PRRL

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ESG INVESTMENT OPTIONS IN PUBLIC DC PLANS

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Key Findings

Increasing consideration of sustainable investing in retirement plans has been driven by growing recognition of climate change and evolving consumer preferences, as well as innovations in both data and investment products, heightened regulatory focus, and continued media coverage. As a first step toward providing objective research on this topic, this Issue Brief studies the adoption of one kind of sustainable investment — environmental, social, or governance (ESG)-themed investment options — among public defined contribution (DC) plan participants.

To study the prevalence and adoption of ESG investing in employer-sponsored retirement plans, we use data collected by the Public Retirement Research Lab (PRRL). In this *Issue Brief*, we study the ESG investment decisions of approximately 32,000 participants in public-sector defined contribution retirement plans. We show that using plan-level aggregate values to assess individual participants' ESG investment decisions gives an incomplete picture in assessing participant preferences. While dollar allocations to ESG funds at a plan level may be small (on average, 2.7 percent in our sample), we find an overall ESG adoption rate of 31 percent and an average ESG allocation for ESG-investing participants of 14 percent.

In addition, we find differences of ESG adoption relative to gender, age, tenure, and account balance among public retirement plan participants. We show that women are statistically significantly more likely to invest in ESG funds relative to men. Older participants, longer-tenured participants, and those with higher account balances are less likely to invest than their younger and less well-off counterparts. However, despite the general decline in ESG participation rates with age, we document that variation in ESG allocations across participants tends to increase with age.

This analysis provides an opportunity to begin a discussion on how plan design and governance impact not only sustainable investing within retirement plans but potentially engagement as well. We would expect these findings to apply to the experience of private-sector workplaces when active choice is present. Areas for future research could include the relationship between ESG prevalence and overall plan participation rate as well as participant preferences considering investment characteristics and participants' incomes.

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INTRODUCTION

Increasing consideration of sustainable investing in retirement plans has been driven by growing recognition of climate change and evolving consumer preferences, as well as innovations in data and investment products, heightened regulatory focus, and continued media coverage. As a first step toward providing objective research on this topic, this *Issue Brief* studies the adoption of one kind of sustainable investment — environmental, social, or governance (ESG)-themed investment options — among public defined contribution plan participants. This research joins other work that explores the relationship between plan participant behavior and investments that align to environmental, social, or governance preferences.[1] Notably, while connecting sustainable investment in retirement plans to the broader issue of retirement security is important (U.S. households are projected to have a retirement deficit of $3.68 trillion[2]), it is beyond our study's scope.

The extent of sustainable investment in employer-based retirement plans is not known with certainty since it can take many forms within the broader investing context. Two simplifications for sustainable investing are often used in employer-sponsored retirement plan design: characterizing an investment option as sustainability, or ESG, themed, or characterizing the investment as generally integrating material sustainability, or ESG, factors.

The first approach to sustainable investing, characterizing a fund as ESG themed, may be more easily identifiable to retirement plan participants via product labeling. Using this narrow measure, participant adoption of sustainable investing among private employers has been reported as minimal. In 2019, 9 percent of private-employer-based 401(k) plans using Vanguard as a recordkeeper offered a socially responsible investment fund, although the prevalence increased according to plan size.[3] In addition, approximately 1 percent of plan assets are reported to be invested in ESG funds, according to studies conducted by the US Sustainable Investment Forum (SIF)[4] and the Plan Sponsor Council of America.[5]

However, prevalence and adoption measures among investment products labeled as ESG-themed funds is only a fraction of the extent of sustainable investing within workplace retirement plans, given the variation in how material ESG factors can be integrated in investment processes. Illustrating the difference in scale, in 2018 investment managers reported to US SIF that $11.6 trillion of $46.6 trillion (25 percent) of their U.S. assets under management incorporated ESG criteria into their investment analysis and decision-making process.[6] In 2020, the ESG Survey by the Callan Institute reported that 42 percent of institutional investors incorporated ESG factors into the decision-making process (up from 22 percent in 2013).[7]

Amid challenges in sizing sustainable investment in retirement plans, the regulatory tone toward the issue often shifts based on presidential administration. In October 2021, the Department of Labor proposed a rule intended to remove barriers to considering ESG factors in retirement plan investment design titled "Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights."[8] Following the proposal, the Department announced a public Request for Information in

February 2022 on if and how the agency should protect retirement savings and pensions from climate-related financial risks.[9]

While the Employee Retirement Income Security Act of 1974 (ERISA) and Department of Labor regulations govern private employer-based retirement plans, state and local law and regulations govern public retirement plans. Public plans' adoption of sustainable investing has been reported as higher among defined contribution plans compared with private defined contribution plans. To illustrate, 43 percent of public and nonprofit plans offer a standalone ESG option compared with 5 percent of corporate DC plans.[10] Even though public plans are not subject to ERISA, these fiduciaries may reference federal law as a guideline. The difference in oversight between public-sector and private-sector plans provides a unique background when studying the prevalence and adoption of ESG investing in employer-sponsored retirement plans.

About PRRL

The Public Retirement Research Lab (PRRL) provides unbiased and actionable findings that allow plan sponsors, providers, administrators, policymakers, and others to inform better decision making around public retirement plans. The PRRL provides a central clearinghouse for data-driven analyses of the current state of public defined contribution (DC) retirement plans.

This analysis is based on data contained in the PRRL Database, which is the first-ever repository of public-sector DC plan- and participant-level data. The opening PRRL Database, which this analysis is based on, contains year-end 2019 data for nearly 200 457(b), 401(a), 403(b), 401(k), and other defined contribution plans; nearly 2.3 million state, county, city, and subdivision government employees; and $113 billion in assets. While the number of governments participating in the dataset appears small when measured against the thousands of state and local government entities in the United States, it is important to note that many state plans serve as the primary DC vehicle for lower-level governments within their respective states. The state plans in the PRRL Database represent as many as 1,000 participating employers, even though they are counted as a single plan.

DATA

To study the prevalence and adoption of ESG investing in employer-sponsored retirement plans, we use data collected by the Public Retirement Research Lab, an industry-sponsored collaborative effort of the National Association of Government Defined Contribution Administrators and the Employee Benefit Research Institute. The PRRL Database contains participant-level data on contributions and balances to the individual investment options available in public-sector employer-sponsored defined contribution retirement accounts. The PRRL data used in this *Issue Brief* are based on account balances of participants as of year-end 2019.

For this study, the universe starts with 1.2 million public-sector employees representing approximately $40 billion in assets in the PRRL Database for which individuals' investment-level asset allocation decisions are fully available. We reference investment options in the PRRL Database with data from Morningstar on publicly traded mutual funds. We classify a fund as being "ESG themed" if Morningstar classifies the fund as "Sustainable Investment — Overall"; this definition is based on whether the mutual fund explicitly indicates any of kind of sustainability, impact, or ESG strategy in the fund prospectus or offering documents. We refer to mutual funds classified as "ESG funds" or "ESG-themed" funds.

PLAN-LEVEL ANALYSIS

Using the sample available within the PRRL universe, this section addresses plan-level prevalence of and investment in ESG-themed funds. Across the plans, 472 unique investment options were identified, including four that are characterized as an ESG-themed fund.[11, 12, 13] Narrowing the participant sample to those who are offered ESG funds produces a total of approximately 32,000 unique participants representing a total of $1.8 billion in assets.

Among plans that offer ESG funds, the median total amount of assets invested at the plan level is 1.0 percent with a range from 0.5 percent to 6.8 percent. The percentage of plan assets is consistent with previously cited estimates from US SIF and PSCA. This aggregate plan-level view is complemented with participant-level analysis in the following section to provide a more granular view of ESG investment adoption in public retirement plans.

PARTICIPANT-LEVEL ANALYSIS

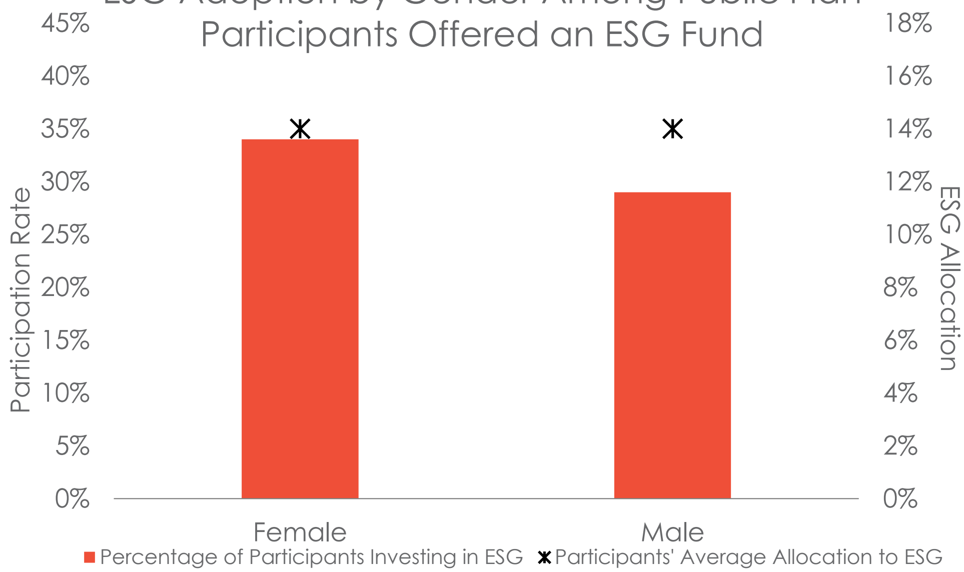
In this section, we study public plan participant investment allocation to ESG-themed funds. To do so, we limit our analyses to the 32,111 participants in plans with ESG-themed funds available.[14] For these participants, we examine two key metrics:

1. Whether the participant allocates *any* of their account balance to the ESG fund being offered. If a participant allocates any of their balance to the ESG fund, we refer to them as an "ESG investor." The ratio of ESG investors to total participants in a plan is referred to as the "ESG adoption rate" or "ESG participation rate."
2. The share of their overall retirement account balance ESG investors allocate to ESG funds. We refer to this percentage as the participant's "ESG allocation."[15]

There are approximately 10,000 ESG investors out of the 32,000 total participants, indicating an overall ESG adoption rate of 31 percent. Conditional on being an ESG investor, the average proportion of the individual's account allocated to the ESG fund is 14 percent. Beyond these averages, we find meaningful variation in ESG adoption across participants, by age, gender, account balance, and tenure, reflected in Figures 2, 3, 4, 5, and 6.

As seen in Figure 1, 34 percent of women are invested in ESG funds as compared with 29 percent of men among the public plan participants in the sample offered an ESG fund. The difference in proportions between men and women investing in ESG funds is statistically significant at the 99 percent confidence level. Overall, there is little variation by gender in the allocation to ESG, where both female and male ESG investors have approximately the same share (14 percent) of overall account balances allocated to ESG funds.

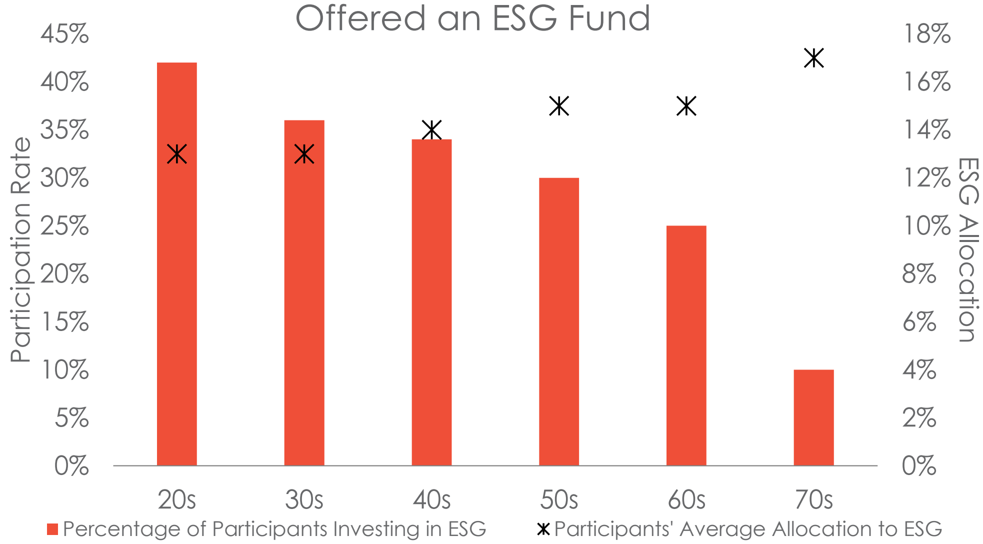
Figure 1
ESG Adoption by Gender Among Public Plan Participants Offered an ESG Fund



Note: ESG = environmental, social, or governance.

Figure 2 illustrates how ESG adoption rates tend to decline with age. Forty-two percent of participants in their 20s are invested in ESG funds as compared with 30 percent of participants in their 50s and 10 percent of participants in their 70s.[16] Older participants may have lower adoption rates when compared with younger participants due to plan menu changes over time or inertia.[17] At the same time, allocation to ESG funds appears to increase with age, from a 12.6 percent allocation among participants in their 20s to 14.7 percent among participants in their 50s and 16.8 percent among participants in their 70s. We explore the variance in the relationship between allocating to ESG funds and age in Figure 5.

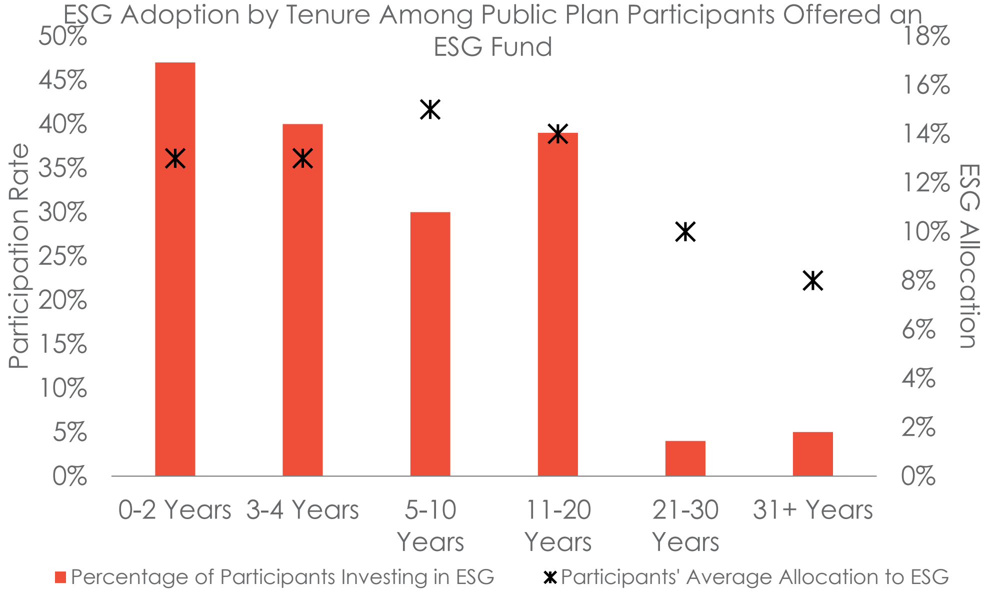
Figure 2
ESG Adoption by Age Among Public Plan Participants Offered an ESG Fund



Note: ESG = environmental, social, or governance.
Source: Estimates from the Public Retirement Research Lab Database.

Figure 3 shows ESG adoption relative to tenure. Forty-seven percent of participants with 0–2 years tenure are invested in ESG funds as compared with 39 percent of participants with 11–20 years in tenure and 8 percent of participants with tenure in excess of 31 years. Similar to considerations when looking by age, longer-tenured participants may have a lower adoption rate when compared with less tenured participants due to plan menu changes over time or inertia.

Figure 3
ESG Adoption by Tenure Among Public Plan Participants Offered an ESG Fund



Note: ESG = environmental, social, or governance.
Source: Estimates from the Public Retirement Research Lab Database.

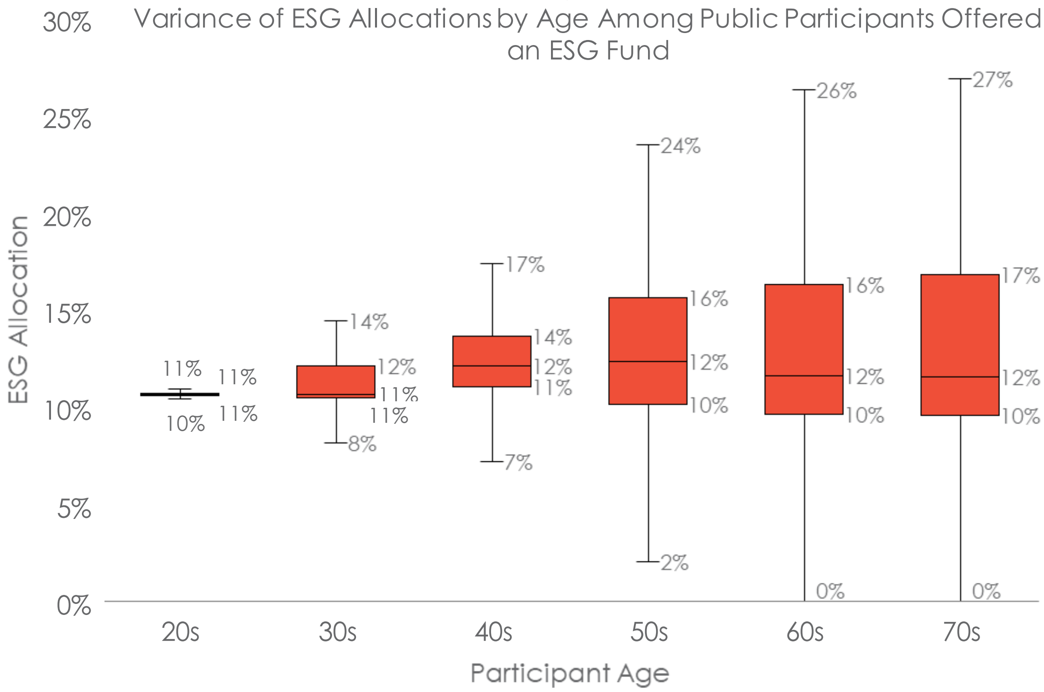
Figure 4 illustrates how ESG adoption rates tend to decline with account balance. Thirty-nine percent of participants with balances between $1 and $9,999 were invested in ESG funds vs. 22 percent of participants with balances between $50,000 and $99,000 and 15 percent of participants with balances higher than $250,000. However, allocation to ESG appears to be a concave function of account balance, with allocations peaking among public participants with a balance between $50,000 and $99,000.

Figure 4
ESG Adoption by Account Balance Among Public Plan Participants Offered an ESG Fund

Note: ESG = environmental, social, or governance.
Source: Estimates from the Public Retirement Research Lab Database.

Finally, we present evidence in Figure 5 that the variance in ESG asset allocation decisions across plan participants increases with age. Figure 5 is a box-and-whisker plot that shows the distribution of asset allocation decisions across participants within a given age group.[18] The increasing size of the "whiskers" with age groups indicates larger variation in the ESG allocation decisions for older participants relative to younger participants. For example, ESG investors in their 50s generally ranged from 2 percent to 24 percent in their allocation. Among ESG investors in their 50s, the 25th percentile allocation was 10 percent, the 50th percentile was 12 percent, and the 75th percentile was 16 percent. Similar patterns in the participant-level variation in ESG asset allocation were observed by gender, tenure, and account balance.

Figure 5
Variance of ESG Allocations by Age Among Public Participants Offered an ESG Fund



Note: ESG = environmental, social, or governance.
Source: Estimates from the Public Retirement Research Lab Database.

LIMITATIONS

Before concluding, we offer three important limitations with respect to interpretations of this *Issue Brief*, which provide opportunity for further research.

- First, the analyses presented in this *Issue Brief* should not be interpreted as measuring differences in preferences for ESG investing across demographic groups. We do not control for important factors (e.g., participant salary) that may differ across individuals. Furthermore, we do not control for factors specific to each ESG investment option, such as its expected risk/return profile and correlations with other asset returns. We use a broad definition of ESG funds in this *Issue Brief*; we leave it to future work to disentangle the various aspects of ESG investing.
- Second, one should be cautious in extrapolating retirement savings behavior for public-sector employees to compare with private-sector employees. Public-sector employees in the PRRL Database are often participants in employers' defined benefit pension plans. Public plan participants' expected pension benefits may influence their savings behavior in their defined contribution accounts via risk tolerance or other preferences. Public plan participants are also less likely to have been automatically enrolled into a default investment alternative.
- Finally, the data used in this *Issue Brief* are a cross-sectional "snapshot" of individuals as of year-end 2019. It is not a longitudinal analysis that follows the same set of individuals over time. Thus, we cannot assess, for example, whether a minority of older individuals have gradually increased their allocation to ESG assets over time or whether these older individuals have consistently held a large allocation to ESG funds. In other words, we are unable to observe how individuals rebalance their ESG asset allocations over time.

CONCLUSION

In this *Issue Brief*, we study the ESG investment decisions of approximately 32,000 participants in public-sector defined contribution retirement plans. We show that using plan-level aggregate values to assess individual participants' ESG investment decisions can be misleading. While dollar allocations to ESG funds at a plan level may be small (on average, 2.7 percent in our sample), the average ESG allocation for ESG-investing participants is 14 percent.

In addition, we find differences of ESG adoption relative to gender, age, tenure, and account balance among public retirement plan participants. We show that women are statistically significantly more likely to invest in ESG funds relative to men. Older participants, longer-tenured participants, and those with higher account balances are less likely to invest than their younger and less well-off counterparts. However, despite the general decline in ESG participation rates with age, we document that variation in ESG allocations across participants tends to increase with age.

This analysis provides an opportunity to begin a discussion on how plan design and governance not only impact sustainable investing within retirement plans but potentially engagement as well. Notwithstanding the limitations stated previously, we would expect these findings to apply to the experience of private-sector workplaces. Areas for future research could include the relationship between ESG prevalence and overall plan participation rate, and investigating participant preferences considering risk, investment characteristics, and other demographics such as income.

ENDNOTES

[1] See 2021 Natixis Global Survey of Individual Investors ESG Insights, Natixis Investment Managers, and "ESG Options in 401K plans could lead to higher contribution rates according to Schroders survey," Institutional Investors, Schroders.

[2] See VanDerhei, Jack, "The Impact of Adding Private Equity to 401(k) Plans on Retirement Income Adequacy," *EBRI Issue Brief*, no. 547 (Employee Benefit Research Institute, December 16, 2021).

[3] See Vanguard. 2020. *How America Saves 2020.* Malvern, PA: Vanguard.

[4] See US SIF. (2017). *Adding Sustainable and Responsible Investing Options to Defined Contribution Plans.* Washington, DC: US SIF. https://www.ussif.org/files/Publications/SIF_2017PlanSponsors_F.pdf.

[5] See Hallez, Emile. Investment News. Citing the PSCA. https://www.investmentnews.com/psca-403b-esg-annuities-212824.

[6] See US SIF Foundation. (2018, October 31). *US SIF Trends Report.* Retrieved from US SIF: https://www.ussif.org/files/US%20SIF%20Trends%20Report%202018%20Release.pdf.

[7] See Blanton, S., Hoy, A., & Shingler, T. (2020). *2020 ESG Survey.* Callan Institute.

[8] See Federal Register. October 14, 2021. Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights. Employee Benefits Security Administration, Department of Labor. 86 FR 57272. 57272-57304 (33 pages). https://www.federalregister.gov/documents/2021/10/14/2021-22263/prudence-and-loyalty-in-selecting-plan-investments-and-exercising-shareholder-rights.

[9] See Federal Register. February 14, 2022. Request for Information on Possible Agency Actions to Protect Life Savings and Pensions from Threats of Climate-Related Financial Risk. Employee Benefits Security Administration, Labor. 87 FR 8289. 8289-8292 (4 pages). https://www.federalregister.gov/documents/2022/02/14/2022-02798/request-for-information-on-possible-agency-actions-to-protect-life-savings-and-pensions-from-threats.

[10] See Blanton, S., Hoy, A., & Shingler, T. (2020). *2020 ESG Survey.* Callan Institute.

[11] The four mutual funds available in these plans classified as ESG for the purpose of this *Issue Brief* are (in no particular order): (1) Vanguard FTSE Social Index Fund; (2) Domini Impact International Equity Fund; (3) Calvert Balanced Fund; and (4) Calvert US Large Cap Core Responsible Index Fund.

[12] The PRRL Database contains information covering large public-sector defined contribution plans. While these plans may represent as many as 1,000 participating employers across different government entities, they are counted as a single "plan" for administrative purposes.

[13] 17.8 percent of the usable PRRL plan sample offers ESG-themed funds. This compares with an analysis conducted for the US SIF Foundation by ISS Market Intelligence's BrightScope, finding that 11,488 (19.6 percent) of 58,590 401(k) plans that disclosed their menu offered ESG investment options. Source: Adding Sustainable Funds to Defined Contribution Plans. Update 2021. https://www.ussif.org/files/Publications/Plan%20Sponsor%20Guide%202021%20FINAL.pdf.

[14] We remove employees whose account balances are zero when studying ESG asset allocation decisions.

[15] We study participants' asset allocations only in their defined contribution retirement plans in the PRRL Database. We do not observe asset allocation decisions for these public-sector employees in other retirement accounts (e.g., individual retirement accounts, DC plans from prior employers, etc.) or non-retirement assets (e.g., brokerage accounts).

[16] The impact of investment defaults on ESG adoption is not studied robustly due to data limitations on plan design. However, we find that excluding participants with a 100 percent allocation to a single investment option (which is indicative of so-called "default effects") increases the estimated prevalence of ESG adoption. Removing these participants increases the calculated overall ESG participation rate to 40 percent from 31 percent. When looking across demographic segments, removing participants who hold only a single investment option increases the estimated adoption rate between 1 and 22 percentage points. Removing these participants does not meaningfully affect the average ESG asset allocations among ESG investors.

[17] See Madrian, B., & Shea, D. (2001). The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior. *The Quarterly Journal of Economics*, *116* (4), pp. 1149-1187.

[18] A box-and-whisker plot is a common graphical tool to visualize both measures of central tendency and variation in data. The "box" shows the 25th, 50th, and 75th percentiles of the asset allocation distribution for each age group. The "whiskers" are approximately 150 percent of the interquartile range (the difference between the 75th and 25th percentiles) above and below the 75th and 25th percentiles, respectively.

About PRRL

The Public Retirement Research Lab is a retirement industry-sponsored collaborative effort of the National Association of Government Defined Contribution Administrators (NAGDCA) and the Employee Benefit Research Institute (EBRI). The PRRL mines data from its Public Retirement Research Database, the first-ever database specific to public sector plan- and participant-level defined contribution data, to produce unbiased, actionable findings to better inform public plan design, management, innovation, and legislation. The overarching goal of the PRRL is to enhance understanding of the design and utilization of public sector defined contribution retirement plans as a means of helping public sector employees achieve a secure retirement. To learn more, visit www.prrl.org.

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