**DO DESIRED STOCK ALLOCATIONS DIFFER FROM
ACTUAL HOLDINGS?**

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Introduction

While Social Security provides those ages 62 and older with a predictable stream of income, most households need other resources as well for a secure retirement. The bulk of these other resources come from employer-sponsored retirement plans, although more affluent households may save additional amounts on their own. With the shift from traditional defined benefit (DB) plans – where employers make the contributions and bear the risk – to 401(k)-type plans – where households are responsible – market risk has become a major concern for many households. The determinants of households' market risk exposure – i.e., their asset allocations – have been studied extensively. But, insights gleaned by studying actual asset allocations may not reflect retirement investors' true preferences due to the public's general inertia when managing their money, the minor hassles involved in signing up for a plan and choosing investments, and defaults built into the retirement system, such as target date funds (TDFs). Indeed, research has increasingly recognized the impact of these factors on observed allocations, and very little is known about what asset allocations might be if retirement investors were unencumbered by these influences. In other words, how much do retirement investors' *desired* asset allocation differ from their *actual* allocations?

This paper reports the results from a new survey on how retirement investors ages 48-78 perceive market risk and its impact on their desired allocation. The analysis compares the desired stock holdings reported in the new survey to actual holdings reported in two major household surveys, and explores the relative importance of individual characteristics versus institutional arrangements – namely, the target date funds that are often the default investment option in 401(k) plans.

The paper proceeds as follows. The first section briefly describes the population for whom market risk is important, illustrates the role of market risk in their wealth accumulation, and summarizes the literature on household portfolio choice in the context of retirement. The second section describes the main data sources for the analysis: the new retirement investor survey, the *Health and Retirement Study* (HRS), and the *Survey of Consumer Finances* (SCF). The third section describes the methodology by which desired and actual allocations are compared. The fifth section presents the results, documenting and exploring the difference between households' desired and actual holdings of risky assets.

The final section concludes that – on average – retirement investors' desired allocation to risky assets tends to be lower than their actual allocation. This result is likely due to desired allocations that reflect overly pessimistic expectations for equity returns and generally conservative risk preferences compared to actual allocations that are often driven by target date fund defaults based on historical returns and average risk preferences. So, although many retirement investors may be holding more equities than they want due to defaults in the retirement system, to the extent that the defaults correct for investors' misperceptions of equity returns, it is probably a good thing.

Background

To provide some context for our investigation into the desired risk exposure for near-retirees and retirees, we first briefly identify the portion of the population for whom market risk is important and illustrate how market risk can impact their retirement outcomes.

For market risk to be relevant, one must have a meaningful amount of financial wealth. In the 2022 SCF, 55 percent of households ages 48-78 had less than $100,000 in financial wealth. For this portion of the population, resources in retirement come mainly from Social Security, where the progressive benefit formula replaces a much higher share of pre-retirement earnings for low earners than for high earners. And, given how little financial assets the low earners own, investment outcomes are unlikely to affect their living standard in retirement.

However, for the other 45 percent of households with at least $100,000 in financial assets, risk exposure is more relevant because most will rely meaningfully on their financial wealth in retirement to sustain their standard of living.[1] Interestingly, almost all of these households invest some portion of their assets in stocks, with the average share in stocks in 2022 ranging from 34 percent to 52 percent depending on wealth level (see Table 1).[2] That said, the

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[1] In the 2022 SCF, 54 percent of households ages 48-78 with $100,000+ in assets have no DB plan. Even many of those that do have a DB plan will still need to rely on financial assets too. Specifically, the 2020 HRS shows that only one-quarter of those ages 60-78 with $100k+ in assets and a DB plan can replace at least two-thirds of their pre-retirement earnings from Social Security benefits and DB income alone – meaning that three-quarters of these households will need to rely on other resources. Presuming that this fact also holds true for those ages 48-59 with $100,000+ in assets and a DB plan (most of whom have not yet claimed their DB benefits), this translates to 89 percent of households ages 48-78 with $100,000+ in financial assets relying on their financial wealth in retirement [.885 = .54+((1-.54)*.75)].
[2] Similarly consistent and high levels of stock holdings exist by age and DB coverage.

standard deviation of the share in stocks is about 30 percent, and the share varies significantly even among households with similar asset levels.[3]

For those exposed to market risk, even run-of-the-mill market fluctuations can significantly affect retirement outcomes. A common fallacy for long-term investors like those saving for retirement is that risk declines with longer investment horizons because short-term market fluctuations average out in the long run.[4] But, Figure 1 shows that even as the range of the annualized return converges to its long-term expectation over time (left panel), the range of wealth accumulation widens as a percentage of expected wealth (right panel). For example, over a 15-year period, the stock investor faces a 25-percent chance that their assets could be 60 percent more than what they expect, and a 25-percent chance that their assets could be 40 percent less than what they expect. If you extend the period to 30 years, they face a 25-percent chance that their assets could be 100 percent more than expected or 50 percent less.

In addition to the uncertainty in long-term asset values, short-term fluctuations in asset returns may also affect retirement outcomes in other important ways. One often overlooked phenomenon is "sequence-of-returns" risk – that is, the timing of high and low returns. This risk is particularly important once retirement investors began drawing down their assets in retirement. Figure 2 illustrates sequence-of-returns risk by showing the dollar amount of annual withdrawals over 15 years for someone starting with $1 million invested in a 50-50 stock-bond portfolio who then withdraws 4 percent of their remaining assets in each year. The analysis compares two stylized return paths with the same average annual return: 1) the historical returns from 2007-2021 with lower returns in the early years due to the Great Recession and higher returns in the later years due to the persistent stock market boom in the 2010s (gray line); and 2) the same return sequence in reverse order (red line). The comparison shows that a retiree sticking with this withdrawal approach would have about 10- to 20-percent less in annual withdrawals in the scenario with worse returns in the early years.

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[3] Similarly wide levels of variation in stock holdings exist by age and DB coverage.
[4] See a similar discussion in Boyd and Yin (2017) about the increasing uncertainty in asset values in the context of public sector pension funds, which are also long-term investors. Also see Bodie (1995) and Pástor and Stambaugh (2012) for more in-depth analyses on the risk of stocks in the long run.

Literature Review

Given the potential impact that market risk could have on retirement outcomes for nearly half of near-retirees and retirees, we briefly summarize the existing literature on household portfolio choice in the context of retirement. To examine how households' should choose their optimal exposure to risky financial assets, theoretical analyses typically employ structural lifecycle models. It is helpful to start with the seminal work by Samuelson (1969) and Merton (1969), in which the household has no labor income and withdrawals from financial assets are the only source of income (and the volatility of risky assets is the only source of risk). Such a model results in a clear and simple rule for optimal asset allocation: investors should maintain a *constant* share in risky assets throughout their lifetime regardless of age and initial wealth levels. That share depends on three factors: 1) the expected return of risky assets relative to that of risk-free assets (i.e., the stock risk premium); 2) the volatility of stock returns; and 3) the risk aversion level of the investor.[5]

A crucial extension to this basic portfolio choice model is introducing labor income.[6] Since human capital generates a stream of future labor income that is typically considered a closer substitute to bonds than to stocks, households with greater human capital (in the sense of the present value of total future labor income) should hold a greater proportion of their financial wealth in risky assets.[7] Because human capital declines with age, the share of risky assets in total financial wealth should decline as one approaches retirement. This framework underlies the familiar recommendation offered by financial advisors and the pattern of TDF glide paths.[8]

As the portfolio choice framework extends into the retirement period, the problem becomes more complex and existing theoretical work generally does not offer a clear prediction about retirees' asset-allocation pattern. Retirees no longer earn labor income but receive bond-like income streams through Social Security and DB benefits. Thus, the trade-off between human capital and financial wealth still applies. Unlike the pre-retirement period, during which the declining human capital and increasing wealth accumulation drives down the allocation to

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[5] This result also requires that the financial market is frictionless, stock returns are independently and identically distributed, and the individual's preference takes a certain functional form.

[6] See Merton (1971) and Bodie, Merton, and Samuelson (1992).

[7] Although usually considered as a bond-like asset, labor-income risk varies across occupations and household characteristics, thus individual retirement investors should account for the potential risk of their labor income when making asset allocation decisions. Empirically, Calvet and Sodini (2014) find that a higher present value of labor income is associated with greater risk-taking using Swedish registry data.

[8] See Jagannathan and Kocherlakota (1996).

risky assets, in retirement both human capital (the present value of Social Security and DB benefits) and financial wealth tend to fall, and the pattern over time can result in either an increasing or decreasing risky share, depending on the specific model assumptions used.[9]

More importantly, considerations such as wealth, longevity risk, health risk, and bequest motives all become increasingly relevant as one ages and incorporating them can alter the asset allocation paths predicted by basic models. Interestingly, the relationship between wealth and risky assets is not clear-cut theoretically (nor empirically). Empirical studies find a strong correlation between wealth and the likelihood of investing in stocks, but the evidence on the relationship between wealth and the share of financial assets invested in risky assets is mixed.[10] Wachter and Yogo (2010) and Heaton and Lucas (2000) find that the share in risky assets increases with wealth using SCF and tax return data; Calvet and Sodini (2014) obtain similar results using Swedish data. By contrast, Brunnermeier and Nagel (2008) and Chiappori and Paiella (2011), using survey data in the United States and Italy respectively, find that the risky share of liquid wealth is flat across the wealth distribution.

Given that the house is generally the largest asset held by most households, Yao and Zhang (2005) and Cocco (2005) explicitly introduce housing decisions into lifecycle portfolio choice models, predicting that individuals with a higher share of their total wealth in houses should invest less in risky assets due to risk and illiquidity concerns about housing wealth.[11] Empirical studies, however, have not found a consistent relationship between housing wealth and portfolio choices.[12] In a more recent study, Chetty, Sandor, and Szeidl (2017) argue that it is important to distinguish between the effects of home equity and mortgage debt on portfolios, which previous studies fail to do. Using refined empirical methods and panel data on households spanning 1990-2008, the authors show that exogenous increases in mortgage debt substantially reduce the share of stocks in financial assets, while exogenous increases in home equity increase stock ownership.

Regarding longevity risk, the seminal work by Yaari (1965) suggests that individuals who only face longevity risk and have no bequest motives should fully annuitize their wealth

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[9] See the benchmark model in Gomes (2020) for an illustration.

[10] See Guiso, Haliassos, and Japelli (2002), Campbell (2006), and Guiso and Sodini (2013). This result is likely driven by the cost of market participation relative to wealth levels, which is discussed below.

[11] Cocco (2005) further argues that this crowd-out effect of housing on stock investment is particularly large for young and lower-income individuals, reducing the benefits of stock market participation.

[12] See Fratantoni (1998), Heaton and Lucas (2000), Yamashita (2003), and Cocco (2005).

upon retirement if an actuarially fair annuity is available.[13] Empirically, however, only a small fraction of older adults in the United States annuitize part of their assets and virtually no one fully annuitizes their assets.[14] And, in more realistic portfolio choice models, the illiquidity of annuities conflicts with other needs in retirement such as bequest motives and large health expenditures.[15]

In terms of health risk, existing studies generally suggest that health-related risks tend to reduce the risky share in the portfolio of retirement investors. Pang and Warshawsky (2010) examine optimal stock-bond-annuity portfolio choices for retirees in the presence of uninsured health expenses and show that health spending risk shifts household portfolios from stocks to safer assets and enhances the demand for annuities. Yogo (2016) considers a portfolio choice model in which health shocks also have a direct impact on marginal utility. In his specific model calibration based on HRS data, non-health consumption and health are substitutes (e.g., physically disabled individuals could derive a greater marginal utility from a massage). His model suggests a low share of stocks is positively correlated with health status, especially for younger retirees. His model also predicts a negative relationship between the portfolio share in housing wealth and health for younger retirees. Edwards (2008) obtains a similar result and estimates that risky health may explain about 20 percent of the observed age-related decline in financial risk-taking after retirement.

A different type of consideration from the ones mentioned above can also affect people's willingness to invest in stocks – namely, their subjective beliefs about stock returns and market volatility. As one would expect, the empirical evidence confirms that positive expectations about the stock market are associated with greater stock ownership.[16] Interestingly, one study

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[13] The intuition behind this result can be understood from an investment perspective: an annuity, which can be a wrapper around any investment product, provides mortality credits above and beyond market returns and thereby dominates any alternative investment portfolio regardless of market performance. As illustrated in Arapakis and Wettstein (2023), "instead of investing in a 60/40 portfolio of stocks and bonds, a consumer can allocate 60 percent of his assets to a variable annuity invested in stocks, and 40 percent to a fixed annuity invested in bonds, getting the same return as the 60/40 portfolio *plus* the mortality credit."

[14] See Arapakis and Wettstein (2023) for a comprehensive review of the literature on longevity risk and the "annuity puzzle."

[15] Horneff, Maurer, and Stamos (2008) examine a model in which households allocate their assets among stocks, bonds, and annuities. The result shows that the optimal share of stocks still exhibits the typical lifecycle pattern, while the household prefers shifting from stocks to annuities instead of bonds as annuities are a close substitute to bonds and offer the extra benefit of longevity insurance; as expected, introducing bequest motives reduces the allocation to annuities. Horneff et al. (2009) and Horneff et al. (2010) studied the benefits of alternative annuity products with variable or index-linked payouts in lifecycle portfolio choice models.

[16] See Dominitz and Manski (2007), Kézdi and Willis (2008), and Beutel and Weber (2022).

finds that beliefs account for twice as much variation in observed portfolio holdings as risk aversion.[17]

Expectations about returns and volatility, however, are fundamentally different from the other factors discussed above because these expectations can be compared with objective measures of stock performance. Indeed, the literature suggests households tend to have much lower expectations of stock market gains and higher expectations of volatility than historical averages. More specifically, research using the *Health and Retirement Study* (HRS) has consistently found that individuals tend to underestimate the likelihood of positive stock market performance when compared to historical data.[18] Similarly, research based on the University of Michigan's *Survey of Consumer Confidence* data and the *Gallup Investor Survey* finds that individuals regularly underestimate stock market performance.[19] Not only do individual investors tend to underestimate stock returns, they also significantly overestimate market volatility and the probability of severe market downturns.

Finally, all the considerations mentioned above affect household portfolio decisions that are being made within a broader financial system that has its own obstacles, defaults, nudges, and incentives. For this paper, the most relevant environment within that system is the employer-sponsored defined contribution (DC) plan – where households accumulate a significant portion of their financial assets.[20]

Access to employer-sponsored DC plans offers a convenient and low-cost channel for participating in the stock market and some research suggests the rise in stock allocation since the 1980s is partially attributable to the expansion of DC plans.[21] Even so, recent research suggests that many more employees who are eligible for an employer-sponsored DC plan would hold some stocks through their plan if not for the minor hassles of having to opt-in to the plan and choose their own investments.[22]

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[17] Egan, MacKay, and Yang (2022).
[18] See Kezdi and Willis (2008) and Hou (2020).
[19] Dominitz and Manski (2005), Amronin and Sharpe (2012), and Greenwood and Shleifer (2014).
[20] In the 2020 SCF, among workers age 44 to 64 with at least $100,000 in financial assets, almost 45 percent of their financial investment products (defined as stocks, bonds, money and non–money market mutual funds, trusts, and CDs) are held in a work place retirement account on average.
[21] Gomes (2020).
[22] Using data on 401(k) accounts that actively switched away from the plan's default investment options, Choukhmane (2025) finds that the share of plan participants that would hold some stocks would increase from 70 to 90 percent if not for perceived frictions.

Fortunately, today's typical DC plan increasingly includes auto-enrollment, auto-escalation of employee contributions, and default investment options. While research indicates that these additional features have had only a small impact on long-term asset *accumulation* (especially among those with lower income), they do seem to have significantly impacted the asset *allocations* of typical retirees.[23] In particular, TDFs have become the most common default investment option in DC plans and are playing an increasingly important role in determining households' lifetime portfolio choices. As of 2023, according to Vanguard data, more than 80 percent of all plan participants use TDFs, and TDFs currently account for about 40 percent of all DC assets. In typical TDF glide paths, the total share of stocks stays close to 90 percent during the primary working years, declines to 40-60 percent around age 60, and continues to decline thereafter. Given the continuing evidence showing that retirement savers rarely change their investment allocations, default investment options – particularly TDFs – are likely a major factor driving the observed asset allocations of retirement investors.[24] The key question of this study is to what extent actual asset allocations – which are increasingly the result of defaults – reflect the desires of households.

Data

The analysis relies on three data sources: the 2022 *Survey of Consumer Finances* (SCF), the 2020 *Health and Retirement Study* (HRS), and the 2024 Greenwald Research Retirement Investor Survey on Market Risk (Retirement Investor Survey).

The SCF is a triennial cross-sectional survey of U.S. families. The survey questions roughly 6,000 respondents to gather information on households' balance sheets, pensions, income, and demographic characteristics. Information is also included from related surveys of pension providers and earlier such surveys conducted by the Federal Reserve Board. Importantly, in addition to household demographics and finances, the survey also gathers

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[23] For research on defaults and asset accumulation, see Derbie, Mackie, and Mortenson (2023), Choukhmane (2025), Beshears, Choi, Laibson, Madrian, and Skimmyhorn (2022), Beshears et al. (2024), Beshears, Choi, Laibson, Madrian, and Skimmyhorn (2022), Blumenstock, Callen, and Ghani (2018), Chetty et al. (2014). For research on defaults and asset allocation, see Mitchell and Utkus (2021), Chalmers and Reuter (2020), Parker et. al. (2022), and Zhang (2022).

[24] Madrian and Shea (2001), Agnew, Balduzzi, and Sunden (2003), and Sialm, Starks, and Zhang (2015) conclude that most retirement savers are relatively passive. However, Kronlund et. al. (2020) concludes that the investment fund choices of retirement savers were reasonably sensitive to fees reported in 401(k) plans after they were required to be more transparent.

information on households' financial knowledge and risk preferences. Because the SCF is representative of the U.S. population, near-retirees and retirees make up only a portion of the sample.

The HRS is a biennial survey representative of U.S. households over age 50. It surveys roughly 20,000 households to gather information about their balance sheets, pensions, income, and demographic characteristics. The HRS also includes multiple questions related to risk preferences, beliefs about future stock performance, expected longevity, coverage by long-term care insurance, and bequest intentions. And, because the HRS is focused on those over age 50, the whole sample is made up of near-retirees and retirees.

The Retirement Investor Survey on Market Risk is a new survey administered by Greenwald Research in mid-2024. It questioned 1,016 retirement investors ages 48-78 with at least $100,000 in total investable assets. All the respondents were involved in the financial decision-making of their households. To focus on those most reliant on their investable assets in retirement, the new survey deliberately under-sampled those with a DB plan.[25]

The new survey begins with basic demographic and financial information for each respondent – such as the investor's age, marital status, total financial assets, and homeownership. Then, and most crucially for this paper, the survey solicits respondents' desired – rather than actual – asset allocations. Finally, to better understand the factors influencing desired asset allocation, the survey asks respondents about their preferences, beliefs, and concerns related to market risk. The new survey also solicits information on topics that may be particularly relevant for older wealthier individuals – such as the amount that individuals hope to leave as a bequest, how long they expect to live, and whether they have set aside any funds for potential future long-term care expenses.

Validation of the New Survey Data

As noted above, the new investor survey covers a wide range of topics potentially related to retirement investors' portfolio choice. Below, we validate some key statistics in the survey against those reported in the HRS and SCF, which have long been relied-upon in the literature. For the purposes of validation, the samples in all three datasets are limited to respondents ages

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[25] Of the 1,016 respondents to the investor survey, 897 – 582 retirees and 315 near-retirees – have no DB to rely on in retirement.

50-78 with at least $100,000 (and less than $2.5 million) in financial assets and no defined benefit plan.

First, Table 2 shows that basic demographic and financial information from the new survey – such as the respondent's age, marital status, total financial assets, and homeownership – is broadly consistent with both the HRS and SCF. Interestingly, the general alignment holds whether results are population-weighted or not.[26]

Next, we turn to the key metric for any study of risk and portfolio choice: risk preference. For validation purposes, we analyze results from the survey question that is similar to that used in the SCF – a direct inquiry regarding the level of investment risk the respondent is willing to take for higher returns. Albeit a simple question, research shows that its result is reasonably correlated with more comprehensive risk preference measures.[27] Table 3 shows that both the Retirement Investor Survey and the SCF suggest that about half of retirement investors have an average willingness to take risks. The data from the Investor Survey suggest that, among those who do not express average risk preference, many more lean conservative.[28]

Closely related to risk preference is risk tolerance. To assess risk tolerance, the investor survey asks respondents how much of their assets they could afford to lose without jeopardizing their retirement plan (neither the HRS nor the SCF have an analogous question). Table 4 shows that only about 10 percent of retirement investors feel as if they could withstand a loss of 30 percent or more – akin to the stock market decline experienced during the Global Financial Crisis of 2008-2009. More interestingly, however, it also shows that almost half of retirement investors feel as if they could not withstand a loss of 10 percent or more – which has occurred in the stock market over 12 percent of the time since 1928 and over 16 percent of the time since 2000.[29] This result suggests that many retirees would be uncomfortable investing a large portion of their assets in the stock market – further validating the conservative leaning of retirement investors.

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[26] See Table A1 for unweighted comparisons.

[27] See Grable and Lytton (1999).

[28] Unfortunately, because of the slightly different response options across the two datasets, it is difficult to assess whether the risk preferences in the Investor Survey are more or less conservative than those in the SCF. In addition to substantial risk, average risk, and no risk, each survey includes one additional response option that the other does not have: "below average risk" in the Investor Survey and "above average risk" in the SCF.

[29] These statistics are based on calendar year annual returns of the S&P 500. Using 12-month rolling periods for a broader index of public stocks, a 10-percent loss has occurred 14 percent of the time since 1928 and 20 percent of the time since 2020.

Next, we turn to investors' beliefs about stock returns and risk. The investor survey asks whether respondents think long-term average annual stock returns will be below, equal to, or above the long-term historical average (the respondent is told the long-term average is 11 percent). While little more than a third of the respondents think future returns will be close to the historical average, respondents with a pessimistic view about future returns outnumber those with an optimistic view by about two to one (see Table 5). As a point of comparison, the HRS asks individuals to provide their best guess as to the likelihood that the stock market will go up in the next year. The average response is reliably around 60 percent. Historically, the stock market has gone up about 75 percent of the time – suggesting a somewhat pessimistic view of future stock returns relative to history in the HRS as well.[30]

To assess retirement investors' beliefs about the relative riskiness of stocks, the investor survey asks respondents to score the riskiness of stocks and bonds on a scale of 1 to 7 (neither the HRS nor the SCF have an analogous question). Interestingly, the survey results suggest that only about 45 percent of retirement investors think stocks are riskier than bond funds and only about 70 percent think stocks are riskier than directly holding bonds – even though directly holding bonds to maturity generally presents very little risk in nominal terms (see Table 6).[31] These somewhat surprising results likely reflect an increasing wariness of bonds due to the recent period of high interest rates (which erodes the value of bonds if they are sold before maturity).[32]

Finally, we turn to end-of-life concerns such as expected longevity, long-term care expenses, and bequests – factors that could be of particular importance to older wealthier households. The investor survey asks individuals to guess their age of death – often called

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[30] Interestingly, retirement investors in the HRS are not as pessimistic when considering the potential for larger returns. When asked to provide their best guess as to the likelihood that the stock market will go up by at least 20 percent in the next year, respondents in the 2020 HRS report – on average – a 36-percent chance. Since 1928, the stock market has risen at least 20 percent about one-third of the time.

[31] All else equal, retirement investors who believe bonds are as risky as stocks should be more heavily invested in stocks because they would believe that stocks provide a higher expected return than bonds without exposing them to any additional risk. However, research has also shown that investors shift their allocation towards bonds and other safe assets during periods of rising interest rates and inflation because they believe these phenomena are associated with the potential for economic downturns. So, it is not clear what the ultimate effect on stock and bond holdings would be in this context.

[32] All else equal, this should push retirement investors towards holding more stocks. Again, though, research has also shown that investors shift their allocation towards bonds when interest rates and inflation are rising (both of which erode the value of bonds) due to concern about a potential economic downturn. (See Aubry and Quinby 2024, Franklin 2023, and MFS Investment Management 2023).

subjective life expectancy. The new survey results align broadly with the pattern of subjective life expectancy in the HRS and suggest an average expected age of death of 86.5 with a standard deviation of 7.4 years (see Tables 7 and 8). As found in prior surveys, the expected age of death increases somewhat with age.[33] For long-term care (LTC), results from the investor survey suggest that only 33 percent of retirement investors plan to set aside something for LTC expenses, and only 16 percent plan to set aside more than $80,000 (see Table 9). At the same time, the new survey suggests that only 13 percent have LTC insurance (see Table 10) – which matches almost exactly the 15 percent reported in the HRS. In terms of bequests, the new survey shows that only 14 percent of retirement investors say definitively that they plan to leave no financial assets for their heirs or others (see Table 11).[34] These results are similar to the SCF, which suggests that less than 20 percent of retirement investors think leaving an inheritance is unimportant and just over 25 percent say they will not leave a sizable inheritance. Interestingly, however, the investor survey also suggests that very few of the those who think they might leave an inheritance have any specific amount in mind.

In summary, the demographics and finances of retirement investors in the new survey align with those in the HRS and SCF. The new survey also corroborates prior findings that indicate retirement investors are relatively conservative in their risk preferences, have a relatively limited tolerance for risk in their investment portfolio, and are relatively pessimistic in their views about future stock returns – all suggesting a low desire for stock holdings. Finally, because most retirement investors in the new survey do not consider any portion of their assets to be reserved explicitly for potential future LTC expenses or bequests, these two factors are not likely to impact their desired portfolio decisions.

Methodology for Comparing Desired and Actual Asset Allocations

To investigate differences between desired and actual asset allocations, the analysis would ideally rely on a single survey in which respondents are asked to provide both their desired and actual asset allocations. Unfortunately, no existing survey – including the new retirement investor survey – asks individuals for both pieces of information. So, instead, the

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[33] The lower subjective life expectancy of the younger age brackets corroborates the finding in Arapakis and Wettstein (2023) that younger individuals tend to be overly pessimistic about living to older ages.
[34] In the new survey, 68 percent of retirement investors who own a home intend to bequeath their current primary residence.

analysis compares the desired allocation reported in the investor survey to actual allocation reported in the HRS and SCF in two ways. The first way compares summary statistics for desired allocation in the investor survey to those for actual allocation in the HRS and SCF. Given the similarity of the unweighted samples across the three datasets – and the even greater similarity once population weights are employed – directly comparing summary statistics is a straightforward and useful approach for documenting any broad differences between the desired and actual asset allocations of retirement investors.

The second way uses regression analysis to see how retirement investors' preferences and characteristics relate to their desired and actual asset allocations. This portion of the analysis involves comparing results from two OLS regressions. The first regression uses the investor survey to measure the effect of household characteristics and preferences on desired allocation and the second regression uses the HRS to measure the effect of household characteristics and preferences on actual allocation.[35] Both regressions take the following basic form:

Desired or Actual Asset Allocation

$$= \alpha + \beta1(\text{Total investable assets}) + \beta2(\text{Risk preference})$$
$$+ \beta3(\text{Expectation of stock returns}) + \beta4(\text{Perceived riskiness of stocks})$$
$$+ \beta5(\text{Incentive to take risk to meet desired spending })$$
$$+ \beta6(\text{Has long} - \text{term care insurance}) + \beta8(\text{Intends to leave a bequest})$$
$$+ \beta9(\text{Expected remaining longevity}) + \beta10(\text{Demographic control variables})$$
$$+ \ \varepsilon r$$

To promote comparability between the two regressions based on different datasets, the regressions include only the determinants found in both datasets. For example, even though the investor survey includes information on risk tolerance (i.e., how much of their assets respondents could afford to lose), the regressions do not include that concept because nothing analogous exists in the HRS. Similarly, even though the HRS has information on intended bequest amounts for all respondents, the regressions exclude bequest amounts because so many respondents in the investor survey say do not specify an amount.

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[35] No regression was performed using the SCF because it includes too few of the determinants of asset allocation being explored in this paper.

13

Additionally, for the determinants available in both datasets, the raw data from each dataset are modified to produce similarly structured variables for each regression. For example, both the investor survey and HRS include questions that relate to respondents' risk preference. The investor survey asks about the amount of risk respondents are willing to take to achieve higher returns and then provides five discrete choices: substantial risk, average risk, small risk, no risk, or do not know. The HRS asks about respondents' general willingness to take risks and provides a scale of 1 to 10. To create a similarly structured variable for each regression, data in the investor survey and the HRS were both collapsed into three categories: high, average, and low risk. For the investor survey, households originally reporting substantial risk are classified as high risk, households reporting average risk are classified as average risk, and households are classified as low risk if they originally report either small risk, no risk, or do not know.[36] In the HRS, numbers 5 through 7 on the risk-taking scale are categorized as average risk, with numbers above or below being classified as high risk or low risk, respectively. The HRS groupings were based on the fact that: 1) the average risk-taking score for retirement investors in the HRS is 6.2; and 2) the share of retirement investors responding 5 through 7 in the HRS is similar to the share directly reporting average risk preference in the SCF. A complete list of the data transformations is provided in Table 12.

Results

The first task is to document retirement investors' desired allocation to stocks.[37] In the investor survey, both near-retirees and retirees are asked about their desired current allocation – Table 13 shows basic statistics on their responses. Both groups desire their current stock allocation to be under 40 percent.[38] However, they also have a large standard deviation that includes 10 percent (near-retirees) and 16 percent (retirees) who desire no stocks at all.

Table 14 compares the average desired allocation across both near-retirees and retirees to the actual allocation for a similar sample in both the HRS and the SCF. Interestingly, the

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[36] Respondents answering "do not know enough" account for only 4 percent of the sample, and tend to have stock allocations similar to those with lower risk tolerance levels.

[37] The desired asset allocation is asked in simple terms and offers survey respondents to choose from a set of recognizable asset categories (e.g., stocks, bonds, real estate, other).

[38] The investor survey also asks near-retirees about their desired allocation for retirement. Interestingly, near-retirees show some desire to reduce their exposure to stocks when they retire – with the average desired stock allocation dropping from 38 percent for their current allocation to 32 percent for retirement.

average desired allocation from the investor survey is 11 and 6 percentage points lower than the average actual allocation reported in the HRS and SCF, respectively.[39] And, the differences are both statistically significant at the 1-percent level. While the variation in desired allocation is smaller than for actual allocation, the data show that a meaningful fraction of retirement investors desire to – and actually do – avoid stocks entirely.

One potential reason for the difference between desired and actual allocations are the defaults embedded into the retirement system – namely, TDF glide paths.[40] As of 2023, according to Vanguard data, more than 80 percent of all plan participants use TDFs, and TDFs account for about 40 percent of all DC assets.[41] To illustrate the comparison between desired allocation and TDFs, Figure 3 shows three glide paths corresponding to the aggressive, moderate, and conservative variants of Morningstar Lifetime Allocation Indexes, which are constructed presuming rational investors who have different risk preferences and labor income risk.[42] The figure also includes the distribution of the desired stock allocation (solid vertical lines) from the Retirement Investor Survey for each 10-year interval. The bottom of each vertical line represents the 25th percentile, the mid-point represents the median, and the top represents the 75th percentile.[43] While the desired allocation exhibits substantial variation, the median (the mid-point of the intervals) hues closest to the conservative path, with the median for younger near-retirees (more than ten years away from their expected retirement age) falling about 15 percentage points below the conservative allocation. If the moderate glide path is the common default, it would help explain the higher-than-desired allocation – as some retirement investors tend to lean conservative in terms of risk preference. Interestingly, the average actual allocation in the HRS – 45 percent – is quite similar to the TDF's pre-determined allocation for

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[39] This finding holds even for retirement investors who are working with or have worked with an advisor in the survey, among whom the mean and standard deviation of stock allocation are 39 percent and 25 percent, respectively.

[40] As noted above, TDF glide paths are usually developed based on lifecycle portfolio choice theory and incorporate multiple key determinants of household portfolio choice.

[41] See Vanguard (2024).

[42] Asset allocations of these glide paths are obtained from Morningstar (2024a, 2024b, 2024c). See Morningstar (2015) for an overview of the underlying methodology. Greater risk tolerance levels and less risky labor income result in more aggressive glide paths (higher stock allocation at all given ages). While the specific shapes of the glide paths are affected by the TDF providers' choice of assumptions, glide paths of TDFs targeting a broad market can still serve as a useful benchmark.

[43] The distributions of desired stock allocations are calculated for four 10-year windows around retirement, with the two on the left for near-retirees (aligned using expected years to retirement) and the two on the right for retirees (aligned using reported years since retirement).

those near retirement under the moderate glide path. So, retirement investors may be holding more equities than they want given their overly pessimistic view of stocks, but also – it seems – more than a rational investor with a relatively conservative risk preference.

Another way to investigate the extent to which 401(k) plan defaults – again, namely TDFs – are driving actual allocations is to look at the explanatory power of variables related to portfolio choice. If plan defaults were the key lever in actual allocation, one would expect the individual preferences and characteristics that are related to portfolio choice in the literature to better explain the variation in desired allocation than in actual allocation. The regression results are presented in Table 15. Financial wealth and subjective factors, such as risk preferences, return expectations, and perceived risk of stocks play a major role in explaining both desired and actual allocation – but the relationships are generally much stronger for desired allocation.[44] Overall, when comparing to the HRS, the regression using the investor survey explains 19 percent of the variation in *desired* allocation, while the regression using the HRS explains 12 percent of the variation in *actual* allocation.

These results suggest that the lower desired allocation is a truer reflection of individual preferences. Research has shown, however, that individuals are not often rational. Responses to the investor survey regarding expected stock returns corroborate prior research indicating that individuals tend to harbor pessimistic perceptions of future returns – and the regression results suggest that they would desire more stocks if they held a more realistic view. As such, it is not clear that the lower desired allocations are optimal. Instead, it's likely that the higher actual allocation is moving many retirement investors in the right direction.

Conclusion

While Social Security provides those ages 62 and older with a predictable stream of income, most households need other resources as well for a secure retirement. The bulk of these other resources come from employer-sponsored retirement plans. With the shift from traditional DB plans, where employers make the contributions and bear the risk, to DC plans, where households are responsible, market risk has become a major concern for many households.

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[44] Interestingly, some factors and household characteristics such as homeownership and marital status show statistically significant impacts on actual stock allocations but not on desired allocations. However, their contributions to the share of variation explained are quite small compared to wealth and subjective factors.

The determinants of households' market risk exposure – i.e. their asset allocations – have been studied extensively. But, very little is known about what asset allocations might be if retirement investors were unencumbered by defaults built into the retirement system, such as target date funds. In other words, how much do retirement investors' *desired* asset allocations differ from their *actual* allocations?

This paper reports the results from a new survey on how retirement investors ages 48-78 perceive market risk and its impact on their desired allocations. It finds that – on average – retirement investors' desired allocation to risky assets tends to be lower than their actual allocation. This result is likely due to desired allocations that reflect overly pessimistic expectations for equity returns and generally conservative risk preferences compared to actual allocations that are often driven by target date fund defaults based on historical returns and average risk preferences. So, although many retirement investors may be holding more equities than they want due to defaults in the retirement system, to the extent that the defaults correct for investors' misperceptions of equity returns, it is probably a good thing.

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Table 1. *Household Stock Holdings by Financial Wealth Group for Households Ages 48-78 with 100k+ in Financial Wealth, 2022*

Total financial wealth	Percentage with stocks	Percentage invested in stocks	
		Average	Standard deviation
$100k - $500k	81%	34%	3%
$500k - $1m	96	47	31
$1m or more	96	52	29
Total	89%	43%	32%

Source: Authors' calculations from the U.S. Board of Governors of the Federal Reserve System, *Survey of Consumer Finances* (SCF) (2022).

Table 2. *Retirement Investors' Demographic Characteristics and Financial Wealth, by Survey*

Demographic and asset groups	Investor Survey	HRS (2020)	SCF (2022)
Gender			
Female	50%	44%	20%
Male	50	56	80
Age			
50-59	33	32	40
60-69	38	47	39
70-78	30	21	21
Marital status			
Married	58	69	68
Not married	42	31	32
Self-reported health			
Excellent	11	13	32
Very good	39	44	n/a
Good	38	33	51
Fair or poor	12	10	17
Self-reported retirement status			
Retired	57	43	26
Not retired	43	57	74
Financial assets			
$100k-$199k	26	21	20
$200k-$499k	31	31	26
$500k-$999m	26	22	20
$1m +	17	25	34
Education			
High school or less	19	22	19
Some college	25	28	21
College degree	30	31	32
Graduate or more	26	18	28
Homeownership			
Non-homeowner	10	9	8
Homeowner	90	91	92
Total observations	876	1,544	4,874

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Sample statistics are weighted using the population weights provided for each survey.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey, University of Michigan, *Health and Retirement Study* (HRS) (2020), and SCF (2022).

Table 3. *What Level of Investment Risk Are Retirement Investors Willing to Take?*

Survey topic	Investor Survey	SCF (2022)
Substantial risk	10%	3%
Above average risk	N/A	26
Average risk	50	53
Small risk	28	N/A
No risk	11	18

Notes: Statistics are measured using the population weights provided for each survey. The sample is limited to those ages 48-78 with $100,000+ in financial assets and no DB plan.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey; and SCF (2022).

Table 4. *What Share of Their Assets Do Retirement Investors Feel They Can Afford to Lose?*

Share of assets	All	Near-retirees	Retirees
10%	45%	40%	49%
15-30%	42	43	40
30%+	13	17	10

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics are population-weighted.
Source: Authors' calculations from 2024 Greenwald Research Investor Survey.

Table 5. *How do Retirement Investors' Stock Return Expectations Compare to Historical Data?*

Survey topic	Investor Survey		
	All	Near-retirees	Retirees
Below historical average	27%	28%	26%
Approx. equal to historical average	36	36	36
Above historical average	13	12	14
No guess	24	24	24

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics measured using the population weights provided for each survey.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey and HRS (2020).

Table 6. *Riskiness of Stocks versus Bonds*

Stock riskiness	All	Near-retirees	Retirees
Compared to bond funds, stocks are:			
Riskier	46%	46%	45%
Just as risky	45	44	45
Less risky	10	10	10
Compared to directly holding bonds, stocks are:			
Riskier	69	71	68
Just as risky	20	17	23
Less risky	11	12	10

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics are population-weighted.
Source: Authors' calculations from 2024 Greenwald Research Investor Survey.

Table 7. *Subjective Life Expectancy for Retirement Investors, by Age and Survey*

Survey topic	Investor Survey	HRS (2020)
Share of those ages 50-64 who expect to live to at least 75	95%	90%
Share of those ages 50-64 who expect to live to at least 85	53	61
Share of those ages 65-69 who expect to live to at least 80	87	86
Share of those ages 70-74 who expect to live to at least 85	73	82
Share of those ages 75-78 expect to live to at least 90	49	60

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics measured using the population weights provided for each survey. For the HRS, survey respondents are flagged as expecting to live to a certain age if they report a likelihood of at least 50 percent.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey and HRS (2020).

Table 8. *Retirement Investors' Expected Age of Death?*

Age bracket	Expected age of death	
	Mean	Standard deviation
Ages 50-64	85.0	7.6
Ages 65-69	86.8	6.2
Ages 70-74	88.5	7.8
Ages 75-78	89.3	5.5
Total	86.5	7.4

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics measured using the population weights provided for each survey.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey.

Table 9. *Distribution of Retirement Investors, by Asset Reserves for Long-term Care Expenses*

Asset reserves	All	Near-retirees	Retirees
None	67%	73%	62%
$1-$80,000	17	15	18
> $80,000	16	12	19
Total	100%	100%	100%

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics are population-weighted.
Source: Authors' calculations from 2024 Greenwald Research Investor Survey.

Table 10. *Share of Retirement Investors with LTC Insurance, by Asset Reserves for Long-term Care Expenses*

Asset reserves	All	Near-retirees	Retirees
None	10%	8%	11%
$1-$80,000	19	11	24
> $80,000	19	14	21
Total	13%	9%	15%

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics are population-weighted.
Source: Authors' calculations from 2024 Greenwald Research Investor Survey.

Table 11. *Percentage of Their Assets Reserved for Bequests*

Asset reserves	All	Near-retirees	Retirees
Whatever is left or not sure	77%	75%	78%
0%	14	18	11
1%-10%	1	1	2
11%-20%	1%	1%	2%
> 20%	6	5	7

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics are population-weighted.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey.

Table 12. *Comparing Variables from the Investor Survey and HRS regarding the Same Set of Conceptual Determinants of Stock Allocation*

Variables	Investor Survey	HRS 2020
Investable assets	Self-reported total investable assets	Sum of gross financial assets, IRA and DC holdings.
Risk preference	The variable is based on an SCF question that asks how much financial risk respondents are willing to take to earn higher returns. Options include (1) substantial risk, (2) average risk, (3) small risk, (4) no risk, and (5) do not know enough. (3) - (5) are combined into one category in the regression (preliminary analysis shows that respondents answering "do not know enough", which accounts for 4% of the sample, tend to have stock allocations similar to those with lower risk tolerance levels). The weighted shares of respondents in the resulting risk tolerance levels are 10% (substantial risk), 50% (average risk), and 40% (small or no risk).	The variable is based on a 0-10 scale that measures the respondent's general willingness to take risk. In the subsample of HRS used in the regression, the average level of risk-taking is 6.2 with a standard deviation of 1.9. The share of respondents with an average risk tolerance level in the investor survey and a corresponding sample in the SCF are 50% to 60%. To approximately match these shares, the risk-taking levels of 5-7 in the HRS scale are defined as "being willing to take average risk," which accounts for 59% of the HRS subsample. Accordingly, 0-4 are categorized as "being willing to take low or no risk" (15% of the subsample), and 8-10 as "being willing to take substantial risk" (26% of the subsample).
Expectation of stock returns	The variable is based on the question about whether the respondents' expected stock return is lower than, approximately equal to, or higher than the long-term historical average of 11 percent. About 50% of respondents chose "about equal to 11%" or "above 11%" and are categorized as "expected stock return is higher than sample median" (preliminary analysis of the data shows that respondents answering "no guess", which accounts for 24% of the sample, tend to have stock allocations similar to those with lower return expectations, thus they	Using three questions in the HRS about respondents' subjective estimates of the probability that the return of a blue-chip stock fund will be (1) greater than 0%, (2) higher than 20%, and (3) lower than -20% next year, the implied mean and standard deviation of stock returns are estimated for each respondent assuming normality. Respondents who only answered one question or were unsure about these probabilities are excluded from the analysis as their perceptions of stock returns cannot be estimated. Categories for return expectations and

	are included in the group with expectations lower than the sample median.	perceived risk of stocks are then created to approximately match the distribution of the corresponding variables in the Investor Survey.
Perceived risk of stocks	Based on the question about respondents' perceived risk of stocks on a 1-7 scale. Respondents rating the risk of stocks higher 4 are categorized as "considering stocks highly risky", whose weighed share in the sample is about 40 percent.	[See description directly above for expectations of stock returns.]
Incentive to take risks to meet desired spending	The variable is constructed as the ratio of guaranteed lifetime income to reported total current spending. Guaranteed lifetime income is the sum of Social Security benefits and payments of commercial annuities. (Households with DB plans are excluded from the sample.) The idea behind the ratio is that the more spending that could be potentially covered by risk-free income, the weaker the incentive to take risk with their financial assets.	The ratio of riskless income to current spending is calculated based on the same concept as in the Investor Survey. Spending is the sum of food spending, out-of-pocket medical costs, and rent/mortgage payments, which are similar to the sub-categories of spending in the investor survey.
Plan to leave a certain/meaningful among of bequest	Respondents are categorized as planning to leave a bequest only if they specify an amount they plan to leave. Those who plan to leave "whatever is left" are not categorized as planning to leave a bequest.	Respondents who are absolutely certain to leave an inheritance of more than $100,000 or $500,000 are categorized as planning to leave a bequest.
Expected remaining longevity	Self-reported remaining longevity in years.	Self-reported probability of living for another 10-15 years.
Female as household head / major decision maker	Gender of the respondent. The survey requires the respondents to be a major decision maker about financial matters or make decisions in total partnership in their households.	Gender of the household head as defined by RAND. RAND assigns the financial respondent of the corresponding year's survey as the head of the household. Financial respondents answer questions regarding the household's finances. If there is no financial respondent in a household, the family respondent is the head.

Retirement status	Self-reported retirement status	Self-reported as fully or partially retired.
Reported fair / poor health	Based on the question about self-reported health (poor, fair, good, very good, or excellent).	Based on a similar question about self-reported health (poor, fair, good, very good, or excellent).

Table 13. *Basic Statistics on Desired Stock Allocation*

Statistic	All	Near-retirees	Retirees
Mean	37%	38%	36%
Std. dev.	26	26	26
No stocks	13	10	16

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics are population-weighted.
Source: Authors' calculations from 2024 Greenwald Research Investor Survey.

Table 14. *Desired and Actual Stock Allocation for Near-retirees and Retirees*

Statistic	Stocks as a percentage of investable assets		
	Desired in Investor Survey	Actual in HRS 2020	Actual in SCF 2022
Mean	37%	48%	43%
Std. dev.	26	34	32
% no stocks	13	17	11

Notes: The samples are limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics measured using the population weights provided for each survey.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey, HRS (2020), and SCF (2022).

Table 15. *Determinants of Desired Stock Allocations and Actual Stock Allocations in the HRS*

	Desired stock allocation (Investor Survey)	Actual stock allocation (HRS 2020)
Investable assets	0.015***	0.012***
Investable assets - squared	0.000**	000.0***
Risk preferences compared to average risk-taking		
Willing to take low/no risk	-0.128***	-0.048
Willing to take high risk	0.08***	0.017
Expectation of stock returns		
Expected stock return is higher than median	0.036**	0.088***
Perceived risk of stocks		
Consider stocks highly risky or volatile	-0.081***	-0.038
Other miscellaneous factors		
Higher incentive to take risk to meet desired spending	0.039**	0.058*
Purchased long-term care insurance	-0.028	-0.015
Plan to leave a certain/meaningful bequest	-0.021	-0.03
Expected remaining longevity	0.001	0.01
Demographics		
Homeowner	0.027	0.157***
College degree or above	0.036**	-0.003
Married	-0.001	-0.075**
Female as household head / major decision-maker	-0.054***	-0.034
Age	0.000	0.004
Retired	0.003	-0.022
Reported fair / poor health	-0.007	-0.006
Constant	0.334***	0.013
Observations	876	1033
R-squared	0.191	0.121

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Statistics measured using the population weights provided for each survey. * $p<0.10$ ** $p<0.05$ *** $p<0.01$.
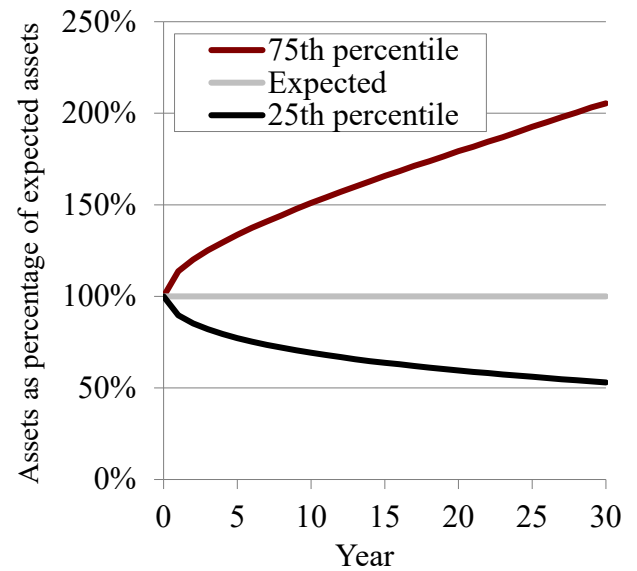*Sources:* Authors' calculations from 2024 Greenwald Research Investor Survey and HRS (2020).

Figure 1. *The Likely Range around Expected Return and Asset Values over a 30-year Period*

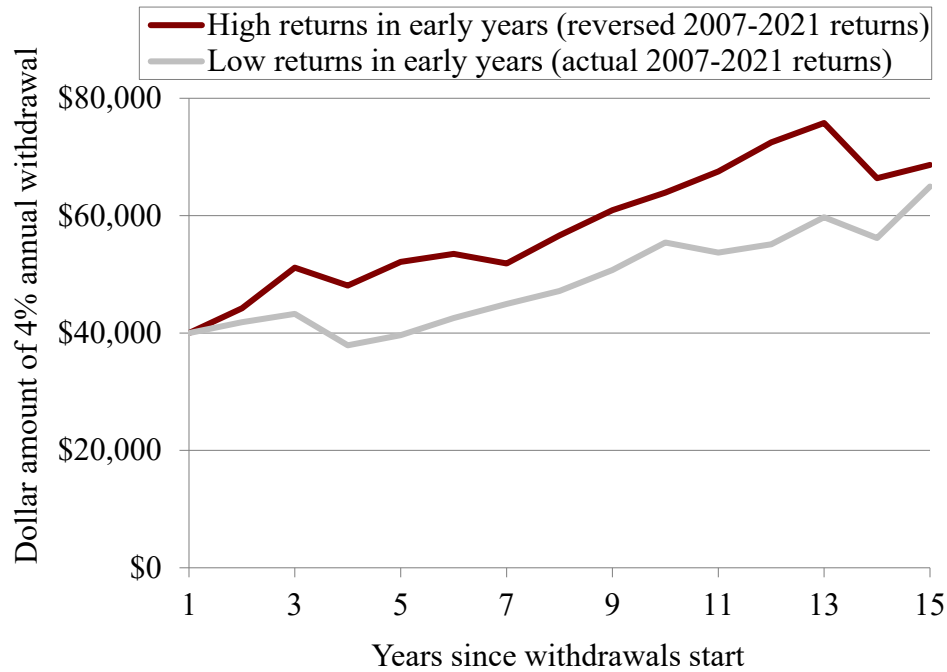1a. *Distribution of Annualized Compound Returns*
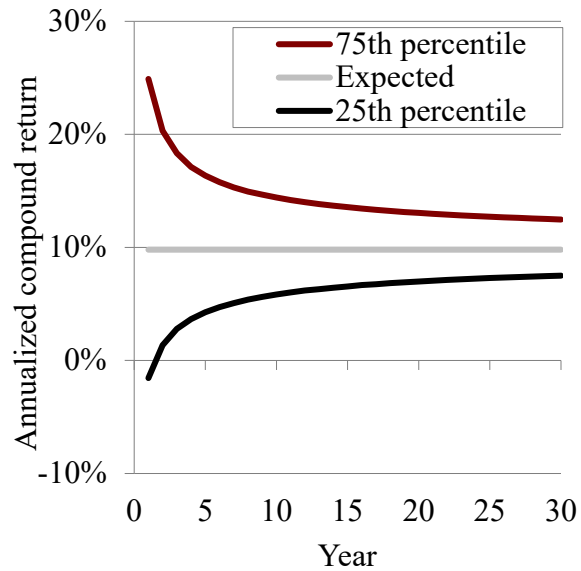
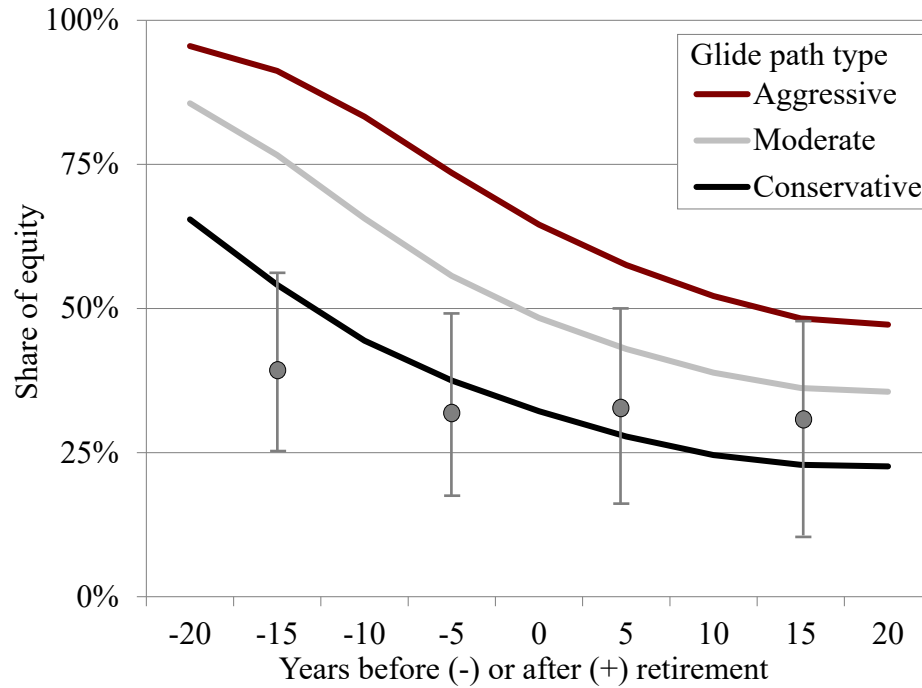1b. *Distribution of Asset Values*

Source: Authors' calculations.

Figure 2. *Sequence of Return Risk: Annual Withdrawals under Return Paths with the Same Average Return but Different Timing of High and Low Returns*

Figure 3. *Desired Stock Allocation from Investor Survey and Morningstar TDF Glide Paths*

Note: The vertical whiskers show the 25th-to-75th-percentile range of the distributions of the desired asset allocation from the Investor Survey with the dots representing the median values.
Sources: Authors' calculations from 2024 Greenwald Research Retirement Investor Survey and Morningstar (2024 a, b, and c).

Appendix

Table A1. *Retirement Investors' Demographic Characteristics and Financial Wealth, by Survey*

Demographic and asset groups	Investor Survey	HRS (2020)	SCF (2022)
Gender			
Female	48%	49%	10%
Male	52	51	90
Ages			
50-59	18	32	36
60-69	45	47	42
70-78	37	21	22
Marital status			
Married	59	65	81
Not married	41	35	19
Self-reported health			
Excellent	11	12	39
Very good	40	42	n/a
Good	37	35	49
Fair or poor	12	11	12
Self-reported retirement status:			
Retired	66	43	21
Not retired	34	57	79
Financial assets:			
$100k-$199k	14	25	9
$200k-$499k	33	34	14
$500k-$999m	29	21	12
$1m +	24	20	65
Education:			
High school or less	8	23	12
Some college	28	30	13
College degree	43	31	35
Graduate or more	21	16	40
Homeownership			
Non-homeowner	11	11	6
Homeowner	89	89	94
Total observations	876	1,553	4,874

Notes: The sample is limited to those ages 50-78 with $100,000+ in financial assets and no DB plan coverage. Sample statistics are unweighted.
Sources: Authors' calculations from 2024 Greenwald Research Investor Survey, HRS (2020), and SCF (2022).

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