## **STUCK ON THE LADDER** INTRAGENERATIONAL WEALTH MOBILITY IN THE UNITED STATES

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# ABSTRACT

Wealth cushions adverse economic shocks, such as loss of employment, and helps to fund investments in human capital, like college and post-graduate training. Wealth inequality is much higher than income inequality in the United States. Understanding the dynamics of wealth accumulation may be important to narrowing wealth gaps. Here we study intragenerational wealth mobility using the Panel Study of Income Dynamics (PSID). Using a measure of individual wealth, we first study relative wealth mobility across the prime wealth accumulation years and find that a ten-point increase in an individual's wealth percentile in their early thirties leads to a 5.9-point increase in their wealth percentile in their late fifties (i.e., a rank-rank slope of 0.59). We also show that rates of wealth mobility are highest between the ages of 25 and 35. Finally, we consider how wealth mobility differs across socioeconomic groups. Black Americans experience much less upward wealth mobility and much more downward wealth mobility than white Americans, conditional on the same initial wealth level. For those with median wealth in their early thirties, Black Americans fall to the 38th wealth percentile in their late fifties while white Americans rise to the 57th wealth percentile in their late fifties, on average. We find similar patterns by educational attainment and income level. In total, our results point to flexible wealth dynamics early in adulthood that subsequently solidify and reinforce existing race and class inequalities.

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### I. INTRODUCTION

Wealth inequality in the United States is high and rising (Bricker et al., 2016; Saez and Zucman, 2016; Smith et al., 2021). According to the Federal Reserve Board's Distributional Financial Accounts, the top one percent held 31 percent of all wealth in 2019, up from 24 percent in 1989 (DFA, 2022). In contrast, median middle-class wealth, in real terms, was about \$156,000 in 2019, just shy of its 2007 level of \$176,000 (Middle Class Monitor, n.d.).

The racial wealth gap also remains stubbornly large. In 2019, the median white family had a net worth of about \$188,000, almost eight times the net worth of the median Black family (\$24,000). Differences in mean wealth are even larger: The average white family has about \$841,000 more than the average Black family (Bhutta et al., 2020). Convergence of aggregate Black and white wealth levels has mostly stalled since 1950 (Derenoncourt et al., 2022). Even conditional on income, large Black-white wealth disparities remain (Darity Jr. et al., 2021).

Inequalities between generations are of increasing concern. Homeownership is a cornerstone of middle-class wealth building, for example; and younger generations generally have lower homeownership rates than their parents and grandparents at the same age (Clemens and Sabelhaus, 2020). This intergenerational gap in homeownership is especially acute for Black and Hispanic families, as well as for those in the bottom half of the income distribution.

While many scholars have examined point-in-time wealth inequality, few have explored how wealth inequality evolves across the life course. In this paper, we examine the "moving picture" of wealth inequality for individuals over time (Aaronson and Mazumder, 2008, p. 141). This longitudinal, intragenerational perspective allows us to answer new questions about the dynamics of wealth inequality during the life course: Do low-wealth individuals stay at the bot-

Wealth inequality in the United States is high and rising. According to the Federal Reserve Board's Distributional Financial Accounts, the top one percent held 31 percent of all wealth in 2019, up from 24 percent in 1989. tom of the wealth distribution throughout their prime wealth accumulation years? Do high-wealth individuals remain at the top? Are wealth and income dynamics similar over the life course? Are there large movements in the wealth distribution throughout an individual's wealth accumulating years? Do these dynamics differ by race, education, and income? The answers may have important implications for how public policy could reduce inequality and ensure equality of opportunity across the life course.

We address these questions using the Panel Study of Income Dynamics (PSID), focusing in particular on the relationship between wealth levels for individuals in their early thirties and late fifties, and their movement in the wealth distribution. We find a rank-rank slope of 0.59, indicating that an individual's rank in the wealth distribution in their early thirties is considerably associated with their rank in their late fifties. (In a world where someone's starting position has no effect on where they end up, we would estimate a correlation of zero. In a world where starting position completely determines the end position, we would find a correlation of one.) A coefficient of 0.59 suggests that a tenpoint increase in an individual's starting percentile in the wealth distribution leads to a 5.9-point increase in their ending percentile.

We also examine movement across wealth quintiles, and find modest rates of mobility, especially at the top and bottom of the distribution. Half (49 percent) of bottom quintile wealth holders in their early thirties remain in the bottom quintile of their cohort in their late fifties. The top is equally as sticky: half (53 percent) of those in the top 20 percent of wealth holders in their early thirties remain at the top in their late fifties. When we focus on mobility across shorter time periods, we find the highest rates of upward and downward mobility between the ages of 25 to 35.

We then examine wealth mobility by race, education, and income. In our analyses, we focus on wealth mobility relative to one's entire birth cohort, rather than wealth mobility within subgroup. For example, our estimates of Black wealth mobility refer to Black individuals' movement across the overall wealth distribution, not movement within the Black wealth distribution.

We find gaps in intragenerational wealth levels and mobility between Black and white Americans. In our sample, the median white American has 13 times more wealth than the median Black American in their early thirties. But our analysis shows that even if they have the same wealth in their early thirties, a white American will, on average, have significantly higher wealth than a Black American by the time they reach their late fifties. A white person in the 25th percentile of the wealth distribution in their early thirties is expected to move up to the 44th percentile by their late fifties, while a Black person who starts with the same wealth level will only move up to the 29th percentile, on average. Similarly, white Americans who start with high wealth (90th percentile) have much higher wealth in their late fifties (77th percentile) than Black Americans (51st percentile) who start with high wealth, on average. White Americans thus experience both more upward mobility and less downward mobility, in terms of wealth, than Black Americans.

We find similar gaps in terms of education. Individuals with a bachelor's degree have more wealth, more upward wealth mobility and less downward wealth mobility, regardless of their initial wealth, than those with less education. For individuals starting at the 25th wealth percentile, those with a bachelor's degree are expected to reach the 53rd percentile, while those without a bachelor's degree are only expected to reach the 32nd percentile. Bachelor's degree-holders who start at the 90th wealth percentile only fall to the 84th percentile, while their peers who do not hold a bachelor's degree fall to the 71st percentile, on average.

# Inequalities between generations are of increasing concern.

We also find large wealth mobility gaps by income. Because income is an important input to wealth accumulation, unsurprisingly we find that people with high incomes across their prime wealth accumulation years also tend to have more wealth and more upward wealth mobility. People in the bottom third of the income distribution and at the 10th percentile of the wealth distribution in their thirties can expect to rise to the 18th wealth percentile by their late fifties. Meanwhile, people in the top third of the income distribution and at the 10th percentile of the wealth distribution in their thirties can expect to rise to the 55th wealth percentile. Gaps in downward mobility by income are similarly stark. Top-third earners who start at the 90th wealth percentile fall to the 83rd wealth percentile, while bottom-third income earners who start at the 90th wealth percentile fall to the 59th wealth percentile, on average.

The paper proceeds as follows. Section II provides a brief literature review on intragenerational income and wealth mobility. Section III explains the data and methods used in the paper. Section IV reports our headline intragenerational wealth mobility findings. Section V examines wealth mobility across smaller age ranges. Section VI presents our subgroup analysis by race, education, and income. Section VII concludes.

### II. DEFINITIONS AND PREVIOUS WORK

Economists and sociologists who study social mobility typically consider how much someone's starting position in the economic or class distribution predicts their ending position. Commonly, this type of analysis is associated with ideas of equal opportunity or the American Dream. One set of studies examines intergenerational mobility, which measures the correlation in outcomes between parents and their children (e.g., Chetty et al., 2014; Mazumder, 2016; see Black and Deveraux, 2011 for a review), or even grandparents and their grandchildren (e.g., Winship et al., 2021; Pfeffer and Killewald, 2018; see Solon, 2018 for an overview). Another group of studies examines intragenerational mobility, measuring the correlation in outcomes at certain points in a person's lifetime – for example, between ages 25 and 35.

Further, researchers distinguish between absolute and relative mobility. Absolute mobility is defined with a constant threshold. In the intergenerational mobility context, a salient example is whether children earn more than their parents (e.g., Chetty et al., 2017). In the intragenerational mobility context, a researcher may, for example, examine the probability of reaching 300 percent of the poverty line by age 40 conditional on income at age 25.

Relative mobility is based on positions within distributions. A common measure of intergenerational mobility is the probability of reaching the top 20 percent of the income distribution in adulthood conditional on growing up in the bottom 20 percent of the income distribution. Intragenerational mobility researchers perform similar analyses, but the starting position may be at age 25 and the ending at age 55, for example. An important feature of relative mobility measures is that upward mobility must be matched by downward mobility — if someone moves into the top 20 percent of the distribution, someone else must move out. However, everyone can experience absolute upward mobility if the whole distribution is shifting upward.

Our focus here is on relative intragenerational wealth mobility. While a large and technical literature examines intragenerational *income* mobility, the same attention has not been paid to intragenerational *wealth* mobility.<sup>1</sup> Here we first highlight the findings on intragenerational income mobility in order to ground our own approach to intragenerational wealth mobility.<sup>2</sup> While scholars vary in their approaches to measurement, time period studied, and data source, most find stagnant or declining income mobility rates over time and stark racial gaps.

We then review the small number of papers that have attempted to examine intragenerational wealth mobility.

Acs and Zimmerman (2008) use the PSID to measure absolute and relative intragenerational income mobility across two ten-year periods: 1984-1994 and 1994-2004. Similar to our analysis, they focus on primeage working years, restricting their sample to 25- to 44-year-olds. Overall, Acs and Zimmerman find that intragenerational income mobility, both absolute and relative, remained stagnant across the two ten-year time periods. This finding holds for both upward mobility and downward mobility. About half of those who start in the bottom quintile end up in a higher quintile at the end of the ten-year period. Only about two to four percent of those who fall into the bottom quintile started in the top quintile.

Similar patterns emerge from analyses using tax data. Auten and Gee (2009) use tax data to examine mobility from 1987 to 1996 and from 1996 to 2005. In both periods, they find that 44 percent of individuals who start in the bottom income quintile stay in the bottom income quintile. They also find that more than 60 percent of those who start in the top income quintile remain there in both periods. In a follow-up paper, Auten et al. (2013) use tax data to look at mobility over a longer time period, from 1987 to 2007. They find similar results at the bottom: about half of those who start in the lowest income quintile remain there. However, about half of those who start in the highest income quintile stay there, indicating somewhat less stickiness at the top relative to their previous findings.

Bradbury and Katz (2009) use the PSID to examine a longer period of intragenerational income mobility from 1967 to 2004. They find declines in mobility from the 1970s to the 1990s and early 2000s. Rose's (2020) analysis of the PSID largely confirms this trend: from 1967 to 2016, absolute upward mobility out of poverty dropped by about 19 percent and downward mobility from the middle class increased from five to eleven percent.

Racial gaps in intragenerational income mobility are large. We focus on overall mobility, meaning mobility

relative to the entire distribution rather than the distribution within one's race or ethnic group. From 1967 to 2004, Black families consistently exhibited less income mobility than white families (Bradbury and Katz, 2009). Using tax returns from 2000 to 2014 linked with Census data, Akee et al. (2019) examine mobility gaps across race and ethnic groups. Black Americans, Hispanic Americans, and American Indians were less mobile in the overall distribution compared to white and Asian Americans. For example, Black Americans face stark levels of immobility. Six in ten Black Americans who started in the bottom quintile remained there, while just 45 percent of those who started in the top quintile remained there (the lowest rate among all race and ethnic groups). Among Black Americans who started in the middle quintile, 69 percent remained in the middle or fell to a lower quintile.

While many papers examine intragenerational income mobility, far fewer consider intragenerational wealth mobility. Conley and Glauber (2008) measure relative intragenerational wealth mobility using the PSID from 1984 to 2003. They find that the distribution of wealth is sticky: only about five percent of those who start in the bottom wealth quartile end up in the top wealth quartile. Similarly, 58 percent of those in the top wealth quartile stay there. However, this "glass floor" effect varies by race (Reeves and Howard, 2013). While just 22 percent of Black Americans who start at the top of the distribution stay there, 60 percent of white Americans stay at the top (Conley and Glauber, 2008). Across ten years, Johnson and Fisher (2020) find a coefficient for relative wealth position upwards of 0.85, depending on age and cohort, implying very low levels of mobility. Berman (2022) does a similar exercise across four years, and finds coefficients from 0.74 to 0.85, depending on the specification.

Following previous work, we use the PSID to estimate relative intragenerational wealth mobility. Our primary contribution is to examine relative intragenerational wealth mobility across the prime wealth accumulation years (early thirties to late fifties) rather than a shorter age window. We also look at differences by age, race, education, and income.

### III. DATA AND METHODS

We measure wealth and income mobility using the Panel Study of Income Dynamics (PSID), a nationally representative longitudinal dataset that collects information about families' income, wealth, and other characteristics. The survey includes a representative US sample and an oversample of low-income individuals from the Survey of Economic Opportunity (SEO) as well as their descendants each year from 1968 to 1997, and every odd year from 1997 to 2019 — the most recent year in our sample. To keep pace with changing demographics, the PSID added additional Latino families to the sample in 1990 and 1992, as well as immigrant families periodically after 1968. Our sample includes members of the original sample, the SEO sample, and the immigrant refresher samples. We do not observe members of the Latino sample in our analysis because the Latino sample was added in 1990 and discontinued after 1995, so we are unable to observe anyone across a ten-year period.

#### Sample

Because we are measuring wealth mobility across a 30-year window, we need to observe individuals in both their early thirties and their late fifties. Between 1984 and 2019, we observe 1,262 such individuals with non-missing weights. These individuals were all born between 1948 and 1964. Appendix 1 shows how our sample is narrowed down to 1,262 individuals from the initial 82,573 observed in the PSID. One potential concern with this data is that the wealth mobility experienced by individuals born in the late 1950s and 1960s is not necessarily representative of the mobility trends experienced by other generations. However, as we show in Appendix 2, relative wealth mobility rates in ten-year periods are nearly identical for those born between 1920 and 1990.

#### Wealth measure

We rely on the PSID's wealth module, which asks respondents about their family real estate holdings, business and farm equity, stocks and mutual funds, bonds, vehicles, individual retirement accounts and annuities, liquid savings, and debt.<sup>3</sup> Following Cooper et al. (2019), we use the pension module to impute the value of employer-sponsored defined contribution (DC) accounts to create an augmented wealth measure. These imputations align the PSID more closely to the Survey of Consumer Finances (SCF), a triennial survey of household balance sheets often used in cross-sectional analyses of wealth. We compare our augmented PSID wealth measure with SCF net worth in Appendix 3; the augmented PSID measure aligns well with SCF net worth across the wealth distribution. Including DC wealth is also important because employer-sponsored retirement accounts represent a large share of household assets. For many households, asset accumulation has the explicit goal of securing a comfortable retirement.

The PSID wealth module is collected at the family level rather than the individual level. But we create an individual-level wealth measure, to analyze wealth mobility differences by race,

age, and education — all individual-level characteristics. Splitting family-level wealth raises some conceptual challenges. Individuals within households share resources, but household composition can also change over time. We take a simple approach, splitting the adjusted family-level wealth measurement evenly between the reference person — formerly "head of household" — and their spouse or partner if present (so long as they cohabitate for at least a year).

We follow individuals during what we call their "prime wealth accumulation years," from their early thirties to late fifties. We also refer to this age period as "prime years" throughout the paper. Figure 1 and Appendix 4 show cross-sectional measures of the wealth distribution for different birth cohorts. Significant wealth accumulation is rare before an individual reaches their early thirties. Workers continue to accumulate wealth into their late fifties, but many workers retire in their early sixties. In 2019, 31 percent of men and 42 percent of women aged 61 were not in the labor force. Similarly, 39 percent of men and 48 percent of women aged 62 were not in the labor force.<sup>4</sup> Therefore, we include sample members from their early thirties through their late fifties.

Identifying two discrete points in a person's life would simplify our analysis, but the PSID's shift from every-year to every-other-year sampling makes it challenging to find sample members with valid wealth measurements at specific ages, like 30 and 59. Therefore, we average an individual's wealth observations within a five-year period, which we call a "life stage," beginning at age 25 (e.g., late twenties are ages 25-29 inclusive, late fifties are 55-59, and so on). Relative to focusing on a single age, this approach increases the sample size and reduces the impact of a potential transitory shock in wealth by averaging across years. We treat an individual at a given life stage as a unit of observation.

#### FIGURE 1





Wealth (2019 dollars) at the 10th, 50th, and 90th percentile

**Note:** Figure shows a 3-year moving average of the 10th, 50th, and 90th percentile wealth values at each age by 10-year birth cohort among individuals with wealth observations in the PSID in 2019 dollars (PCE). The first and last ages observed in each series are a simple average of the first and second values, and the last and second-to-last values, respectively.

#### Measuring mobility

Researchers typically take one of two approaches to measuring mobility. The first - absolute mobility measures an individual's wealth accumulation relative to their starting position. If an individual's wealth is higher at the end than at the beginning, they would be considered upwardly mobile in absolute terms. The second approach - relative mobility - refers to an individual's wealth relative to others in their age group at the same point in time. In this case, it is possible for an individual to increase their wealth level but be downwardly mobile because they are worse off relative to their peers. For instance, consider the following hypothetical: an individual in their early thirties has a net worth of \$5,000, which is at the 25th percentile among those in their early thirties. Twenty-five years later, they have a net worth of \$15,000, which is at the 20th percentile among those in their late fifties. Although the individual improved their absolute position by accumulating an additional \$10,000 in wealth, their relative position declined because they fell from the 25th percentile to the 20th percentile.

People in their late fifties almost always have more wealth than they did in their early thirties, meaning absolute mobility is almost always positive (though the magnitude differs by subgroup) as is shown in Figure 1 and Appendix 4. In this paper, we emphasize relative mobility, comparing an individual's position on the wealth distribution for their age cohort over time, rather than changes in their absolute level of wealth.

For each sample member, we calculate a simple average of all wealth observations within a given life stage. We then calculate each sample member's wealth percentile in each life stage relative to every person observed in that life stage who was born in the same decade.<sup>5</sup> For example, if an individual born in 1965 is in the 90th percentile of the wealth distribution in their early thirties, that means that they have more wealth than 90 percent of all the individuals in their early thirties in our sample who were born in the 1960s.

Identifying a person's wealth percentile relative to their age and birth cohort is especially important because wealth dynamics change across their lifetime and across generations. Although wealth levels differ over generations, relative mobility is very similar (see Appendix 2). If we failed to measure wealth by birth cohort, we would be creating wealth percentiles by comparing the wealth levels of someone who was 45 in 1984 and someone who was 45 in 2004. Because wealth levels have generally increased across generations, people born earlier would appear less wealthy than they are relative to their generation. Wealth changes across age are larger than differences between birth cohorts; as sample members age, the wealth distribution widens, while median wealth grows steadily. Figure 1 also shows that wealth levels at the 10th, 50th, and 90th percentiles are similar across tenyear birth cohorts.

In addition to wealth mobility across prime years, we also measure mobility across three ten-year age periods using the same life stage framework: from late twenties to late thirties; from late thirties to late forties; and from late forties to late fifties. Measuring mobility in narrower age bands allows us to determine the key time periods in the lifecycle for wealth mobility. Using ten-year bands also increases the sample sizes. For the prime years analysis, we restrict the sample to individuals we observe in their early thirties and their late fifties. For the ten-year samples, we include any individual who we observe for about ten years, which allows us to analyze individuals who may have been too young or too old to be included in the prime years sample. The late twenties to late thirties sample has 3,468 observations, the late thirties to late forties sample has 3,026, and the late forties to late fifties sample has 2,488. The prime years sample, by contrast, has 1,262 observations. To ensure our analysis is representative of the US population, we use adjusted longitudinal PSID weights. See Appendix 5 for more details on the weighting methodology.

#### Race, education, and income

We compare wealth mobility by race, education, and income. For the race analysis, we limit our sample to Black and white individuals. This is for two reasons. First, most of our prime years sample members are descendants of or split-off family members of the original PSID sample. Given that the original PSID sample was nationally representative (with an oversample of low-income individuals) of the US population in 1968, the overwhelming majority – 98 percent – of our prime years sample is either white or Black. Second, the immigrant and Latino refresher samples were not added to the PSID until the 1990s, so we cannot observe them in both their early thirties and late fifties. When not comparing results by race, we include all sample members, regardless of race.

Education is correlated with family wealth accumulation and socioeconomic status. Since the PSID measures wealth at the family level, measuring education presents a conceptual challenge. One family member's education changes the socioeconomic status of an entire family — and the partner with less schooling still benefits from shared assets. Among those in our prime years sample, 12 percent have a spouse or partner with a different education level (measured by having a bachelor's degree or not) in their early thirties (see Appendix 6). However, to be consistent with our analysis of wealth mobility at the individual level, we determine educational attainment based solely on an individual's education level, regardless of their partner's education. The most consistent individual educational attainment variable across survey years is the highest grade or year of education completed. Following others (e.g., Ziol-Guest and Lee, 2016), we consider those with sixteen years of education or more as among those "with a bachelor's degree" and those with less than sixteen years as those "without a bachelor's degree."

We also investigate wealth mobility by income. Following a similar process to our wealth percentile construction, we split family income between the reference person and their partner if applicable, take the average of the split income observations across observations within each life stage, and then calculate percentiles relative to an individual's life stage and decade of birth. For prime years analysis, we construct income terciles by averaging all life stage income percentiles observed in prime wealth accumulation years. Table 1 shows the racial, educational, and income composition of the 1,262 members of our prime years sample. To correct for the oversample of low-income individuals in our percentile construction, we use adjusted PSID individual weights (see Appendix 5).

#### TABLE 1

#### Summary statistics, prime years sample

Soc	ioeconomic group	Unweighted count	Unweighted share	Weighted share	Median wealth in early 30s	Median wealth in late 50s
	White	667	53%	53%	\$31,223	\$281,006
e	Black	573	45%	12%	\$2,343	\$29,935
Ra	Hispanic	15	1%	14%	\$1,810	\$108,744
	Other	7	1%	5%	\$94,847	\$333,428
uo	Less than bachelor's degree	920	73%	65%	\$17,962	\$108,744
Educati	Bachelor's degree or higher	342	27%	35%	\$34,843	\$488,916
a	Bottom Tercile	473	37%	28%	\$1,562	\$13,480
com	Middle Tercile	503	40%	37%	\$30,047	\$192,911
<u>=</u>	Top Tercile	286	23%	35%	\$51,767	\$668,142

NOTE: Median wealth values are in 2019 dollars (PCE). See Appendix 5 for weighting detail.

### IV. HOW MUCH WEALTH MOBILITY OCCURS?

A common way to measure either intergenerational or intragenerational mobility is to estimate a rank-rank slope, which provides a summary measure of relative mobility between two time periods.<sup>6</sup> In this context, the rank-rank coefficient represents the association between an individual's rank in the wealth distribution in period one and their rank in period two. Let  $w_{it}$  be the rank in the wealth distribution for person *i* at time *t*:

$$w_{it} = \alpha + \beta w_{i(t-1)} + \varepsilon_i$$

where  $\beta$  measures the rank-rank coefficient,  $\alpha$  is the intercept, and  $\epsilon_i$  is an error term. The rankrank coefficient ranges from zero to one, where a value of zero indicates complete mobility (a person's rank in the wealth distribution has no impact on their future rank), while a value of one indicates complete immobility (a person's rank in the wealth distribution perfectly predicts their future rank).<sup>7</sup> Mobility can be thought of as  $1 - \beta$  while persistence is represented by  $\beta$ . In other words, high mobility (low persistence) is indicated by a low  $\beta$  while a high  $\beta$  indicates low mobility (high persistence).





We first use this framework to measure wealth mobility across the prime wealth accumulation years. Figure 2 illustrates intragenerational relative wealth mobility across the prime years. Here, the x- and y- axes represent individuals' wealth percentiles in their early thirties and late fifties, respectively. Each point represents the average ending wealth percentile for a given starting wealth percentile. For example, the farthest point on the right shows that individuals who were in the 99th percentile of the wealth distribution in their early thirties ended up at the 91st percentile in their late fifties, on average. The orange line represents the rank-rank slope, while the gray line shows a slope of one for reference (i.e., complete immobility).

Because of data limitations (namely, people born after 1966 have not reached their late fifties by 2019), the figure only captures mobility for individuals born in the 1950s and 1960s. But as noted earlier, we show that ten-year mobility looks similar across birth cohorts from 1920 to 1990 in Appendix 2.

The estimated rank-rank slope is 0.59. In other words, a ten-point increase in an individual's starting percentile increases their ending percentile by 5.9 points, on average. In combination with the  $\alpha$  term (23.65), we estimate the average ending wealth percentile for each starting wealth percentile. For example, an individual with 15th percentile wealth in their early thirties is expected to reach the 32nd wealth percentile by their late fifties.

Figure 3 shows mobility between wealth quintiles (i.e., five groups with 20 percentiles each).

#### FIGURE 3



Wealth mobility across prime years, by quintile

Share of those in each early 30s quintile who end in each late 50s quintile

Early 30s quintile

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**Note:** Figure shows the share of individuals who are in a given wealth quintile in their late 50s (y-axis) conditional on being in a given quintile in their early 30s (x-axis). "Early 30s" refers to those ages 30-34 and "late 50s" refers to those ages 55-59. Quintiles are assigned relative to birth cohort and age.

The stacked bar chart shows the likelihood of a person moving from a given wealth quintile in their early thirties to another by their late fifties. Mobility out of the top and bottom quintiles is low. Half (49 percent) of those with bottom-quintile wealth will remain in the bottom quintile in their late fifties. Similarly, half (53 percent) of individuals who start in the top wealth quintile will remain there in their late fifties.

The quintile and rank-rank slope figures both support the same conclusion: wealth mobility is modest across the prime wealth accumulation years. But how does it compare to intragenerational income mobility? Figure 4 shows the wealth rank-rank line from Figure 1 (orange) and the income rank-rank line (blue) for prime wealth accumulation years (early thirties to late fifties). The rankrank lines are almost identical; the slope for wealth is 0.59, while the slope for income is 0.57. A tenpoint increase in an individual's starting income percentile leads to a 5.7-point increase in their ending income percentile, on average. For both income and wealth, an individual in the 25th percentile of the distribution in their early thirties will end up near the 40th percentile in their late fifties, on average. For those starting in the 75th percentile, the average ending percentile is around 67 in both distributions.

Figure 5 uses the same data as the scatterplot in Figure 4 to highlight a handful of point estimates for given starting percentiles: 10th, 25th, 50th, 75th, and 90th. For the remaining analyses, we use this simplified "waterfall" format to summarize relative mobility. As in Figure 4, we see that relative wealth mobility and relative income mobility are very similar. For both wealth and income, an individual starting at the 10th percentile in their early thirties can expect to reach about the 30th percentile in their late fifties. Starting at the 90th percentile in the income or wealth distribution is associated with falling to 76th and 77th percentile, respectively.

#### FIGURE 4

#### Income and wealth rank-rank slopes across prime years

Average income percentile in late 50s for each early 30s income percentile (scatter) and rank-rank slopes for income and wealth mobility



Note: Scatter shows the average late 50s income percentile for each early 30s income percentile. BROOKINGS The rank-rank slopes for income and wealth are fitted to all observations.

#### FIGURE 5 Income and wealth mobility across prime years



Note: Expected late 50s income and wealth percentiles for select early 30s income and wealth percentiles. Sample members are ranked relative to their birth cohort and age

### V. WHEN DOES WEALTH MOBILITY OCCUR?

After providing a snapshot of wealth mobility across the prime wealth accumulation years, we now turn to estimates for shorter time periods. Here we focus on wealth mobility across three ten-year age periods: late twenties to late thirties, late thirties to late forties, and late forties to late fifties. This analysis allows us to identify how mobility rates change as individuals age. We find that individuals experience more upward and downward mobility between their twenties and thirties than they do in later periods. Figure 6 reports predicted ending percentiles for the starting 10th, 25th, 50th, 75th, and 90th wealth percentiles for each age group.

#### FIGURE 6

#### Wealth mobility across 10-year age periods

Expected late 50s percentile for those in the 10th, 25th, 50th, 75th, and 90th percentiles in their early 30s

Late 20s to late 30s Late 30s to late 40s Late 40s to late 50s Ending wealth percentile Starting wealth percentile

**Note:** Expected ending wealth percentiles for select starting wealth percentiles. "Late 20s" refers to ages 25-29, "late 30s" refers to ages 35-39 and so on. Sample members are ranked relative to their birth cohort and age.

Generally, wealth mobility is higher when individuals are young and declines with age. For example, those at the 10th percentile in their late twenties are expected to reach the 34th percentile in their late thirties. However, those at the 10th percentile in their late thirties and late forties are only expected to move up to the 25th and 20th percentiles, respectively. A similar pattern emerges at the top of the distribution; as individuals age, they experience less downward mobility. Those at the 90th percentile in their late twenties fall to the 70th percentile, while those in their late thirties and forties only fall to the 79th and 80th percentile, respectively. In other words, position on the wealth distribution solidifies over time.

Next, we use the same ten-year transition periods to focus on mobility from the bottom quintile. A consequence of decreasing relative mobility with age is that individuals who find themselves in the bottom fifth of the wealth distribution are increasingly likely to stay there as they age. Figure 7 shows the ending quintile for those who started each 10-year age period in the bottom quintile. There are three important trends that stand out from this figure. First, in all three periods, the most common ending quintile for those who start in the bottom quintile is still the bottom quintile. As people age, the likelihood of staying in the bottom quintile increases. Second, most of those who move up in the distribution do not make it past the second guintile. The bottom two guintiles make up 56, 74, and 87 percent of all individuals starting in the bottom quintile for each time period, respectively. Finally, the top two guintiles - representing the top 40 percent of the wealth distribution - are largely inaccessible to individuals in the bottom guintile in their late thirties and even less accessible to individuals in the bottom guintile in their late forties. For those in the bottom guintile in their late forties, less than four percent reach the top two quintiles by their late fifties. In short, the figure shows that upward mobility from the bottom becomes less and less likely as individuals age.

FIGURE 7

#### Wealth mobility from the bottom quintile, by 10-year age period

Ending quintile among those starting a given 10-year age period in the bottom quintile



#### 10-year age period (starting in bottom quintile)

**Note:** Figure shows the share of individuals who are in a given wealth quintile at the end of their 10-year age period (y-axis) among those who started the period in the bottom quintile (x-axis). "Late 30s" refers to those ages 35-39, "late 40s" refers to those ages 45-49 and so on. Quintiles are assigned relative to birth cohort and age.

INTRAGENERATIONAL WEALTH MOBILITY

### VI. HOW DOES WEALTH MOBILITY VARY ACROSS RACE, EDUCATION, AND INCOME?

As we showed in the last section, wealth mobility is highest when individuals are in their twenties and thirties. But the amount of mobility they experience varies by their race, educational attainment, and income. In this section, we compare wealth mobility across these three socioeconomic dimensions. To be clear, we focus on overall, not within-group, mobility rates. For example, in the race section, we do not measure relative mobility rates for Black individuals within the wealth distribution of Black individuals. Instead, we measure mobility rates for Black individuals within the overall wealth distribution. We conduct a similar analysis for education and income.

#### Race

Black Americans have less wealth than white Americans, on average. The bottom of the wealth distribution is disproportionately Black, while the top of the wealth distribution is disproportionately white. It is important to keep this overall Black-white wealth gap in mind when we consider the predicted ending percentiles at different points of the wealth distribution.

Our analysis reveals stark differences in wealth mobility across prime wealth accumulation years by race. The prime years rank-rank slope for white individuals is 0.50, while for Black

individuals, it is 0.34 (see Appendix 7). While these slopes might suggest that Black individuals experience more relative wealth mobility, there are two important caveats. First, the difference between the Black and white slopes is not statistically significant because of large confidence intervals. Second, as we show in Figure 8, the

White Americans who begin at the top of the wealth distribution are likely to experience less downward mobility than their Black peers.

#### FIGURE 8 Wealth mobility across prime years, by race

Expected late 50s percentile for those in the 10th, 25th, 50th, 75th, and 90th percentiles in their early 30s



Early 30s wealth percentile

Note: Expected late 50s wealth percentiles for select early 30s wealth percentiles. Sample members are ranked relative to their entire birth cohort in a given age range, regardless of race.

### BROOKINGS

high Black mobility rate is disproportionately driven by downward mobility, rather than upward mobility. Black and white individuals with the same wealth percentile in their early thirties have very different expected wealth percentiles by their late fifties. White individuals, on average, end up several percentiles above their Black counterparts.<sup>8</sup>

At the top of the wealth distribution, we find larger gaps in expected ending percentiles between Black and white sample members than at the bottom of the distribution. For example, Black Americans with 10th percentile wealth in their early thirties are expected to reach the 24th percentile in their late fifties – 13 percentiles lower than white Americans (37th percentile). For individuals starting in the 90th percentile, the gap is 26 percentiles (51st ending percentile for Black individuals and 77th for white individuals).<sup>9</sup> For those with median wealth in their early thirties, Black Americans fall to 38th wealth percentile in their late fifties while white Americans rise to the 57th percentile, on average. These estimates highlight two important dynamics in the racial differences in mobility rates in the United States. First, white Americans who begin their prime wealth accumulation years towards the bottom of the distribution experience more upward mobility than Black Americans who start with the same wealth. Second, white Americans who begin at the top of the wealth distribution are likely to experience less downward mobility than their Black peers.

#### Education

Educational attainment is also related to wealth mobility. Holding starting wealth percentile constant, a bachelor's degree holder has a higher predicted wealth percentile in their late fifties than someone without a bachelor's degree. Figure 9, like Figure 8, shows predicted ending percentiles at given starting percentiles for those without a bachelor's degree (dark blue) and those with a bachelor's degree (orange). Those without a bachelor's degree who had 10th percentile wealth in their early thirties are expected to have 23rd percentile wealth in their late fifties, while those with a bachelor's degree with 10th percentile wealth in their early thirties are expected to have 46th percentile wealth in their late fifties. On the other end of the distribution, the gap in expected ending percentile is similar. Those without a bachelor's starting in the 90th percentile fall to the 71st percentile, while those with a bachelor's fall to the 84th percentile. As with the race analysis, it is important to keep in mind the underlying differences in the wealth levels for those with and without bachelor's degrees. Individuals with bachelor's degrees are generally overrepresented in the top half of the wealth

distribution. However, obtaining a bachelor's degree can mean postponing wealth accumulation because it delays the start of one's career as well as the income and savings that come along with it. For many, pursuing higher education also involves taking on student debt. These factors leave some individuals with bachelor's degrees towards the bottom end of the wealth distribution in their early thirties before the college earnings premium enables more wealth accumulation later in life.

#### Income

Finally, we find that income is related to wealth mobility. Our findings are consistent with research that suggests income directly contributes to wealth accumulation through savings (Feiveson and Sabelhaus, 2019). We divide our sample into three groups each

#### FIGURE 9

#### Wealth mobility across prime years, by educational attainment

Expected late 50s percentile for those in the 10th, 25th, 50th, 75th, and 90th percentiles in their early 30s



Early 30s wealth percentile

**Note:** Expected late 50s wealth percentiles for select early 30s wealth percentiles. Sample members are ranked relative to their entire birth cohort in a given age range, regardless of educational attainment.

representing a third of the income distribution (i.e., terciles).<sup>10</sup> Those with bottom-tercile income across their prime years tend to have relatively low wealth in their early thirties and late fifties; 84 percent of these low-income individuals had less-than-median wealth in their early thirties, and 85 percent had less-than-median wealth in their late fifties.

The relationship between an individual's wealth in their thirties and in their late fifties also differs by income bracket. Even if they start at the same wealth percentile in their early thirties, a high-income individual is predicted to end at a higher wealth percentile than a low-income individual. In other words, high-, middle-, and low-income individuals who have the same wealth in their early thirties will, on average, have wealth levels that correspond to their incomes by the time they reach their late fifties. Figure 10 shows predicted ending wealth percentiles for given starting percentiles by income tercile. A top-tercile individual who had median wealth in their early thirties, on average, is predicted to have wealth 30 percentiles higher (39th percentile versus 69th) than a bottom-tercile individual who started at the same wealth percentile.

These differences are especially notable at the top and bottom ends of the wealth distribution. A person with a high income across their prime years seemingly compensates for the initial disadvantage of having low wealth in their early thirties, while low-income individuals who start with high wealth are likely to be at a substantially lower wealth percentile later in life. For instance, a top-income earner who starts with 10th percentile wealth will, on average, end up in a higher

#### FIGURE 10 Wealth mobility across prime years, by income tercile

Expected late 50s percentile for those in the 10th, 25th, 50th, 75th, and 90th percentiles in their early 30s



#### Early 30s wealth percentile

**Note:** Expected late 50s wealth percentiles for select early 30s wealth percentiles. We average all of an individual's income percentiles across their prime years to calculate their income tercile. Sample members are ranked relative to their entire birth cohort in a given age range, regardless of income tercile.

wealth percentile by their late fifties than a bottom-income earner who starts at the 75th percentile of the wealth distribution (55th percentile versus 51st percentile).

#### Mobility from the bottom

The United States places a special emphasis on rags-to-riches mobility, even though it is rare (Reeves, 2014). In this section, we focus on those who started off in the bottom wealth quintile. Figure 11 shows the ending quintile of those starting in the bottom by socioeconomic characteristic.<sup>11</sup> Race, educational attainment, and income influence a person's likelihood

of experiencing upward mobility. Half of individuals with bottom quintile wealth in their early thirties have bottom quintile wealth in their late fifties. White Americans, bachelor's degree holders, and high-income individuals who start in the bottom wealth quintile are less likely to remain there later in life than Black Americans, those without a bachelor's and lower-income earners. Few who escape from the bottom quintile fit the ragsto-riches narrative; for those starting in the bottom quintile, only those with a bachelor's degree have over a ten percent likelihood of ending up in the top wealth quintile by their late fifties.<sup>12</sup>

#### FIGURE 11

### Wealth mobility from the bottom quintile across prime years, by socioeconomic group

Share of those in the bottom quintile in their early 30s who end in each late 50s quintile



**Note:** Figure shows the share of individuals ending in each wealth quintile (y-axis) conditional on starting at a the bottom quintile (x-axis). "Early 30s" refers to those ages 30-34, "late 50s" refers to those ages 55-59. Quintiles are assigned relative to birth cohort and age. Sample size shown in x-axis. We omit the top income tercile group because few of these individuals are in the bottom wealth quintile in their early 30s.

## VII. CONCLUSION

Wealth protects individuals and families from adverse economic shocks and provides opportunities for human capital investment. Previous studies have established that point-in-time wealth inequality is high and rising, but much less is known about wealth mobility across the life course. We address this gap by following individuals in the PSID from their early thirties to their late fifties between 1984 to 2019. We then estimate rates of relative intragenerational wealth mobility using an augmented wealth measure.

With the backdrop of rising wealth inequality, we find modest relative wealth mobility across prime wealth accumulation years. A ten-percentile increase in a person's early-thirties wealth is expected to increase their late-fifties wealth by 5.9 percentiles. Wealth mobility is low at the top and bottom of the wealth distribution: half of those in the bottom wealth quintile in their early thirties remain there in their late fifties, and half of those who start in the top quintile stay there.

The combination of low initial wealth and poor prospects for upward mobility create a sharp class dynamic. Those without a bachelor's degree and low-income earners, for example, tend to have less wealth than those with bachelor's degrees or higher incomes; 56 percent of those without a bachelor's degree and 84 percent of low-income earners have less than median wealth in their early thirties. Even among those who start out with the same wealth, bachelor's degree holders will have much more wealth in their late fifties than non-bachelor's degree holders, and high-income earners will have more wealth than low-income earners.

Across prime wealth accumulation years, Black Americans are less wealthy than white Americans. We find that, even holding initial wealth constant, white Americans are also more upwardly mobile and less downwardly mobile, in terms of wealth, than Black Americans. For example, a white American with 10th-percentile wealth in their early thirties is predicted to reach the 37th wealth percentile in their late fifties. In contrast, a Black American is predicted to only reach the 24th percentile. Further, a Black American who starts at the 90th wealth percentile ends at a lower wealth percentile than a white American who starts with only median wealth.

The combination of low initial wealth and poor prospects for upward mobility create a sharp class dynamic.

People tend to experience the most upward and downward wealth mobility early in their adult lives – from their late twenties to early thirties – implying path dependence. Of those in the bottom wealth quintile in their late twenties, 56 percent will remain in the bottom two wealth quintiles in their late thirties. In contrast, 87 percent of those in bottom wealth quintile in their late forties will remain in the bottom two wealth quintiles in their late fifties. On one hand, this phenomenon might call for policy to improve upward mobility during this dynamic period. On the other hand, perhaps policy should aim to create more fluid wealth dynamics throughout the life course.

In combination with the intergenerational mobility literature, our results depict a rigid class and race structure both across and within generations. Other research shows high income and wealth persistence across generations, with sharp disparities between Black and white families (Mazumder 2016; Pfeffer and Killewald, 2018; Winship et al., 2021). Wealth is persistent between parents and their children and within one's own lifetime.

### **END NOTES**

- 1. Another related literature looks at intragenerational earnings mobility (e.g. Kopczuk et al., 2010; Carr and Wiemers, 2016; Carr and Wiemers, 2020).
- **2.** For more thorough theoretical and empirical discussions on mobility, see Burkhauser et al. (2011) and Jäntti and Jenkins (2015).
- **3.** The PSID's survey questions on debt ask about several types of debt, including credit card debt, student debt, medical debt, and legal debt.
- **4.** We thank Gary Burtless for sharing this information. The data come from his correspondence with the Bureau of Labor Statistics (BLS) on February 25th, 2022. BLS analysis of the Current Population Survey.
- **5.** See Appendix 5 for a description of how we use weights in wealth percentile construction.
- 6. We use rank-rank slope and rank-rank coefficient interchangeably. In the intergenerational mobility context, this measure is often called the intergenerational correlation (IGC).
- 7. In the case where previous wealth rank has no correlation with current wealth rank, we'd expect the rank-rank line to be horizontal with a y-intercept at the 50th percentile. While we do not plot this line in our rank-rank plots, we do plot the line with a slope of one as a reference in the first two figures.
- Appendix 9 reports predicted ending percentiles for the 10th, 25th, 50th, 75th, and 90th starting percentiles, by socioeconomic group with standard errors.
- **9.** Since Black individuals are underrepresented at the top of the wealth distribution, we have fewer Black observations for the 90th percentile estimates. Therefore, the expected ending percentile for Black individuals starting in the top 90th percentile is more prone to measurement error and has larger standard errors. See Appendix 9 for our standard error estimates.
- **10.** Small sample size constrains our analysis to three rather than five income groups.
- **11.** We omit the tope income tercile group because few of these individuals are in the bottom wealth quintile in their early thirties.

12. The socioeconomic groups presented in this section should not be thought of as mutually exclusive groups. In fact, there is significant overlap between certain groups. For example, 83 percent of the individuals in the bottom income tercile also do not have a bachelor's degree. Still, it's useful to look at relative mobility rates for these subgroups to understand the heterogeneity of relative wealth mobility in the United States along multiple socioeconomic dimensions.

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### **APPENDIX**

### Appendix 1: Sample counts

	Sample	N
	All individuals observed in PSID wealth survey years, 1983-2019	82,573
	Individuals with at least one wealth observation	25,865
	Individuals with a wealth observation while they are the reference person or partner of a family unit	23,823
	PSID sample members with a wealth obser- vation while they are the reference person or partner of a family unit	14,623
<b>.</b>	Life stage 30	7,398
Prime years sample wealth observa- tions	Life stage 55	4,030
	SampleAll individuals observed in PSID wealth survey years, 1983-2019Individuals with at least one wealth observationIndividuals with a wealth observation while they are the reference person or partner of a family unitPSID sample members with a wealth obser- vation while they are the reference person or partner of a family unitLife stage 30Life stage 55Life stage 25Life stage 35Life stage 35Life stage 45Life stage 55Life stage 55Life stage 45Life stage 35 and life stage 35Life stage 45 and life stage 55	1,262
	Life stage 25	7,534
	Life stage 35	6,548
	Life stage 45	4,811
10-year samples wealth observations	Life stage 55	4,030
	Life stage 25 and life stage 35	3,468
	Life stage 35 and life stage 45	3,026
	Life stage 45 and life stage 55	2,488

NOTE: The prime years sample and the 10-year samples only include individuals with non-missing weights.

### Appendix 2: Wealth rank-rank slopes by 10-year age periods, by birth cohort



Rank-rank slopes for each 10-year birth cohort in given age ranges

# Appendix 3: Wealth in the SCF and PSID

Wealth (2019 dollars) among those in the SCF sample, all PSID members, and PSID prime years sample members, by age and wealth percentile



**Note:** "Full PSID sample" refers to all those in the PSID born between 1948 and 1964 (inclusive), regardless of the number of times in the sample they were observed. The PSID prime years sample are those used in the majority of our analyses (observed in both their early thirties and late fifties) and the SCF sample includes all those born from 1948 to 1964. Wealth percentiles are calculated at each age, relative to one's birth cohort and age.

### Appendix 4: Cross-sectional wealth statistics by life stage and 10-year birth cohort

19	Porcontilo	Birth cohort (decade born)												
LJ	reicentile	1920	1930	1940	1950	1960	1970	1980	1990					
25	Median				12,516	9,917	11,631	9,159	10,365					
25	Observations				2,244	2,885	2,093	2,828	982					
20	Median			35,837	25,702	35,742	29,417	22,208						
30	Observations			227	3,764	2,704	2,312	2,662						
25	Median			52,259	40,610	60,991	41,290	49,233						
55	Observations			1,466	3,763	2,017	2,287	1,169						
40	Median		69,535	69,238	74,466	86,392	68,107							
40	Observations		96	1,999	2,867	1,996	1,960							
45	Median		84,167	85,703	131,541	95,289	66,297							
40	Observations		700	2,040	2,002	1,820	744							
50	Median	82,908	103,768	175,188	164,217	113,335								
00	Observations	107	1,210	1,388	1,857	1,511								
55	Median	103,768	131,359	254,093	176,080	147,351								
00	Observations	736	1,124	1,046	1,701	723								

# **Appendix 5: Survey design: Weights and strata**

#### Weights

There are two general approaches to ensuring the PSID is a representative sample of the US population. The first is to not use weights and restrict one's analysis to the original PSID sample members from 1968 and their descendants, since the original cross-sectional sample was representative of the US population in 1968. Cooper et al. (2019) and others take this approach.

The second approach is to use the full PSID sample, which overrepresents low-income households, and apply PSID weights to make it representative. The weights are designed to account for unequal selection probabilities and differential attrition over time (Gouskova et al. 2008). This approach is used by Pfeffer and Killewald (2018), Bradbury and Katz (2009), and others. To maximize our sample size, we use this approach as well.

Following the PSID's weighting documentation, we use individual longitudinal weights when estimating wealth mobility over a certain period of time (such as our mobility estimates across prime years) and individual cross-sectional weights when measuring wealth levels at any given point (like in Figure 1 and Appendix 4) (Gouskova et al. 2008). As per PSID guidelines, we use individual longitudinal weights in place of individual cross-sectional weights prior to 1997 because cross-sectional weights are not available for those years (Chang et al. 2019).

PSID weights are designed to be used retrospectively, which means that when we estimate mobility rates across a given period of time, we always use the end period weights for that analysis. For instance, our mobility estimates across prime wealth accumulation years use individuals' late fifties longitudinal weights. Since we conduct our analysis at the life stage level, we create individual longitudinal life stage weights for each sample member by averaging their yearly individual longitudinal weights across the available years for each life stage. Averaging PSID weights across years is not uncommon. Bradbury and Katz (2009), among others, average weights for their analyses. Often, an individual has the same or a very similar weight from year to year, so averaging weights in each life stage has little effect on the weight assigned. For example, 40 percent of our prime years sample had the same exact weight each year they were observed in their late fifties. Among those whose weights changed in their late fifties, the average range in weights was 0.13 standard deviations. All point estimates and percentile ranks should be interpreted as weighted unless stated otherwise.

Although PSID weights are designed to be used longitudinally and correct for differential attrition across groups, our samples are comprised of only individuals who reported wealth in specific time periods, which may mean that some groups are over- or under-represented in our sample relative to the weighted PSID sample. For example, 58 percent of Black individuals who had a wealth value in their late fifties were missing wealth in their early thirties compared to 71 percent of white individuals. To account for this, we predict the probability of an individual not being in any given sample using a probit model and our three controls of interest: race or ethnicity, income tercile, and educational attainment. We then multiply the average life stage PSID weights by the reciprocal of the probability that a given group (e.g., white individuals without a bachelor's degree in the middle income tercile) is in the sample. Using adjusted weights allows our PSID subsamples to match the PSID sample and produce more representative estimates.

#### Standard errors and significance testing

The PSID is not based on a simple random sample. Therefore, to properly estimate standard errors that account for the PSID's survey design, we use cluster and stratum variables provided by the PSID when computing standard errors as outlined in Heeringa et al. (2011). While we do not show standard error calculations in our main figures, we often note in the text whether certain rank-rank slopes or intercepts are significantly different from one another. The significance tests we conducted to evaluate these claims were all implemented using cluster and stratum variables as well as relevant weights. Since wealth observations are collected at the family level in the PSID, we also generated family cluster variables to include in our significance testing as a robustness check. Since our prime years sample only includes PSID sample members and there are very few families in which both reference persons and partners are sample members, the family clusters had a negligible effect on our standard errors. Since none of our significance test conclusions are affected by the family clusters, we do not report standard errors that account for clustering within families.

### Appendix 6: PSID prime years sample by partner status and education

		Early thirties	Late fifties
Partner	No bachelor's	42.5%	26.4%
	One partner has a bachelor's	11.7%	11.6%
	Both partners have bachelor's	13.4%	16.1%
No Partner	No bachelor's	23.8%	33.5%
	Bachelor's	8.5%	12.4%

NOTE: The Partner category contains individuals who are either legally married or have a cohabiting, non-legally married partner.

### Appendix 7: Wealth rank-rank slope across prime years, by socioeconomic group

Average wealth percentile in late 50s for each early 30s wealth percentile (scatter) and rank-ran..



### Appendix 8: Expected ending percentile for 10-year age periods, by socioeconomic group

Socioeco	nomic group	10-year age period		Sta	rting perce	ntile	
			10	25	50	75	90
		25.25	36.59	43.23	54.29	65.35	71.98
		20-30	(1.77)	(1.43)	(0.96)	(0.85)	(1.02)
	W/bito	25.45	26.93	36.86	53.41	69.95	79.88
Deer	vvinte	35-45	(1.09)	(0.86)	(0.63)	(0.73)	(0.93)
		45.55	21.95	33.22	52.00	70.78	82.04
		45-55	(0.96)	(0.77)	(0.59)	(0.72)	(0.90)
Race		25.25	24.63	29.93	38.75	47.56	52.86
		20-00	(1.79)	(1.12)	(1.15)	(2.36)	(3.18)
	Dlask	25.45	23.50	31.31	44.32	57.34	65.15
	DIdCK	35-45	(1.37)	(1.07)	(1.26)	(2.01)	(2.55)
		45.55	19.15	26.50	38.73	50.97	58.31
		45-55	(1.48)	(1.05)	(1.65)	(2.94)	(3.78)
		25.25	27.36	34.42	46.18	57.95	65.01
		20-00	(1.36)	(1.07)	(0.84)	(1.09)	(1.39)
	Less than Bachelor's	25.45	23.20	32.47	47.93	63.38	72.65
	degree	35-45	(1.00)	(0.78)	(0.69)	(1.00)	(1.27)
	J	45-55	19.38	30.20	48.23	66.25	77.07
Education		40-00	(0.71)	(0.61)	(0.73)	(1.09)	(1.34)
Lucation		25-25	49.36	55.05	64.54	74.03	79.72
		2000	(2.21)	(1.76)	(1.09)	(0.76)	(0.92)
	Bachelor's	35-45	34.25	43.63	59.26	74.89	84.27
	higher	00-40	(1.94)	(1.57)	(1.03)	(0.80)	(0.93)
	ingrici	45-55	27.36	37.91	55.48	73.05	83.60
		45-55	(2.56)	(2.00)	(1.18)	(0.86)	(1.14)

Socioeconomic group Bottom tercile		10-year age period	Starting percentile								
		25.25	23.15	28.61	37.70	46.79	52.24				
		20-30	(1.22)	(0.92)	(1.12)	(1.88)	(2.40)				
	Bottom	25.45	21.09	28.75	41.51	54.28	61.93				
Income tercile	tercile	50-40	(1.19)	(0.76)	(1.33)	(2.50)	(3.24)				
		45.55	16.21	25.67	41.45	57.23	66.70				
		45-55	(0.74)	(0.70)	(1.06)	(1.63)	(2.01)				
		25.25	37.71	42.26	49.85	57.44	62.00				
		20-30	(2.04)	(1.52)	(0.88)	(1.10)	(1.55)				
	Middle tereile	25.45	28.87	37.02	50.60	64.17	72.32				
		55-45	(1.53)	(1.22)	(0.95)	(1.18)	(1.48)				
		45.55	27.96	36.25	50.08	63.90	72.20				
		45-55	(1.54)	(1.21)	(0.99)	(1.34)	(1.71)				
		25-25	56.49	60.91	68.29	75.66	80.08				
	Top tercile	20-00	(2.47)	(1.97)	(1.21)	(0.84)	(1.02)				
		25-45	41.96	49.80	62.85	75.91	83.74				
		33-40	(2.67)	(2.08)	(1.17)	(0.70)	(0.98)				
		45-55	32.64	42.56	59.11	75.65	85.58				
		+5 55	(2.94)	(2.39)	(1.52)	(0.86)	(0.83)				
		25-35	34.20	40.88	52.01	63.15	69.83				
		25 55	(1.50)	(1.22)	(0.89)	(0.88)	(1.05)				
٦	Fotal	25-45	24.80	34.89	51.71	68.53	78.62				
	iotai	00 40	(0.98)	(0.76)	(0.54)	(0.66)	(0.86)				
		45-55	20.25	31.54	50.36	69.17	80.46				
		40-00	(0.83)	(0.68)	(0.59)	(0.75)	(0.92)				

**NOTE:** Standard errors in parentheses.

### Appendix 9: Expected late fifties wealth percentile from select early thirties percentiles, by socioeconomic group

Socioec	onomic group	Starting percentile										
		10	25	50	75	90						
Race	White	36.78	44.27	56.75	69.23	76.72						
	white	(2.26)	(1.86)	(1.43)	(1.56)	(1.87)						
	Plaak	24.37	29.38	37.73	46.08	51.09						
	DIdCK	(2.37)	(1.62)	(1.93)	(3.53)	(4.62)						
Education	Less than Bachelor's	23.09	32.05	46.97	61.90	70.85						
	degree	(1.96)	(1.68)	(1.46)	(1.65)	(1.92)						
	Bachelor's degree or higher	45.70	52.91	64.92	76.93	84.14						
		(3.88)	(3.13)	(2.14)	(1.96)	(2.35)						
	Pottom toroilo	18.46	26.03	38.65	51.27	58.84						
	Bottom terche	(2.73)	(2.06)	(2.18)	(3.56)	(4.58)						
Incomo toroilo	Middle tereile	36.24	41.60	50.53	59.47	64.83						
income terche	Middle terche	(3.46)	(2.83)	(2.04)	(1.95)	(2.30)						
	Top toroilo	54.84	60.06	68.77	77.48	82.70						
	Top tercile	(4.38)	(3.63)	(2.57)	(2.05)	(2.20)						
Total		29.54	38.39	53.12	67.86	76.70						
		(2.64)	(2.22)	(1.71)	(1.62)	(1.80)						

NOTE: Standard errors in parentheses.

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