HOW DO HOUSEHOLDS REACT TO INFLATION? NEW SURVEY EVIDENCE

By Jean-Pierre Aubry and Laura D. Quinby

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Both authors are with the Center for Retirement Research at Boston College (CRR). Jean-Pierre Aubry is the associate director of state and local research. Laura D. Quinby is a senior research economist. The CRR gratefully acknowledges Jackson National Life Insurance Company for supporting this research and the helpful insights provided by Greenwald Research. Any opinions expressed herein are those of the authors and do not necessarily represent the views of the Jackson National Life Insurance Company, Greenwald Research, or Boston College. Greenwald Research, the CRR, Jean-Pierre Aubry, and Laura D. Quinby are not affiliated with Jackson National Life Distributors LLC.

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Center for Retirement Research at Boston College
Haley House
140 Commonwealth Avenue
Chestnut Hill, MA 02467
phone: 617-552-1762 Fax: 617-552-0191
https://crr.bc.edu

Affiliated Institutions:
The Brookings Institution
Mathematica – Center for Studying Disability Policy
Syracuse University
Urban Institute

Abstract

U.S. inflation peaked at 8.9 percent in June 2022, and, while the rate has declined substantially since then, inflation remains an important concern. This paper uses a new survey of households and financial advisors to examine how near retirees and retirees responded to recent inflation. The survey asks respondents how inflation affected their labor supply, saving, and investment behavior. It then uses regression analysis – relating variation in the level of inflation to behavior – to confirm the accuracy of these self-assessments. The results show moderate impacts on labor supply and large effects on saving. Specifically, 29 percent of working households increased their hours due to inflation, although very few plan to delay retirement. Additionally, 39 percent of working households reduced their saving, and 23 percent of both working and retired households increased withdrawals from existing savings. Among those making changes to saving, the reduction was large: 4 percent of 2023 household income for near retirees, and 5 percent for retirees. In essence, inflation pushed older households to shift future consumption into the present, which could end up reducing their retirement security.

Introduction

U.S. inflation peaked at 8.9 percent in June 2022, and, while the rate has declined substantially since then, inflation remains an important concern. Numerous studies – including a companion to this paper – have shown how a sudden bout of high inflation can harm older households by reducing real income and diminishing financial wealth. Most studies, however, do not consider households' behavioral response to inflation and how those responses ultimately affect their retirement security over time.

This paper examines how older households responded to recent inflation using new surveys of households and financial advisors. The household survey captures labor supply, saving, and investment allocation from 2021 through 2023, while the advisor survey reflects recommendations made to clients over this period. In our main analysis, respondents tell us how inflation affected their behavior. To confirm that respondents are attributing the correct motivation to their actions, we then use regression analysis to re-estimate the impact of inflation, comparing the behavior of households facing a more rapid increase in prices to those who see a smaller increase.

The results show that households reacted in ways both helpful and harmful to their retirement security. On the positive side, 29 percent of older working households ("near retirees") increased their labor supply – working longer hours or finding another job – and a few plan to delay retirement. Working longer gives near retirees time to build up savings and a shorter retirement for those savings to support. Yet, on the negative side, 39 percent of near retirees reduced their saving, and 23 percent of both near retirees and retirees increased withdrawals from existing savings. Among those changing their saving, the adjustments were quite large: near retirees reduced their saving by about 4 percent of 2023 household income, while retirees withdrew an additional 5 percent of 2023 income from their savings.

Interestingly, older households made little change in their asset allocation. Small shifts during this period were mainly from equities to fixed income and cash, as households took advantage of rising interest rates. Financial advisors were also more likely to recommend conservative investments to their older clients, both because of rising interest rates, and because they consider another inflation shock to be much less likely than a future stock market crash.

The rest of this paper is organized as follows. The first section summarizes what we know from previous literature about how an inflation shock affects household finances and how

households respond. The third section introduces the survey of older households and explains our methodology for identifying the impact of inflation. The fourth section presents results – showing that older households effectively shift future consumption into the present – and the final section concludes with avenues for future work.

Literature Review

Economic theory is ambiguous about how older households might react to an inflation shock for two reasons: 1) the impact of inflation varies by a household's circumstances; and 2) households face tradeoffs when determining what to do.

First, the impact of inflation on real income and wealth varies across households depending on local price levels, the specific source of their income, the allocation of their assets, and their exposure to fixed-rate debt.[1] On the income side, earnings growth for older workers often lags inflation since wages and salaries are negotiated on a set schedule. And unemployment poses a significant risk if the Federal Reserve's (Fed's) response to inflation triggers a recession. Moreover, many retirees still rely on defined benefit (DB) pensions, which typically do not adjust for inflation (although these plans are increasingly rare for private sector workers).[2] On a more positive note, retirees also receive fully inflation-indexed income from Social Security.[3]

Regarding wealth, financial models predict that the value of cash and existing fixed-income holdings declines during an inflation shock (although new investments earn a higher return if the Fed responds by raising rates). Equities continue to grow in real terms so long as the Federal Reserve avoids a recession.[4] And while house prices rise with inflation, this growth is

[1] Adam and Tzamourani (2016); Albanesi (2007); Auclert (2019); Bach and Stephenson (1974); Bartscher et al. (2022); Crawford and Oldfield (2002); Del Canto et al. (2023); Doepke and Schneider (2006a, 2006b, and 2006c); Erosa and Ventura (2002); Gurer and Weichenrieder (2020); Hobijn and Lagakos (2005); Hottman and Monarch (2020); Jaravel (2021); Kaplan and Schulhofer-Wohl (2017); Lauper and Mangiante (2021); Lee, Macaluso, and Schwartzman (2021); McGranahan and Paulson (2005); McKay and Wolf (2023); Orchard (2022); Wolff (2023); and Yang (2022).

[2] Siliciano and Wettstein (2021) show that more than half of retirees ages 70 or older live in households with DB income; that share rapidly drops to less than 10 percent of today's 65-year-olds. While most private sector pensions do not provide any inflation adjustments to benefit payments, a majority of state and local government pensions provide adjustments that account for a portion of the rise in prices.

[3] Social Security benefits are not adjusted for regional variation in inflation, and the adjustment occurs with a one-year lag (so benefits decline in real terms while inflation is rising and then increase in real terms when inflation falls).

[4] Specifically, the concern here is whether the Federal Reserve takes overly aggressive action. Cieslak and Pflueger (2023) provide a nice overview of these models.

attenuated if rising interest rates make it harder for prospective buyers to take out a mortgage.[5] On the other hand, households that already hold fixed-rate mortgage debt benefit from inflation because debt payments stay the same even as income rises.

Second, even if inflation had a uniform impact on the real income and wealth of all households, economic theory would still be ambiguous about their reaction. For example, consider a working household with declining real earnings. In this household, workers might delay retirement because they can no longer save; or they might retire early because work has become less financially advantageous. Similarly, this household might reduce their saving to boost current consumption; or they might save more to offset the loss of future purchasing power. And lastly, this household might re-allocate their investments toward riskier assets with higher growth potential or instead shift to a more conservative mix to hedge against a possible recession. Hence, how households react to an inflation shock is ultimately an empirical question.

A growing number of studies link households' inflation concerns to their labor supply, consumption, and saving decisions.[6] This literature follows two tracks. First, financial-industry surveys ask households to report how recent inflation affected their behavior – the self-assessed impact. They find that – during the recent bout of higher inflation – older workers felt squeezed by rising prices and responded by reducing their saving and planning to delay retirement. The reported effects are large. The share of older workers reducing their saving because of inflation ranges from 25 to 45 percent (Allianz Life 2022; and Yakoboski, Lusardi, and Hasler 2023). And Nationwide (2022) finds that 40 percent of older workers plan to delay retirement by an average of three years.[7]

If correct, these changes could have profound implications for retirement security. However, two concerns arise. The first is that it is hard for respondents to disentangle the impact of inflation from that of other concurrent events (such as the poor performance of the stock

[5] Glaeser, Gottlieb, and Gyourko (2010).

[6] Allianz Life (2022); Bachmann, Berg, and Sims (2015); Binder (2017); Botsch and Malmendier (2020); Coibion et al. (2019); Coibion, Gorodnichenko, and Weber (2022); MFS Investment Management (2023); Nationwide (2022); Vellekoop and Wiederholt (2020); and Yakoboski, Lusardi, and Hasler (2023).

[7] Additionally, some retired households report that they are considering a shift in asset allocation away from equities and toward safer investments (Franklin 2023). While most of the retired households in this study – who all have at least $250,000 in assets – identify equities and inflation-indexed bonds as the best hedges, 49 percent still prefer to reallocate their savings towards cash. A survey fielded by MFS Investment Management (2023) similarly finds that households have adopted more conservative investment strategies due to inflation.

market in 2022, or the tight post-pandemic labor market).[8] The second, related concern is that a survey about inflation primes respondents to emphasize that particular factor, so the true impacts of inflation may be much smaller than reported.

For these reasons, most academic studies take a different approach, using randomized control trials and data on household expenditures to assess how households' consumption and saving change when educated about current or expected inflation. For example, one recent study shows that households forget about inflation's impact on fixed-rate debt; once informed (by researchers), they feel wealthier and increase their consumption (Schnorpfeil, Weber, and Hackethal 2023).[9] Similarly, another study finds that households reduce consumption and engage in precautionary saving when they expect future prices to rise; the authors attribute this reaction to memories of 1980s "stagflation" when high inflation coincided slow economic growth (Coibion et al. 2019).

This study uses a new survey of households and financial advisors to expand on previous research. Since our goal is to fully assess how inflation impacted household behavior, we look at a wide range of outcomes: labor supply (retirement age and hours worked), new saving, withdrawals from existing savings, and asset allocation. We also report how financial advisors guided their clients through recent inflation.

Additionally, we make a methodological contribution, comparing the self-assessed impact of inflation (the type of metric reported in industry studies), to an alternate estimate that does not rely on individuals' perceptions. Specifically, we use regression analysis to show how households react when they experience high inflation, all else equal.

New Survey Data

The data for this study come from two surveys conducted by Greenwald Research in November 2023. The first includes 1,501 respondents ages 55-85.[10] We focus on two groups of households: 1) near retirees, where the respondent was under age 62 and working full time in

[8] For example, many older workers wanted to delay retirement after the 2008 financial market crash, but could not due to high unemployment (Munnell and Rutledge 2013).
[9] Not only do they perceive the impacts of inflation differently, they also have a different forecast: households tend to have unanchored expectations, and assume that current inflation will persist indefinitely. Weber et al. (2022) provides a thorough review of the literature on household expectations. Malmendier and Nagel (2016) note that households who lived through past periods of high inflation are more likely to take on fixed-rate mortgage debt.
[10] Respondents were eligible to take the survey if they are at least somewhat responsible for financial decision-making in their household.

2021, before inflation rose;[11] and 2) retirees, who were 62 or older and retired from their primary career in 2021, with a spouse also retired (if married).[12] Ultimately, 322 respondents in the survey meet our definition of near retirees and 630 meet our definition of retirees.[13] Table 1 summarizes their demographic and financial characteristics.[14] In 2023, near retirees were age 59 on average, 61 percent married, 46 percent female, and 62 percent non-Hispanic White. They had a median household income of $87,500. Retirees were age 75 on average, 59 percent married, 43 percent female, and 82 percent White; they had a median household income of $62,500.[15] The second survey interviewed 200 financial advisors whose client base includes a significant number of near retirees and retirees.[16]

Setting the Stage

To understand the macroeconomic context for our analysis, the survey asked a series of questions about respondents' cost of living, the growth in their income and assets (relative to the change in prices), and their economic outlook. Figure 1 shows the share of respondents reporting a change in their cost of living between 2021 and 2023.[17] Fifty-four percent of near retirees and 40 percent of retirees rate the increase as "very substantial," and another 30-31 percent rate it "substantial."[18] Meanwhile, Figure 2 shows the share of near retirees who report

[11] Additionally, near-retiree households did not receive any pension or Social Security income in 2023.
[12] Moreover, retired households received Social Security income in 2023.
[13] See Appendix Table A1 for a derivation of the sample. Notably, our categorizations exclude a third group of households who are either under age 62 and retired in 2021, or above age 62 and still working.
[14] Respondents were assigned weights designed to reflect the national population in that age range in the *Current Population Survey*.
[15] Median income is roughly comparable to households defined similarly in the 2022 *Survey of Consumer Finances*: $100,000 for near retirees and $41,000 for retirees.
[16] Participating advisors met the following criteria: 1) have at least three years of professional experience; 2) derive most of their income from advising private clients (as opposed to employer benefits or other group products); 3) serve at least 75 clients; 4) have at least $25 million in assets under management; and 5) have a client base where at least 40 percent are ages 50 or older and at least 10 percent are retired.
[17] The survey question asked: "Since the start of 2021, is it your impression that prices of the goods and services **your household uses** (i.e. your cost of living) has: […]" Respondents could select either: "Gone up very substantially;" "Gone up substantially;" "Gone up somewhat;" "Gone up a little;" or "Have hardly gone up at all." Due to low response, we combine the last three options into one category: not much increase.
[18] A growing literature shows how inflation varies across households based on their geographic location and the specific bundle of goods and services that they consume. Economists have long noted considerable regional variation in inflation, largely driven by the price of housing (Saiz 2010; Van Nieuwerburgh and Weill 2010; and Gyourko, Mayer, and Sinai 2013). Some prior studies have also argued that low-income households and older households face higher inflation because they spend more of their budgets on food, gasoline, and health expenditures, although the extent of these differences is debated (see, for example, Argente and Lee 2021; Chakrabarti, Garcia, and Pinkovskiy 2023; Hottman and Monarch 2020; Jaravel 2021; Lee, Macaluso, and Schwartzman 2021; McGranahan and Paulson 2005; Munnell and Horvath 2022; and Orchard 2022).

that their household's work income kept pace with inflation over this period.[19] Over half claim that earnings went up less than inflation; 35 percent report that earnings kept pace with inflation; and only 11 percent experienced real wage growth.[20] This pattern aligns with the Atlanta Fed's *Wage Growth Tracker*, which reports that workers ages 55+ saw a decline in real wages from the beginning of 2021 through May of 2023.[21] Similarly, Figure 3 shows how household investments performed between 2021 and 2023, relative to price levels. Seventy-two percent of near retirees and 64 percent of retirees state that their investments grew less than inflation; 11 percent report that investments tracked inflation; and only 6 percent saw real growth.[22]

To quantify the impact on household budgets, the survey also asked respondents to estimate the dollar increase in their monthly cost of living between 2021 and 2023 as a percentage of 2023 household income.[23] This question measures the extent to which prices rose faster than income for each household. Although these dollar values are subject to recall error (and are top-coded at 8 percent of income) we can determine whether expenses rose 5 percent faster than income or more, and how that excess price growth correlates with respondents' perception of inflation. As expected, 34 percent of respondents experiencing "very substantial" inflation report that their monthly expenses rose at least 5 percent faster than income, compared to 11 percent of respondents in the "substantial" group, and only 2 percent of respondents in the "not much" group.

Unsurprisingly given these experiences, many older households are pessimistic about the trajectory of the economy. Fifty-three percent of near retirees and 43 percent of retirees have a

[19] This question was only asked of households working in 2023.
[20] Moreover, this figure likely overestimates real wage growth for the near retirees since around one-third retired before 2023, and these retiring workers probably had lower real wage growth, on average, than their counterparts who continued to work.
[21] Since wage growth for older workers typically lags inflation, and inflation is starting to decline, we have now entered a period of real wage growth.
[22] According to the 2019 *Survey of Consumer Finances*, the average near-retiree household held 73 percent of their financial assets in bonds, cash, and "other" investments that lose value during an inflation shock; the average retiree household held 81 percent of their assets in these safe but lower-performing investments. Moreover, even though equities have performed relatively well, 2022 saw a downturn in the stock market related to inflation fears, the war in Ukraine, and other global events.
[23] Specifically, the question asked: "What is your estimate of how much the general rise in prices has increased your own household's cost of living since the beginning of 2021?" Respondents were shown a drop-down menu of possible increases (including "reduced cost of living" and "no change in cost of living") that were designed to reflect percentages of monthly income but were shown as dollar values relative to the respondent's own self-reported household income in 2023.

negative outlook for 2024 (see Table 2).[24] Additionally, 60 percent of near retirees and 52 percent of retirees believe that last year's inflation will contribute to a weaker economy over the coming year.

Methodology for Estimating the Impact of Inflation

The next step is to look at how respondents' experience with, and perceptions of, inflation affected their behavior. The survey asked respondents whether they had made changes since 2021 along the following four dimensions: 1) labor supply (retirement age and hours worked); 2) saving rate; 3) withdrawals from savings; and 4) asset allocation. If respondents reported a change in behavior, the survey had them rank their motivations for making that change in order of importance.[25] For example, working respondents who extended their planned retirement age were asked:

Please indicate which of the following, if any, are reasons you are planning to retire later than you planned. Please rank up to the top three reasons from most to least important.

- ***You couldn't save as much as planned due to rising prices***
- ***You had to withdraw money from your savings because of rising prices***
- ***Because rising prices increased your cost of living, you have to save more money than you thought you needed***
- *You don't have enough money saved for retirement*
- *Your retirement savings declined due to the stock market*
- *You are concerned about a future market crash*
- *You would not be able to have the lifestyle you wanted in retirement*
- *You or a family member had a large health related expense*
- *You want to avoid tapping into your retirement accounts during an economic downturn*
- *[if married/partnered] Your spouse/partner lost their job so you need to work longer to make up for the loss of income*
- *None of the above*

[24] Specifically, the survey asked: "Over the next year, do you think the U.S. Economy will get: […]" Then respondents were shown a menu with the following options: "stronger than it is now;" "weaker than it is now;" "the strength of the economy will not change;" and "not sure." The survey then followed up with: "Do you think the rise in prices over the past year will contribute to: […]" with possible responses including: "a stronger economy over the next year;" "a weaker economy over the next year;" "will neither weaken nor strengthen the economy over the next year;" and "not sure."

[25] The order of the possible responses was randomized across respondents. Appendix Tables A3 through A7 show the share of respondents citing each motivation listed in the survey for changing their labor supply, saving, or withdrawals.

We attribute a change in behavior to inflation if the respondent cited rising prices as their primary motivator. So, in the above example, we focus on respondents who checked any of the first three items listed; this procedure yields the self-assessed impact of inflation.

The main advantage of this approach is that it is easy to interpret and allows us to separate the impact of rising prices from the influence of all the other motivations listed in the survey. One can also benchmark these results against the findings from previous industry studies. The main disadvantages are those previously discussed: respondents might not have an accurate assessment of their motivations; and priming respondents to think about inflation's impact on their finances could nudge them to overstate its importance.

Moreover, eliciting and analyzing respondents' motivations requires decisions on our part that could affect the results. For instance, some of the motivations listed in the survey do not specifically reference rising prices but might still reflect them in practice – should these be included or not?[26] In addition, we focus on respondents' primary motivation – should we also consider motivations they ranked second? Lastly, the inflation-related motivations assume respondents experienced declining real income and wealth – is this assumption reasonable?[27]

Hence, we also test the validity of our main estimates with regression analysis. Specifically, we estimate how the perceived growth in a respondent's cost of living between 2021 and 2023 is associated with a change in their behavior, all else equal. In essence, the regression approach infers how perceptions of inflation affected behavior without relying on respondent self-assessments.

The equation is specified as follows:

$$Outcome_r = \alpha + \beta_1(Substantial\ inflation_r) + \beta_2(Very\ substantial\ inflation) + \beta_3(Demographic\ control\ variables_r) + \varepsilon_r \quad (1)$$

The dependent variable is the outcome of interest – labor supply, saving, withdrawals, and investment allocation – for respondent r. Growth in cost-of-living is captured by the three-

[26] In the retirement-age example above, ambiguous motivations include: *"you don't have enough money saved for retirement;" "you would not be able to have the lifestyle you wanted in retirement;"* and *"you are concerned about a future market crash"* [which could be interpreted as a result of the Fed's policy response].

[27] For example, respondents who decreased their saving could select *"you couldn't save as much as planned due to rising prices"* (declining real income), while those who increased their saving could select *"you had to save more money due to rising prices"* (declining real wealth). However, some households could see positive changes from rising wages and a declining real debt burden, and their experiences are not captured by the survey.

category perception variable (has the increase in your cost of living been "very substantial"; "substantial"; or "not much").[28] The regression includes controls for respondent health in 2023 and other demographic characteristics such as age, marital status, gender, education, and race. In the retirement-age example, a positive β_1 indicates that respondents experiencing "substantial inflation" delay their retirement by β_1 years, on average, relative to those with "not much inflation."

If we assume that inflation had no impact on behavior for the "not much" group, then we can use β_1 and β_2 to derive the overall impact in our sample. Mechanically, we simply take an average of the coefficients, weighted by the share of respondents in each inflation category:[29]

$$Overall\ impact = (0 * share\ not\ much) + (\beta_1 * share\ substantial) + (\beta_2 * share\ very\ substantial) \quad (2)$$

We then confirm the reliability of our main findings by comparing the overall impact of inflation estimated in equation (2) with the self-assessed impact provided by the respondents.

Results

The results are described, in turn, for each of the four main behaviors: labor supply, saving, withdrawals, and investment allocation.

Labor Supply

Table 3 considers the impact of inflation on labor supply, beginning with self-assessments.[30] The first row shows the share of (working) respondents who report that either they or their spouse worked more hours in 2023 than in 2021 due to inflation. A full 40 percent of near retirees report an increase in labor supply (column 1), while 29 percent attribute this shift

[28] To enhance statistical precision, we took "substantial inflation" as the omitted category; for clarity, the exposition proceeds as if "not much inflation" were the omitted group. Ultimate, the choice of omitted category does not affect the results.

[29] Standard errors are derived from a linear combination of the regression coefficients, weighted by the relevant shares.

[30] Regression analysis (with robust standard errors) was used to determine whether the self-assessed impacts are statistically different from zero. See Appendix Tables A2 and A3 for the reasons respondents gave for shifting their planned retirement age.

to inflation (column 2).[31] Similarly, the second row shows the share of near retirees changing their planned or actual retirement age. Whereas 34 percent of near retirees altered their plans during this period, only 4 percent did so because of inflation. Among those reacting to inflation, the next row shows an average expected delay of 4 years.

The third column of Table 3 shifts over to the regression estimates.[32] The results are consistent with the self-reports. Twenty-four percent of near-retiree households took on more work because of inflation, but only 6 percent changed their retirement age. Among the few who did, retirement was delayed by around 1 year on average. For context, 1-to-4 years of delay is similar to results from previous studies, but we find many fewer individuals choosing to delay at all.[33] One explanation is that previous surveys interviewed respondents at the height of inflation in 2022, whereas we fielded our survey in November 2023.

Saving and Withdrawals

Thirty-nine percent of near retirees claim to have changed their saving because of inflation (column 2 of Table 4).[34] Among those who did, average annual saving in 2023 was $4,065 less than in 2021, or 4 percent of 2023 household income. Column 3 of Table 4 shows the corresponding regression estimates, which are nearly identical.[35] In this measure, thirty percent of near retirees changed their saving because of inflation, by $-4,366 on average (or 4 percent of 2023 household income).

Additionally, rising prices caused both near retirees and retirees to dip into their savings. Table 5 combines the results for both groups because they are quite similar. We find that 23 percent of respondents changed their withdrawals because of inflation (column 2), and those making changes withdrew an additional $3,620 in 2023 than in 2021, on average (or 5 percent of 2023 household income). However, since the survey questionnaire did not allow respondents

[31] Specifically, this question asked: "Since the start of 2021, have you made any of the following changes?" Among other options, working respondents could select: **"**sought to earn more money by working more hours or taking on other work" and the same for their spouse. They survey then asked: "To what extent was the general rise in prices a reason for you making each change?" We attribute an increase in hours to inflation if the respondent selected "A major reason."
Of course, the elasticity of labor supply – particularly on the intensive margin – may be higher among households who regularly complete market research surveys.
[32] Appendix Table A8 contains the full regression results.
[33] Nationwide (2022) finds that 40 percent of workers ages 45+ plan to retire later due to inflation.
[34] The survey did not ask retirees about new saving, the assumption being that retirees draw down their assets.
[35] See Appendix Table A9 for full regression results.

who *reduced* their withdrawals to select an inflation-related motivation for doing so, we expect these self-assessments to overstate the amount withdrawn. This hypothesis is borne out in the regression estimates (column 3 of Table 5), which find a roughly similar share of respondents changing their behavior, but a smaller conditional increase in withdrawals (only $1,879 on average, or 3 percent of household income). [36]

As a last exercise on this topic, we look at the household's total reduction in saving (less new saving plus higher withdrawals) and see how this varies across the income distribution.[37] For simplicity, we focus on respondents' self-assessments for this exercise. Panel A of Table 6 shows the results for near retirees, while Panel B presents the pattern for retirees. Two points stand out. First – unsurprisingly – near retirees were more than twice as likely as retirees to make a change (because retirees are expected to no longer be saving and only making withdrawals). And second, lower-income households were more likely to make changes than higher-income counterparts. Among those reacting to inflation, households in the bottom income tercile saved less/withdrew more than the other households, while the middle and top terciles reacted quite similarly (as a percentage of 2023 income).

Asset Allocation

While inflation had tangible effects on work and saving behavior, very few households changed their asset allocation in response to rising prices. The survey did not elicit motivations for changes in asset allocation, so Table 7 reports shifts overall and then uses the regression to find the impact of inflation. As for withdrawals, the results for near retirees and retirees are combined because the patterns are so similar.

Thirty-five percent of all households changed their allocation between 2021 and 2023 (column 1), but the magnitude of the shift is small – less than 3 percent of investable assets. To the extent that shifts occurred, households moved away from equities and toward fixed income.[38] The change in asset allocation – such as it is – coincides with a rise in interest rates for fixed-income products, a decline in the stock market, and general pessimism about the U.S. economy.

[36] See Appendix Table A10 for full regression results.
[37] Income is measured in 2023 because we lack information on pre-inflation income.
[38] Franklin (2023) and MFS Investment Management (2023) find similar patterns across asset classes.

Households' personal experiences with inflation predict these shifts somewhat (column 2), but the impact is economically small and statistically insignificant.[39]

Although most households took a passive approach to asset allocation, 30 percent of the older households in our survey work with a financial advisor and may have had a more pro-active strategy. Hence, Table 8 limits the sample to these respondents, and reports the share receiving advice pertaining to fixed income between 2021 and 2023 (this category includes bonds as well as cash and certificates of deposit).[40] Almost everyone – 80 percent of near retirees and 89 percent of retirees – was advised to change their fixed income allocation, with a majority of both groups being told to increase it. The preference for fixed income is even clearer when we survey advisors themselves. The last column of Table 8 reports the share of advisors who recommended a shift in their clients' fixed income allocation between 2021 and 2023.[41] Again, 85 percent of advisors changed their clients' allocation to fixed income, with a full 91 percent recommending an increase.

Advisors shifted their clients toward fixed income for two reasons. First, rising interest rates – as the Fed worked to combat inflation – made these investments more attractive. The survey asked advisors to what extent interest rates played a role in their recommendations about fixed income, and 77 percent replied that interest rates were "the most important" or "a very important" factor.

Second, advisors are not terribly concerned about another sudden rise in prices; rather, they are hedging against a possible market downturn. This assessment is based on survey questions that asked advisors to rate how damaging 10 hypothetical scenarios would be if they occurred during the first 5 years of retirement.[42] It also asked them to rate the likelihood that these scenarios will occur during the lifetime of their retired clients.[43] Table 9 categorizes the scenarios based on their average score on the two ratings. The top left box contains scenarios

[39] See Appendix Table A11 for full regression results.
[40] Specifically, the question asked "Which of the following actions, if any, has your advisor suggested you take in order to compensate for the current economic environment? Select all that apply."
[41] The survey asked advisors two questions related to allocation. First, "from the start of 2021, when general prices started to rise rapidly, until the end of 2022, how did you tend to change the allocations of the following for your pre-retired and retired clients?" And second, "from the start of the year, January 1, 2023, to now, how have you tended to change the allocations of the following for your pre-retired and retired clients?" For consistency with the household survey, we consider changes that the advisor made in either period (so if an advisor increased equities from 2021 to 2022 and reduced them in 2023, we code that advisor as having done both actions).
[42] The scale ranged from 1 ("not at all damaging") to 7 ("extremely damaging").
[43] The ranking went from 1 ("not at all likely") to 7 ("extremely likely").

that are both more harmful (rated top 5 out of 10 scenarios) and more likely (rated top 5 out of 10). Only two scenarios fall into this camp: "a major decline in the stock market," and "needing long-term care." Meanwhile, a "period of fast-rising prices" falls into a lesser category: more harmful but less likely (the top right box) and persistent moderate inflation is considered more likely, but not particularly harmful (the bottom left box). For comparison, a reduction in the benefits paid by Social Security or Medicare fall into the category of least concern: less harmful and less likely – reflecting the relative affluence of households with a financial advisor. Given these perceptions, shifting toward low-risk investments with increasingly high returns makes sense.

Conclusion

Because inflation has been so stable over the past 30 years, its impact on retirement security is relatively understudied. This paper focuses on the behavioral aspects of recent inflation – how the rise in prices from 2021 to 2023 affected older households' labor supply (hours worked and retirement age), saving, withdrawals from existing saving, and investment allocation. It finds that households responded along four dimensions: taking on additional work, retiring later, reducing their saving, and increasing withdrawals from existing savings. Although the impact on labor supply was modest, inflation has had large ramifications for saving: half of near retirees and a quarter of retirees reduced their saving between 2021 and 2023; for those making changes, the decline was 4-5 percent of 2023 household income. In essence, households compensated for declining real income by pulling future consumption into the present.

Interestingly, one aspect of household finance that has barely changed is investment behavior. Some households are taking advantage of higher interest rates by shifting a modest portion of their assets into fixed-income products – a move supported by many financial advisors. However, these shifts are very small. Moreover, it is not clear what households *should* be doing, since inflation is not the only – or even the primary – risk to retirement security. Financial advisors understand this trade-off; rather than worry about another inflation shock eroding the value of fixed income, they are preparing their clients for a possible market downturn and the potential need to fund long-term care.

The key takeaways on how households respond to inflation reflect not simply the self-assessments of the survey respondents; they are also confirmed by regression analysis that shows similar results. Nevertheless, many questions remain. The analysis in this paper pertains to a

period when inflation was at its peak. Will households reverse course as inflation moderates, saving more and withdrawing less? And, ultimately, how will the reduction in household saving affect their retirement security? We leave these and other issues for future research.

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Tables and Figures

Table 1. *Mean Characteristics of Near Retirees and Retirees, 2023*

Variable	Near retirees	Retirees
Age	59	75
Married household	61%	59%
Female	46	43
College degree or higher	34	37
White	62	82
Hispanic	17	7
2023 household income (median)	$87,500	$62,500
Receives DB income	16%	59%
Will receive DB income	37	1
Homeowner	71	77

Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 2. *Impact of Inflation on Households' Economic Outlook, 2023*

	Share of near retirees	Share of retirees
Anticipate a weaker economy over the next year	53%	43%
Inflation will weaken the economy over the next year	60	52

Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 3. *Impact of Inflation on the Labor Supply of Near Retirees, 2021-2023*

	Self-assessed impact		Regression-estimated impact
	Overall	Because of inflation	
Share of households where the respondent or spouse works more hours than in 2021	40%***	29%***	24%***
Share changing their retirement age	34%***	4%***	6%
Among those changing retirement age:			
Mean shift (years)	-2 ***	4 ***	1

Note: Stars indicate that the finding is statistically different from zero. ***(p<0.01).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 4. *Impact of Inflation on the Saving Behavior of Near Retirees, 2021-2023*

	Self-assessed impact		Regression-estimated impact
	Overall	Because of inflation	
Share changing their saving since 2021	65%***	39%***	30%***
Among those making changes:			
Mean shift (nominal dollars)	$-1,128*	$-4,065***	$-4,366 ***
Mean shift (percentage of 2023 income)	-2%***	-4%***	-4%**

Notes: The sample includes near-retiree households who are still working in 2023. Stars indicate that the finding is statistically different from zero. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 5. *Impact of Inflation on the Withdrawal Behavior of Near Retirees and Retirees, 2021-2023*

	Self-assessed impact		Regression-estimated impact
	Overall	Because of inflation	
Share changing their withdrawals since 2021	44%***	23%***	16%***
Among those making changes:			
Mean shift in withdrawals (nominal dollars)	$-2,519***	$-3,620***	$-1,879***
Mean shift in withdrawals (percentage of 2023 income)	-4%***	-5%***	-3%***

Notes: Stars indicate that the finding is statistically different from zero. ***($p<0.01$). For consistency with Table 4, a negative dollar value indicates an increase in withdrawals (reduction in saving).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 6. *Impact of Inflation on the Total Saving of Near Retirees and Retirees, by Income Tercile, 2021-2023*

	Bottom tercile	Middle tercile	Top tercile
Panel A: Near Retirees			
Change saving or withdrawals	58%	51%	43%
Among those making changes:			
Mean shift in saving and/or withdrawals (nominal dollars)	$-3,147	$-4,171	$-11,467
Mean shift in saving and/or withdrawals (percent of 2023 income)	-9%	-4%	-4%
Panel B: Retirees			
Change withdrawals	26%	24%	11%
Among those making changes:			
Mean shift in withdrawals (nominal dollars)	$-1,531	$-3,018	$-8,161
Mean shift in withdrawals (percentage of 2023 income)	-6%	-5%	-5%

Note: For consistency with Tables 4 and 5, a negative dollar value for withdrawals indicates an increase in withdrawals (a reduction in saving).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 7. *Impact of Inflation on the Investment Allocation of Near Retirees and Retirees, 2021-2023*

	Overall	Regression-estimated impact of inflation
Share making any change since 2021	35%***	18%
Among those making changes:		
Mean change in equities (percentage point)	-2 ***	-2
Mean change in fixed income (percentage point)	3 ***	0.2
Mean change in alternatives (percentage point)	0	0.1
Mean change in annuities (percentage point)	1 *	-0.7

Notes: Percentages do not sum due to reporting imprecision and rounding. Stars indicate that the finding is statistically different from zero. ***($p<0.01$); *($p<0.1$).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 8. *Percentage of Households Receiving Advice and Percentage of Advisors Recommending a Change in Asset Allocation*

	Households with an advisor		Advisors
	Near retirees	Retirees	
Change fixed-income allocation	80%***	89%***	85%***
Among those receiving a recommendation / recommending:			
Increase fixed income and/or cash	60%***	75%***	91%***

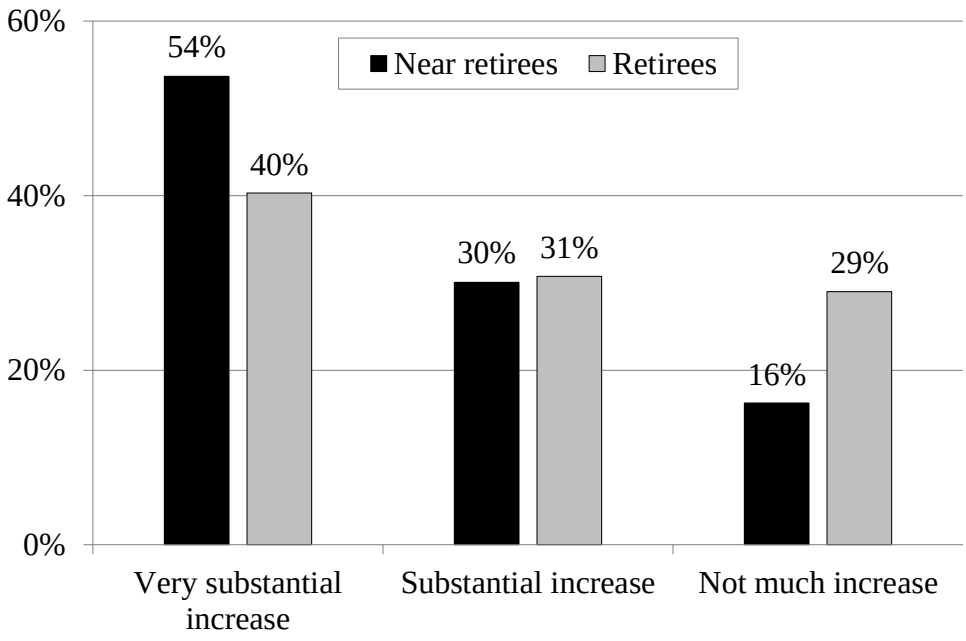
Notes: Stars indicate that the finding is statistically different from zero. ***($p<0.01$).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table 9. *Advisor Ranking of Hypothetical Events by Degree of Harm to Retirement Security and Likelihood of Occurrence*

	More likely	Less likely
More harmful	• A major decline in the stock market. • Needing long-term care.	• A period of fast rising prices. • Making poor investment decisions. • A deep financial recession or depression.
Less harmful	• Consistent moderate increase in prices eroding purchasing power over a period of time. • A long-term reduction in the interest rates paid on fixed investments. • Unexpected expenses of at least $25,000.	• A reduction in the benefits paid by Social Security. • A reduction in the benefits paid by Medicare.

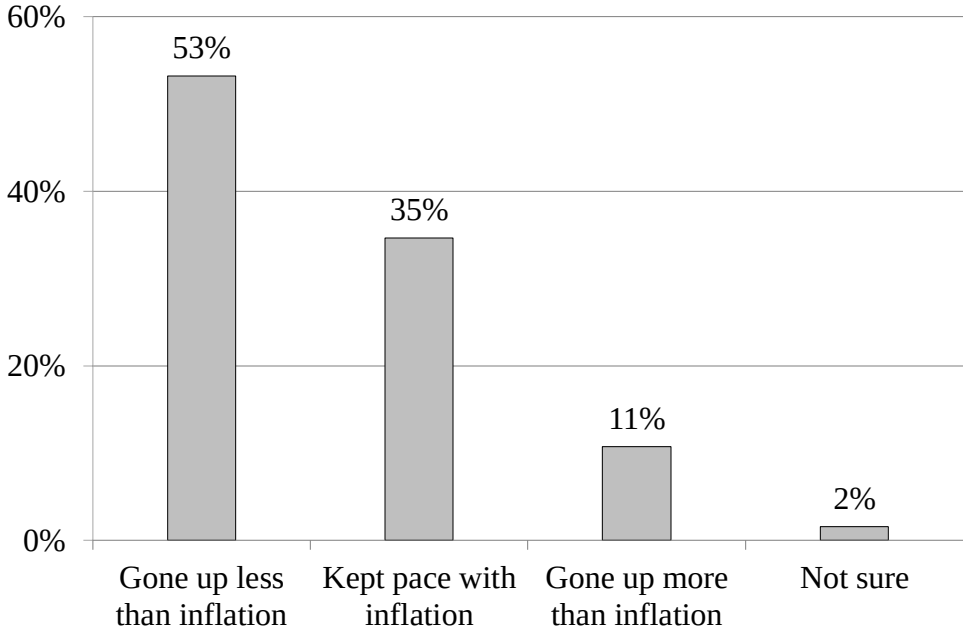
Note: "More harmful" and "more likely" capture scenarios in the top five based on average advisor rating and vice versa with "less harmful" and "less likely."
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Figure 1. *Households' Perception of the Growth in Prices for the Goods and Services They Use, 2021-2023*



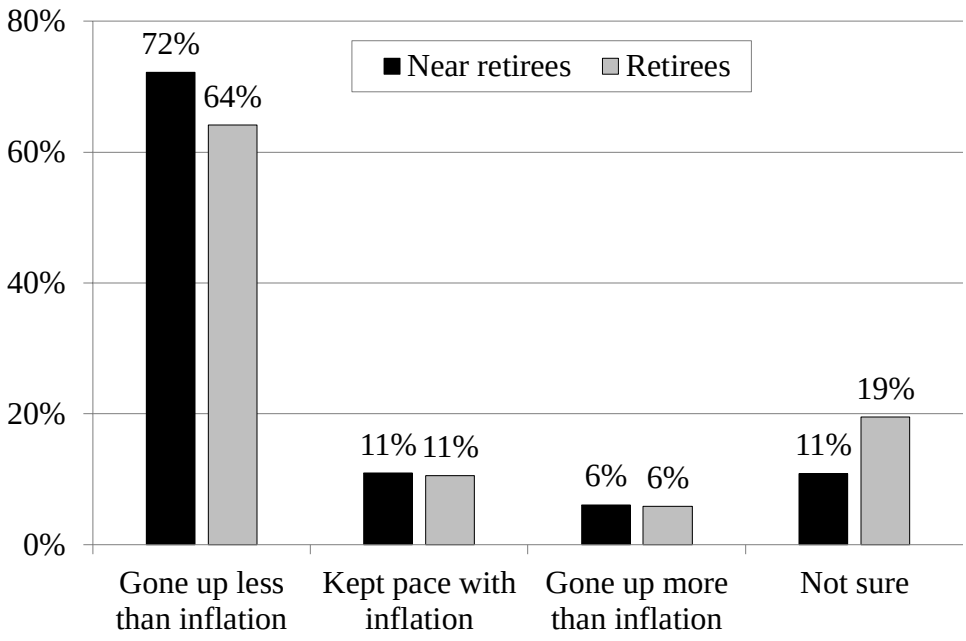
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Figure 2. *Earnings Growth for Near Retirees Still Working in 2023, Relative to Price Levels, 2021-2023*



Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Figure 3. *Growth in the Value of Investments Relative to Price Levels, Near Retirees and Retirees, 2021-2023*



Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Appendix

This Appendix presents supplemental survey analysis and is organized in three sections. The first section derives our analysis sample (Table A1). The second section outlines key survey questions used to determine the self-assessed impacts of inflation. For three of the main outcomes studied – retirement age, saving, and withdrawals – Tables A2 through A7 show the share of respondents identifying each possible motivation as the primary driver of their behavior. The other two outcomes studied – hours worked and investment allocation – are not included because the survey did not ask respondents to list their motivations for changing behavior. [44] The third section presents full regression results for the association between inflation and behavior (Tables A8 through A11).

[44] In the case of hours worked, the survey instead asked "To what extent was the general rise in prices a reason for you making [this] change?" We attribute an increase in hours to inflation if the respondent selected "A major reason."

Section 1: Sample Derivation

Table A1. *Derivation of the Analysis Sample*

	Number of observations	Percentage of survey sample (weighted)
Total sample	1,501	100%
Near retirees		
Respondent under age 62 in 2021	487	36
Respondent under age 62 and working full-time in 2021	340	25
Final sample: respondent under age 62 and working full-time in 2021; household does not receive Social Security	322	24
Retirees		
Respondent age 62+ in 2021	1,014	64
Respondent 62+; respondent and spouse retired by 2021	659	43
Final sample: respondent 62+ in 2021; household retired by 2021 and receives Social Security in 2023	630	41
Unclassified respondents		
Respondent under age 62 in 2021, but is not working full-time at that point and/or the household receives Social Security in 2023	165	12
Respondent 62+ in 2021, but the household is not retired at that point, and/or not receiving Social Security in 2023	384	23

Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Section 2: Survey Questions Pertaining to Labor Supply, Saving, and Withdrawals

Hours Worked

[If working in 2023] "Since the start of 2021, have you made any of the following changes?" […] "Sought to earn more money by working more hours or taking on other work" […] "Your spouse/partner sought to earn more money by working more hours or taking on other work."

[if yes,] "to what extent was the general rise in prices a reason for you making each change?

- Major reason
- Minor reason
- Not a reason
- Not sure"

Retirement Age

[If working in 2023] "Since the start of 2021, have you adjusted your target retirement age?" [if yes, "What was your prior target age and what is your new target age?"]

[If retired in 2023] "Did you retire earlier or later than you planned to retire?" [if yes, "Please indicate what your target retirement age was and when you actually retired."]

Table A2. *Share of Near Retirees Citing Various Motivations for Reducing Their Planned or Actual Retirement Age, 2021-2023*

Motivation	Share of near retirees	
You can/could afford to retire earlier than you planned	24%	***
You have/had a health problem or a disability	20	***
There are/were changes at your company	15	***
You have/had to care for a spouse or another family member	6	**
You will be old enough to take Social Security retirement benefits/you became eligible for Social Security benefits and this made stopping work feasible	19	***
The strain of saving due to rising prices/increased cost of living	1	
You were laid off due to the reduction in the workforce	9	**
Your employer is offering/offered an incentive to retire	4	
Other	2	

Notes: Stars indicate that the share is statistically different from zero. ***($p<0.01$); **($p<0.05$).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table A3. *Share of Near Retirees Citing Various Motivations for Extending Their Planned or Actual Retirement Age, 2021-2023*

Motivation	Share of near retirees	
You don't/didn't have enough money saved for retirement	20%	***
Your retirement savings declined due to the stock market	17	**
You are/were concerned about a future market crash	0	
You would not be able/have been able to have the lifestyle you wanted in retirement	17	**
You couldn't save as much as planned because of rising prices	8	*
You had to withdraw money from your savings because of rising prices	3	
You or a family member had a large health-related expense	0	
You want/wanted to avoid tapping into your retirement accounts during an economic downturn	6	
[If married/partner] Your spouse/partner lost their job so you need/needed to work longer to make up for the loss of income	0	
Because rising prices increased your cost of living, you had to save more money than you thought you needed	24	***
Other	5	

Notes: Stars indicate that the share is statistically different from zero. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Saving

[If working in 2023] "Compared to 2021, two years ago, has the amount of money you **[**and your spouse/partner**]** saved in the past 12 months been higher, lower, or the same? Please include any money saved in a company retirement plan, in which employees can make their own contributions."

[If respondent reports an increase/decrease in saving] "Using your best estimate, how much more/less has your household saved in the past 12 months than in 2021?

- Less than $1,000
- $1,000 to $1,999
- $2,000 to $2,999
- $3,000 to $3,999
- $4,000 to $5,999
- $6,000 to $7,999
- $8,000 to $9,999
- $10,000 to $11,999
- $12,000 to $13,999
- $14,000 to $15,999
- $16,000 to $17,999
- $18,000 to $19,999
- $20,000 or more
- Not sure"

Table A4. *Share of Near Retirees Citing Various Motivations for Reducing Their Saving, 2021-2023*

Motivation	Share of near retirees	
You were concerned about a future market crash	3%	**
You couldn't save as much as planned due to rising prices	69	***
You or a family member had a large health expense	9	***
You or a family member had a large non-health expense	9	***
[If married/partner] Your spouse/partner lost their job so you had to save less to make up for the loss of income	6	***
Other	3	*

Notes: Stars indicate that the share is statistically different from zero. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table A5. *Share of Near Retirees Citing Various Motivations for Increasing Their Saving, 2021-2023*

Motivation	Share of near retirees	
You didn't have enough money saved for retirement	6%	
Your investments declined due to the stock market	12	*
You were concerned about a future market crash	6	
You would not be able to have the lifestyle you wanted in retirement	21	***
[If married/partner] Your spouse/partner lost their job so you had to save more to make up for their previous saving	7	
You were concerned about future health expenses	13	**
You had to save more money due to rising prices	26	***
Other	10	*

Notes: Stars indicate that the share is statistically different from zero. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Withdrawals

[All] "Since the start of 2021, has the amount of money you are withdrawing from your savings to meet your living expenses…

- Gone up a lot
- Gone up a little
- Stayed the same
- Gone down
- Withdrawals are irregular, no clear pattern
- Not sure"

[If the respondent reports a change in withdrawals] "Using your best estimate, how much of your savings did you withdraw in 2021 and 2023?

a. 2021 withdrawal amount: _____(example: $1,000)
b. 2023 withdrawal amount: _____(example: $1,000)"

Table A6. *Share of Near Retirees and Retirees Citing Various Motivations for Withdrawing Less from Savings, 2021-2023*

Motivation	Share of respondents	
Your investments declined due to the stock market	11%	**
You were concerned about a future market crash	4	
You would not be able to have the lifestyle you wanted in retirement	11	**
[If married/partner] Your spouse/partner lost their job so you needed to save more to make up for their saving	0	
[If married/partner] Your spouse/partner started working so you had more income	4	
You were concerned about future health expenses	12	**
You were worried that you would not be able to maintain prior levels of spending	13	**
Your household expenses declined	28	***
Other	16	***

Notes: Stars indicate that the share is statistically different from zero. ***($p<0.01$); **($p<0.05$).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Table A7. *Share of Near Retirees and Retirees Citing Various Motivations for Withdrawing More from Savings, 2021-2023*

Motivation	Share of respondents
You have enough saved to support a higher standard of living	5%***
Your investments performed well	2 **
You had a large health-related expenditure	9 ***
You had a large non-health expenditure	13 ***
You were concerned about a future market crash	1 **
[If married/partner] Your spouse/partner lost their job so you needed to make up for the loss of income	1 *
You had to withdraw more money due to rising prices	67 ***
Other	1 **

Notes: Stars indicate that the share is statistically different from zero. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' calculations from survey data provided by Greenwald Research (2023).

Asset Allocation

[All] "Since the start of 2021, have you made any changes in the types of investments you have put money in or your asset allocation?

- Yes, bought a type of investment you did not own before 2021 or totally dropped a type of investment you owned before 2021
- Yes, made changes in asset allocation
- Yes, made changes to both the type of investments and asset allocation
- No, did not change investments or asset allocation"

[If respondent made changes] "Which of the following do you [if married/partner and your spouse/partner] now own? Please include any money in your employer retirement plan. Please check all that apply.

- Stocks, stock mutual funds, and stock ETFs. Include variable annuities that do not have guaranteed lifetime income riders.
- Fixed investments, including bonds, bond mutual funds, fixed annuities and treasuries.
- Alternative investments, such as commodities and real estate investment trusts.
- Annuities that have guarantees, such as fixed income annuities, registered index linked annuities and variable annuities that have guaranteed lifetime income riders."

[All] "For each type of investment or account, is the proportion of all your [if married/partner and your spouse's/partner's] money in that investment account higher, lower, or the same as it was at the start of 2021?"

[If the respondent reports a change in investments] "How much have you increased the percentage of all your assets that is in [stocks/bonds/alternatives/fixed income]?

- Less than 5 percentage points
- 5 to 9 percentage points
- 10 to 14 percentage points
- 15 to 19 percentage points
- 20 to 24 percentage points
- 25 to 29 percentage points
- 30 to 34 percentage points
- 35 percentage points or more
- Not sure"

Section 3: Full Regression Results

Table A8. *Regression Results for the Change in Labor Supply, 2021-2023*

Variables	(1) Shift retirement age (binary)	(2) Shift in retirement age (continuous)	(3) Household works more hours (binary)
Not much inflation	-0.08	0.45	-0.25***
	(0.08)	(1.38)	(0.08)
Very substantial inflation	-0.01	3.30***	0.06
	(0.06)	(0.99)	(0.08)
Very good/good health	0.03	-0.83	-0.03
	(0.08)	(1.10)	(0.09)
Fair/poor health	0.18	-2.06	0.18
	(0.11)	(1.49)	(0.13)
Ages 62-70	0.29***	-0.13	-0.13
	(0.07)	(0.91)	(0.09)
Married	0.04	2.80***	0.03
	(0.05)	(0.97)	(0.07)
Female	0.10**	-0.84	-0.01
	(0.05)	(0.92)	(0.07)
Non-Hispanic White	0.08	-2.93*	-0.13
	(0.07)	(1.58)	(0.08)
Hispanic	-0.07	-0.31	-0.08
	(0.08)	(1.57)	(0.10)
College degree or higher	-0.00	1.81*	-0.18**
	(0.06)	(1.04)	(0.07)
Self employed	0.53***	-0.83	-0.29
	(0.11)	(1.99)	(0.20)
Constant	0.11	-2.07	0.65***
	(0.12)	(1.86)	(0.13)
Observations	322	109	248
R-squared	0.15	0.28	0.14

Notes: Robust standard errors in parentheses. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' estimates from survey data provided by Greenwald Research (2023).

Table A9. *Regression Results for the Change in Saving, 2021-2023*

Variables	(1) Change saving (binary)	(2) Change in saving (nominal dollars)	(3) Change in saving (percentage of income)
Not much inflation	-0.20**	4,017**	0.04**
	(0.10)	(1,737)	(0.02)
Very substantial inflation	0.25***	-560	-0.01
	(0.07)	(1,274)	(0.01)
Very good/good health	0.13	449	-0.02
	(0.08)	(1,615)	(0.02)
Fair/poor health	0.25**	882	-0.02
	(0.11)	(2,360)	(0.02)
Ages 62-70	0.08	-2,589***	-0.01
	(0.09)	(980)	(0.01)
Married	0.06	-1,171	0.00
	(0.07)	(1,029)	(0.01)
Female	-0.06	-898	-0.00
	(0.06)	(1,042)	(0.01)
Non-Hispanic White	-0.04	1,329	-0.00
	(0.09)	(1,324)	(0.02)
Hispanic	0.11	836	-0.01
	(0.09)	(1,148)	(0.02)
College degree or higher	0.11	317	0.02
	(0.07)	(1,307)	(0.02)
Self employed	-0.43**	-1,276	-0.05
	(0.21)	(1,398)	(0.05)
Saving change top-coded		22,334***	0.06***
		(1,510)	(0.02)
Saving change bottom-coded		-16,664***	-0.13*
		(1,006)	(0.07)
Constant	0.38***	-2,041	-0.01
	(0.12)	(2,159)	(0.03)
Observations	248	153	153
R-squared	0.17	0	0.19

Notes: The dependent variable in column (3) equals the level change in saving divided by 2023 household income. Robust standard errors in parentheses. ***(p<0.01); **(p<0.05); *(p<0.1). The amount of saving was top- and bottom-coded at $20,000.
Source: Authors' estimates from survey data provided by Greenwald Research (2023).

Table A10. *Regression Results for the Change in Withdrawals, 2021-2023*

Variables	(1) Change withdrawals (binary)	(2) Change in withdrawals (nominal dollars)	(3) Change in withdrawals (percentage of income)
Not much inflation	-0.16***	-923	-0.02
	(0.05)	(981)	(0.01)
Very substantial inflation	0.09**	2,044**	0.02**
	(0.04)	(899)	(0.01)
Very good/good health	0.06	-5,128	-0.01
	(0.07)	(4,138)	(0.02)
Fair/poor health	0.14*	-5,790	-0.00
	(0.08)	(4,121)	(0.02)
Ages 62-70	-0.10	-113	-0.01
	(0.09)	(1,856)	(0.02)
Ages 71-79	-0.11	-420	-0.02
	(0.11)	(2,132)	(0.02)
Ages 80+	-0.07	-406	-0.02
	(0.11)	(2,289)	(0.03)
Married	-0.04	93	-0.01
	(0.04)	(986)	(0.01)
Female	-0.02	-65	-0.01
	(0.04)	(1,091)	(0.01)
Non-Hispanic White	-0.05	849	0.01
	(0.05)	(787)	(0.02)
Hispanic	0.04	75	0.01
	(0.07)	(874)	(0.02)
College degree or higher	-0.06	2,836***	0.02*
	(0.04)	(931)	(0.01)
Self employed	0.09	305	0.00
	(0.17)	(1,236)	(0.02)
Near retiree	-0.01	-413	-0.02
	(0.09)	(1,626)	(0.02)
Constant	0.53***	5,345	0.05
	(0.13)	(4,620)	(0.04)
Observations	878	392	392
R-squared	0.08	0	0.04

Notes: The dependent variable in column (3) equals the level change in withdrawals divided by 2023 household income. Robust standard errors in parentheses. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' estimates from survey data provided by Greenwald Research (2023).

Table A11. *Regression Results for the Change in Allocation, 2021-2023*

Variables	(1) Change portfolio (binary)	(2) Percentage-point change stocks	(3) Percentage-point change FI	(4) Percentage-point change alternatives	(5) Percentage-point change annuities
Not much inflation	-0.06	2.13	-0.03	-0.85	1.03*
	(0.04)	(1.76)	(1.83)	(0.74)	(0.57)
Very substantial inflation	0.02	-0.63	0.32	-1.15	0.29
	(0.03)	(1.38)	(1.33)	(0.88)	(0.53)
Very good/good health	-0.14**	3.21	-2.25	0.17	-1.81
	(0.07)	(2.49)	(1.70)	(0.50)	(1.34)
Fair/poor health	-0.15**	4.84*	-2.78	-0.43	-0.12
	(0.07)	(2.58)	(2.58)	(0.87)	(2.07)
Ages 62-70	-0.04	-2.41	1.00	0.85	0.56
	(0.04)	(1.73)	(1.54)	(0.88)	(0.99)
Ages 71-79	-0.12***	-2.01	0.60	-0.18	0.33
	(0.04)	(1.59)	(1.51)	(0.79)	(0.66)
Ages 80+	-0.15***	-1.30	-1.45	-0.39	-0.36
	(0.05)	(2.59)	(2.19)	(0.58)	(0.89)
Married	0.11***	0.55	1.31	-0.86	0.08
	(0.03)	(1.53)	(1.60)	(0.93)	(1.11)
Female	-0.08***	1.42	-3.61***	-0.53	0.88
	(0.03)	(1.32)	(1.17)	(0.72)	(0.66)
Non-Hispanic White	0.08**	1.58	1.96	-1.55	0.51
	(0.04)	(1.90)	(2.33)	(1.51)	(1.26)
Hispanic	0.03	-2.86	-1.46	-3.96*	-1.44
	(0.05)	(3.01)	(3.30)	(2.29)	(1.68)
College degree or higher	0.16***	-0.55	-1.31	1.21	-0.60
	(0.04)	(1.26)	(1.27)	(0.76)	(0.57)
Self employed	-0.01	0.79	-2.27	-3.24	-0.88
	(0.15)	(1.25)	(1.74)	(2.02)	(0.81)
Constant	0.33***	-5.66	3.90	2.64	0.96
	(0.08)	(3.63)	(2.97)	(2.32)	(1.84)
Observations	952	262	262	262	262
R-squared	0.11	0.05	0.07	0.08	0.06

Notes: Robust standard errors in parentheses. ***(p<0.01); **(p<0.05); *(p<0.1).
Source: Authors' estimates from survey data provided by Greenwald Research (2023).

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