53	3.00	0.76	3.16	3.00	0.74
Annual Income	12,148	10,393	6,391	16,672	15,303	8,703	14,988	12,504	8,697	20,770	18,346	10,909
Wages	2,593	0	7,055	7,655	0	11,251	3,498	0	9,500	8,874	0	13,523
Welfare	371	0	940	1,720	0	4,008	356	0	910	1,740	0.00	3,153
Pension	9,572	8,952	5,297	7,639	7,476	7,018	11,439	10,356	5,948	10,858	9,954	8,334
Non-Equity Wealth	2,099	75	13,319	1,263	39	5,549	6,736	444	34,881	3,455	388	17,094
Home Equity	.	.	.	.	.	.	22,021	11,061	40,254	19,170	8,490	43,188
Total Wealth	2,099	75	13,319	1,263	39	5,549	28,758	13,165	57,554	22,625	10,194	49,462
Income/PC	37,714	36,411	9,942	37,521	36,179	9,958	44,972	43,161	12,208	42,635	40,812	10,486
Employment/PC	60.81	61.06	13.52	62.30	62.05	13.99	61.46	61.54	13.51	62.02	61.97	13.18
Pvrty Prcnt	18.76	16.00	11.82	18.43	15.28	12.84	19.96	17.70	12.39	19.66	16.54	13.84
Econ. Connected.	0.78	0.76	0.14	0.79	0.77	0.15	0.79	0.77	0.14	0.79	0.76	0.15
Observations	6047			2485			17031			3557		
Additional Notes:	Unique Households: 2,273			Unique Coresident Households: 878			Unique Minority Households: 1,192					

Table I: Panel B: Household and Neighborhood Demographics, Year Before and After Home Purchase Only

Table I- Panel B reports summary statistics for the senior households that participate in HUD's Housing Choice Voucher (HCV) Program as renters and homeowners from 2000 to 2020 for the year before and after home purchase. Observable household characteristics $X_{i,t-1}$ include *Num. of Children*, the number of family members under the age of 18; *Age of HoH*, the age of the head of household; *Children*, an indicator set to 1 if the household includes family members under the age of 18; *Disability*, an indicator variable set to 1 if at least one family member is classified as having a disability; and *Minority*, an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Renter Tenure* and *Homeowner Tenure* are the number of years that a household's HCV is applied to their renter or homeownership expense, respectively. *Bedrooms* reports the number of bedrooms of the dwelling. *Annual Income* is the sum of the household's income from all sources (i.e., wages, pensions, welfare, other) as reported and verified by HUD on Form-50058. *Wages*, *Welfare*, and *Pension* are the household's annual income from employment, welfare, and pension, respectively, as reported and verified by HUD on Form-50058. *Total Wealth* is the sum of the cash value of financial assets (*Other Assets*) as reported on HUD Form 50058 plus imputed Home Equity at time t. *Non-Equity Wealth*, calculated as *Total Wealth* minus *Home Equity*, calculated as the net of estimated home values from Zillow's Home Value Index and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year FHA loan (3.5% down payment and average FHA interest rate at year *t*). County-level controls are for the counties in which the households reside: *Income/PC* is county-level per-capita income, personal income from the Bureau of Economic Analysis (BEA) scaled by the county's total population. *Employment/PC* is county-level total number of jobs from the BEA scaled by the county's total population. Neighborhood level characteristics are reported for the census tract in which a household is located: *Pvrty Prcnt* is the percent of population below poverty level relative to the Census Tract in which a household is located. *Econ. Connected.* is the county-level proportion of above-median-income friends among people with below-median incomes (Chetty et al. 2022a; 2022b).

	As Renters (t-1)						As Homeowners (t+1)					
	No Children			Children Coresidents			No Children			Children Coresidents		
	mean	p50	sd	mean	p50	sd	mean	p50	sd	mean	p50	sd
Age of HoH	61.60	61.00	7.27	57.71	57.00	6.61	63.03	62.00	7.25	59.82	59.00	7.03
Num. of Children	0.00	0.00	0.00	1.82	1.00	1.14	0.00	0.00	0.00	1.72	1.00	1.03
Children	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00
Disability	0.46	0.00	0.50	0.40	0.00	0.49	0.40	0.00	0.49	0.36	0.00	0.48
Minority	0.45	0.00	0.50	0.64	1.00	0.48	0.45	0.00	0.50	0.67	1.00	0.47
Renter Tenure	6.56	6.00	3.71	6.02	5.00	3.16	.	.	.	.	.	.
Homeowner Tenure	.	.	.	.	.	.	9.06	9.00	4.20	10.52	11.00	4.26
Bedrooms	1.87	2.00	0.76	2.86	3.00	0.87	2.48	3.00	0.75	3.12	3.00	0.75
Annual Income	13,363	11,463	6,891	18,669	17,067	9,410	14,321	12,326	7,527	19,898	18,221	10,220
Wages	3,220	0	8,139	8,814	0	12,445	3,451	0	8,703	8,823	0	12,862
Welfare	354	0	978	1,827	0	4,690	358	0	827	1,683	0	3,253
Pension	10,296	9,403	5,376	8,779	7,981	7,718	10,858	9,876	5,776	10,056	8,796	8,393
Non-Equity Wealth	2,986	200	16,860	1,741	166	5,763	3,586	360	21,876	2,408	388	8,206
Home Equity	.	.	.	.	.	.	7,044	5,446	13,542	10,675	7,949	19,480
Total Wealth	2,986	200	16,860	1,741	166	5,763	10,630	6,582	25,929	13,084	9,169	21,680
Income/PC	38,818	37,395	10,109	38,593	37,326	9,466	40,810	38,970	10,737	40,354	38,641	10,068
Employment/PC	60.78	61.56	13.50	62.48	62.30	13.20	60.44	60.85	13.42	62.04	62.54	13.34
Pvrty Prcnt	18.87	16.07	11.76	18.56	15.53	12.88	18.12	15.57	11.72	17.73	14.91	13.25
Econ. Connected.	0.78	0.76	0.14	0.79	0.77	0.15	0.79	0.77	0.14	0.79	0.77	0.15
Observations	1504			564			1607			526		
Additional Notes:	Unique Households: 2,273			Unique Coresident Households: 878			Unique Minority Households: 1,192					

Table II: Wealth Preservation for Low-Income Senior Households

Table II reports the within-subject treatment, OLS regression results for the wealth preservation for low-income senior households that transition to homeownership. In Model (1), the dependent variable is *Total Wealth*, calculated annually as the cash value of financial assets as reported on HUD Form 50058 plus home equity. Home equity is calculated as the net of estimated home values from Zillow's Home Value Index (ZHVI) and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year Federal Housing Administration loan (3.5% down payment and average US 30-year fixed rate interest rate at year *t*). In Model (2) the dependent variable is *Non-Equity Wealth*, calculated as *Total Wealth* minus home equity. *HCV Homeowner* is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rental payment. Observable household characteristics $X_{i,t-1}$ include *Children*, an indicator set to 1 if the household includes family members under the age of 18; *Minority* is an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Annual Income*, the sum of the household's income as reported and verified by HUD on Form-50058; *Disability*, an indicator variable set to 1 if at least one family member is classified as having a disability; and *Income/PC* and *Employment/PC*, annual county-level measures from the Bureau of Economic Analysis. The sample includes ex ante renter and homeowner household-years for households that eventually transition from the HCV program into the HCV homeownership program. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA. t-statistics are in parentheses $^{*}p < 0.1,^{**} p < 0.05,^{***} p < 0.01$

	(1) Total Wealth	(2) Non-Equity Wealth
HCV Homeowner × Children	5862.53**	1584.21
	(2.17)	(1.05)
HCV Homeowner	-1722.65	-5041.88**
	(-0.72)	(-2.32)
Children	-6532.31***	-2747.03*
	(-2.64)	(-1.72)
Minority	9770.04**	3965.83*
	(2.49)	(1.73)
HCV Homeowner × Children × Minority	-2843.22	-2958.46
	(-0.80)	(-1.40)
HCV Homeowner × Minority	208.44	-77.37
	(0.12)	(-0.10)
Children × Minority	-20.39	2324.51
	(-0.00)	(0.75)
Annual Income	0.34***	0.08
	(3.12)	(1.46)
Income/PC	4.32***	2.12
	(2.89)	(1.61)
Employment/PC	-1147.07*	-670.09
	(-1.96)	(-1.34)
Disability	6501.97***	3218.62
	(2.67)	(1.54)
R^2	0.641	0.473
Adjusted R^2	0.610	0.427
Structure FE	✓	✓
Household FE	✓	✓
HoH Age FE	✓	✓
Year FE	✓	✓
Clustered by PHA	✓	✓
Observations	29118	29118

Table III: Senior Household Wealth Accumulation Across Income Sources

Table III presents analyses of the sources of income for low-income senior households that transition to homeownership. In the manner of Bernstein and Koudijs (2021), we estimate the within-subject treatment, OLS regression using a measure of a households' labor supply and sources of income and assets as the dependent variables; *Wages*, *Welfare*, *Pension* in columns 1 to 3, respectively. *Wages* is the sum of the household's wage income from employment as reported and verified by HUD on Form-50058. *Welfare* is the sum of the household's welfare income as reported and verified by HUD on Form-50058. *Pension* is the sum of the household's pension income as reported and verified by HUD on Form-50058. *HCV Homeowner* is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rental payment. *Children*, an indicator set to 1 if the household includes family members under the age of 18; *Minority* is an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. Appendix A defines all other variables. The sample includes ex ante renter and homeowner household-years for households that eventually transition from the HCV program into the HCV homeownership program. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA. t-statistics are in parentheses $^{*}p < 0.1$,$^{**}p < 0.05$,$^{***}p < 0.01$

	(1) Wages	(2) Welfare	(3) Pension
HCV Homeowner × Children	922.58**	-155.15	79.55
	(2.34)	(-1.04)	(0.28)
HCV Homeowner	-554.31***	-97.68	284.94**
	(-2.91)	(-1.54)	(2.00)
Children	-2569.83***	1239.41***	988.01***
	(-6.08)	(7.91)	(3.06)
Minority	-376.62	56.17	789.81
	(-0.68)	(0.26)	(1.63)
HCV Homeowner × Minority × Children	-630.80	-269.22	213.31
	(-1.31)	(-0.91)	(0.57)
HCV Homeowner × Minority	380.14*	47.08	-277.11
	(1.77)	(1.05)	(-1.62)
Minority × Children	364.63	-144.90	-165.61
	(0.67)	(-0.59)	(-0.39)
R^2	0.860	0.464	0.800
Adjusted R^2	0.848	0.418	0.782
Controls Included	✓	✓	✓
Structure FE	✓	✓	✓
Household FE	✓	✓	✓
HoH Age FE	✓	✓	✓
Year FE	✓	✓	✓
Clustered by PHA	✓	✓	✓
Observations	29118	29118	29118

Table IV: Senior Household Wealth Accumulation Across HoH Age at Purchase

Table IV reports the within-subject treatment, OLS regression results for the wealth preservation for low-income senior households that transition to homeownership. Models (1) and (2) include only households that purchased homes when the head of household was under 62 yeas of age. Models (3) and (4) include households that purchased homes when the head of household was age 62 or older. In Models (1) and (3), the dependent variable is *Total Wealth*, calculated annually as the cash value of financial assets as reported on HUD Form 50058 plus home equity. Home equity is calculated as the net of estimated home values from Zillow's Home Value Index (ZHVI) and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year Federal Housing Administration loan (3.5% down payment and average US 30-year fixed rate interest rate at year *t*). In Models (2) and (4), the dependent variable is *Non-Equity Wealth*, calculated as *Total Wealth* minus home equity. *HCV Homeowner* is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rental payment. *Minority* is an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Children* is an indicator set to 1 if the household includes family members under the age of 18; Appendix A defines all other variables. The sample includes ex ante renter and homeowner household-years for households that eventually transition from the HCV program into the HCV homeownership program. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA. t-statistics are in parentheses $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$

	Under Age 62		Age 62 and Over	
	(1) Total Wealth	(2) Non-Equity Wealth	(3) Total Wealth	(4) Non-Equity Wealth
HCV Homeowner × Children	8000.50**	2311.65	-6.15	-77.45
	(2.22)	(1.15)	(-0.00)	(-0.05)
HCV Homeowner	1175.34	-4682.07**	-1616.04	-2205.72
	(0.45)	(-2.54)	(-0.67)	(-1.06)
Children	-7945.30**	-3411.57	-802.98	187.37
	(-2.38)	(-1.48)	(-0.29)	(0.20)
Minority	9621.91*	5982.56*	3370.81	-1576.38
	(1.73)	(1.93)	(0.89)	(-0.94)
HCV Homeowner × Minority × Children	-7091.39	-3696.17	5687.03	133.52
	(-1.44)	(-1.42)	(1.43)	(0.06)
HCV Homeowner × Minority	2281.89	27.67	-810.92	-225.73
	(0.77)	(0.02)	(-0.40)	(-0.21)
Minority × Children	4268.67	2778.29	-10804.13**	-2039.61
	(0.82)	(0.78)	(-2.10)	(-1.09)
R^2	0.647	0.491	0.663	0.485
Adjusted R^2	0.620	0.451	0.627	0.429
Controls Included	✓	✓	✓	✓
Structure FE	✓	✓	✓	✓
Household FE	✓	✓	✓	✓
HoH Age FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Clustered by PHA	✓	✓	✓	✓
Observations	17886	17886	11232	11232

Table V: Senior Household Wealth Accumulation Across National Housing Market Trends

Table V presents the within-subject treatment, OLS regression results for the wealth preservation for low-income senior households that transition to homeownership, for economic conditions at the time of the home purchase. Models (1) and (2) include households that purchased their homes during the housing boom (2000 to 2006). Models (3) and (4) include households that purchased their homes during the housing bust (2007 to 2012). Models (5) and (6) include households that purchased their homes during the housing recovery (2013 to 2020). In Models (1), (3), and (5) the dependent variable is *Total Wealth*, calculated annually as the cash value of financial assets as reported on HUD Form 50058 plus home equity. Home equity is calculated as the net of estimated home values from Zillow's Home Value Index (ZHVI) and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year Federal Housing Administration loan (3.5% down payment and average US 30-year fixed rate interest rate at year *t*). In Models (2), (4), and (6), the dependent variable is *Non-Equity Wealth*, calculated as *Total Wealth* minus home equity. *HCV Homeowner* is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rental payment. *Minority* is an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Children* is an indicator set to 1 if the household includes family members under the age of 18; Appendix A defines all other variables. The sample includes ex ante renter and homeowner household-years for households that eventually transition from the HCV program into the HCV homeownership program. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA. t-statistics are in parentheses $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$

	Boom		Bust		Recovery	
	(1) Total Wealth	(2) Non-Equity Wealth	(3) Total Wealth	(4) Non-Equity Wealth	(5) Total Wealth	(6) Non-Equity Wealth
HCV Homeowner × Children	6214.13	3461.15	3127.64	-76.14	9235.77	722.35
	(1.14)	(0.83)	(1.13)	(-0.06)	(1.30)	(0.31)
HCV Homeowner	-8037.17	-580.19	11093.51***	-706.47	-11847.45***	-450.24
	(-1.46)	(-0.13)	(5.60)	(-0.73)	(-4.60)	(-0.62)
Children	-5715.20	-4788.33	-7751.74**	-1431.47	1733.62	-195.34
	(-1.01)	(-1.07)	(-2.50)	(-0.80)	(0.45)	(-0.14)
Minority	3809.49	2003.80	11718.20**	6840.65*	20803.18	-4763.45**
	(0.43)	(0.38)	(2.02)	(1.95)	(1.41)	(-2.04)
HCV Homeowner × Minority × Children	-3223.04	-4038.67	-3796.35	-1176.57	-1324.10	-2042.14
	(-0.50)	(-0.87)	(-0.82)	(-0.67)	(-0.16)	(-0.74)
HCV Homeowner × Minority	-5985.23	-3159.33	2903.41	-623.84	2545.88	1514.26
	(-1.47)	(-1.05)	(1.29)	(-0.73)	(0.87)	(1.17)
Minority × Children	4104.67	2506.24	-314.67	637.30	-2682.36	2168.06
	(0.49)	(0.35)	(-0.06)	(0.30)	(-0.56)	(1.38)
R^2	0.620	0.517	0.674	0.441	0.737	0.654
Adjusted R^2	0.588	0.476	0.646	0.394	0.700	0.606
Controls Included	✓	✓	✓	✓	✓	✓
Structure FE	✓	✓	✓	✓	✓	✓
Household FE	✓	✓	✓	✓	✓	✓
HoH Age FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
Clustered by PHA	✓	✓	✓	✓	✓	✓
Observations	8799	8799	15184	15184	5135	5135

Table VI: Senior Household Wealth Accumulation Across Neighborhood Selection-Poverty Levels

Table VI reports the within-subject treatment, OLS regression results for the wealth preservation for low-income senior households that transition to homeownership. Models (1) and (2) include only observations where households purchased homes in areas below the median poverty level. Models (3) and (4) include observations where households purchased homes in census tracts that were above the median poverty level. In Models (1) and (3), the dependent variable is *Total Wealth*, calculated annually as the cash value of financial assets as reported on HUD Form 50058 plus home equity. Home equity is calculated as the net of estimated home values from Zillow's Home Value Index (ZHVI) and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year Federal Housing Administration loan (3.5% down payment and average US 30-year fixed rate interest rate at year *t*). In Models (2) and (4), the dependent variable is *Non-Equity Wealth*, calculated as *Total Wealth* minus home equity. *HCV Homeowner* is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rental payment. *Minority* is an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Children* is an indicator set to 1 if the household includes family members under the age of 18; Appendix A defines all other variables. The sample includes ex ante renter and homeowner household-years for households that eventually transition from the HCV program into the HCV homeownership program. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA. t-statistics are in parentheses $^{*}p < 0.1$,** $p < 0.05$,*** $p < 0.01$

	Below Median Poverty		Above Median Poverty	
	(1) Total Wealth	(2) Non-Equity Wealth	(3) Total Wealth	(4) Non-Equity Wealth
HCV Homeowner × Children	7735.19**	1758.36	2637.83	497.13
	(2.17)	(0.84)	(0.63)	(0.25)
HCV Homeowner	-3996.00	-5393.78**	1352.45	-4732.11
	(-1.37)	(-2.49)	(0.45)	(-1.57)
Children	-8749.57***	-2459.82	527.68	-2549.11
	(-2.75)	(-1.03)	(0.16)	(-1.63)
Minority	10870.62**	5866.51**	3546.23	-1795.76
	(2.19)	(2.00)	(0.70)	(-0.97)
HCV Homeowner × Minority × Children	-8637.04	-3568.12	2506.77	-1097.49
	(-1.65)	(-1.15)	(0.47)	(-0.44)
HCV Homeowner × Minority	6536.56**	372.82	-3468.22*	-36.40
	(2.12)	(0.27)	(-1.77)	(-0.04)
Minority × Children	636.73	2989.47	-5549.29	601.64
	(0.12)	(0.72)	(-1.18)	(0.29)
R^2	0.643	0.500	0.645	0.392
Adjusted R^2	0.611	0.456	0.613	0.336
Controls Included	✓	✓	✓	✓
Structure FE	✓	✓	✓	✓
Household FE	✓	✓	✓	✓
HoH Age FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Clustered by PHA	✓	✓	✓	✓
Observations	15255	15255	13599	13599

Table VII: Senior Household Wealth Accumulation Across Neighborhood Selection-Economic Connectedness
Table VII reports the within-subject treatment, OLS regression results for the wealth preservation for low-income senior households that transition to homeownership. Models (1) and (2) include only observations where households purchased homes in counties below the state median *Econ. Connected.* Models (3) and (4) include observations where households purchased homes in counties that were above the state median *Econ. Connected. Econ. Connected.* is county-level proportion of above-median-income friends among people with below-median incomes (Chetty et al. 2022a; 2022b). In Models (1) and (3), the dependent variable is *Total Wealth*, calculated annually as the cash value of financial assets as reported on HUD Form 50058 plus home equity. Home equity is calculated as the net of estimated home values from Zillow's Home Value Index (ZHVI) and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year Federal Housing Administration loan (3.5% down payment and average US 30-year fixed rate interest rate at year *t*). In Models (2) and (4), the dependent variable is *Non-Equity Wealth*, calculated as *Total Wealth* minus home equity. *HCV Homeowner* is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rental payment. *Minority* is an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Children* is an indicator set to 1 if the household includes family members under the age of 18; Appendix A defines all other variables. The sample includes ex ante renter and homeowner household-years for households that eventually transition from the HCV program into the HCV homeownership program. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA. t-statistics are in parentheses $^{*}p < 0.1$,$^{**}p < 0.05$,$^{***}p < 0.01$

	Below Med. Econ. Connected.		Above Med. Econ. Connected.	
	(1) Total Wealth	(2) Non-Equity Wealth	(3) Total Wealth	(4) Non-Equity Wealth
HCV Homeowner × Children	5655.21	657.17	6138.12*	2060.50
	(1.15)	(0.39)	(1.68)	(0.88)
HCV Homeowner	-561.46	-4698.30	-5095.12	-6992.66***
	(-0.16)	(-1.41)	(-1.45)	(-2.76)
Children	-5682.37	-1805.48	-5916.85*	-2318.06
	(-1.46)	(-1.05)	(-1.69)	(-0.92)
Minority	12183.23**	2865.93	3713.39	2118.44
	(2.55)	(1.36)	(0.45)	(0.48)
HCV Homeowner × Minority × Children	-4054.02	-1424.00	-624.06	-3269.05
	(-0.69)	(-0.75)	(-0.14)	(-1.00)
HCV Homeowner × Minority	528.79	-22.70	701.26	363.97
	(0.24)	(-0.03)	(0.24)	(0.24)
Minority × Children	702.89	-736.14	-4132.38	3280.83
	(0.13)	(-0.24)	(-0.71)	(0.70)
R^2	0.628	0.412	0.661	0.518
Adjusted R^2	0.594	0.359	0.630	0.474
Controls Included	✓	✓	✓	✓
Structure FE	✓	✓	✓	✓
Household FE	✓	✓	✓	✓
HoH Age FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Clustered by PHA	✓	✓	✓	✓
Observations	15142	15142	13965	13965

Table VIII: Senior Household Wealth Accumulation Across Neighborhood Selection-Economic Connectedness x Poverty

Table VIII reports the within-subject treatment, OLS regression results for the wealth preservation for low-income senior households that transition to homeownership. Models (1) and (2) include only observations where households purchased homes in counties below the state median *Econ. Connected.* Models (3) and (4) include observations where households purchased homes in counties that were above the state median *Econ. Connected. Econ. Connected.* is county-level proportion of above-median-income friends among people with below-median incomes (Chetty et al. 2022a; 2022b). Models (1) and (3) include only households that purchased homes in census tracts that were below the median poverty level. Models (2) and (4) include only households that purchased homes in census tracts that were above the median poverty level. In all models the dependent variable is *Total Wealth*, calculated annually as the cash value of financial assets as reported on HUD Form 50058 plus home equity. Home equity is calculated as the net of estimated home values from Zillow's Home Value Index (ZHVI) and the mortgage debt inferred from the mortgage payment amount reported on Form-50058, assuming a 30-year Federal Housing Administration loan (3.5% down payment and average US 30-year fixed rate interest rate at year *t*). *HCV Homeowner* is a treatment indicator set to 1 during each year that a household's HCV is applied to the mortgage on its primary residence and set to 0 when the same household's HCV is applied to its tenant rental payment. *Minority* is an indicator set to 1 if the head of household is a racial or ethnic minority and 0 otherwise. *Children* is an indicator set to 1 if the household includes family members under the age of 18; Appendix A defines all other variables. The sample includes ex ante renter and homeowner household-years for households that eventually transition from the HCV program into the HCV homeownership program. Standard errors are clustered by PHA. t-statistics are in parentheses $^{*}p < 0.1$,$^{**}p < 0.05$,$^{***}p < 0.01$

	Below Med. Econ. Connected.		Above Med. Econ. Connected.	
	(1) Below Med. Poverty Total Wealth	(2) Above Med. Poverty Total Wealth	(3) Below Med. Poverty Total Wealth	(4) Above Med. Poverty Total Wealth
HCV Homeowner × Children	12259.17	-1843.23	5746.95	5813.96
	(1.55)	(-0.42)	(1.28)	(0.85)
HCV Homeowner	-3585.78	3680.62	-5960.49	-1279.76
	(-1.01)	(0.92)	(-1.26)	(-0.44)
Children	-11575.84**	4148.44	-6811.61	-1640.25
	(-2.01)	(0.87)	(-1.47)	(-0.35)
Minority	11071.64**	11317.77	6919.29	-7035.93
	(2.00)	(1.61)	(0.62)	(-0.95)
HCV Homeowner × Minority × Children	-9967.44	2904.18	-8344.99	5958.18
	(-1.10)	(0.46)	(-1.10)	(0.73)
HCV Homeowner × Minority	4713.10	-2825.84	6890.54*	-4280.48*
	(1.30)	(-0.98)	(1.69)	(-1.78)
Minority × Children	1215.09	-4354.40	-2140.02	-11628.95**
	(0.17)	(-0.64)	(-0.24)	(-2.06)
R^2	0.632	0.636	0.663	0.687
Adjusted R^2	0.596	0.601	0.631	0.654
Controls Included	✓	✓	✓	✓
Structure FE	✓	✓	✓	✓
Household FE	✓	✓	✓	✓
HoH Age FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Clustered by PHA	✓	✓	✓	✓
Observations	7091	7920	8160	5672

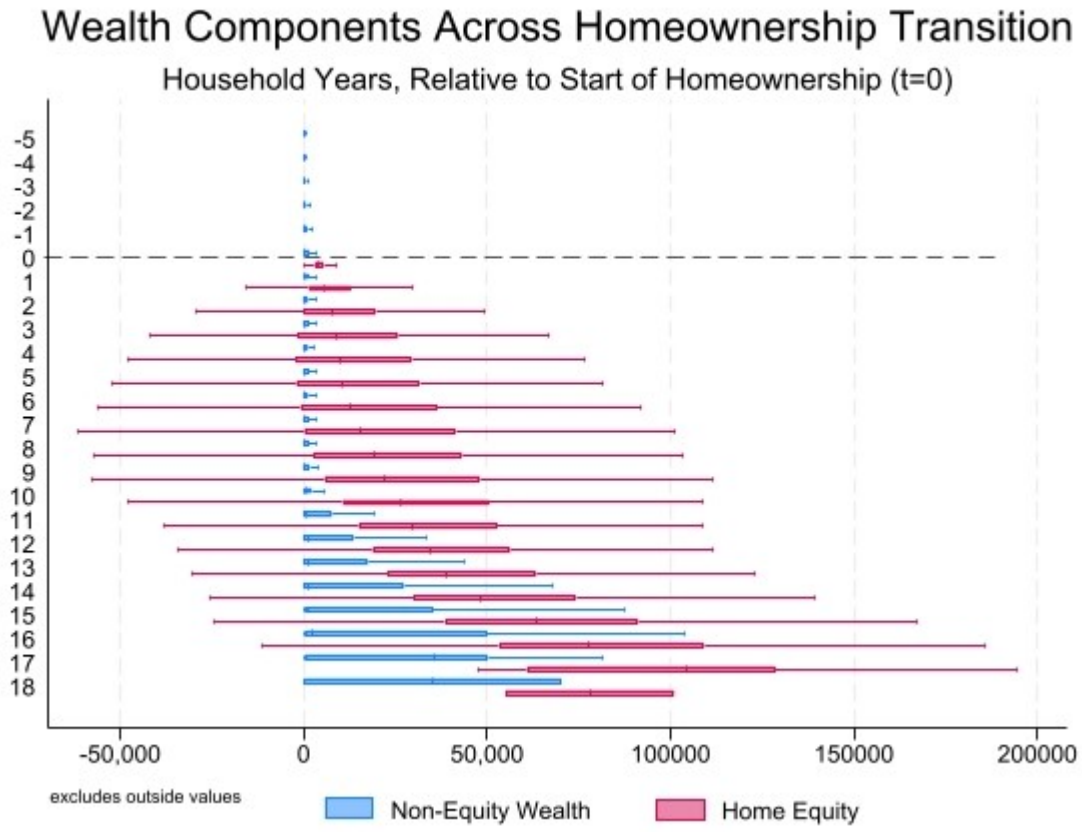

Figure 1: Wealth Components Over Time
Figure 1 presents a descriptive Box-Whiskers plot of Non-Equity Wealth and Home Equity across a household's transition to homeownership. The y-axis denotes the event-year prior to and after the transition to homeownership. The x-axis reports household wealth components in dollars.

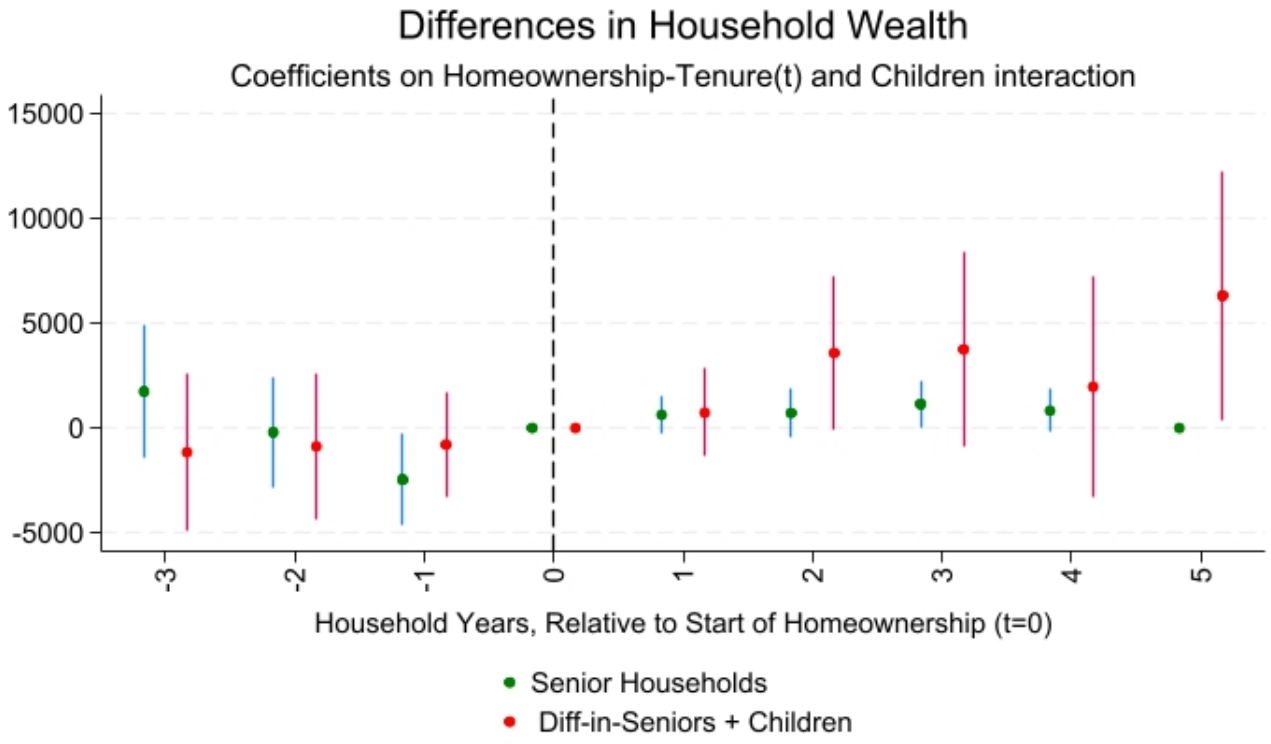

Figure 2: Household Wealth Differences for Seniors With and Without Coresident Children
Figure 2 reports the differences in wealth between seniors with and without Coresident children for years prior to and after the transition to homeownership at event-year 0. Specifically, the figure reports coefficient estimates of Equation 1 (see Table II, Column 1) modified by replacing the homeownership indicator with indicator variables for each year prior to and after the household purchases a home. As in Table II, the dependent variable is Total Wealth. The y-axis is in dollars and the x-axis shows years relative to the start of homeownership. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA.

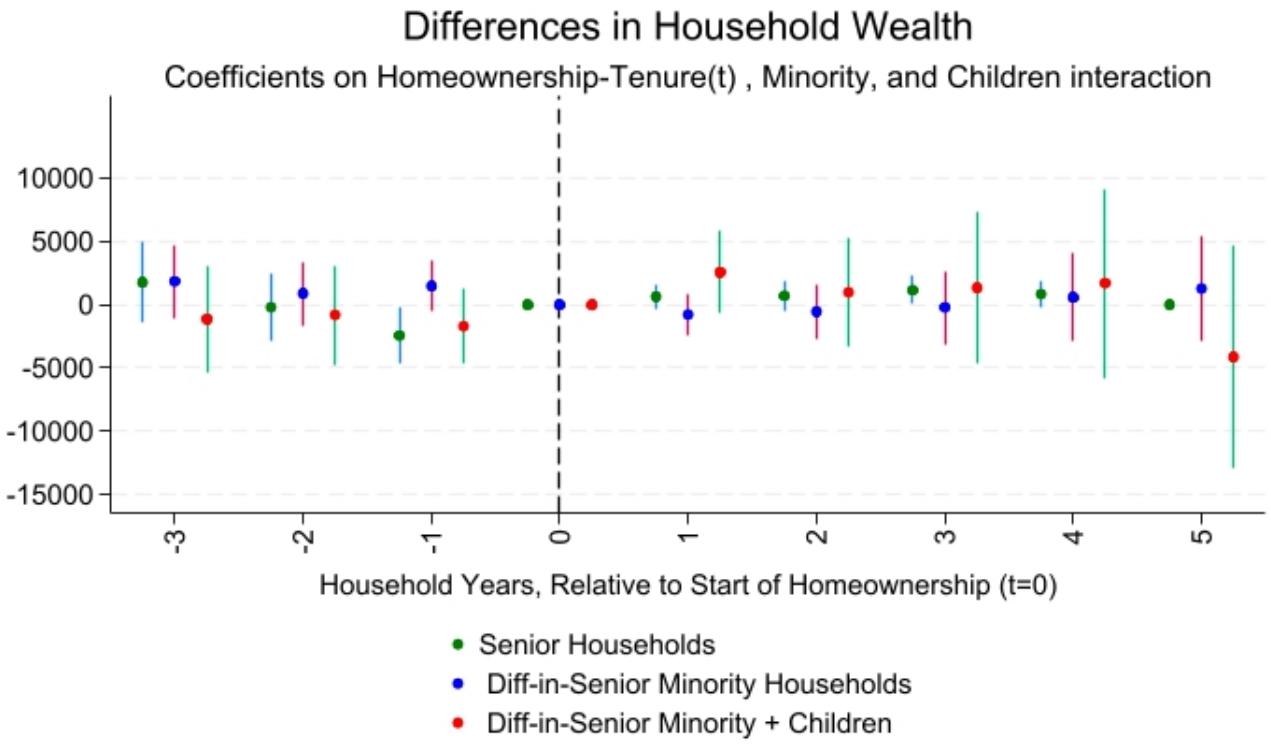

Figure 3: Household Wealth Differences for Minority Senior Households
Figure 3 reports the differences in wealth between minority and White seniors for years prior to and after the transition to homeownership at event-year 0. Specifically, the figure reports coefficient estimates of Equation 1 (see Table II, Column 1) modified by replacing the homeownership indicator with indicator variables for each year prior to and after the household purchases a home. We then interact the Minority indicator and the Minority x Children interaction with the year indicators and report the coefficients. As in Table II, the dependent variable is Total Wealth. The y-axis is in dollars and the x-axis shows years relative to the start of homeownership. All models include structure fixed effects, household fixed effects, year fixed effects, age of head of household (HoH) fixed effects, and standard errors clustered by PHA.