

Real Estate Holdings among the Super Rich

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Abstract

Real estate is an important, but understudied, component of the portfolios of the super-rich. Throughout much of history, land ownership has played an important role in determining who is at the top of the wealth distribution, and contemporary patterns of wealth ownership and distribution also reflect real estate investments. In this paper, we propose that the real estate holdings of the wealthy deserve greater attention; we then explore both the distribution of real estate holdings across households and the household traits that are associated with ownership of large amounts of real estate. We concentrate our discussion on real estate holdings in the United States where wealth ownership is relatively high and wealth inequality is extreme. We use data from the Survey of Consumer Finances to explore how real estate investments are distributed across families and to model the factors that lead to membership in top positions in the ownership of real estate. Findings indicate that top real estate owning households do not uniformly overlap with other top wealth owners. Additionally, top wealth owning households are more likely to have previously inherited assets, have higher educational attainment, and be self-employed. However, among households who own large amounts of real estate, real estate investment is associated with lower educational attainment and is not significantly associated with inheritance, occupational status, or family characteristics. These findings suggest that conventional stratification theories help explain membership in positions at the top of the real estate distribution but cannot fully account for factors that predict real estate ownership among the super-rich. Our findings offer important new insights into who owns this critical asset and the implications of real estate investing for understanding inequality more generally.

Real estate ownership is an important component of the wealth portfolios of U.S. households, but it has attracted relatively little research attention. Historically, land ownership was the primary determinant of elite status: it generated income, provided access to the political peerage system, and was a primary constraint on upward mobility for those not born into the landed classes. In contemporary times, real estate ownership is relatively widespread and most people hold the majority of their wealth in the form of real-estate, particularly home equity. Thus, land ownership is not as deterministic of social status as it once was, but it still plays a central role in financial well-being and the distribution of wealth across households. Real estate has both use value and financial value. It may appreciate in value if it is developed generating more wealth; and it can hedge against losses in other investments. As with other assets, real estate can generate investment income that can support consumption or be reinvested to accumulate more wealth (Nau 2013). Real estate can also be tapped for cash if the property is used as collateral in a reverse mortgage or home equity loan. Like other assets, real estate can be passed to future generations to continue these advantages intergenerationally (Albertini and Radl 2012; Spilerman and Wolff 2012). Although researchers acknowledge that real estate is important, previous work has focused almost exclusively on middle class homeownership (Albertini and Radl 2012; Dietz and Haurin 2003) or racial disparities in homeownership (Jackman and Jackman 1980; Krivo and Kaufman 2004; Oliver and Shapiro 2006); other forms of real estate ownership (e.g., second homes, commercial real estate) and the elite group of households who own most real estate have attracted almost no attention.

Indeed, real estate likely plays a particularly important role in the portfolios of the very wealthy, a segment of the population that is critical for understanding the distribution of wealth across all households. Preliminary evidence suggests that households at the top of the wealth

distribution allocate a comparatively small portion of their total asset portfolios to real estate, but these households appear to be unique in both the quantity of real estate value owned and the composition of real estate owned (Bostic, Gabriel, and Painter 2009; Dwyer 2009). In 2010, the top one percent by net worth held only 22.7% of their total assets in the form of real estate while the bottom 90 percent held 60.2% of their total assets as real estate (Keister 2014; Keister and Lee 2014). However, top households tend to hold larger portions as investment and commercial properties, whereas the bottom 90 percent holds most of its real estate value as equity in the primary residence (Keister 2014). Perhaps more importantly, the total value of real estate of all sorts held by those at the top of the wealth distribution dwarfs the total value held by other households suggesting that real estate ownership at the top is an important driver of both financial well-being for the wealthy and the distribution of total assets across households. Previous research has provided important insight into patterns of financial asset ownership among the one percent and the role that these trends play in generating wealth inequality (Davies 2009; Keister and Lee 2014; Kopczuk and Saez 2004). Yet real estate holdings are likely to be at least as consequential; and we know very little about how these assets are distributed across households and what determines top real estate ownership.

We fill this gap by exploring the distribution of real estate holdings across households and the household traits that are associated with ownership of large amounts of real estate. We follow previous research in focusing on the top one percent of real estate owners because these households own a disproportionate amount of these important assets. In what follows, we draw on ideas from the literatures on wealth inequalities, status attainment, and human capital to develop empirical expectations concerning the contextual, structural, and household level factors that affect real estate ownership among the super-rich. First, we describe how contextual factors

associated with business cycles, asset bubbles, and financialization affect real estate investment and valuation. Second, we discuss the role of households' positions in the stratification structure (i.e., family background, race, and occupation) in shaping real estate investment. Third, we outline how household traits, particularly human capital resources, affect real estate investment. We then use data from the 1989-2010 Survey of Consumer Finances (SCF) to provide empirical estimates of how real estate investment varies across wealth strata and compare households at the top of the net worth distribution to those at the top of the real estate distribution. Our findings indicate that there is surprisingly little overlap between these two groups suggesting that owning large amounts of real estate is a relatively unique investment strategy. Moreover, the biggest differences are due to households who invest heavily in real estate other than their primary residence—investment real estate, vacation homes, and secondary residences. Finally, we estimate a series of regression models aimed at evaluating the determinants top real estate ownership. Our findings demonstrate that real estate ownership comports with existing theories of social stratification but with a few notable differences: among the one percent, large levels of real estate ownership are associated with lower educational attainment and not with other indicators of social class background, occupational status, racial privilege, or family structure.

The Complexities of Real Estate Ownership

A large number of factors interact in complex ways to generate real estate ownership among the very wealthy. Contextual factors associated with broad trends in financialization and business cycles are relevant because they affect the valuation and distribution of real estate assets. Within this broad context, household position in the stratification structure is likely to matter as well; for example, there is evidence that variations across types of households in intergenerational wealth transfers (Spilerman and Wolff 2012) and broader patterns of social

ossification (Albertini and Radl 2012; McNamee and Miller 1989) facilitate or constrain home purchases in ways that affect overall patterns of real estate ownership. Finally, it is well-established that individual and household traits such as human capital and marital status affect wealth ownership, and these are also likely to influence the ownership of all forms of real estate. To parse out the mechanisms through which wealthy households come to own real estate, we explore each of these factors in turn.

Contextual Factors

Several contextual factors affect the accumulation, valuation, and distribution of real estate. Business cycles, asset bubbles, and institutional shifts in the importance of distinct asset classes are particularly important and may affect asset ownership in at least two ways. First, the economic context determines how assets get accumulated and distributed across households. For instance, business cycles and asset bubbles may not equally affect households across the wealth distribution due to differences in how households allocate their wealth across distinct asset classes. Recent evidence indicates that the 2008 recession and housing bubble collapse disproportionately affected middle class households that own a significant portion of their total net worth in real estate. Between 2007 and 2011, median non-real estate wealth decline by only about \$8,000 while total net worth declined by more than \$48,000, a disparity driven largely by the collapse in real estate values and a post-recession stock market recovery that was unmatched in housing prices (Pfeffer, Danziger, and Schoeni 2013). As a result, the recession disproportionately destroyed wealth among less advantaged groups who tend to hold larger portions of their net worth in the form of home equity (Bricker et al. 2012; Wolff, Owens, and Burak 2011).

Second, structural and institutional shifts in the economy can also alter investing behavior and affect the relative importance of individual assets within household wealth profiles. For instance, recent scholarship suggests that a profound shift has occurred in recent decades that privileges financial assets and financial modes of wealth accumulation relative to other asset classes. Some scholars suggest that this shift is largely responsible for the overall growth in wealth and income inequality more generally (Tomaskovic-Devey and Lin 2011; Volscho and Kelly 2012). Since 1980 the U.S. finance sector increased in both size and percentage of total national profits. Meanwhile, firms outside the finance sector also increasingly turned to finance activities as a profit source (Tomaskovic-Devey and Lin 2011). Scholars attribute financialization to a number of interrelated institutional developments including financial market deregulation and the increased size and concentration of institutional investors such as mutual funds. Some of the most dramatic increases in financialization occurred during the 1990s, concurrent with an economic expansion, repeated stock-market booms, and an accelerated turn toward shareholder-value oriented corporate governance that regarded maximizing investor returns as the dominant model for successful corporate performance (Davis 2009). The shareholder value model also prompted corporations to focus on maximizing share-price, a turn that encourages corporations to return larger portions of corporate profits to investors in the form of dividends, interest on corporate debt, and stock repurchases.

All of this suggests that structural and institutional changes associated with financialization have altered the contextual factors that affect financial asset versus real estate valuation, rate-of-return, and investment decisions. First, financialization drove increased rate-of-return for financial assets such as stocks, bonds, and investment accounts. Despite a speculative bubble in housing leading up to the 2008 recession, the increased value of financial

assets was unmatched by real estate. As a consequence real estate made up a declining percentage of total net worth, not because of a net loss in real estate value but because of an unmatched increase in financial asset value. As we describe above, financial assets comprise a larger portion of top households' total net worth. Consequently, increased financial asset values were likely to have been captured primarily by top wealth-owning households leaving real estate as a smaller portion of these households' net worth profiles. Second, increased valuation in stocks and other financial assets likely affected how wealthy households invest. Whereas middle class households tend to hold the majority of their wealth in the equity of their primary residence, top households tend to own more liquid assets that can more easily be allocated into higher return asset classes. As a result, the stock market boom of the 1990s prompted top households to divest from investment real estate and put more of their wealth into higher return financial assets leading to important shifts in the distribution of real estate assets across households.

In order to explore how these contextual factors affect real estate ownership among the super-rich, we examine changes in real estate ownership over time that were concurrent with institutional shifts. We anticipate that real estate made up a declining portion of top households' wealth profiles, particularly non-primary residents investment real estate, as these households turned toward an investment strategy that favored financial assets. At the same time, middle class households likely maintained relatively stable real estate investment profiles, particularly the primary residence. For these reasons, we expect that:

Hypothesis 1: During the 1990s, real estate assets comprised a declining portion of top household's net worth.

Structural Factors

A household's position in the social and economic stratification structure is likely to affect real estate wealth. Research in the status attainment tradition explores how an individual's social class background, or position of origin, affects adult attainment and eventual social position (Blau and Duncan 1967). This work shows that an individual's structural position at the start of life affects processes of socialization, selection, and allocation that determine life trajectories (Kerckhoff 1976). These processes occur within institutional contexts such as the education system, labor market, and formal organizations and combine to introduce constraints and resources that structure individual attainment (Kerckhoff 1995). Attainment was traditionally been operationalized almost exclusively as occupational status (Featherman and Hauser 1976; McClendon 1976; Sewell, Haller, and Ohlendorf 1970); however, others have emphasized broader measures of income, net worth, home ownership, and overall financial well-being as being critical components of the attainment process (Campbell and Henretta 1980; Henretta and Campbell 1978; Keister 2005).

We focus on three structural determinants most likely to be associated with real estate ownership. First, we anticipate that family social class background, or position of origin, creates an important starting point for real estate ownership particularly through direct wealth transfers. Families with more financial resources can bolster the attained wealth of the next generation through bequests, particularly if they are sizable (McNamee and Miller 1989; Nau and Tumin 2012). Keister and Lee (2014) find that households in the top 1% by net worth are nearly two and half times more likely to have inherited assets than those in the bottom 90%. Intergenerational transfers are particularly likely to affect real estate ownership because they

support initial down-payments and reinforce asset accumulation (Spilerman and Wolff 2012).

Consistent with this, we anticipate that:

Hypothesis 2: Having previously inherited assets is associated with owning large amounts of real estate value.

Although family background is an important determinant of real estate ownership, particularly via intergenerational transfers, traditional status attainment research showed clearly that an individual's position in the occupational structure is critical (Blau and Duncan 1967; Featherman and Hauser 1976). Subsequent scholarship built on these early ideas to show that occupational status is an important determinant of net worth, real estate ownership, and broader financial well-being (Campbell and Henretta 1980; Henretta and Campbell 1978). Although most early work operationalized occupational status using the Duncan SEI scale, we use a more parsimonious measure of occupation defined as whether or not a respondent holds a managerial or professional position, comparatively high status positions in the occupational structure.

Consistent with both early scholarship and more recent research, we expect that:

Hypothesis 3: Holding a managerial or professional occupation is associated with owning larger amounts of real estate value.

In addition to family background and occupational structure, more recent work has shown that race and ethnicity are among the strongest and most persistent correlates of attainment. Discrimination within institutional contexts such as education, the labor market, and housing market negatively affects the status attainment process for racial and ethnic minorities while reinforcing racial privileges of white Americans (Desmond and Emirbayer 2009). Notably, historic and contemporary discrimination in lending practices, racial residential segregation, and home values have contributed to a segmented real estate market that undermines wealth

accumulation for racial and ethnic minorities, particularly African-Americans, while favoring real estate accumulation for whites (Oliver and Shapiro 2006). As a consequence, position in the racial structure is likely to be strongly associated real estate accumulation as well as broader financial well-being. In particular, we anticipate that:

Hypothesis 4: White households are more likely to own large amounts of real estate value than nonwhite households.

Household Traits and Human Capital

Finally, individual and household level traits affect a household's ability to obtain real estate wealth. The status attainment tradition has also shown that household and individual traits – particularly educational attainment – are important determinants of status (Blau and Duncan 1967; Sewell et al. 1970; Sewell, Haller, and Portes 1969). Educational attainment, or the acquisition of human capital, directly affects mobility prospects as it provides both skills and formal certifications that yield advantages in internal and external labor markets. Although human capital most proximately affects attained occupational status and income, it also affects wealth accumulation in a number of ways. Henretta and Campbell (1978) suggest that family background is transmitted into adult net worth via educational attainment and find that educational attainment completely accounts for the relationship between family background, as indicated by father's education and occupational status, and adult net worth. Educational attainment may also confer financial literacy that supports personal savings, asset management, and real estate investment independent of labor market success or occupational status. For these reasons, we anticipate that:

Hypothesis 5: Educational attainment is positively associated with real estate ownership.

It is also well-documented that marriage and divorce are strongly associated with wealth ownership (Campbell and Henretta 1980; Keister 2005). Campbell and Henretta (1980) find that married households tend to hold greater home equity relative to divorced households or other marital status households. There is some evidence that marriage increases earnings (Waite and Lehrer 2003) which would allow for additional saving. More directly, there is evidence that asset levels increase after marriage. Part of the increase reflects the tendency for married couples to combine their assets and to begin treating formerly separate assets as joint property (Keister 2005). Couples join savings and checking accounts and combine investments, they purchase homes rather than rent, and they otherwise consolidate finances into jointly-owned property. Marriage allows couples to pool risks (e.g., if one person is unemployed, the other can continue working), creates economies of scale (e.g., in housing costs), and allows people to take advantage of a division of labor (Waite and Lehrer 2003). Marriage also creates common goals (e.g., children and children's educations, home improvements and upgrades, and retirement objectives) that encourage couples to save. Whereas marriage may provide a degree of stability and family planning that supports wealth accumulation, divorce in particular undermines wealth accumulation by imposing significant financial costs and lifestyle instability. For these reasons, we expect that:

Hypothesis 6: Married households own more real estate value than unmarried households.

Prior theoretical and empirical research provide important guidance concerning the structural and household level traits that predict real estate ownership across all households; however, prior scholarship offers less insight into how top wealth owning-households invest in real estate. We anticipate that distinct factors predict real estate ownership among the super-rich

versus the general population. For instance, family position of origin and bequests offers many individuals the financial resources necessary to own a home and achieve moderate amounts of real estate ownership (Spilerman and Wolff 2012). However, these family background advantages are unlikely to predict the vast real estate holdings among the super-rich. In general, we expect that the above structural and household level traits confer the advantages necessary to achieve membership in top real estate ownership positions but not additional ownership within this elite group. That is:

Hypothesis 7: Structural and household traits are associated with membership in top real estate owning positions but not the value of real estate among elite real estate owners.

Data and Methods

We use data from the Survey of Consumer Finances (SCF) to empirically examine the distribution of real estate wealth as well as the contextual, structural, and household level factors associated with real estate ownership. The SCF is administered triennially by the Federal Reserve System and collects information on the finances of U.S. households. The SCF is ideal for our purposes because it uses a dual-frame sampling design that includes both a multistage national probability sample as well as a subsample of top income earners drawing on Internal Revenue Service data (Johnson and Moore 2005; Kennickell 2008). The resulting sample is a robust representation of households at the top of the real estate ownership distribution. The SCF also gathers detailed information about inheritance, education, and other demographic traits. Our period spans the years 1989 through 2010. We analyze the data as both repeated cross sections as well as a pooled sample with survey year controls.

To explore the contextual, structural, and household level factors that are associated with real estate ownership we use descriptive statistics and regression analysis. First, we compare rates of real estate ownership for households in distinct positions of the real estate ownership distribution to households in similar positions in the total net worth distribution. Results reveal the extent to which real estate investment is a relatively unique investment vehicle for the super-rich—top real estate owners do not closely overlap with other top wealth owners. We also analyze how real estate investment changed across the study period in order to empirically evaluate the effects of concurrent contextual change associated with financialization and business cycles. Next, we use a series regression models to empirically examine the factors associated with real estate ownership. We use a logistic regression model to estimate the structural and household level traits that predict household membership in the top 1% of real estate owners. We also use OLS regression models to estimate how these factors predict logged total real estate value among the entire sample as well as among a subsample of households in the 1% of real estate owners.

In an effort to accurately represent the income and wealth distribution, the SCF contains five imputed cases for each observed household (Kennickell 2008, 2011). Consistent with other research using the SCF, we use the five imputations as independent observations rather than as an average. The inclusion of imputed cases and the unique sample design of the SCF requires careful weighting. The SCF includes an analytic weighting variable that gives larger weights to more accurately measured observations and is typically used when cases are an average. Analytic weights are appropriate for generating descriptive measures and linear regression estimates. However, in the latter portion of our analysis we estimate models on pooled cross sections that have different sample sizes, rendering analytic weights inappropriate. We generate sample

weights by dividing the original analytic weights by the average analytic weight for that survey year. We use these sample weights in the pooled regression analysis.

Variables

The focal dependent variable for our analyses is an indicator of the value of total real estate ownership. The indicator includes 1) the total value of the primary residence excluding parts of farm or ranch properties used in farming/ranching business, 2) the total value of other residential real estate including family residences, time shares, and vacation homes, 3) the total equity of nonresidential real estate net of mortgages and other loans used for investment real estate. We examine total real estate values as well as how real estate investment is allocated across these sub-classes. We inflate all values to 2010 dollars using the consumer price index.

We also analyze real estate ownership among the super-rich by focusing on top wealth owning households as defined by 1) total net worth and 2) total real estate ownership. Total net worth includes real estate and financial assets (cash, retirement accounts, stocks, bonds) less debts and liabilities (mortgages, consumer debt, student loans). We define membership in asset owning classes by position in the top 0.1%, top 0.5%, top 1%, and bottom 99% of the net worth or real estate distribution. We empirically define these thresholds by identifying dollar values that include the given percentage of the sample and then identify households that are greater than or equal to that threshold as members of the respective asset class.

We examine several predictors of membership in top real estate ownership positions as well as total household real estate ownership. We use a dichotomous indicator of whether or not members of the household ever received any *inheritance*. *Education* variables indicating whether respondents' earned less than a college degree, a college degree, or a graduate degree. We introduce a series of *employment status* variables indicating whether the respondent is self-

employed, works for others, retired, or not working. We define a dichotomous indicator of *occupation* as whether the respondent holds a managerial or professional occupation. We explored alternative occupational definitions and found the dichotomous indicator to produce the best model fit. Following existing research on wealth inequality, we introduce controls for gender, age and age squared, race/ethnicity, and marital status. Preliminary analysis indicated that dichotomous race/ethnicity and marital status controls yield the best-fitting models. Finally, in order to control for changing economic and social conditions over time, we include a series of dummy variables for survey year while leaving 1989 omitted as the reference category.

Results

Table 1 presents information on real estate ownership for top net worth and top real estate owning households calculated triennially from 1989 through 2010. The table is useful for examining how top real estate owning households are distinct from households at the top of the total net worth distribution. The table contains total real estate assets, as well as their percentage of total household assets, for households in the top 0.1%, top 0.5%, top 1% and bottom 99% by total net worth and real estate value. In addition to total real estate, the table distinguishes between primary residence and other real estate assets.

[Insert Table 1 here]

A number of patterns are immediately apparent from the descriptive evidence in table 1. First, the top half illustrates two features of real estate ownership across the net worth distribution: compared to households positioned lower in the wealth distribution, 1) top wealth owning households own larger *quantities* of real estate and 2) top wealth owning households attribute smaller *portions* of their total net worth to real estate. For instance, in 2010 the top 1% by net worth reported owning an average of over 1.6 million dollars in primary residence home

equity while the bottom 99% report owning an average of only \$161,000 in the primary residence. At the same time real estate comprises a smaller portion of total net worth for top households. While primary residence contributes only 9.3% of total net worth for the top 1%, it contributes 38.2% for the bottom 99%.

Next, the bottom half of table one illustrates details about real estate ownership among households in different positions of the total real estate ownership distribution. Notably, households at the top of the real estate ownership distribution are quite distinct from households at the top of the net worth distribution. In 2010 the top 1% by net worth held only 22.6% of their total assets as real estate with most of that as real estate other than the primary residence such as investment properties. However, the top 1% by real estate value held 35.6% of their total assets in the form of real estate. Moreover, households at the top of these two distributions are notably distinct—among households in the top 1% by either total net worth or by total real estate ownership, only 33% are in the top 1% of both distributions (results not shown). This suggests that very large real estate holdings is a distinct investment strategy that is not followed by all members of the super-rich.

Table 1 also presents evidence of how real estate investment among the super-rich has changed over the study period and allows us to evaluate our hypothesis concerning the institutional and market contexts that affect real estate ownership. Between 1989 and 1998, the percent of total assets explained by real estate value declined among the top 0.1 and 0.5 percent of net worth holders. Across the same period, the percent of total net worth attributed to financial assets increased among the super-rich. This pattern suggests that two complementary shifts may have occurred that affected the asset portfolios of top wealth owning households. First, in keeping with the broader shareholder-value movement, the value of financial assets grew faster

than the value of real estate assets thereby likely diluting the relative share of real estate assets even if net amounts of real estate investment remained relatively stable or even increased.

Second, the notable growth in returns to financial assets, concurrent with the broader stock market boom, may have encouraged top households with more liquid assets outside the primary residence to shift their investment strategy from a real estate oriented strategy toward a stock-oriented strategy.

In addition to documenting how context affects real estate ownership among the super-rich, we are interested in the structural factors and demographic traits that affect real estate.

Table 2 presents demographic traits of households in the top 0.1%, top 0.5%, top 1%, and bottom 99% by net worth and real estate ownership. Households in the top 0.1% by real estate ownership are notably older and more likely to be retired than households at the top of the net worth distribution. Other demographic traits are largely similar, households at the top of either distribution are more likely to be older, and headed by white self-employed men with advanced degrees. These findings correspond to other evidence about the demographic traits of the top 1% (Keister and Lee 2014).

[Insert Table 2 here]

We present a series of regression analyses that more formally test the demographic and structural factors that predict top real estate ownership. Table 3 presents multivariate regression models for predictors of top real estate ownership. Model 1 is a logistic regression predicting membership in the top 1% by real estate ownership. Model's 2 and 3 regress logged total real estate value among the total sample and the top 1% subsample respectively. All models control for survey year where 1989 is the omitted reference category.

[Insert Table 3 here]

First, we anticipated that notable structural factors predict real estate investment. An individual's family background can positively affect real estate investments by providing a solid starting point for wealth accumulation. Model 1 contains a positive and significant effect for inheritance, indicating that households who have previously inherited assets are significantly more likely to inhabit positions in the top 1% of the real estate distribution. Other structural characteristics are important as well. Households headed by white individuals are significantly more likely to be in the top 1% by real estate ownership, indicating a notable effect for position in the racial structure. A household's position in the occupational structure also predicts top real estate ownership—households headed by someone in a managerial or professional occupation are significantly more likely to inhabit a position in the top 1% of the real estate ownership distribution.

Finally, a number of salient household level traits predict membership in positions at the top of the real estate distribution. Human capital, as indicated by educational attainment of the household head, is strongly associated with top real estate ownership—attaining a college degree or graduate degree, relative to attaining less than a college degree, increases the likelihood of inhabiting a position in the top 1% of the real estate distribution. Model 1 also indicates that households in the top 1% of the real estate distribution are more likely to be older, married, and self-employed. Notably, individuals who work for others are less likely to be in the top 1% of real estate owners relative to household heads who are not working. This may suggest that top real estate owning households are more likely to be independently wealthy as they are likely to be self-employed but unlikely to work for others.

Models 2 and 3 regress logged total real estate ownership on structural and household level predictors. Model 2 estimates total owned real estate value for the entire sample and

presents findings similar to model 1 that predicted membership in the top 1% of the real estate distribution also predict real estate ownership more broadly. Position of origin and family background, as indicated by having previously inherited wealth in some form, is positively associated with real estate assets. Favorable positions in the American racial structure (white household head) and occupational structure (managerial/professional occupation) are also positively associated with owning greater real estate value. Turning to the household level traits exhibits similar patterns to those described above. Households with higher educational attainment exhibit greater real estate ownership as do older households, married households, and self-employed households. Notably, while households whose head works for others are less likely to be in the top 1% of the real estate distribution in model 1 (relative to not working), working for others is positively associated with total real estate ownership among the total sample. This suggests that working for others is negatively associated with very large real estate holdings but positively associated with real estate owning more broadly. This may also support the interpretation that top real estate ownership is an indicator of independent wealth that is not closely tied to occupational income.

Model 3 focuses on real estate ownership among the super-rich and regresses logged total real estate ownership on covariates for a subsample of households in the top 1% of the real estate distribution. The model exhibit a number of interesting patterns regarding the structural and household level traits that are associated with total real estate ownership, especially as compared to the full population estimates in model 2. First, among the super-rich there is no significant association between having previously inherited assets and total real estate value. Race and occupation exhibit similar null findings. When compared to model 2, these null results suggest that family background as well as position in the racial and occupational structures significantly

affects real estate ownership among the broader population yet these structural effects do not provide additional advantages among households in the top 1%. Household level traits also display notable effects. Somewhat surprisingly, educational attainment is negatively associated with total real estate ownership among the top 1%. At the same time, age and marital status exhibit no significant effects. Finally, self-employment is positively associated with real estate ownership among the 1% while other employment indicators are insignificant.

Discussion and Conclusion

In this paper, we examined the factors that are associated with real estate ownership particularly among the super-rich. We studied the composition of households' real estate ownership portfolios as well as the contextual, structural, and household level correlates of real estate ownership. Our analysis demonstrated that top wealth owning households possess considerably larger real estate holdings than less wealthy households, but we also found that real estate comprises a smaller portion of their total net worth when compared to households in lower positions. Moreover, although top households tend to own larger portions of their real estate holdings in the form of investment and commercial real estate, lower and middle-class households hold greater portions in primary residence equity. We found that households in the top one percent of the real estate distribution do not closely overlap with households in top one percent of the net worth distribution. An important reason for this pattern is the fact that real estate is a unique asset class that is not commonly pursued by most top wealth owning households.

We also found that over the last two decades real estate ownership among the super-rich has changed in notable ways. Namely, since the early 1990s real estate assets contributed a declining portion to the total net worth of top wealth owning households. Concurrently, real

estate contributes a relatively stable portion of middle and lower class households' net worth profiles. We argued that this trend reflects shifts in the social and institutional context that affects wealth accumulation and the relative valuation of distinct asset classes. This likely occurred due to two related reasons. First, repeated stock-market booms, investor activism, and financialization increased the centrality of financial assets relative to other asset classes, particularly the very wealthy. As a result, real estate declined as a portion of total net worth, not necessarily because real estate ownership or valuation exhibited a net decrease but because the value of financial assets outpaced other asset classes. This dramatic increase financial asset value disproportionately benefited top households who already owned large amounts of financial assets. Second, the trend likely altered the investing behavior of top households as they shifted their net worth into higher rate of return financial assets. Here again, top households saw disproportionate advantages—while top households were better able to capitalize on the rapid growth in financial markets, middle and lower class households' net worth profiles is far less liquid, comprised largely of the families' primary residence. Consequently, these lower wealth households are unable to quickly convert assets into higher rate-of-return investments. Although these two mechanisms are consistent with our evidence for declining real estate investment of the wealthy, future work should consider how these shifts jointly contributed to growing wealth inequality over the last two decades.

We also studied the structural and household level traits associated with real estate ownership. Consistent with stratification and human capital theories, we found that inheritance, racial privilege, and occupational status are each positively associated with greater real estate ownership and with the likelihood of achieving membership in the top 1% of real estate owners. Similarly, educational attainment, being married, and being self-employed are each associated

with greater real estate ownership and reaching positions in the top 1%. These findings comport with existing evidence on the demographics of top wealth owning households—highly educated, white households from a relatively advantageous family background. However, among households in the top 1% of the real estate distribution, these factors generally fail to explain additional real estate ownership. Among this elite group, having previously inherited assets or being white do not lead to more real estate ownership. In fact, greater educational attainment is associated with *lower* real estate ownership among top wealth owning households.

Our analysis revealed that real estate is a crucial asset owned by households across the wealth distribution but that top real estate owning households do not uniformly overlap with other top wealth owners. Future work could usefully investigate how real-estate versus financial asset investment decisions, and how these are distributed across the wealth distribution, contributes to the growth in wealth inequality. It is clear that recent financialization trends and stock-market growth disproportionately benefits top wealth owning households. However, much of the recent growth in wealth inequality has occurred at the top—the wealthiest strata of households have pulled away from the next wealthiest strata. It may be that asset allocation decisions, particularly the financial asset/real-estate divide, account for this increased inequality among the wealthiest households. Future work might also consider these contextual effects on wealth accumulation across asset classes.

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Table 1: Real Estate Holdings of Net Worth and Real Estate Classes

		1989	1992	1995	1998	2001	2004	2007	2010	
Net worth	Top 0.1 %	Primary Residence	1,396 (3.8)	1,622 (5.0)	1,522 (3.8)	2,196 (4.5)	2,525 (4.8)	2,863 (4.7)	3,028 (4.1)	3,241 (5.2)
		Other real estate	9,092 (25.0)	6,802 (20.9)	3,899 (9.7)	3,288 (6.8)	5,136 (9.8)	7,177 (11.7)	5,250 (7.1)	6,613 (10.6)
		Total real estate	10,488 (28.8)	8,423 (25.9)	5,421 (13.5)	5,484 (11.3)	7,661 (14.7)	10,040 (16.4)	8,278 (11.2)	9,854 (15.9)
	Top 0.5 %	Primary Residence	920 (6.2)	894 (6.7)	926 (5.5)	1,169 (5.9)	1,494 (6.5)	2,426 (9.3)	2,242 (7.6)	1,928 (7.5)
		Other real estate	3,103 (21.0)	2,736 (20.6)	1,757 (10.4)	1,879 (9.5)	2,406 (10.4)	3,035 (11.7)	2,347 (7.9)	3,399 (13.2)
		Total real estate	4,023 (27.2)	3,630 (27.3)	2,683 (15.9)	3,048 (15.4)	3,900 (16.9)	5,461 (21.0)	4,588 (15.5)	5,327 (20.6)
	Top 1 %	Primary Residence	742 (7.6)	756 (8.6)	737 (6.8)	974 (7.4)	1,356 (8.4)	1,928 (10.8)	2,023 (10.0)	1,615 (9.3)
		Other real estate	1,930 (19.7)	1,814 (20.6)	1,171 (10.8)	1,395 (10.6)	1,831 (11.3)	2,490 (14.0)	2,133 (10.6)	2,329 (13.4)
		Total real estate	2,672 (27.3)	2,570 (29.1)	1,908 (17.6)	2,368 (18.0)	3,187 (19.8)	4,418 (24.9)	4,156 (20.6)	3,944 (22.6)
	Next 99 %	Primary Residence	108 (40.3)	100 (40.6)	99 (40.0)	114 (36.5)	138 (34.8)	179 (41.2)	199 (40.8)	161 (38.2)
		Other real estate	30 (11.0)	26 (10.6)	24 (9.5)	29 (9.2)	34 (8.7)	43 (9.9)	54 (11.0)	43 (10.2)
		Total real estate	138 (51.3)	126 (51.2)	123 (49.6)	143 (45.7)	173 (43.4)	221 (51.1)	253 (51.9)	204 (48.4)
Real estate	Top 0.1 %	Primary Residence	1,792 (7.3)	1,628 (8.5)	1,977 (7.9)	2,227 (9.1)	2,958 (10.3)	4,007 (11.0)	5,026 (11.8)	3,429 (8.8)
		Other real estate	11,434 (46.5)	9,902 (51.6)	6,792 (27.2)	7,353 (30.0)	9,796 (33.9)	11,630 (31.8)	8,845 (20.7)	11,184 (28.8)
		Total real estate	13,226 (53.8)	11,530 (60.0)	8,769 (35.2)	9,580 (39.1)	12,755 (44.2)	15,637 (42.8)	13,872 (32.5)	14,613 (37.6)
	Top 0.5 %	Primary Residence	1,292 (12.1)	1,094 (12.0)	1,106 (9.3)	1,498 (10.9)	2,015 (12.7)	2,868 (14.4)	2,947 (15.1)	2,422 (12.5)
		Other real estate	3,795 (35.6)	3,704 (40.6)	2,475 (20.9)	3,022 (22.0)	3,847 (24.2)	4,947 (24.9)	4,401 (22.5)	4,473 (23.1)
		Total real estate	5,087 (47.7)	4,798 (52.6)	3,581 (30.3)	4,520 (32.9)	5,862 (36.8)	7,815 (39.3)	7,348 (37.6)	6,895 (35.6)
	Top 1 %	Primary Residence	1,063 (14.9)	939 (13.9)	868 (11.2)	1,144 (11.2)	1,564 (13.5)	2,211 (15.5)	2,436 (16.4)	1,955 (14.2)
		Other real estate	2,314 (32.4)	2,222 (33.0)	1,562 (20.2)	1,959 (19.1)	2,547 (22.0)	3,243 (22.7)	3,069 (20.7)	2,940 (21.4)
		Total real estate	3,377 (47.2)	3,161 (46.9)	2,430 (31.4)	3,103 (30.3)	4,111 (35.5)	5,455 (38.2)	5,505 (37.1)	4,895 (35.6)
	Next 99 %	Primary Residence	105 (35.5)	98 (36.7)	98 (35.1)	112 (32.8)	136 (30.7)	176 (37.3)	195 (36.0)	158 (34.3)
		Other real estate	26 (8.8)	22 (8.2)	20 (7.1)	23 (6.8)	27 (6.1)	36 (7.6)	45 (8.2)	37 (8.1)
		Total real estate	131 (44.3)	120 (45.0)	118 (42.1)	135 (39.6)	163 (36.9)	212 (44.9)	240 (44.2)	195 (42.4)

Note: 1. Numbers are the value of real estate. The unit is thousand dollars inflation-adjusted to 2010.

2. Numbers in the parentheses are the percentages of the total assets accounted for by each type of real estate.

Table 2: Demographic Traits of Top Households

	Net worth				Real estate			
	Top 0.1%	Top 0.5%	Top 1%	Next 99%	Top 0.1%	Top 0.5%	Top 1%	Next 99%
Age (Mean)	61.1	62.2	60.2	50.4	66.0	59.9	61.3	50.4
Gender								
Male	98.9	96.9	95.8	72.7	97.9	95.6	92.1	72.7
Race/ethnicity								
White, non-Hispanic	94.9	96.2	92.5	70.6	97.6	92.8	94.6	70.6
African American	2.1	0.5	0.5	14.0	2.1	0.4	0.5	14.0
Hispanic	1.1	0.9	1.2	10.9	0.3	2.1	1.2	10.9
Other	1.8	2.4	5.9	4.6	0.0	4.6	3.8	4.6
Education								
Less than high school	0.3	0.1	0.1	13.5	0.3	1.2	0.7	13.4
High school	9.6	6.8	8.2	31.1	10.8	5.6	4.4	31.1
Some college	6.2	5.4	5.3	24.0	2.7	5.2	7.0	24.0
College	35.2	35.0	38.0	19.2	41.8	40.3	34.6	19.2
Graduate school	48.8	52.8	48.4	12.3	44.5	47.8	53.4	12.3
Employment								
Work for someone else	11.5	18.2	24.8	57.3	7.5	22.7	22.9	57.3
Self-employed	77.2	57.9	55.8	10.9	57.5	57.0	53.4	11.0
Retired/disabled	11.2	21.9	18.0	25.0	35.0	20.3	21.8	24.9
Unemployed/out of labor force	0.2	2.1	1.5	6.8	0.0	0.0	1.8	6.8

Table 3: Multivariate Analysis of Real Estate Ownership

	Logged total value of real estate		
	Top 1%	Pop. – OLS	Top 1% - OLS
	Pop. – Logistic Model 1	Model 2	Model 3
Inheritance			
Ever inherited	.332** (.036)	.089** (.008)	.022 (.014)
Education (ref = less than college degree)			
College degree	1.452** (.048)	.550** (.008)	-.106** (.020)
Graduate degree	1.865** (.050)	.750** (.009)	-.142** (.019)
Gender (male = 1)	.640** (.084)	.059** (.014)	.027 (.031)
Age			
	.243** (.012)	.045** (.001)	-.000 (.004)
Age2			
	-.002** (.000)	-.000** (.000)	.000 (.000)
Race (white = 1)			
	.356** (.065)	.188** (.009)	-.027 (.024)
Marital status (currently married = 1)			
	.674** (.061)	.391** (.012)	.044 (.024)
Occupation (managerial/professional = 1)			
	.681** (.050)	.289** (.008)	.023 (.018)
Employment status (ref = not working)			
Self-employed	.916** (.128)	.372** (.023)	.102* (.046)
Work for others	-.692** (.128)	.042* (.021)	.021 (.047)
Retired	-.036 (.130)	-.037 (.023)	.066 (.047)
Survey year			
1992	-.089 (.079)	-.034* (.016)	-.037 (.034)
1995	-.011 (.080)	-.013 (.015)	-.276** (.032)
1998	-.141 (.076)	.071** (.015)	.014 (.032)
2001	-.286** (.077)	.173** (.015)	.302** (.033)
2004	-.317** (.075)	.369** (.015)	.612** (.032)
2007	-.253** (.076)	.489** (.015)	.673** (.031)
2010	-.377** (.075)	.288** (.014)	.499** (.032)
Constant	-14.644** (.370)	9.512** (.046)	14.562** (.110)
R-Square		.254	.291
Observations	177,565	131,455	21,327