The Effects of Organizational Trust on Investors' Expectations and Allocations

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Abstract

Investment funds bearing an organization's name shape investor trust even when it conveys no information about quality. In an incentivized experiment, we vary the organization associated with otherwise identical index funds to manipulate trust. Trusted organizations' names increase expected returns and reduce perceived loss risk. A five-to-thirteen percentage point allocation increase is directly due to trust, independent of beliefs. Financial literacy moderates these effects. Embedding results in a portfolio choice model yields a 5% trust premium, underscoring organizational trust shapes behavior even absent informational value.

Keywords: Organizational trust; Choice experiment; Behavioral Finance
JEL codes: G51; G21; G41

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Introduction

Financial interactions rely on trust (Guiso et al., 2004; Fehr, 2009). Trust supports investment, encourages stock market participation, promotes information sharing, and enables the overall efficient functioning of markets. The foundational importance of trust to financial interactions is most clearly shown when trust is betrayed. The impacts of the massive "trust shock" from the implosion of Bernie Madoff's Ponzi scheme, for example, were felt far beyond the scheme's direct investors and reached the broader advisory industry. Abnormal outflows from registered investment advisers totaled $363 billion following the Madoff scandal (Dupont and Karpoff, 2020; Gurun, Stoffman, and Yonker, 2018). That the aftershocks of such scandals carry to unrelated firms confirms that investors shy away from financial risk when trust in "money doctors" is weakened (Gennaioli, Shleifer, and Vishny, 2015; Germann, Mertes, Weber, and Loos, 2024).

Past studies of the relation between trust and financial decisions have provided valuable insights by measuring trust from observational data, usually defined as a personal disposition or cultural value. The trust that influences financial decisions, however, can be more precisely defined than these general dispositional or cultural measures, since trust can be specific to the decision being made and to the financial agent being judged, that is to the adviser, manager or firm. In this study, we focus on the trustworthiness of specific organizations that individuals may readily encounter while making financial decisions. We experimentally manipulate this specific form of trust in a controlled setting, to identify its effects. We test how individual investors choose among funds offered by asset management organizations that vary by their perceived trustworthiness. And since choices among funds will depend on expected payoffs, we also measure how investors' expectations of investment payoffs vary by perceived trustworthiness. By sharpening the focus from general concepts of trust to trust in a particular organization, we can better understand how trust affects investment decisions.

We collected data on fund choice and expectations in an incentivized survey experiment

administered through the Understanding America Study (UAS). Respondents completed two tasks involving a hypothetical retirement plan. The first task asked respondents to allocate their retirement savings among mutual funds in the plan's menu, and the second task asked respondents to use a distribution builder to show expected payoffs for a subset of the funds. The resulting experimental data have advantages over observational plan data, where heterogeneity across plans in fund offerings, fund characteristics, and naming conventions complicates efforts to disentangle the influence of organizational labels from other menu attributes. Our design overcomes this by holding all fund attributes constant and varying only the organizational label attached to otherwise identical funds, enabling a clean causal estimate of how labeling affects respondent beliefs and allocations.

The experiment also uses an increasingly common feature of retirement plans that provides a natural setting for studying organizational trust: an investment menu that includes "white label" funds. These generically named investment options are built by plan sponsors from a tailored mix of underlying funds, often sourced from multiple managers. Because white label funds can appear alongside branded investment options within the same menu, they allow us to isolate how the presence or absence of organizational identity shapes investor beliefs and portfolio choices. We use this setting to study investor responses to white label funds, and, more broadly, to identify the role of organizational trust in financial decision-making.

The experiment assigned respondents randomly to one of four conditions. Respondents in every condition could choose to invest in white label funds. In three treatment conditions, each white label fund was paired with a financially identical counterpart labeled with either a highly trusted asset management organization (Condition 1), a less trusted asset management organization (Condition 2), or the respondent's employer (Condition 4). A control condition (Condition 3) presented only white label funds, providing a trust-free baseline. We adopt a between-subjects design in which participants see only one version of the menu, so avoiding trust-amplifying demand effects that could arise from within-person comparisons of high- and low-trust options. To further strengthen identification, we capture organizational

trust using two complementary approaches: pre-tested asset management organizations that vary on organizational trust but not familiarity; and respondents' self-reported trust in their own employers. By combining the two approaches, we ensure that our results reflect organizational trust rather than related constructs such as name recognition or familiarity.

We base our study in the theory of Gennaioli, Shleifer, and Vishny (2015) where trust in financial organizations or agents such as families of mutual funds, registered investment advisors, financial planners, and brokers ("money doctors") gives investors confidence to take risks. We narrow the focus to trust defined as perceptions of an *organization's* competence and integrity, as distinct from the interpersonal and social constructs more emphasized by Gennaioli, Shleifer, and Vishny (2015).

Our study presents new evidence on the money doctors hypothesis in two key ways. First, complementing the results of Germann et al. (2024) that trust in a money doctor can increase investor risk-taking, we show that organizational trust operates through a distinct channel by affecting investors' subjective beliefs about asset returns rather than their underlying risk tolerance. Building on this result, we then decompose the effects of trust on portfolio allocation decisions into a "direct effect" of trust on allocations and an "indirect effect" operating through trust-induced changes in beliefs. The money doctors theoretical mechanism translates naturally to our setting. Before econometrically decomposing the direct and indirect channels, we first document the overall influence of organizational trust on portfolio allocations. Respondents in Condition 1, whose choice sets included the high trust organization, allocated nearly two-thirds of their savings (65%) to its funds, whereas respondents in Condition 2 allocated an average of 42% of their savings to the low trust organization funds. This pattern held consistently across all five asset classes in our experiment, underscoring the behavioral relevance of organizational trust. Results for Condition 4 were consistent with Conditions 1 and 2, with smaller effect sizes.

Respondents viewed the low-trust organization's index funds as both riskier and less rewarding than the high-trust organization's funds, even though the funds were financially identical in our study. On average, respondents assigned an approximately 5 to 7 percentage

point higher probability of losses to the low-trust funds, while simultaneously expecting 2 to 3 percentage point lower returns.

However, differences in expectations alone did not fully explain the allocation patterns. Even after controlling for expected payoffs, respondents allocated significantly more to high-trust funds. The direct effect, where trust influences allocations independently of expected payoffs, is consistent with Germann et al. (2024) and supports the baseline model of Gennaioli, Shleifer, and Vishny (2015).[1] Overall, our findings provide the most complete empirical validation to date of the money doctors framework when applied to organizational trust, by confirming that trust affects investment decisions both directly, and indirectly through biased return expectations.

We further show that these effects are not uniform across investors. Financial literacy plays an important moderating role: high financial literacy investors' payoff expectations are largely unaffected by organizational trust, yet their allocations are significantly directly affected by trust. Low financial literacy investors' expected payoffs are affected by organizational trust while their allocations are less directly affected by trust.

Finally, we quantify the economic value of organizational trust by embedding our results in a portfolio choice model.We estimate a statistically significant return premium attributable to organizational trust of approximately 5 percentage points. This premium can be interpreted as the additional return that investors expected from investing in asset management organizations with high organizational trust. This effect is primarily driven by a 4% discount that investors place on the low-trust organization as opposed to a small, statistically insignificant premium of 1% that investors place on the high-trust organization, suggesting that negative assessments of organizational trust have a stronger influence on decisions than positive ones. This quantification is a novel and important contribution to the literature on trust and financial behavior. Furthermore, these results carry direct implica-

[1] Gennaioli, Shleifer, and Vishny (2015) also allow for investors to hold mistaken expectations, and find that money doctors may pander to the mistaken expectations and fail to correct them. However, investors' mistaken expectations are independent of managers' trustworthiness. See Section IV of Gennaioli, Shleifer, and Vishny (2015).

tions for asset management firms, plan sponsors, and regulators: our findings suggest organizational trust can shape capital allocation decisions even when investment products are financially identical, making the labeling of fund options a consequential determinant of fund flows and participant welfare.

1 Related Literature

Our paper is most directly grounded in the theoretical work of Gennaioli, Shleifer, and Vishny (2015) and the experimental work of Germann et al. (2024). As discussed in the introduction, Gennaioli, Shleifer, and Vishny (2015) propose several mechanisms linking trust to portfolio allocations, including a direct mechanism where trust reduces investor anxiety towards risk. They also propose another mechanism where biased return expectations allow trusted managers to exploit investors. While Gennaioli, Shleifer, and Vishny (2015) assume the return biases arise from external factors, like extrapolation, our study extends the theory by demonstrating that organizational trust itself acts as the driver of biased beliefs, creating an indirect channel between trust and portfolio decisions through expectations. Furthermore, unlike Gennaioli, Shleifer, and Vishny (2015), who allow for investors to be incorrect about the first moment of the return distribution but assume that volatility is known, we allow participants to report beliefs about the entire distribution of potential returns, enabling us to test whether organizational trust distorts beliefs about risk as well as return.

Germann et al. (2024) provide experimental evidence for the direct channel mechanism under the assumption of unbiased beliefs. Acknowledging that trust could bias beliefs and providing supporting survey evidence to that effect, Germann et al. (2024) design their experiment so that biased beliefs can be ruled out as an explanation.[2] Our study builds on this foundation by treating the belief channel not as a competing explanation to control for but as a mechanism to test directly. We complement and extend their evidence by explicitly testing both mechanisms simultaneously in an organizational trust setting, directly eliciting

[2] Germann et al. (2024) observe in two of their three experiments that roughly 60 percent of their participants stated in a survey that more trustworthy managers would deliver better investment outcomes.

investor beliefs to separate the indirect effect of trust on return expectations from its direct effect on allocations.

Beyond this direct theoretical lineage and experimental work, the literature on the role of names in investment decisions provides strong evidence that names can shape investor behavior in multiple ways. For instance, mutual fund flows have been shown to respond to names that are trending (Cooper et al., 2005), fluent (Green and Jame, 2013), alphabetically prior (Jacobs and Hillert, 2016; Doellman et al., 2019), or nationally appealing (Pursiainen, 2022). Relatedly, employer stock — a security identified by the company name of the employer — has also been found to attract employee investors, with explanations ranging from familiarity bias and implied endorsement to search costs and company loyalty (Agnew, 2006, Benartzi and Thaler, 2001, Cohen, 2009, Hortaçsu and Syverson, 2004, Huberman, 2001). These channels explain why investors are drawn to some organizations, but our work contributes by showing that organizational trust is a distinct mechanism, shaping perceptions of risk and return through judgments of competence, dependability, and integrity, beyond familiarity, loyalty, and endorsements.

Our focus on organizational trust also relates to research on brand effects in finance. In finance, high brand visibility can correlate with more precise information flows about firms (Frieder and Subrahmanyam, 2005) or promises of glamour (Lakonishok et al., 1994), attracting investors. Prior work on financial decision-making has shown a positive impact of favorable "brand" names on mutual fund purchase decisions over and above conventional rational drivers, even when the name belongs to a fund's management company and not the fund itself (Grice and Gueciouer, 2023, Karoui and Ghoul, 2022, Sialm and Tham, 2016, Wang and Tsai, 2014). While related to this literature, our work makes a distinct contribution by focusing specifically on organizational trust rather than brand recognition or prestige.

Further support for our framework comes from evidence on trust shocks. Choi and Kahan (2007) show that a mutual fund scandal can generate spillover effects across the broader management company, leading to statistically significant outflows from other funds it man-

ages. Although they do not explicitly frame their findings in terms of organizational trust, the evidence is consistent with it: outflows are larger when the "wrongdoer" is the organization itself, rather than an individual who can be dismissed. Their results highlight how shocks can erode organizational trust and materially affect investment flows. In contrast, our study demonstrates that even in the absence of shocks, variation in organizational trust alone shapes investor perceptions and allocation decisions. Specifically, we show that organizational trust transfers into investment choices where it should be irrelevant, such as index funds that are identical across providers absent fees, through associations with asset management organization or employer name (Erdem and Sun, 2002; Mullainathan et al., 2008).

We also contribute to the broader literature on trust and risk perception in psychology, economics and finance (Guiso, Sapienza, and Zingales, 2009; Gennaioli, Shleifer, and Vishny, 2015; Klein and Shtudiner, 2016; Siegrist, 2021; Greig et al., 2025). Our results relate to both revealed and stated preference studies showing that stock market participation and stock shares in portfolios depend on respondents' beliefs about returns and risk (Adam et al., 2021, Egan et al., 2021, Egan et al., 2022, Giglio et al., 2021, Greenwood and Shleifer, 2014, Merkoulova and Veld, 2022, Shin, 2021). The magnitude of our experimental effects are similar to those found in studies using administrative data, lending external validity to our findings. Moreover, our results support prior evidence of spillover effects from organizational beliefs. For example, using revealed preference data, Egan et al. (2021) find that employees extrapolate the performance of their own employer organization to the performance of the stock market more broadly.

2 Organizational Trust: Definition and Relevance

Trust is well established as central to economic behavior, yet it is a complex, multidimensional construct. Identifying the relevant form of trust is therefore essential to this study. Prior work distinguishes between broad notions of trust, such as general trust dispositions, cultural influences, and industry reputation, and more targeted assessments of specific

organizations or individuals.[3] Financial transactions, in particular, have been described as "trust-intensive contracts" (Guiso et al., 2004), with trust shaping investment behavior and financial market dynamics more broadly.[4]

Building directly on this literature, we narrow our focus to organizational trust, defined as confidence placed in specific institutions, such as asset management firms, that investors directly engage with when making financial decisions.[5] This form of trust has been shown to be especially relevant to financial institutions and pension systems (van Dalen and Henkens, 2018). Misconduct at financial organizations, perceived as a betrayal of trust (Fehr, 2009; Bohnet and Zeckhauser, 2004), has been linked to lower corporate valuations (Dyck et al., 2010) and corporate scandals to investor unwillingness to participate in the stock market (Giannetti and Wang, 2016) providing evidence that organizational trust has material consequences for capital allocation. We propose that organizational trust is particularly salient in the investment context, as allocation decisions are inherently future-oriented and may have outcomes that are contingent on the operations of an asset management organization. It is precisely this form of trust, confidence in the specific institution managing one's investments, that is activated when investors encounter organizationally labeled funds alongside anonymous white label alternatives, making it the natural focus of our study.

3 Design of Investment Experiment

We set the experiment in a hypothetical U.S. retirement plan. The respondents who took part in the experiment were currently-employed U.S. adults who were at the time, or had

[3] For an overview of different types of trust studied in the literature, see Vickerstaff et al. (2012).

[4] See, for example, Choi and Robertson (2020); Bhagwat and Liu (2020); Giannetti and Wang (2016); Guiso et al. (2008, 2009); Pursiainen (2022).

[5] Organizational trust is the perception that a firm is dependable: that it demonstrates both competence and integrity (adherence to moral and ethical standards) (van Dalen and Henkens, 2018). Assessments of trust are continuously updated using new information on an organization's policies and practices (Sirdeshmukh et al., 2002), gleaned from public communications, word of mouth, and media coverage, particularly following an organization's missteps (Aaker et al., 2004, Aaker, 1997, Aggarwal and Larrick, 2012; Cowen and Montgomery, 2020). Common interactions with the organization, say as a customer or employee, also influence these perceptions (McAllister, 1995). Since each individual's interactions with an organization differ, trust can vary widely across investors (Choi and Lin, 2009, Cowen and Montgomery, 2020, Hendricks and Singhal, 2003, Rhee and Haunschild, 2006, Thirumalai and Sinha, 2011).

been in the past, participants in actual employer-sponsored retirement plans. This ensured familiarity with plan investment menus similar to those presented in the study.

Respondents were randomly assigned to one of four experimental conditions, each defined by the investment menu they were shown. Fund labels fell into three categories: anonymous white label funds (with no organizational affiliation), employer white label funds (with the name of the respondent's employer), and organization labeled funds (with the name of an asset management organization). All menus included anonymous white label funds, which served as the benchmark and the control group in our identification strategy.

- **Condition 1** paired anonymous white label funds with identical organization labeled funds carrying the name of a highly trusted asset management organization.
- **Condition 2** paired anonymous white label funds with identical organization labeled funds carrying the name of a less trusted asset management organization.
- **Condition 3 (Control)** included only anonymous white label funds.
- **Condition 4** paired anonymous white label funds with identical employer white label funds, labeled using the name of the respondent's own employer. In this condition, respondents also reported their level of trust in their employer on a seven-point scale, allowing us to compare decisions based on self-reported employer trust rather than organizational trust in an asset management organization.

In all conditions, respondents were offered zero-fee money market and index funds. Within each asset class (e.g., U.S. bonds), paired funds tracked the same benchmark. Thus, in an efficient market, respondents had no financial reason to prefer, for example, an "[Asset Management Organization Name A] U.S. Bond Index Fund" over a "U.S. Bond Index Fund." Any systematic differences in choices therefore revealed the effect of labeling alone.

After assignment to conditions, respondents completed two tasks designed to reveal how organizational trust influences investment decisions. In Task 1, they allocated retirement

savings across the available funds in the menu. In Task 2, they used a distribution builder to forecast 1-year payoff distributions for selected funds. We describe each task in detail below.

The order of the tasks in the experiment, where respondents allocated their retirement plan balances first (Task 1) before predicting fund investment outcomes (Task 2) may seem counter-intuitive, since the task order reverses the normal theoretical sequence where investors first predict risk-adjusted returns and then choose investment allocations. By reversing the order of those actions, the experiment lowers the risk that respondents give too much attention to the organization labeled funds. If respondents in Conditions 1 and 2 had predicted investment outcomes for the organization labeled funds first, while not making predictions for the anonymous white label funds in their menus, the sequence alone could have highlighted the organization-named funds and influenced their subsequent allocation choices. By placing the allocation task before the prediction task, we ensured that respondents did not focus more on one type of fund label over the other when making their allocations.

3.1 Design Choices and Identification Strategy

3.1.1 Between-Subjects Design

We purposefully adopted a conservative between-subjects design in which participants observe only one version of the investment menu and never choose between a high-trust and a low-trust fund. A within-subject design with a direct comparison risks introducing demand characteristics where participants may infer the hypothesis and adjust their behavior accordingly (Orne, 1962). This would likely amplify labeling effects by making within-person differences in trust between the two asset management organizations more salient (Charness, Gneezy, and Kuhn, 2012).

3.1.2 Two Organizational Trust Measures

We further strengthened the design by using two complementary approaches to capture organizational trust. First, for Conditions 1 and 2, we conducted pre-tests on a separate population to identify one high-trust and one low-trust asset management organization from a

broader pool of asset management organizations (the pre-testing process and other details are described further in Section 3.2). The two organizations varied on trust but did not differ on familiarity or liking. Second, in the employer-based condition (Condition 4), we measured trust directly by asking respondents to evaluate trust in their own employers on a 7-point scale. We construct binary variables from this measure to capture three levels of employer trust (High, Medium, and Low) and use these variables as independent variables in Condition 4. This approach spanned diverse industries beyond asset management organizations, yielding substantial variation in both the organizations named and the trust levels reported. Testing two distinct sources of organizational trust (asset management organizations and respondents' own employers) with two different approaches —i.e., experimentally manipulating trust by showing respondents a high versus low trusted organization, and measuring trust in respondents' employers— increases our confidence in observed effects and adds to the robustness of our design. Including both approaches provides assurance that the preselected organization names in Conditions 1 and 2 evoked respondents' organizational trust rather than some alternative construct.

3.1.3 White Label Context

We draw direct inspiration for our experimental design from real-world retirement menus that incorporate white label funds. White label funds are an increasingly popular feature of U.S. defined contribution retirement plans: a 2014 Hewitt study estimated that approximately 25% of plans offered a white label option (Hewitt EnnisKnup, 2014), and Healy (2020) estimated that 30% of assets in plans with more than $1 billion are invested in white label funds, with total assets ranging between $750 billion and $1 trillion. Plan sponsors point to several advantages including simplified menus, reduced costs, and access to more diversified options leveraging multiple managers (Bare et al., 2017), though implementation costs can be prohibitive for smaller plans. Although the share of plans offering white label funds remains relatively small, prevalence is especially high among large plans and the number of participants with access to them is substantial.

Agnew et al. (2022) provide the first systematic analysis of white label fund prevalence in public-sector pension plans, sampling 207 plans representing $112 billion in assets and 2.3 million accounts. They find that 66% of participant accounts are in plans offering white label funds, either exclusively or alongside manager-labeled options. Consistent with private-sector evidence, larger plans are more likely to adopt white label funds.

Critically for our design, Agnew et al. (2022) find that mixed menus — choice sets that contain both organizationally labeled and white label funds — are common, accounting for 41% of 401(a) and 40% of 457(b) participant accounts in their sample. This structure is also found in corporate plans — for example, Walmart's 401(k) plan includes both organizationally labeled and white label funds.[6] Notably, a subset of white label funds incorporate the employer's name into the fund name. These real-world structures — mixed menus, all-white label menus, and employer-named white label funds — directly inspire our experimental design, in which respondents see streamlined menus modeled on each of these configurations.

3.2 Focus Groups and Pretests: Survey Check and Identification of High-Trust and Low-Trust Organizations

Before we ran the survey experiment, we conducted two focus groups, facilitated by Distillery, Inc., to check whether typical respondents could understand the main tasks. The focus groups helped us choose more understandable labels for the fund options, and indicated that we needed to make a video to teach people how to use the distribution builder. We implemented both suggestions before fielding the survey.

After the focus groups, we ran a pretest with 128 respondents. The purpose of the pretest was to identify two asset management organizations that differed significantly on organizational trust but did not differ on other related constructs, such as familiarity or knowledge of the brand. To that end, we conducted a pretest in which we asked respondents to rate their familiarity (1 = very unfamiliar, 7 = very familiar), knowledge (2-item scale: "I consider myself knowledgeable," "I consider myself informed," 1 = strongly disagree, 7 =

[6] See page 2 of the plan documents at https://one.walmart.com/content/dam/themepage/pdfs/401k_Docs_en.pdf.

strongly agree; α= .96; Raju et al., 2009), and organizational trust (3-item, 7-point scale: very undependable/very dependable, very incompetent/very competent, of low integrity/of high integrity; α= .96; Montgomery and Cowen, 2020) in each of the six organizations. To protect anonymity, we do not disclose in this paper the names of the investment companies we tested. From this output, we identified two organizations to use in the main survey. These two organizations were selected because they differed by organizational trustworthiness (M=3.81 vs 3.49), but did not significantly differ from each other by familiarity or knowledge (all F's < 2.05, p's $> .16$). We refer to the identified organizations as the "high-trust" organization and the "low-trust" organization.

These pretest results give us confidence that any observed effects are attributable to differences in organizational trust and not differences in related constructs (i.e., brand familiarity or knowledge).

3.3 Task 1: Testing the Influence of Organizational Trust on Allocations

Before beginning Task 1, respondents were shown a description of the types of funds available in a new employer retirement plan. Figure 1 presents the general fund descriptions provided to all respondents.

We categorize the mutual funds into three broad asset classes: money markets, bonds, and stocks. Respondents could choose from five distinct investable fund types overall: three equity index funds (U.S. Large Cap, U.S. Small Cap, and Global), a Money Market fund and a U.S. Bond Index fund. In our subsequent analysis, we examine allocations at both levels: the broad asset classes and the more specific fund types. For clarity, we refer to money markets, bonds, and stocks as "broad asset classes," and to the five specific fund options as "fund types." We structured the menus this way to let us test whether people's choices between broad asset classes (money, bonds or stocks), or between fund types (e.g., large or small cap stocks) are affected by organization names included in the fund labels.

Table 1 provides the explanations given to respondents on the naming conventions used

Figure 1: **Mutual Fund Type Description for All Conditions**

This figure is a reproduction of the fund description we showed to all respondents before they allocated their retirement balance among these funds in Task 1 and assigned probabilities to possible investment outcomes in Task 2.

Important Note: All fees related to all fund investments have been waived.

On the next page, you will be asked to allocate your retirement funds to different types of mutual funds. Mutual funds are investments that pool money together from investors to purchase a collection of stocks, bonds, and/or other investment products. A portfolio manager typically oversees the investments.

You can choose among several mutual funds invested in different asset types. They are described below.

Mutual Fund Asset Type Descriptions

- **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.
- **U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.
- **Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.
- **Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks.
- **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

for the survey funds. For respondents in Conditions 1 and 2, we said that they could choose funds managed by a professional investment company whose name would precede the fund name. To keep the text the same for respondents in Conditions 1 and 2, we did not yet mention a specific asset management organization. For respondents in all conditions, we said that the anonymous white label funds were tailored to their employer's retirement plan and given a "generic" name. For respondents in Condition 3, the "generic" white label text was the only explanation they read.

After viewing the fund descriptions, respondents read these instructions:

> Now, we would like for you to imagine that your employer has started a new retirement plan. You must decide how to allocate the money that you have in your retirement account.

> On the next page, you will see a retirement account allocation form. Please read through the form carefully, think about how you would allocate your retirement account, and then decide how to allocate your retirement account balance among the investment options listed.

Depending on their assigned condition, respondents viewed one of four hypothetical investment menus (see Figure 2). All menus stated that investment fees were waived. In the non-control conditions (Conditions 1, 2, and 4), menus included ten zero-fee index fund options—two each from five fund types: Money Market, U.S. Bond Index, U.S. Large Cap Index, U.S. Small Cap Index, and non-U.S. Global Index. Each fund type was represented by a pair of financially identical options: one anonymous white label fund and one fund labeled with either a high-trust organization (Condition 1), a low trust

Table 1: **Explanation of Mutual Fund Names for Conditions 1–4.**

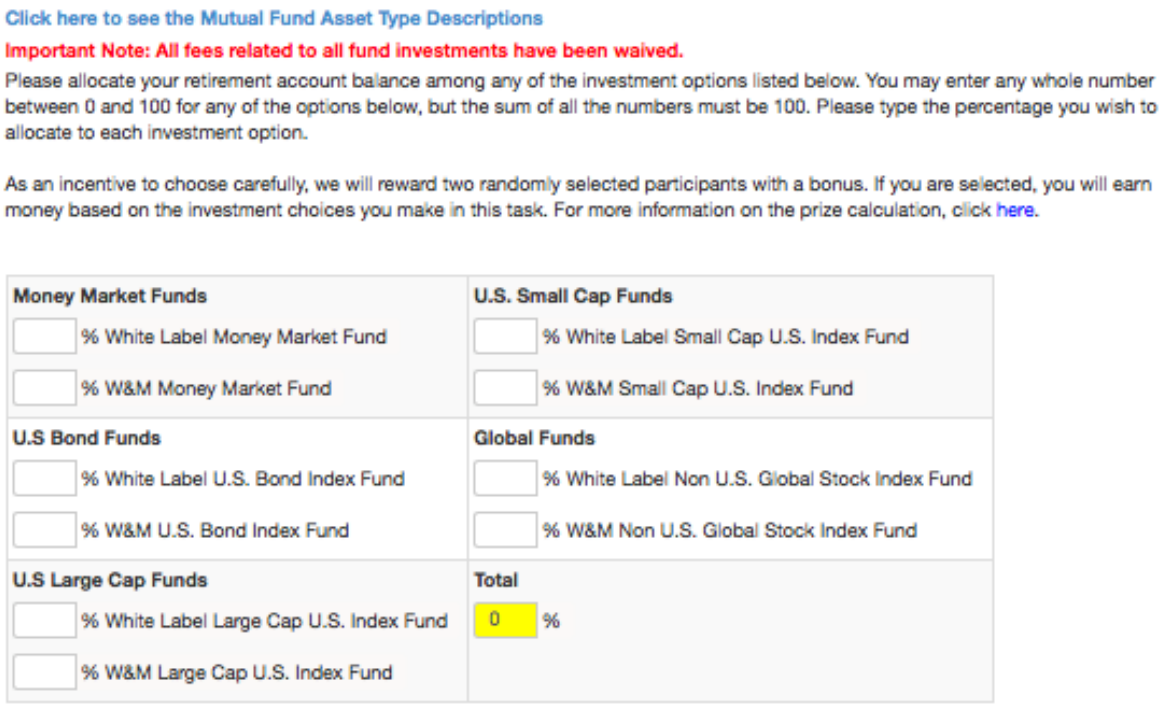
This table reproduces the text we showed respondents in different conditions that explained the labels on the mutual funds described in Figure 1. Respondents allocated their retirement savings among these funds in Task 1, and assigned probabilities to investment outcomes for the funds in Task 2.

Conditions 1 and 2: Organization and Anonymous White Label
Mutual Fund Names The funds that you can choose from may be managed by one or more portfolio managers. If you see the name of a professional investment company preceding the fund name, the fund is managed by that company. If you see "White Label" preceding the fund name, this means the fund has been put together for your employer's retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.
Condition 3: Anonymous White Label
Mutual Fund Names If you see "White Label" preceding the fund name, this means the fund has been put together for your employer's retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.
Condition 4: Employer White Label and Anonymous White Label
Mutual Fund Names If you see the initials of your employer preceding the fund name, this means the fund has been put together for your employer's retirement plan. The fund may include one or more mutual funds which hold the same type of investment. If you see "White Label" preceding the fund name, this means the fund has been put together for your employer's retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.

organization (Condition 2), or the respondent's employer (Condition 4). Condition 3 served as the control and presented a menu of five funds, with one anonymous white label fund for each type.

Figure 2: **Experimental Retirement Plan Investment Menu: Example of Conditions 1 and 2, substituting "W&M" for Organization Name**

This figure shows an example of the allocation task screen for Conditions 1 and 2 where respondents chose how to divide their retirement account balance between white label funds and either a high-trust organization (Condition 1) or a low-trust organization (Condition 2) fund. For this example, we substituted "W&M" in for the actual asset management organization names we used in the experiment to keep the organizations anonymous. Respondents to the survey gave a nickname or initials that stood for their employer's name. For respondents in Condition 4, their employer's nickname or initials were passed through into the fund names for this task.



To minimize confusion among less sophisticated investors, we did not use the names of real indexes in the fund descriptions.[7] Respondents entered whole numbers between 0 and 100 to allocate percentages of their retirement account balance to the various investments on offer. We offered respondents a money incentive to allocate thoughtfully. We told respondents that two people would be randomly selected to earn a bonus based on their allocations

[7]See Agnew et al. (2018) for evidence that most unsophisticated investors do not understand what an index fund is. See Choi et al. (2010) for evidence that even sophisticated investors misjudge choices among (ubiquitous) S&P 500 Index funds.

and invited them to click a link to a more detailed description of the bonus calculation.[8]

3.4 Task 2: Testing the Influence of Organizational Trust on Risk and Return Expectations

For Task 2, respondents made predictions of 1-year returns to an investment of $100,000 in the retirement plan funds. The "distribution builder", a graphical interface, gave people "balls" that represented a 1% probability, to move into "bins" that represented dollar ranges of investment outcomes.[9] Figure 3 is an image of the distribution builder. All respondents made predictions for five fund options. Respondents in Condition 1 built distributions for high-trust organization funds; in Condition 2, for low-trust organization funds; respondents in Condition 3 (4) built distributions for anonymous (employer-labeled) white label funds. We used each respondent's distributions of balls into bins to calculate approximate expected returns and probabilities of losses to investments in each type of fund.

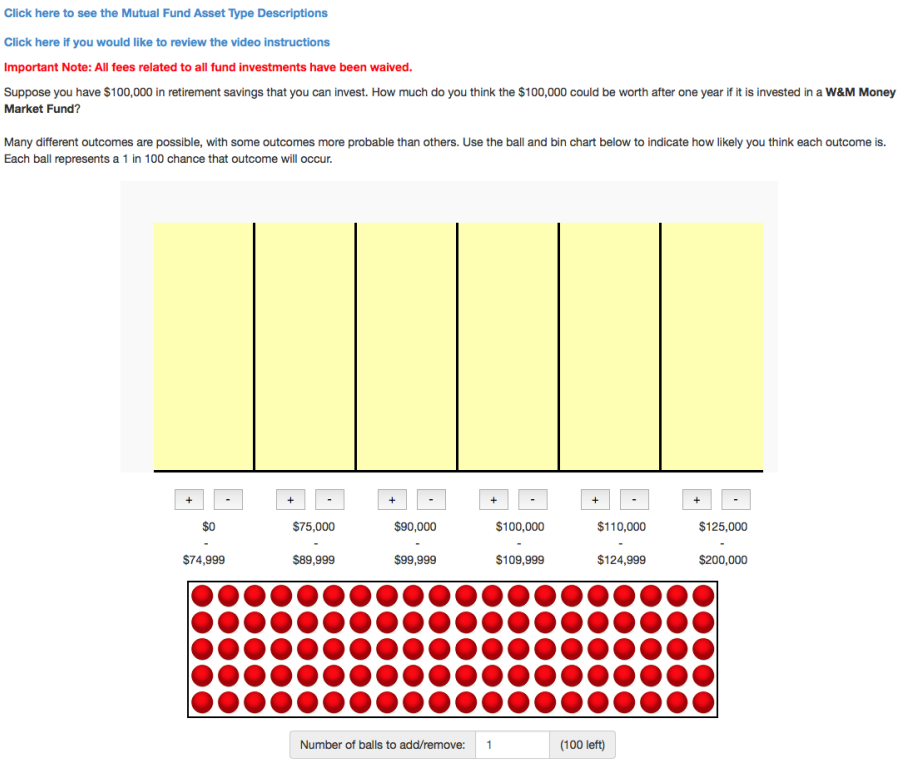
As seen in Figure 3, the bins are labeled in dollars and have varying ranges. We labeled the bin boundaries in dollars rather than percentage returns to help respondents with poor numeracy skills who might not understand percentages well (Bautista et al., 2011). To allow knowledgeable respondents to build objectively realistic distributions, without excluding other valid choices, we made the bins in the middle of the distribution narrower than the outer bins. We also chose the mid-point of the bins carefully. Experiments and surveys show that probability of loss relative to initial price represents risk perception and propensity to invest better than symmetric measures like variance (Unser, 2000; Duxbury and Summers, 2004; Holzmeister et al., 2020), so we made one of the boundaries equal to $100,000. This

[8]The link told respondents "You will be rewarded a bonus based on your allocations in this task. We will assume you invest $25 according to the allocation that you enter for five years. Your bonus will equal your initial portfolio value of $25 plus or minus any gains or losses you make on your chosen portfolio. The 5-year returns for the specific funds you chose will be generated using commonly accepted methods." We bootstrapped 10 years (February 2008 - December 2018) of monthly total returns to representative funds in each asset class to compute 60 month returns to the allocation chosen by two randomly selected respondents, and used an average of returns to the representative funds. The final rewards were $35.67 and $35.15.

[9]Studies of lay people show that responses to graphical interfaces are more accurate representations of expected outcomes than direct responses (Goldstein and Rothschild, 2014; Page and Goldstein, 2016; Delavande and Rohwedder, 2008; Goldstein et al., 2008). Respondents can treat the 100 balls as frequencies (X out of 100), which are better understood than percentages (Gigerenzer, 2011; Goldstein et al., 2008).

Figure 3: **Distribution Builder for Predicting Returns to a $100,000, 1-year Investment in a Money Market Fund.**

This figure shows an example of the prediction (distribution builder) task (Task 2). Respondents assigned balls to bins to show their expectations of returns to a $100,000, 1-year investment in five funds, one for each asset type. Respondents in Conditions 1 and 2 made predictions for the funds with organization labels, in Condition 3, for anonymous white label funds, and, in Condition 4, for employer-named white label funds. For this example, we use the initials "W&M" to represent the organization name. Respondents gave a nickname or initials that stood for their employer's name, and if they were assigned to Condition 4, their employer's nickname or initials were passed through into the fund names.



boundary readily separated gains from losses.

After the distribution builder task, we collected respondents' opinions of the fund options they had assessed in the tasks (i.e., high- or low-trust organization labeled, white labeled) for several characteristics (Bad–Good, Unfavorable–Favorable, Negative–Positive, Low quality–High quality) on seven-point scales. We also collected the respondents' ratings of their familiarity, knowledge and organizational trust of the organization or anonymous white label.

3.5 Sample and Survey Collection

For the main survey experiment (UAS 148, Fielded: October to November, 2018), the UAS invited 2,171 panel members who were currently employed and who had previously completed survey modules on financial literacy (UAS 121) and asset ownership (UAS 117) to complete the survey. Panel members were then screened to ensure that they were either currently enrolled in an employer-sponsored retirement plan that offered investment choices, or that they had been at some point in their life.[10] If they passed this screen, they were asked to confirm that they were over 18 years of age and that they consented to complete the survey. In total, 952 respondents provided valid data. [11] Among those, three panel members did not answer some demographic questions or were not employed at the time of answering the survey, resulting in a final sample size of 949 respondents. UAS then randomly assigned eligible and consenting respondents to the conditions.

Following the tasks, respondents were asked to complete the survey. The survey began with questions on the degree to which the respondent trusted several different institutions and groups. We asked about trust in the stock market, banks, insurance companies, stock brokers, investment advisers, their employer, their employer's retirement plan, and people in general. Then the last set of questions asked respondents about their willingness to take financial risks, household financial decision-making responsibility, financial literacy, past engagement with investments, and self-assessed understanding of investments. Appendix Table B.1 reports descriptive statistics showing that the demographics of respondents in each condition are similar.

Table 2 reports the number of eligible respondents in each condition.[12] In the sections

[10]Retired plan respondents were screened out by UAS: only panel members who said that they were currently employed were invited to take the survey.

[11]Of those invited by UAS, 75% completed the survey. Of these, 952 responses were classified by UAS as complete, properly recorded, and eligible for inclusion. This subset is identified by the variable "correct" (see page 3 of the UAS148 Codebook). Participants excluded from the final sample had incorrectly recorded responses to two survey items, did not meet eligibility or consent criteria, or failed to complete the survey. Data and codebooks can found at https://uasdata.usc.edu/page/Data+Products. In addition, the Online Appendix H contains the codebook for this specific study (UAS 148).

[12]To view the survey for Condition 4, please go to this link: https://uas.usc.edu/survey/playground/uas148/test/index.php. We present this condition so that we do not reveal the high trust and low trust

Table 2: **Condition Group Sample Sizes**

This table presents sample sizes from the four experimental conditions. Analyses from Condition 4 are in Appendix D.

Condition	Description	N
1	High-Trust Organization and Anonymous White Label	232
2	Low-Trust Organization and Anonymous White Label	230
3	Anonymous White Label Only (Control)	227
4	Employer White Label and Anonymous White Label	260

that follow, we focus primarily on results from Conditions 1–3. Results from Condition 4 are qualitatively similar but exhibit smaller effect sizes. Nevertheless, Condition 4 provides a valuable validation of our core mechanism by linking allocation behavior to self-reported trust, rather than experimentally assigned organization names. Because respondents are uniformly familiar with their own employers, the findings in Condition 4 help rule out alternative explanations based on brand recognition or informational differences. Please see Appendix D for the complete results from Condition 4.

4 Relationship of Organizational Trust to Payoff Expectations and Allocations

Economic theory suggests that investors form expectations and then choose where to place their wealth. Following this logic, we first describe respondents' risk and return predictions (Task 2) through analysis of their expected payoff distributions and then describe their allocations (Task 1).

organization names used in Conditions 1 and 2.

4.1 The Influence of Organizational Trust on Investor Expectations

4.1.1 Distributions of Expected Payoffs

Responses to the distribution builder task reveal predicted 1-year payoffs from an initial $100,000 investment, with final values ranging from a total loss ($0) to doubling the investment ($200,000), varying by organization label and fund type. Figure 4 contrasts the average across respondents in Conditions 1 and 2 of probability weights for each payoff bin (i.e., the average number of "balls" in each "bin" as shown in Figure 3), for each fund type. The figure shows that, on average, respondents place a higher probability on lower payoffs to investments in low-trust organization funds relative to investments in high-trust organization funds. This pattern is consistent across all fund types.

We conduct permutation tests to assess the statistical significance of the differences in the probabilities of expected payoffs in Figure 4. A permutation test involves calculating a test statistic for each fund type under all possible combinations of Condition 1 and 2 groups. The observed test statistic (i.e., using the actual groups) is then compared to the distribution of test statistics generated by considering all possible combinations of the two groups of respondents.[13] In our case, the test statistic of interest is the sum of squared differences in the average probability mass assigned by Condition 1 and Condition 2 groups to each bin for each fund type.[14] The observed differences between the average probabilities assigned by the high-trust group and the low-trust group to the bins are statistically significant for all assets ($p \leq .05$ for money market and U.S. bonds, and $p \leq .10$ for the stock funds). These bin-range-wide differences are primarily driven by differing weights put on the $90,000 to $99,999 and $100,000 to $109,999 bins in the case of money market and U.S. bond funds, which may be interpreted as respondents in the low-trust condition placing a higher likeli-

[13] Calculating the full permutation distribution is computationally infeasible, as there are over a trillion possible permutations of the treated and control groups in Conditions 1 and 2 (462 choose 230). We generate 10,000 random samples from the permutation distribution to approximate the full permutation distribution.

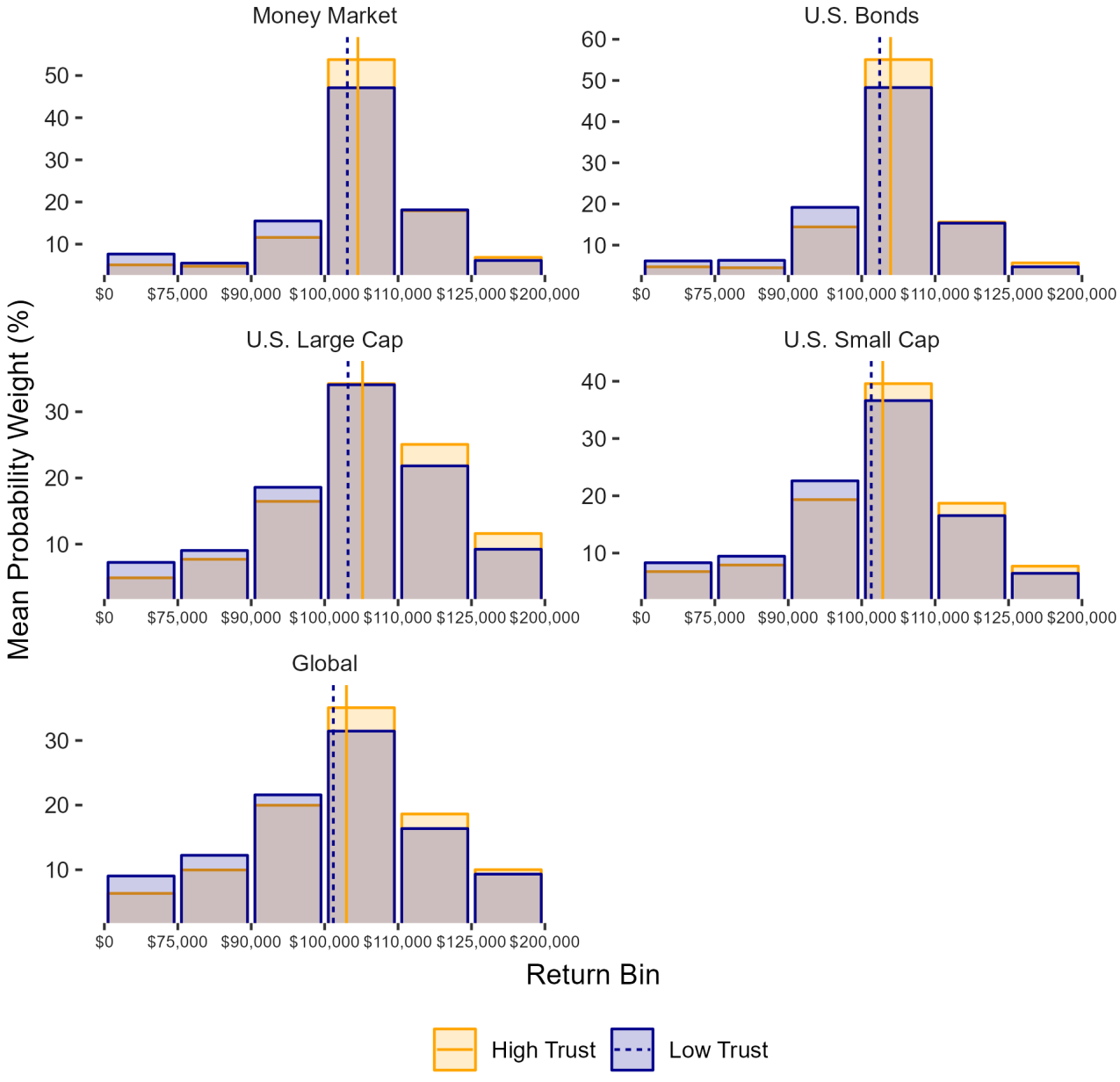
[14] This is analogous to a chi-square test. Note that the sum over all bins of the average differences is mechanically zero; since each response must add up to 100.

hood on small losses as opposed to small gains. The significant differences for stock funds are driven by differences in the tails of the expected payoff distribution, which may be interpreted as respondents in the different conditions assigning more likelihood to extreme outcomes.

The results for differences in expected payoffs and the permutation tests for respondents in Condition 4 are qualitatively similar to those presented here. The distributions of expected payoffs for respondents with low self-reported trust in their employer are statistically significantly different from respondents with high self-reported trust in their employer for all fund types except Global stocks ($p \leq .10$ for U.S. Small Caps and $p \leq .05$ for Money Market, U.S. Bond, and U.S. Large Cap funds). In Condition 4, the distribution-wide differences are again primarily driven by differences in the probabilities assigned to small gains or losses for money market and bond funds and by the differences in probabilities assigned to large losses for U.S. Large Cap and U.S. Small Cap funds (but not for Global funds). See Appendix D for more details.

Figure 4: **Average Probabilities Assigned to Payoffs to Investments in High-trust Organization and Low-trust Organization Funds**

This figure shows the average probability allocated to each payoff bin for an initial $100,000 investment for each fund type for respondents in the high-trust and low-trust organization conditions (Conditions 1 and 2). Solid and dashed lines show the average expected payoff for each condition (calculated using the midpoints of each bin, see Equation 1).



4.1.2 Risk and Return Expectations

We calculate the expected return from the distribution builder responses. We define the expected rate of return as:

$$E(R)_{i,j} = \sum_{n=1}^{6} P_{i,j,n} \frac{(B_{n,u} + B_{n,l})/2 - 100,000}{100,000} \tag{1}$$

where $E(R)_{i,j}$ is respondent i's 1-year expected rate of return to fund type j ($j = 1, \ldots, 5$), calculated as the sum over all bins n ($n = 1, \ldots, 6$) of the probability-weighted rate of return to a \$100,000 investment, where the outcome is the bin-interval mid-point. $P_{i,j,n}$ is the number of balls (out of 100) that respondent i assigns to bin n for asset class j and $B_{n,u}$ and $B_{n,l}$ are bin upper and lower bounds.

We also measure expected risk by each respondent's probability of loss. Probability of loss, expressed as a percentage, is the sum of the number of balls respondent i assigns to the loss (first three) bins for each fund type j:

$$P(\text{Loss})_{i,j} = \sum_{n=1}^{3} P_{i,j,n} \tag{2}$$

Table 3 shows that respondents associate low-trust organizations with a higher probability of loss and lower expected returns compared to high-trust organizations, even when managing zero-fee index funds. The differences in expectations are even more remarkable considering that the averages are calculated between conditions, using expectations of different respondents, not using comparisons of high-trust and low-trust organization funds by the same respondents. We can see the differences in expected returns visually in Figure 4, where the vertical lines plot the average expected payoff (Equation 1).

Another key point is that respondents' average expected returns fall far from the actual histories of asset class returns. Respondents' average expected returns to money market funds are implausibly high, as are the related probabilities of loss, while respondents' expectations of returns to investments in U.S. small cap and global stock funds are implausibly

low. One likely explanation is that the bin sizes used in the survey limit the precision of reported return expectations: intervals near zero returns are of equal width across money market, bond, and stock funds, which may inflate respondents' expected return values for money market funds. Other explanations could relate to respondents' varying familiarity with, or understanding of, the investment options presented. Importantly, because experimental conditions were randomly assigned, differences in these types of variables are not expected to systematically confound treatment comparisons. [15]

Table 3: **Average Expected Returns and Probabilities of Loss: High-trust and Low-trust Organization Conditions**

This table shows averages by condition of respondents' expected returns and probabilities of loss from the distribution builder (Task 2). In Task 2, respondents assigned 100 balls, each representing 1 percentage point of probability, to six bins representing intervals of possible outcomes for a one year investment of $100,000. Respondents completed this task for the investment choice offered by the low-trust or high-trust option within each of the five fund options. Funds were labeled according to the condition, i.e., high-trust organization label (Condition 1); low-trust organization label (Condition 2). Expected returns are calculated by Equation 1 and probability of loss by Equation 2. The third column in each condition panel shows results from tests of equal means in the two preceding columns, where *** denotes $p \leq .01$, ** denotes $p \leq .05$, * denotes $p \leq .10$.

	Expected Return			**Probability of Loss**		
	High-trust Condition (N=232)	**Low-trust Condition (N=230)**		**High-trust Condition (N=232)**	**Low-trust Condition (N=230)**	
Fund						
Money Market	5.5%	2.8%	*	21%	29%	***
U.S. Bonds	4.6%	2.1%	*	24%	32%	***
U.S. Large Cap	8.1%	4.3%	***	29%	35%	**
U.S. Small Cap	3.5%	0.8%	*	34%	40%	***
Global	4.6%	1.4%	**	36%	43%	***

The analogous results for respondents in Condition 4 are presented in Appendix D, Table D.2. The differences in risk perceptions between respondents with low self-reported trust in their employer versus respondents with high self-reported trust in their employer are comparable to the differences between subjects in Condition 1 and Condition 2 for Money Market, Bond, and U.S. Large Cap funds. The differences in probabilities of loss for U.S. Small

[15] Supporting this statement the findings reported throughout the paper are robust to the inclusion of additional demographic and control covariates, as documented in the appendices.

Cap funds and Global stock funds are not significant, although they are of comparable magnitudes (4%) for U.S. Small Cap funds and 5% for Global stock funds, versus differences of 6% and 7% in Table 3). The differences in expected returns for respondents in Condition 4 were generally half the size of those presented in Table 3 and were not statistically significant. See Appendix D for full details.

4.2 Allocations

We now examine the allocation choices made by respondents. Investment options are divided into three broad asset classes (Money Markets, Bonds, and Stocks) and five specific fund types (Money Markets, Bonds, U.S. Large Cap Stocks, U.S. Small Cap Stocks, and Global Stocks). When combining allocations to both anonymous white label funds and organization labeled funds within these categories, we observe that overall investments across broad asset classes and funds remain consistent across different conditions. Table 4 illustrates this finding. The top panel of the table demonstrates that whether people chose from five (Condition 3) or ten fund options (Conditions 1, 2, and 4) their average asset class allocations across broad asset classes were not affected.

The variation in investments emerges when we differentiate investments between anonymous white label funds and organization labeled funds within the fund types. Depending on the specific condition and the level of trust in the organization, many respondents favor one type of labeled fund over another, as highlighted in the bottom panel of Table 4. Almost half of respondents in Conditions 1, 2 and 4 had a non-zero allocation to both anonymous white label funds and organization labeled funds (a mixed investment), while another half allocated exclusively to one or the other type. In Condition 1, where a high-trust organization offered funds alongside anonymous white label options, more respondents allocated their investments exclusively to the high-trust organization's funds (38%) than to the anonymous white label funds (12%). Conversely, in Condition 2, where a low-trust organization offered funds with the white label options, more respondents (33%) allocated exclusively to the anonymous white label funds than to the organization labeled funds (18%). The con-

sistent average weighting in all conditions across fund types and the variation of weightings within fund types depending on the condition suggests that people chose proportions of their retirement balances to allocate to fund types, and then decided on white label or organization labeled choices within a fund type.

Table 4: **Allocations to Asset Classes by Condition**

This table reports investment allocations made by survey respondents (Task 1) for all conditions, aggregating over organization label and anonymous white label funds in Conditions 1 and 2 (employer white label and anonymous white label in Condition 4). The top panel shows averages, over respondents by condition, of allocations to broad asset classes (money, bonds and stock). The middle panel shows averages, over respondents by condition, of allocations to sub-classes of stock funds. The bottom panel shows the percentage of respondents in each condition who allocated their balance exclusively to funds with one type of label, and the percentage who allocated to funds with both types of labels.

	Average Allocation			
	High-trust organization Condition 1	**Low-trust organization Condition 2**	**Anonymous White Label Condition 3**	**Employer White Label Condition 4**
Money Market	27%	28%	30%	26%
Bonds	14%	14%	14%	14%
Stocks	58%	58%	56%	60%
U.S. Large Cap	26%	26%	24%	29%
U.S. Small Cap	16%	18%	17%	17%
Global	16%	14%	15%	14%
	Percentage of Respondents			
Organization Label Only	38%	18%		40%
Anonymous White Label Only	12%	33%		17%
Mixed	50%	49%		43%
N	232	230	227	260

Drilling down further, Table 5 shows that when we compare between conditions and within fund types, the average allocations incline towards (or away from) the more (less) trusted organization labeled fund compared with the white label fund. In Condition 1, average allocations to the high-trust organization funds (65%) were much higher than average allocations to the anonymous white label funds (35%), while, in Condition 2, allocations to the anonymous white label funds (58%) were higher than average allocations to the low-trust organization funds (42%). Taking U.S. Large Cap stock allocations as an example, respondents in Condition 1 allocated twice as much (18%) on average to the index fund with the

high-trust organization label than to the anonymous white label equivalent (9%). Respondents in Condition 2 allocated one-third more on average to the anonymous white label large cap stock fund (15%) than to the similar fund with the low-trust organization label (11%).

Table 5: **Average Allocations to Organization Funds and White Label Funds.**

This table reports investment allocations made by survey respondents (Task 1) for Conditions 1 and 2. The top panel shows averages, over respondents by condition, of allocations to types of broad asset class (money market, bonds, and stock). The bottom panel shows averages, over respondents by condition, of allocations to stock fund options. The third column in each condition panel shows results from tests of equal means in the two preceding columns, where *** denotes $p \leq .01$, ** denotes $p \leq .05$, and * denotes $p \leq .10$.

	High-trust organization (Condition 1)				**Low-trust organization (Condition 2)**			
Fund Allocation	**High-trust**	**White Label**		**Total**	**Low-trust**	**White Label**		**Total**
Money Market	17%	10%	***	27%	13%	15%		28%
Bonds	10%	5%	***	14%	6%	8%	*	14%
Stocks	38%	21%	***	58%	24%	35%	***	58%
U.S. Large Cap	18%	9%	***	26%	11%	15%	***	26%
U.S. Small Cap	10%	6%	***	16%	8%	10%	**	18%
Global	9%	6%	***	16%	5%	9%	***	14%
Total Allocations	65%	35%	***		42%	58%	***	
N	232				230			

The analogous results for respondents in Condition 4 are presented in Appendix D, Table D.3, and are broadly consistent with those in Table 5. Respondents with medium or high self-reported trust in their employer allocated significantly more to employer labeled funds than to anonymous white label alternatives within the same fund types. The magnitude of the differences to the three stock funds closely mirrors those observed in Conditions 1 and 2.

However, unlike in Conditions 1 and 2, where low trust produced a clear reversal in preferences toward white label funds, low trust in the employer did not produce a comparable shift. Among respondents with a low-trust employer, allocations to employer labeled and

anonymous white label funds were statistically indistinguishable, but importantly, the employer label was never displaced by the white label option. This pattern suggests that respondents may rank their employer higher in the trust hierarchy than asset management organizations, such that even a low-trust employer is not penalized to the same extent as a low-trust asset management organization. Supporting evidence comes from the UK's Department for Work and Pensions, which found that 40% of respondents reported trusting their employer compared with only 20% who trusted financial institutions. Trust in employers increased further among those enrolled in an employer-sponsored pension plan (54% versus 33%; Kelly, 2007). Recall that in our sample, all respondents had at some point participated in an employer-sponsored retirement plan. These findings are consistent with the hypothesis that the employer label benefits from a baseline level of trust, which could explain why it does not show the reversal effect observed for low-trust asset management organizations. In summary, the results from Condition 4 indicate that high-trust and medium-trust employers tend to receive greater allocations than white label funds, while low-trust employers show no clear advantage but are not displaced by the white label option.

5 Econometric Analysis: A Deeper Look at Trust's Relationship to Expectations and Allocations

So far, the evidence shows that organizational trust shifts respondents' risk–return expectations and portfolio allocations. Because descriptive patterns alone cannot identify whether allocation changes operate indirectly through expectations or reflect a separate direct effect of trust, we now use an econometric framework to identify and quantify both pathways.

5.1 Estimation of the Effects of Organizational Trust on Risk and Return Expectations

Estimations show that differences in predicted returns and losses for high-trust and low-trust organization labeled funds are economically large, statistically significant, and conditionally

stable. We demonstrate this by estimating Equation 3 and comparing outcomes across high-trust and low-trust conditions. Using OLS, we estimate the following regression for participants in the high- and low-trust conditions:

$$M_{i,j} = \alpha_{1,j} + \beta_{1,j} C_i + \beta_{2,j} \text{Controls}_i + \varepsilon_{i,j} \tag{3}$$

where the dependent variable $M_{i,j}$ is either the expected return ($E(R)_{i,j}$) or the probability of loss ($P(\text{Loss})_{i,j}$) reported by respondent i for fund j. [16] C_i is an indicator for the high-trust organization condition (versus the low-trust condition), and Controls_i is a set of demographic characteristics including age, sex, stock ownership, responses to financial literacy questions, marital status, and other information.[17]

The results are presented in Table 6. Taking U.S. Large Cap stock funds as an example, the average predicted value of probability of loss was 5.14 percentage points higher in the low-trust organization condition (34.55%) than in the high-trust organization condition (29.41%). The probabilities of loss were between 5.59 and 6.95 percentage points greater for the funds offered by the low-trust organization relative to the high-trust organization across all fund types. These results are consistent with survey evidence reported in Germann et al. (2024), where roughly 60% of participants in two of their experiments indicated that they believed more trustworthy managers deliver better investment performance.[18]

We find similar, although less consistent, patterns with expected returns. As shown in the last column of Table 6 the average expected return is higher in the high-trust condition than in the low-trust condition, with statistically significant differences for U.S. Large Cap and Global stock funds. Taking U.S. Large Cap funds as an example, respondents in the high-trust organization condition expected a 3.21 percentage point higher 1-year return on average (7.79%) than respondents in the low-trust organization condition (4.58%).

[16] Recall that respondents recorded their expected returns and losses for only one type of funds, either white labeled or organization labeled. Conditions 1, 2, and 4, recorded expectations for the organizational labeled firms, while Condition 3 recorded expectations for the white label funds.

[17] Appendix A lists full variable definitions.

[18] The full set of coefficient estimates from estimating Equation 3 are included in Appendix C, Table C.1.

The analogous results for respondents in Condition 4 are presented in Table D.4. After conditioning on other demographic factors, we find no differences in risk and return expectations for funds including the name of the respondents' employers between respondents with low and high self-reported trust in their employer. See Appendix D for full results.

In summary, Table 6 shows substantial differences in expectations between the experimental conditions. These results raise the question of whether and how expectations impact allocation decisions.

Table 6: **Estimated Effects of Organizational Trust on Expected Returns and Risk.**

The table reports average predicted values and results of tests that marginal differences are zero from regressions of proxies for risk and return on condition indicators (high-trust or low-trust organization conditions) and demographic characteristics (Equation 3). High-trust organization condition: N=232; Low-trust organization condition: N=230. The full set of coefficient estimates is included in Appendix C, Table C.1. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

	Dependent Variable: Probability of Loss			**Dependent Variable: Expected Return**		
	Average predicted value (%)		Difference (%)	Average predicted value (%)		Difference (%)
	Low-trust organization	High-trust organization	Low - High	Low-trust organization	High-trust organization	Low - High
Money Market	27.83	22.24	5.59**	3.19	5.18	-1.98
U.S. Bonds	31.13	24.18	6.95***	2.38	4.33	-1.95
U.S. Large Cap	34.55	29.41	5.14**	4.58	7.79	-3.21**
U.S. Small Cap	40.28	34.10	6.18***	1.14	3.14	-2.00
Global	42.80	36.35	6.45***	1.62	4.34	-2.73*

5.1.1 Effects of Expected Risk and Return on Fund Allocations

To test whether expectations influence investment fund allocations, we estimate the panel model in Equation 4:

$$Y_{i,j,b=\text{Org}} = \beta_1 M_{i,j} + \beta_2 M_{i,j} * C_i + \beta_3 M_{i,j} * \text{Controls}_i + \alpha_i + \gamma_k + \varepsilon_{i,j} \quad (4)$$

[19]

for $i = 1, \ldots, N$ indexes respondents, $j = 1, \ldots, 5$ indexes fund types, and $k = 1, \ldots, 3$, indexes asset classes. Within each fund type, respondents can invest in either white label or organization labeled funds. We denote the fund label by $b \in \{\text{Org, WL}\}$, where $b = \text{Org}$ corresponds to organization labeled funds and $b = \text{WL}$ to white label funds. In Equation 4, we restrict attention to $b = \text{Org}$, so the dependent variable $Y_{i,j,b=\text{Org}}$ is respondent i's allocation to organization labeled fund j (e.g. the allocation to the high-trust money market fund for an individual in Condition 1 or the allocation to the low-trust money market fund for an individual in Condition 2). As before, $M_{i,j}$ represents respondent-, fund-, and condition-specific expectations (expected returns or loss probabilities).

The interaction term $M_{i,j,} * C_i$ captures heterogeneity across experimental conditions (high-trust versus low-trust), while $M_{i,j} * Controls_i$ captures heterogeneity by demographic characteristics. α_i are respondent-level fixed effects, and γ_k are fixed effects for the three broad asset classes, k, into which the five fund types fall: money market, bonds, and stocks.[20] $\varepsilon_{i,j}$ is the individual and fund type specific error. We estimate the effect of expected returns ($E(R)_{i,j}$) and probabilities of loss ($P(\text{Loss})_{i,j}$) on allocations separately because the variables are highly negatively correlated ($\rho = -0.7716$). By estimating Equation 4 as a within-respondent panel model, we are effectively averaging over (potentially heterogeneous) relationships between allocation decisions and expected risk and return across different asset classes but within the same respondent.

Table 7 shows the results from panel estimations of Equation 4. For brevity, the table reports the estimated effects of expectations on allocations; the full set of coefficient estimates with varying specifications and interactions is included in Appendix C, Table C.3. We report the marginal effects for the full specifications conditioning on expectations of probability of loss and expected returns. Estimates reported in Table 7 show that a 10 percentage point increase in the expected probability of loss for an organization labeled fund is associ-

[19] Allocations to white label funds ($b = \text{WL}$) are not analyzed here, but are incorporated into the model presented in Section 7.

[20] We estimate one fixed effect for the three stock fund types for efficiency reasons. Sparse allocations to U.S. Small Cap and Global stock funds meant that three separate fixed effects for stock funds were not well identified.

ated with a 0.4 percentage point decrease in allocation to that fund. We find similarly small and significant effects for expected returns. Table 7 reports estimates that predict a 2.3 percentage point increase in allocation to an organization labeled fund for every 10 percentage point increase in expected one year return.

Table 7: **Panel Marginal Effect Estimates of Allocation to Organization labeled Options: Effects of Expected Risk and Return**

The table reports estimation results from fixed effects panel models of allocations to organization labeled investment options in Conditions 1 and 2. In Task 1, respondents allocated 100% of their hypothetical retirement balance to ten zero-fee index funds in five fund types (Money Market, U.S. Bonds, U.S. Large Cap stocks, U.S. Small Cap stocks and Global stocks) where funds had either an organization label or a white label. Models estimate the percentage allocation of respondent i to the organization labeled fund in asset class j conditioning on respondents' 1-year expected probability of loss $L_{i,j,c}$, P(Loss), or expected return, $R_{i,j,c}$, E(R), from Task 2, demographic characteristics and a high-trust or low-trust organization condition indicator. All models include individual fixed effects. The full set of coefficient estimates is included in Appendix Table C.3. Standard errors clustered by respondent are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

Dependent Variable: % Allocation to Organization Option	P(Loss)	E(R)
Marginal Effect of P(Loss) or E(R)	-0.039*	0.229***
Standard Error of Marginal Effect	(0.020)	(0.044)
Respondent FE	Yes	Yes
Asset Class FE	Yes	Yes
Condition and Demographic interactions	Yes	Yes
R-squared	0.042	0.049
Number of respondents	462	462
Observations	2,310	2,310

The analogous results for respondents in Condition 4 are found in Appendix D, Table D.5. We find directionally similar results for the effects of risk and return perceptions on allocations to organization-labeled options. Interestingly, the point estimates for the effects of risk and return on allocations to employer labeled funds are larger for respondents in Condition 4 relative to those in Conditions 1 and 2. A 10 percentage point increase in expected probability of loss is associated with a 0.6 percentage point decrease in allocations to employer labeled funds (versus 0.4 in Table 7); and a 10 percentage point increase in expected

one year returns is associated with a 3.9 percentage point larger allocation (versus 2.3 percentage points in Table 7). The marginal effect for the probability of loss was not significant but the marginal effect of expected returns was significant at the 1% level. See Appendix D for further details.

The panel estimates in Table 7 show that respondents' investment expectations, collected through the Task 2 distribution builder, partly explain their choices of investments in Task 1. Respondents allocated more to funds with higher expected returns and less risk. Like other work showing that expectations explain investments, the effects we find here are small (Giglio et al., 2021).[21] Coupled with the results shown in Table 6, the estimation shows an indirect impact of organizational trust on allocation decision via expected returns and risk of losses.

5.2 Direct Effects of Organizational Trust: Do Labels Guide Allocations?

The results in Table 4 show that, on average, respondents allocated similar proportions of their balances across the five fund types in all conditions.[22] By contrast, panel A of Table 5 reveals substantial *within–asset-class* variation in the split between organization labeled and white label funds. This motivates a two-stage allocation framework. In Stage 1, respondents decide how much to allocate across broad asset classes; in Stage 2, conditional on that choice, they decide how to split between organizational and white label options.

Consistent with our prior specifications using asset-class fixed effects, we group all stock options into a single "stocks" class, yielding three asset classes in total: stocks, money market, and bonds. In Stage 1, respondent i allocates a share of their balance ($Y_{i,k} \in [0, 100]$) to each asset class $k \in \{\text{stocks, money market, bonds}\}$, with shares summing to 100. In Stage 2, conditional on $Y_{i,k}$, the respondent allocates between the organization labeled and

[21] The order of the experimental tasks may also explain the relatively small relationship between expectations and allocation decisions. Recall that respondents first made allocation decisions in Task 1 and then we subsequently elicited their beliefs in Task 2.

[22] The results in Table 4 are unconditional on any covariates. See Appendix Table C.2 shows that adjusting for between-condition differences in expected payoffs does not change this conclusion; overall allocations do not differ by condition on average.

the white label fund. Letting $b \in \{\text{Org, WL}\}$ denote the fund label, the two shares must satisfy $Y_{i,k,b=\text{Org}} + Y_{i,k,b=\text{WL}} = Y_{i,k}$. Our dependent variable in Stage 2 is $Y_{i,k,b=\text{Org}}$, the share of $Y_{i,k}$ invested in the organizational labeled fund. We formalize this two-stage decision process in Equation 5:[23]

$$\begin{aligned} \underbrace{Y_{i,k}}_{\substack{\text{percentage share to} \\ \text{broad asset class}}} &= \alpha_{1k} + \Gamma_k^\top X_{i,k} + \beta_{1k}\,\text{Controls}_i + \varepsilon_{i,k}, \\ \underbrace{Y_{i,k,b=\text{Org}}}_{\substack{\text{percentage share to} \\ \text{organizational-labeled funds} \\ \text{within asset class } k}} &= \alpha_{2k} + \Upsilon_k^\top X_{i,k} + \beta_{2k}\,\text{Controls}_i + \beta_{3k}\,C_i + \beta_{4k}\,Y_{i,k} + u_{i,k,b=\text{Org}}. \end{aligned} \tag{5}$$

Here, $X_{i,k}$ is the vector of respondent i's expectations for the funds in asset class k. Each regression includes either expected returns or probabilities of loss, but not both, since the two are highly correlated. For stocks, $X_{i,k}$ includes expectations for all three stock funds (large cap, small cap, and global). For money market and bonds, it reduces to the single corresponding expectation.[24]

As before, i indexes respondents and k indexes asset classes. $C_i = 1$ in the high-trust organization condition and 0 in the low-trust condition. For Conditions 1 and 2, we target the marginal effect of moving from low-trust to high-trust on the within-class allocation to the organization labeled option holding constant participants' risk and return expectations, $\frac{\partial Y_{i,k,b=\text{Org}}}{\partial C_i} = \beta_{3k}$; accordingly, our parameter of interest is β_{3k}.

Table 8 contains estimates from estimating the parameters in Equation 5 via the seemingly unrelated regressions (SUR) method for Conditions 1 and 2 (Zellner, 1962). Models 1

[23] The linear specification of Equation 5 is necessarily a simplification of any underlying decision-making process. For example, if $Y_{i,k}$ – the broad asset class level allocation for a given respondent – is zero, then the respondent's allocation to the organization labeled option within that same asset class is mechanically zero. Estimating the second line of Equation 5 without a constant does not meaningfully affect the estimates for the marginal effect of organizational trust in Table 8. (Indeed, the estimates for the corresponding intercept terms are not statistically distinguishable from zero).

[24] Formally,

$$X_{i,k} = \begin{cases} (M_{i,\text{large cap}},\, M_{i,\text{small cap}},\, M_{i,\text{global}}) & \text{if } k = \text{stocks}, \\ (M_{i,\text{money market}}) & \text{if } k = \text{money market}, \\ (M_{i,\text{bond}}) & \text{if } k = \text{bonds}. \end{cases}$$

and 3 correspond to portfolio allocations to money market funds and models 2 and 4 correspond to estimates for allocations to stock funds. We do not report results for bond funds, since allocations to bonds are mechanically determined once respondents choose allocations to money market and stock funds. Each model has a pair of columns in the table. The first column contains parameter estimates for Stage 1 (the allocation to the broad asset class level estimated in the top line of Equation 5) and the second column contains parameter estimates for allocation to the organization labeled option within the asset class (the second line of Equation 5). The interpretation of the coefficient estimates in Table 8 is identical to those estimated via OLS. The estimated effect of organizational trust on allocations can be found in the second column for each pair of models in Table 8. The effects of organizational trust are consistently positive and significant, ranging from 4.6 to 4.7 percentage points for money market funds, and 13.1 to 13.4 percentage points for stock funds. The magnitude of these effects is notable because they exist after controlling for the expectations (losses or returns) and overall allocation to the asset class.

Table 8: **SUR Estimates of Allocations to Broad Asset Classes and Organization labeled Options**

This table reports Seemingly Unrelated Regression (SUR) estimates of broad asset class level and organization labeled options within each asset class from Equation 5 for Conditions 1 and 2. Models 1 and 3 estimate percentages allocated to money market funds and Models 2 and 4 estimate total percentages allocated to all stock funds. For each pair of models, the first column estimates percentages allocated to the broad asset class level (top line of Equation 5), and the second column contains estimates for percentages allocated to the organization labeled option within the asset class (bottom line of Equation 5). The full set of coefficient estimates is included in Appendix Table C.4. Heteroskedasticity-robust standard errors are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

	(1)	(1)	(2)	(2)	(3)	(3)	(4)	(4)
	Money Market		Stocks		Money Market		Stocks	
Dependent Variable: Allocation to	Broad Asset Class	Organization labeled Option	Broad Asset Class	Organization labeled Option	Broad Asset Class	Organization labeled Option	Broad Asset Class	Organization labeled Option
Total Money Market Allocation		0.586***				0.586***		
		(0.031)				(0.031)		
Total Stocks Allocation				0.501***				0.509***
				(0.045)				(0.045)
High-trust Organization		4.560***		13.074***		4.703***		13.419***
		(1.454)		(2.220)		(1.450)		(2.214)
P(Loss) Money Market	0.027	-0.036						
	(0.042)	(0.028)						
P(Loss) U.S. Large Cap			-0.041	0.004				
			(0.068)	(0.065)				
P(Loss) U.S. Small Cap			-0.050	-0.044				
			(0.062)	(0.060)				
P(Loss) Global Stocks			-0.097	-0.052				
			(0.062)	(0.060)				
E(R) Money Market					-0.074	0.028		
					(0.070)	(0.048)		
E(R) U.S. Large Cap							-0.008	0.073
							(0.112)	(0.107)
E(R) U.S. Small Cap							0.157	0.063
							(0.107)	(0.103)
E(R) Global Stocks							0.130	-0.041
							(0.094)	(0.090)
Constant	41.103***	0.209	42.880***	2.581	42.379***	-1.676	34.824***	-2.112
	(6.470)	(4.599)	(7.042)	(7.161)	(6.060)	(4.333)	(6.552)	(6.546)
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.149	0.482	0.197	0.330	0.150	0.480	0.193	0.328
Observations	462	462	462	462	462	462	462	462

The analogous results for the SUR estimates for respondents in Condition 4 are found in Appendix Tables D.6. We cannot randomize individuals into having high or low trust in their employer, so we split the Condition 4 participants into high, medium, and low trust based on terciles of self-reported trust in their employer.

In the Condition 4 analyses in Appendix D, the omitted reference group is respondents whose self-reported trust in their employer falls within the range classified as low trust. Again we find that organizational trust affects allocations to employer labeled funds within a given asset class, conditional on respondents' overall allocation to that asset class. However, we only find a statistically significant difference in allocations when comparing individuals with high self-reported trust in their employer versus respondents with low self-reported trust in their employer. We find no significant difference between respondents with middling trust in their employer. The SUR estimate magnitudes of the effect of organizational trust on allocations to money market funds are comparable to those in Tables 8. We find that having high self-reported trust in one's employer is associated with a 6.4 to 6.5 percentage point higher allocation to employer labeled money market funds (relative to respondents with low self-reported trust in their employer) depending on the specification and method. These point estimates are very close in magnitude to those presented in Table 8 (ranging between 4.6 and 4.7 percentage points). The estimated effect of organizational trust on employer labeled stock funds is smaller in magnitude but still significant: between 8.7 and 9.3 percentage points, depending on the specification.

To summarize the Condition 4 results, we generally find a positive effect of a respondent's organizational trust in their employer on their allocations, although that effect is only significant when comparing those respondents with low levels versus high levels of self-reported trust in their employer (with no significant effect among respondents with middling trust in their employer). While significant, the magnitudes of this effect are smaller on average than those among respondents in Conditions 1 and 2, where the organizations associated with the fund options were themselves asset management organizations. See Appendix D for full details.

5.2.1 Robustness Check: Multivariate Fractional Regression Estimates

The results in Tables 8 only include allocations for money market and stock funds and exclude those for bond funds. This is an implicit acknowledgment that once respondents decide on their allocations to money market and equity funds, their allocation to bond funds is completely determined by the portfolio adding-up constraint. However, the SUR estimates do not explicitly incorporate this constraint in the estimation procedure. As a robustness check, we incorporate the portfolio constraint into the estimation using the multivariate estimator proposed by Mullahy (2015).

The results of this estimation are consistent with Tables 4 and 5 and the regression results presented above, and show that moving from the low-trust to the high-trust condition results in a significant increase in allocations to the organization labeled option. Furthermore, that increase in allocation to the organization labeled option is offset nearly one-for-one with a decrease to the white labeled option within the same asset class. For example, the multivariate estimates show that moving from the low-trust condition to the high-trust condition increases allocations to the organization labeled stock fund by 12.8 percentage points and decreases the allocation to the anonymous white label stock fund by 14.5 percentage points. Allocations to the high-trust organization (anonymous white label) bond fund increase (decrease) by 3.5 (3.2) percentage points and allocations to the high-trust organization (anonymous white label) money market fund increase (decrease) by 5.6 (4.3) percentage points (Appendix Table E.2). See Appendix E for full results.

5.2.2 Robustness Check: IV-GMM Estimates of SUR Model

There may be a concern that the results in Table 8 are affected by a bias coming from a non-zero correlation between $\varepsilon_{i,k}$ and $u_{i,k,Org}$ in Equation 5. In other words, if unobserved factors affecting a respondent's total allocation to money market funds are correlated with that respondent's allocation to organization labeled money market funds, then estimating Equation 5 via OLS or SUR has an endogeneity bias. To address this potential concern, we construct a machine-learning based instrumental variable using information strictly from the

control group. This approach is similar to the "split-sample IV" approach of Angrist and Krueger (1995).

We construct the instrument using the portfolio choices of respondents in the control group (Condition 3) whose menu contained only anonymous white label funds – one for each broad asset class. By using only respondents in the control group, we neutralize two potential concerns. First, we eliminate any effects of organizational trust on the first-stage, asset class-level allocation decision; and second, control group respondents had only one choice (instead of two) in each asset class. Table E.3 reports IV-Generalized Method of Moments (GMM) estimates of Equation 5 where the endogenous variable (allocation to overall asset class) is instrumented using machine learning predictions based on the control group. The results of the IV-GMM estimates show a significant and large effect of high organization trust on money market allocations, at 4.9 (4.7) percentage points, measured by marginal effects for specification 1 (specification 3). The effect for stock allocations is also significant: switching from the low-trust to the high-trust organization condition causes a 14.0 (13.5) percentage point higher overall allocation to stock funds in specification 2 (specification 4). These results are consistent with and similar in magnitude to those found in Table 8. See Appendix E for full details.

6 Financial Literacy: For Whom Does Trust Matter Most?

Financial literacy plays a well-documented role in shaping financial decision-making (Calvet et al., 2009). We examine whether it moderates the effect of organizational trust on both expectations and allocations by constructing a binary high/low financial literacy variable consistent with prior literature and reestimating our main specifications allowing for the effects of trust to vary between low and high-literacy individuals. Full results are reported in Appendix F; we summarize the key findings here.

With respect to expectations, low financial literacy participants assign higher probabil-

ities of loss and lower expected returns across all asset classes relative to high literacy participants.[25] Conditional on the trust condition, high financial literacy participants report largely insignificant differences in beliefs between the high-trust and low-trust conditions — consistent with their understanding that two identical index funds should not be expected to perform differently. Low financial literacy participants, by contrast, show significant belief differences across nearly all asset classes, suggesting their expectations are more susceptible to distortion by organizational labels.

With respect to equity allocations, high financial literacy participants allocate more to equities overall (approximately 16%), consistent with prior evidence on financial literacy and equity participation (for example, Clark et al. (2017)). The trust effect on equity allocations to organizational labeled funds versus white label is present for both groups but substantially larger for high financial literacy participants. These findings suggest that financial literacy moderates trust.

7 Quantifying the Effect of Organizational Trust in a Model of Portfolio Choice

The results in the previous sections demonstrate that differences in both respondents' risk and return beliefs *and* other trust-related factors drive their portfolio choices – tilting choice toward the high-trust options in Condition 1 and away from the low-trust options in Condition 2. In this section, we define and estimate a measure of an organization label premium – the non-pecuniary benefit of investing in the organization label fund that is not available when investing in the white label fund. To measure the organizational label premium, we propose a simple structural model of portfolio choice and fit the model using allocations and beliefs elicited in the experiment. We estimate the organizational label premium separately for respondents in the high-trust and low-trust conditions (Conditions 1 and 2) and compare the sizes and signs of the premia to estimate the effect of trust.

[25] See Table F.1.

We model investors as maximizing portfolio Sharpe ratios by choosing investment allocations in two stages as described in Section 5.2. At the first stage, investors choose broad asset class weights (to stocks, bonds and money market funds).[26] At the second stage, subject to their first stage decisions, investors choose weights for the white label and organization label funds within the broad asset class.

To be more precise, let $x_{i,k}$ denote investor i's allocation to the three broad asset classes k ($k = 1, \ldots, 3$). Investor i's first stage decision is to choose $x_{i,k}$. The second stage decision for investor i is to choose allocations to the organization label and white label funds within the broad asset class k. Thus, there are six funds in total: one white label and one organization labeled fund in each of the three broad asset classes. Using our notation from earlier, we let $b \in \{\text{Org, WL}\}$ denote the *fund label* with $b = \text{Org}$ for the organization labeled fund and $b = \text{WL}$ for the white label fund.[27] Allocations to each of the six funds on the menu are therefore the product of the investor's broad asset class proportion and their organization/white label proportions, subject to two adding-up conditions. We write these allocations as the element-wise product of two (6×1) vectors $(\mathrm{x_i} \odot \mathrm{w_i})$ where the $\mathrm{x_i}$ vector lists the investor's asset class level weights twice.[28]

Let $\mathrm{R_i}$ (6×1) and Σ_i (6×6) denote individual subjective beliefs about investment fund expected returns and covariances. We also define a (6×1) vector Θ with elements $1_{b=\text{Org}} * \theta$ where the indicator takes the value of one for organization label funds and zero for white label funds. The parameter θ represents the additional non-pecuniary benefit (premium) from investing in organization label funds instead of white label funds, over and above any differences due to subjective expected returns.[29] We treat θ as constant for all asset classes and

[26] We sum allocations to large cap, small cap and global stock funds into one stock class to simplify the optimization and estimation problem.

[27] Trivially, $w_{i,k,b=Org} = 1 - w_{i,k,b=WL}$ since $|\mathrm{w_{i,k}}| = 1$.

[28] To give an example, assume that an individual's allocation to stocks, bonds, and money market funds is 60%, 20%, and 20% respectively. Of this, the respondent's allocation to the organization labeled (white labeled) stock investment option is 50% (10%), organization labeled (white labeled) bond investment option is 10% (10%), and their allocation to the organization labeled (white labeled) money market investment option is 20% (0%). In this case, the vector of portfolio weights w would be equal to {50/60, 10/60, 10/20, 10/20, 20/20, 0/20}.

[29] To see this, note that the expected return on broad asset class k for individual i would be equal to $w_{i,k,Org}(R_{i,k,Org} - R_{i,k,WL} + \theta) + R_{i,k,WL})$.

all investors within each condition. In other words, we allow investors in the high-trust and low-trust conditions to assign a different value to the benefit of investing in organization label funds, while fixing that benefit across stocks, bonds and money market asset classes.

Since there is no risk-free asset, the investor's problem is to choose proportions of wealth to invest in organization label and white label funds within each asset class, to maximize subjective risk-adjusted portfolio returns (Sharpe ratios):

$$\begin{aligned} \max_{\mathrm{w_i}} : & \frac{(\mathrm{x_i} \odot \mathrm{w_i})'[\mathrm{R_i} + \Theta]}{\sqrt{(\mathrm{x_i} \odot \mathrm{w_i})' \Sigma_i (\mathrm{x_i} \odot \mathrm{w_i})}} \\ \text{s.t. } & 0 \leq w_{i,k,b} \leq 1 \\ & |\mathrm{w_{i,k,b}}| = |\mathrm{x_{i,k}}| = 1 \end{aligned} \tag{6}$$

In the absence of short sales constraints, Equation 6 has the familiar solution:

$$\mathrm{w_i^*} \propto \mathrm{x_i^{-1}} \odot [\, \Sigma_i^{-1} (\mathrm{R_i} + \Theta)] \tag{7}$$

where the optimal portfolio weights w_i^* are positively related to subjective expected returns – plus the non-pecuniary preference for organizational trust for the organization labeled assets – and are inversely related to subjective risk. Equation 7 shows that the organization preference parameter θ is estimable from observations of respondents' chosen portfolio weights and subjective risk and return expectations.

As is well known, the presence of short sales constraints means that the solution to the portfolio problem in Equation 6 has no analytical solution but is a straightforward constrained optimization problem. The constraint that each within-asset class relative share to the organization labeled and white labeled option must add to one implies that Equation 6 yields predictions about three objects: the mean allocations to organization labeled investment options within each broad asset class.

Formally, we treat Equation 6 as a system of equations and estimate θ for participants in the high-trust and low-trust conditions via nonlinear multiple-equation GMM (Hansen and

Singleton, 1982). Following our assumptions, the estimation also imposes the restriction that θ is the same across all equations in the system. Assuming that respondents choose allocations to maximize Sharpe ratios, we find the value of θ that minimizes the distance between the weights respondents chose in the experiment in Task 1 and the optimal weights implied by respondents' stated risk and return beliefs elicited from the distribution builder (Task 2). Imposing the restriction that θ is the same across equations is equivalent to assuming that respondents' non-pecuniary benefits to investing in an organization labeled option are the same whether they are investing in a stock, bond, or money market fund.

To give a simplified example of the estimation process, consider the simple case of an investor choosing portfolio weights between two risky assets to optimize a Sharpe ratio. The investor believes that the expected returns on the two assets are 5.5% and 7.0% and that their volatilities are 8% and 10% and that the two assets' returns have a correlation of 0.25. Given these beliefs, the Sharpe ratio-maximizing portfolio weights are 55% and 45%. However, we observe that the investor chose portfolio weights of 60% and 40%. The estimation process solves for the value of θ that must be added to the 5.5% expected return in order to match the observed portfolio choice of 60%/40%. In this particular example, the expected return on the first asset must be increased to 6.5% (i.e. $\theta = 1.0\%$) to rationalize the Sharpe ratio-maximizing portfolio weights of 60%/40%.

Equation 6 implies that investors have beliefs over expected returns and the variance-covariance matrix for all available funds. This presents two challenges. First, the experiment did not collect all of this information from respondents. Respondents in Conditions 1 and 2 reported expected investment payoffs only for organization labeled funds. So we impute beliefs about return and risk for white label funds for Condition 1 and 2 respondents as predictions from a machine learning algorithm trained on the expected payoffs collected from respondents in Condition 3 (the white label only control condition).

Second, we do not directly observe respondents' beliefs over the joint distribution of asset returns: respondents only reported their beliefs over the marginal distribution of payoffs for the organization label funds (Conditions 1 and 2) or the white label funds (Condition

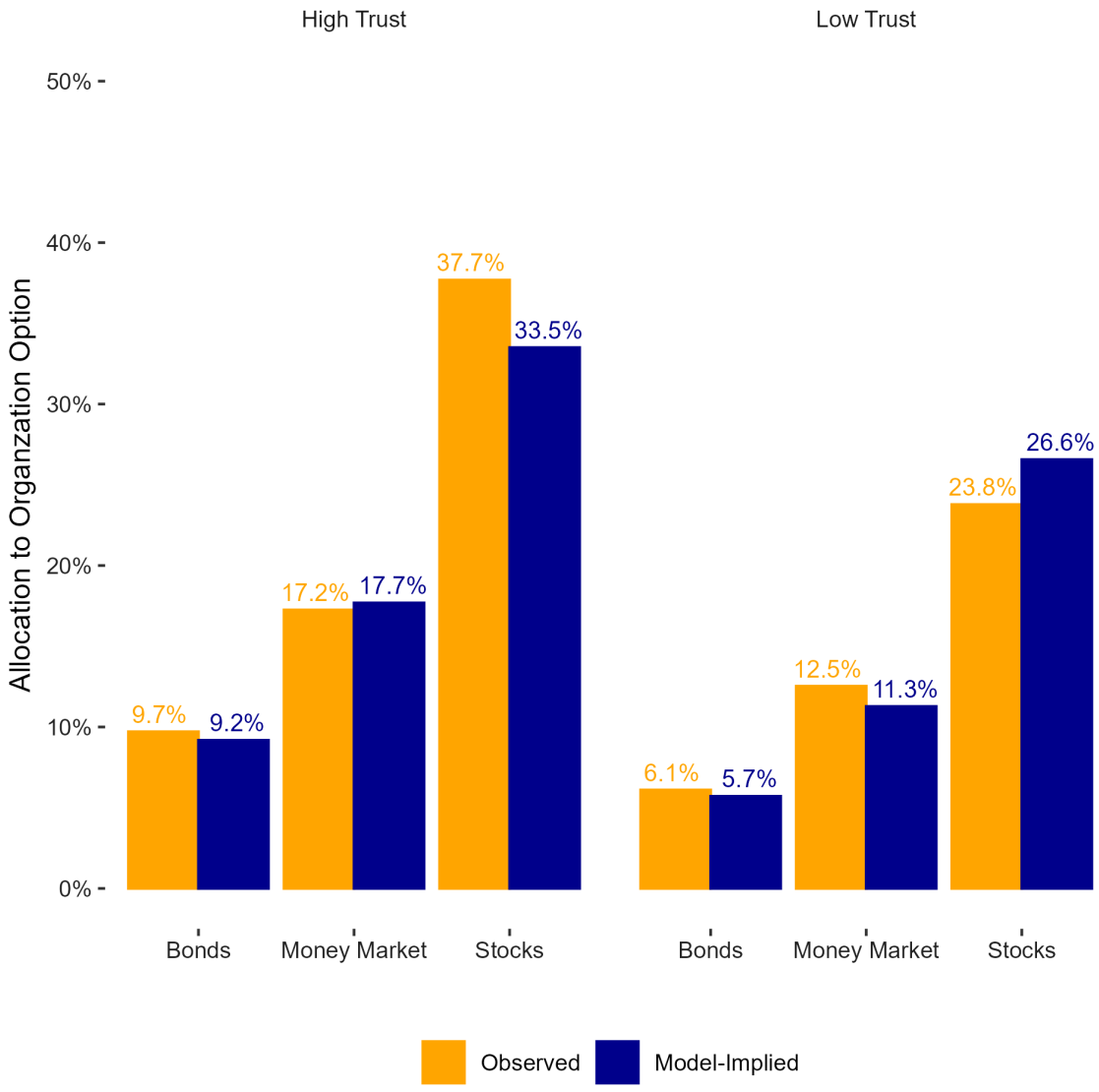
3). Since we do not know respondents' beliefs about conditional payoffs, we assume that respondents make portfolio choices as if the correlations of returns across broad asset classes are zero. However, Table 4 shows that respondents are roughly evenly divided between those who allocated entirely to either organization label or white label funds, and those who allocated to both. Under the assumption of Sharpe ratio maximization, the within-asset-class allocation patterns imply that respondents think there is a non-zero correlation between the returns to organization label and white label funds. We treat this unobserved correlation as an additional parameter to be estimated, under the further restriction that the correlation coefficient is the same across broad asset classes. We therefore use three moments to estimate two parameters within each condition, the preference parameter θ and the unobserved correlation between returns to organization and white label funds within the same asset class. Additional details on the imputation and estimation procedure are included in Appendix G.

Figure 5 shows the fit of the model. The model fits reasonably well; the differences between the average observed and model-implied allocations are between 0.5 and 1.0 percentage points for bonds and money market investment options and roughly 2 to 4 percentage points for stock investment options. For respondents in the high-trust condition, the model implies a slightly lower average allocation to organization labeled stock investment funds (33.5%) than the observed average allocation (37.7%) – i.e. the model tends to underestimate respondents' demand for the organization labeled stock fund. However, the model slightly over-predicts demand for the organization labeled stock fund for respondents in the low-trust condition (a predicted average of 26.6% versus the observed average of 23.8%).

Table 9 reports that the estimate of the organization label premium, θ, is approximately 87 basis points for the high-trust asset management organization. This estimate is not statistically significant and we cannot reject the null hypothesis that the organization label premium in the high-trust condition is equal to zero. However, our estimate of the organization label discount for respondents in the low-trust condition is approximately -4.5% and is statistically significant.

Figure 5: **Portfolio Choice Model Fit**

This figure shows the model fit of the structural portfolio choice model (Equation 6) for respondents in the high- and low-trust organization conditions (Conditions 1 and 2). Orange bars show the observed average allocation to organization labeled investment funds. Blue bars show the predicted allocations at the estimated parameter values for the organization label premia.



Given that we estimate Equation 6 separately for Condition 1 and Condition 2 respondents, it is possible that the estimate for θ captures both organizational trust and an overall difference in demand for organization label versus generic, white label investments. To identify an organizational trust premium, we take the difference between the two estimates. Recall that the two asset management organizations were chosen to have equal levels of famil-

Table 9: **Estimates of Organization Label Premium/Discount**

This table reports the outcome of our structural estimation of the organization preference parameter θ in Equation 6. 95% confidence intervals from 10,000 bootstrap replications are shown in square brackets beneath point estimates. Bootstrap replications account for the imputation of white label beliefs. For more details, see Appendix G. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

Dependent Variables: Relative Allocations to Organization labeled Option	**High-trust organization**	**Low-trust organization**	**Trust premium** (High–Low)
Organization label premium/discount	0.87% [−2.03%, 2.48%]	−4.45%*** [−8.05%, −2.05%]	5.32%*** [1.48%, 9.07%]
N	232	230	

iarity but differing levels of trust. The difference between the two premia estimates is 5.3% (0.87% minus -4.45%) and is statistically significantly different from zero. The insignificance of the estimate for the high-trust asset management organization suggests that respondents' choices are more affected by a negative feeling for the low-trust asset management organization rather than a positive feeling for the high-trust asset management organization.[30]

8 Discussion and Conclusions

Our findings demonstrate that organizational trust, defined as confidence that a firm is competent, dependable and acts with integrity, meaningfully shapes both perceptions of risk and return and actual investment choices, even when the organization should be irrelevant. We find that respondents expect identical index funds to differ in performance based solely on the asset management organization named in the label. Respondents expect the funds of high-trust organizations to earn higher returns and face lower risks, while they saw the funds of low-trust organizations as less rewarding and riskier. These beliefs translate into behavior: high-trust organization labeled funds attract significantly larger allocations, and low-trust organization labeled funds are avoided in favor of white label options.

Our design strengthens this interpretation. We include both preselected high- and low-trust asset management organizations (Conditions 1 and 2) as well as a condition based

[30] One might argue that a low-trust fund would not persist in an investment menu because plan sponsors would quickly replace it. However, industry practitioners indicate that modifying plan investment menus is typically a slow process involving substantial administrative and governance procedures, often taking several years. Consequently, lower-trust options may remain in menus for extended periods.

on respondents' self-reported trust in their employer (Condition 4). The consistency of results across these settings indicates that our results capture the effect of organizational trust rather than related factors such as familiarity.

Importantly, we show that these effects operate through two channels. Organizational trust indirectly influences allocations by shaping investors' expectations about return and losses, and it also has a direct effect independent of those expectations. This extends the findings of Germann et al. (2024), who document the direct effect of trust on allocations but do not account for the role of biased expectations. Together, these two channels validate and extend the theoretical mechanisms in Gennaioli, Shleifer, and Vishny (2015): the direct channel mirrors their baseline specification, in which trust reduces the subjective cost of bearing risk without distorting beliefs. The indirect channel shows that trust itself can bias expectations, in which trust shapes investors' perceived returns and risk and thereby influences allocations.

We further show that these effects are not uniform across investors. Organizational trust shapes behavior for both high and low financial literacy investors, but which mechanism dominates depends on the investor: the direct channel prevails among financially literate investors while belief distortion through the indirect channel is more operative among less literate ones. This heterogeneity underscores that the behavioral consequences of fund labeling extend beyond average effects, with important distributional implications for any investor facing a menu that includes funds associated with organizations that differ in their level of trust, whether paired with anonymous white label options or with funds from other named organizations.

We also quantify the economic value of organizational trust by embedding our results in a portfolio choice model, revealing a measurable premium that investors place on trusted organizations. We report a statistically significant 5.3% difference (i.e., the trust premium) between the high-trust organizational label premium and low-trust organizational label discount. This is driven by respondents' discount of low-trust organizations, suggesting that respondents' choices are more affected by a negative feeling for the low-trust asset manage-

ment organization as opposed to a positive feeling for the high-trust asset management organization. This is a novel contribution to the literature on trust and financial behavior.

Our results have both academic and practical implications. Academically, they extend the behavioral finance literature by isolating the role of organizational trust from related factors such as generalized trust, naming conventions, and familiarity effects. Our research provides a potential explanation for some of these observations, particularly shedding light on Sialm and Tham's (2016) finding that including a fund management company's name in a fund's title can significantly impact fund flows and Choi and Kahan's (2007) findings that reveal fund outflows within a family of funds can be linked to a scandal affecting one of the funds.

Practically, our findings show that fund naming, particularly in the expanding white label market, can unintentionally divert investors toward or away from specific funds. When organization labeled and white label funds are financially equivalent, names themselves provide no benefit to investors and may even be exploited through agency conflicts or delayed menu adjustments. For example, organizations may leverage their "good names" to secure contracts with intermediaries that are opaque to plan participants (see, e.g., Pool et al., 2025), or to justify higher costs or systematically lower returns. This concern is reinforced by Gennaioli, Shleifer, and Vishny (2015), who show that trusted money doctors can exploit their reputational advantage to charge higher fees even for generic services, a dynamic that may be particularly consequential in any investment menu where organizational labels of differing trustworthiness or white label funds are present.

Consider the following returns scenario: two index funds are identical in every respect except that one is offered by a highly trusted organization. Using a conservative estimate from Table 9, if investors assign a "trust premium" of 1.5%, this would be equivalent to accepting a return that is 1.5 percentage points lower than what could be earned in the otherwise identical fund offered by a less trusted organization. Suppose a plan participant contributes $5,000 at the end of each year for 40 years, assuming a 10% annual return to the index. Under these conditions, the contributions to the low-trust fund would grow at 10% p.a.

to approximately \$2,212,963, whereas the high-trust fund, with an effective annual return of 8.5%, would yield only \$1,478,413.[31]

The example illustrates a fundamental principle of finance: even modest differences in expected returns compound into very large differences in long-term wealth. In this case, the investor forfeits more than \$734,000 simply by favoring the high-trust fund. Our findings suggest that individuals may, in practice, be willing to sacrifice substantial returns when organizational trust is salient, despite significant long-term costs. Importantly, while trust-based decision-making may be rational in contexts where organizational trust conveys genuine information about quality, in contexts where funds are otherwise identical, reliance on organizational trust leads to costly trade-offs.

We examine a special case in which organizational trust should, in principle, be uninformative: white label index funds that are financially identical to a fund including the asset management organization in the fund name. Yet, our results show that organizational trust can still powerfully shape investment decisions. As white label funds continue to expand globally, these findings highlight an important responsibility for plan sponsors and policymakers: seemingly neutral design choices, such as labeling, can unintentionally divert investors toward potentially costlier options. Recognizing this influence, plan sponsors should carefully consider how menu construction and fund presentation guide investors' behavior, ensuring that participant choices reflect sound investment principles rather than uninformative name associations.

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[31] Future values are calculated using the ordinary annuity formula: $FV = P \times \frac{(1+r)^n - 1}{r}$, where $P = \$5{,}000$ is the annual contribution, $n = 40$ is the number of years, and r is the net annual return. For the low-trust fund, $r = 10\%$, and for the high-trust fund, $r = 8.5\%$.

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Online Appendices

A Variable Definitions

Table A.1: **Variable Descriptions**

This table reports definitions of variables used in estimation. Variables are computed from responses to an online survey of 949 members of the Understanding America Study (UAS) through the University of Southern California conducted in October 24 - November 15, 2018. A full description of the survey and complete data dictionary is available at https://uasdata.usc.edu/index.php

Variable Name		Description
Experiment indicators		
Condition	c	A categorical variable equal to: 1 if the subject was assigned to the high-trust manager (versus 'generic' white label) condition; 2 if the subject was assigned to the low-trust manager (versus 'generic' white label) condition; 3 if the subject was assigned to only the 'pure' white label Condition (control); and 4 if the subject was assigned to the employer white label versus 'pure' white label Condition.
High Trust Condition	C	An indicator variable that equals 1 if the subject is in Condition 1 (High Trust) or 0 if is in Condition 2 (Low Trust).
Outcome variables		
Org. Label only		An indicator variable that equals 1 if the subject allocates all of their retirement funds to high-trust manager options (Condition 1) or low-trust manager options (Condition 2) or employer white-label options (Condition 4), 0 otherwise.
Mixed		An indicator variable that equals 1 if the subject allocates some of their retirement funds to high-trust manager options (Condition 1) or low-trust manager options (Condition 2) or employer white-label options (Condition 4) and some to generic white label options, 0 otherwise.
White Label only		An indicator variable that equals 1 if the subject allocates none of their retirement funds to high-trust manager options (Condition 1) or low-trust manager options (Condition 2) or employer white label options (Condition 4), 0 otherwise.
Percent allocation to org. labeled fund	$Y_{i,j,Org}$	Fraction of retirement funds the subject allocates to manager-labelled options for money market, bonds, large-cap equities, small-cap equities or global equities index funds (Conditions 1 and 2) or equivalent employer white-label options (Condition 4).
Probability of Loss	$P(\text{Loss})_{i,j}$	Count of balls (out of 100) subject i assigns to the loss domain bins 1-3 ($0-$99,999) in distribution builder task for each fund type j.

Continued

Table A.1 – *Continued*

Variable Name		**Description**
Expected return	$E(R)_{i,j}$	Approximate expected rate of return in percent p.a. calculated as the probability weighted rate of return to $100,000 investment for each asset. Returns are the ratios of mid-points of dollar ranges for each bin over the $100,000 initial investment. Probabilities are the proportion of 100 balls the subject assigns to each bin.
Subject Characteristics		
Male		An indicator variable that equals 1 if the subject is male, 0 otherwise.
Marital status		An indicator variable that equals 1 if the subject is married and living with their spouse, 0 otherwise (spouse living elsewhere, separated, divorced, widowed, never married).
Age		Age in years at the start of the survey; All subjects are between 19 and 80 years of age.
College degree		An indicator variable that equals 1 if the subject has a college degree or higher degree, 0 otherwise.
High income		An indicator variable that equals 1 if the subject's household income is at or above the sample median ($75,000 p.a.).
White		An indicator variable that equals 1 if the subject identifies as racially only white, 0 otherwise.
Financial Literacy		The number of financial literacy questions answered correctly. The financial literacy questions test simple interest, time value of money, inflation, knowledge of financial securities (e.g., stock and bonds) and diversification. Responses are taken from UAS 121 https://uasdata.usc.edu/index.php.
Stock owner		An indicator variable that equals 1 if the subject answers yes to the question "Do you or your spouse/partner have any shares of stock or stock mutual funds?", 0 otherwise (No, Don't know). Responses are taken from UAS 117 https://uasdata.usc.edu/index.php.
High Finance Trust		An indicator that equals 1 if the subject scores above the median in predicted trust in finance, 0 otherwise. Predicted trust in finance is the individual prediction from a factor model of responses to five questions on a seven point scale where 1 is 'Don't trust at all' and 7 is 'Trust completely'. The questions ask about trust in the stock market, banks, insurance companies, stock brokers and investment advisers.
Employer Trust (High, Medium, Low)	ET	Responses to question on the degree to which subjects trust their employer on a seven point scale where 1 is 'Don't trust at all' and 7 is 'Trust completely'. 1-4 = Low employer trust; 5 = Medium employer trust; and 6-7 = High employer trust.
Inattention		An indicator that equals 1 if the subject assigns the same probability of loss to every asset class (i.e., the same number of balls in the loss bins) and also assigns the same expected return to every asset class (i.e., the same pattern of balls in each bin), 0 otherwise

B Survey Sample Demographics

This Appendix presents summary statistics for respondents. Three out of 952 respondents were excluded due to either being retired or missing information.

Table B.1: **Descriptive Statistics by Condition**

			Condition 1		**Condition 2**		**Condition 3**		**Condition 4**	
	All		**High Trust**		**Low Trust**		**White Label**		**Employer White Label**	
	Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
N	952		233		231		228		260	
Male	474	50%	121	52%	118	51%	101	44%	134	52%
Married	637	67%	169	73%	146	63%	153	67%	169	65%
Age										
19 to 29 years old	35	4%	5	2%	12	5%	9	4%	9	3%
30 to 39 years old	225	24%	56	24%	47	20%	47	21%	75	29%
40 to 49 years old	279	29%	73	31%	72	31%	68	30%	66	25%
50 to 59 years old	266	28%	65	28%	66	29%	69	30%	66	25%
60 to 70 years old	132	14%	31	13%	30	13%	31	14%	40	15%
70 to 80 years old	14	1%	3	1%	4	2%	3	1%	4	2%
Missing	1	0%	0	0%	0	0%	1	0%	0	0%
Total Excluding Missing	951	100%	233	100%	231	100%	227	100%	260	100%

Continued

Table B.1 – *Continued*

	All		Condition 1: High Trust		Condition 2: Low Trust		Condition 3: White Label		Condition 4: Employer White Label	
	Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
Education										
Less than High School	15	2%	1	0%	1	0%	9	4%	4	2%
High School	123	13%	37	16%	24	10%	34	15%	28	11%
Some College	168	18%	39	17%	49	21%	39	17%	41	16%
College (Assoc. or Bachelor)	443	47%	92	39%	120	52%	98	43%	133	51%
Post Graduate Degree	203	21%	64	27%	37	16%	48	21%	54	21%
Total Excluding Missing	952	100%	233	100%	231	100%	228	100%	260	100%
Financial Literacy										
Mean Correct Answers	10.4		10.4		10.3		9.9		10.7	
Household Income										
Less than $5,000	5	1%	2	1%	0	0%	2	1%	1	0%
$5,000 to $7,499	1	0%	1	0%	0	0%	0	0%	0	0%
$7,500 to $9,999	3	0%	2	1%	1	0%	0	0%	0	0%
$10,000 to $12,499	6	1%	0	0%	2	1%	4	2%	0	0%
$12,500 to $14,999	6	1%	1	0%	2	1%	1	0%	2	1%
$15,000 to $19,999	10	1%	1	0%	0	0%	5	2%	4	2%
$20,000 to $24,999	21	2%	4	2%	5	2%	7	3%	5	2%

Continued

Table B.1 – *Continued*

	All		Condition 1: High Trust		Condition 2: Low Trust		Condition 3: White Label		Condition 4: Employer White Label	
	Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
$25,000 to $29,999	25	3%	8	3%	5	2%	7	3%	5	2%
$30,000 to $34,999	37	4%	8	3%	9	4%	11	5%	9	3%
$35,000 to $39,999	40	4%	8	3%	7	3%	9	4%	16	6%
$40,000 to $49,999	62	7%	13	6%	20	9%	13	6%	16	6%
$50,000 to $59,999	87	9%	22	9%	30	13%	19	8%	16	6%
$60,000 to $74,999	114	12%	32	14%	32	14%	18	8%	32	12%
$75,000 to $99,999	173	18%	43	18%	42	18%	44	19%	44	17%
$100,000 to $149,999	212	22%	50	21%	46	20%	43	19%	73	28%
$150,000 or more	149	16%	38	16%	30	13%	45	20%	36	14%
Missing	1	0%	0	0%	0	0%	1	0%	0	0%
Total Excluding Missing	951	100%	233	100%	231	100%	227	100%	260	100%
Race										
White	809	85%	201	86%	195	84%	187	82%	226	87%
Black	71	7%	17	7%	17	7%	20	9%	17	7%
Other	70	7%	14	6%	18	8%	21	9%	17	7%
Missing	2	0%	1	0%	1	0%	0	0%	0	0%
Total Excluding Missing	950	100%	232	100%	230	100%	228	100%	260	100%

Continued

Table B.1 – *Continued*

			Condition 1		Condition 2		Condition 3		Condition 4	
	All		High Trust		Low Trust		White Label		Employer White Label	
	Count	%	Count	%	Count	%	Count	%	Count	%
Labor Status										
Currently Working	948	100%	233	100%	229	99%	228	100%	258	99%
On Sick or Other Leave	1	0%	0	0%	1	0%	0	0%	0	0%
Unemployed-Looking	2	0%	0	0%	0	0%	0	0%	2	1%
Retired	1	0%	0	0%	1	0%	0	0%	0	0%
Total Excluding Missing	952	100%	233	100%	231	100%	228	100%	260	100%

C Full Regression Results

This Appendix presents full results from estimations referenced in the main text.

Table C.1: **Table 6 OLS Estimation Full Results**

This table reports estimation results from regressions of proxies for risk and return on condition indicators (high or low-trust organization conditions) and control variables (Equation 3). Heteroskedasticity-robust standard errors are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

	Probability of Loss					**Expected Return**				
	Money Market	U.S. Bonds	U.S. Large Cap	U.S. Small Cap	Global Stocks	Money Market	U.S. Bonds	U.S. Large Cap	U.S. Small Cap	Global Stocks
High-trust organization	-5.594**	-6.948***	-5.138**	-6.184***	-6.446***	1.985	1.953	3.206**	1.998	2.727*
	(2.403)	(2.542)	(2.209)	(2.380)	(2.389)	(1.405)	(1.321)	(1.433)	(1.363)	(1.507)
Fin Lit	-1.777***	-0.765	-1.255**	-1.638***	-1.331**	0.475	0.076	0.486	0.791**	0.381
	(0.625)	(0.638)	(0.576)	(0.611)	(0.600)	(0.370)	(0.321)	(0.396)	(0.383)	(0.453)
Age	0.130	0.152	0.212**	0.157	0.260**	-0.076	0.016	-0.076	-0.007	-0.112
	(0.114)	(0.120)	(0.105)	(0.112)	(0.114)	(0.063)	(0.059)	(0.068)	(0.063)	(0.072)
High finance trust	-3.213	-2.866	-4.507**	-1.799	-3.423	0.236	-0.424	1.857	0.518	1.619
	(2.390)	(2.559)	(2.224)	(2.378)	(2.389)	(1.467)	(1.384)	(1.450)	(1.435)	(1.526)
Male	-3.824	-3.079	-0.797	-0.800	-1.424	-0.610	-0.098	-0.233	-1.063	-0.136
	(2.563)	(2.673)	(2.453)	(2.543)	(2.582)	(1.538)	(1.486)	(1.639)	(1.523)	(1.607)
Married	-4.526	-4.599	-5.141*	-1.565	-2.508	3.136	2.042	3.758**	3.211*	2.295
	(3.041)	(3.196)	(2.713)	(2.848)	(2.880)	(1.918)	(1.748)	(1.781)	(1.817)	(1.845)
College degree	-3.283	-4.577	1.917	1.797	4.530	-0.678	1.820	-0.834	0.278	-0.769
	(2.942)	(3.043)	(2.691)	(2.818)	(2.816)	(1.704)	(1.533)	(1.794)	(1.623)	(1.878)
High income	-2.678	-3.556	0.608	-0.561	-0.833	0.481	0.282	-1.910	-0.228	-1.211
	(2.983)	(3.138)	(2.664)	(2.839)	(2.873)	(1.841)	(1.738)	(1.708)	(1.798)	(1.879)
White	-5.428	-11.080**	-7.425*	-10.093***	-11.617***	5.102	5.404*	6.881**	4.271	6.888**
	(4.808)	(4.383)	(3.893)	(3.836)	(4.210)	(3.375)	(2.859)	(2.842)	(2.598)	(3.327)
Stock owner	-3.643	2.717	-0.057	2.183	0.189	-0.554	-3.476**	-0.647	-1.017	-0.863
	(3.055)	(3.148)	(2.745)	(2.987)	(2.975)	(1.780)	(1.696)	(1.705)	(1.727)	(1.967)
Inattention	16.305*	13.514	9.442	3.974	1.340	-17.383**	-16.295*	-18.863**	-15.388**	-15.607*
	(9.782)	(10.203)	(10.454)	(10.432)	(10.634)	(7.995)	(8.401)	(8.106)	(7.728)	(8.378)
Constant	56.271***	49.899***	48.589***	58.976***	56.587***	-3.620	-3.607	-3.908	-11.330**	-3.383
	(7.741)	(8.024)	(7.188)	(7.497)	(7.626)	(4.670)	(4.484)	(4.775)	(4.412)	(5.509)
Observations	462	462	462	462	462	462	462	462	462	462
R-squared	0.162	0.104	0.091	0.079	0.087	0.075	0.067	0.104	0.084	0.071

Table C.2: **Allocations to Fund Type by Condition, OLS Estimation Results**

This table reports estimation results from regressions of fund type level allocations on condition indicators (high or low-trust organization conditions) and risk and return beliefs. Note that the control group with only white label fund options (Condition 3) are the omitted baseline condition. Heteroskedasticity-robust standard errors are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

	(1) Money Market	(2) U.S. Bonds	(3) U.S. Large Cap	(4) U.S. Small Cap	(5) Global Stocks	(6) Market Market	(7) U.S. Bonds	(8) U.S. Large Cap	(9) U.S. Small Cap	(10) Global Stocks
High-trust organization	-2.511	0.296	1.763	-0.825	0.996	-3.018	0.289	2.197	-0.608	1.118
	(2.482)	(1.558)	(1.902)	(1.294)	(1.354)	(2.511)	(1.554)	(1.917)	(1.289)	(1.360)
Low-trust organization	-3.349	0.0469	2.315	1.800	-0.122	-3.035	0.266	2.570	1.969	-0.154
	(2.470)	(1.409)	(1.790)	(1.367)	(1.386)	(2.498)	(1.407)	(1.823)	(1.371)	(1.393)
P(Loss) Money Market	0.150***									
	(0.0422)									
P(Loss) U.S. Bonds		0.00155								
		(0.0226)								
P(Loss) U.S. Large Cap			-0.184***							
			(0.0317)							
P(Loss) U.S. Small Cap				-0.0719***						
				(0.0226)						
P(Loss) Global Stocks					-0.0830***					
					(0.0218)					
E(R) Money Market						-0.0980				
						(0.0789)				
E(R) U.S. Bonds							0.0877*			
							(0.0516)			
E(R) U.S. Large Cap								0.230***		
								(0.0574)		
E(R) U.S. Small Cap									0.152***	
									(0.0486)	
E(R) Global Stocks										0.124***
										(0.0365)
Constant	26.71***	13.96***	29.98***	19.51***	17.68***	30.98***	13.60***	22.33***	16.32***	13.98***
	(2.018)	(1.202)	(1.817)	(1.365)	(1.394)	(2.015)	(1.109)	(1.365)	(0.998)	(1.098)
Observations	689	689	689	689	689	689	689	689	689	689
R-squared	0.025	0.000	0.050	0.021	0.025	0.006	0.006	0.030	0.028	0.021

Table C.3: **Panel Estimates of Allocation to Organization-labeled Options: Effects of Expected Risk and Return**

The table reports estimation results from fixed effects panel models of allocations to organization-labeled investment options in Conditions 1 and 2. In Task 1, respondents allocated 100% of their hypothetical retirement balance to 10 fee-free index funds in 5 fund types (Money Market, U.S. Bonds, U.S. Large cap stocks, U.S. Small cap stocks and Global stocks) where funds had either an organization label or a white label. Models estimate the percentage allocation of respondent i to the organization-labeled fund in asset class j conditioning on respondents' one-year expected probability of loss $L_{i,j,c}$, P(Loss), or expected return, $R_{i,j,c}$, E(R), from Task 2, financial literacy and a high- or low-trust organization condition indicator. All models include individual fixed effects. Models 2-4 and 6-8 include fixed effects for money market, bond, and stock asset classes. Standard errors clustered by respondent are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

% Allocation to Organization Option	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
P(Loss)	-0.063***	-0.052**	-0.115	-0.101				
	(0.020)	(0.021)	(0.133)	(0.137)				
E(R)					0.165***	0.158***	-0.352	-0.427*
					(0.044)	(0.043)	(0.255)	(0.251)
High-trust organization x P(Loss)				-0.016				
				(0.038)				
High-trust organization x E(R)								0.084
								(0.081)
Fin Lit x P(Loss)			0.008	0.007				
			(0.007)	(0.007)				
Age x P(Loss)			-0.002	-0.002				
			(0.002)	(0.002)				
High finance trust x P(Loss)			0.101**	0.101**				
			(0.042)	(0.041)				
Male x P(Loss)			0.060	0.060				
			(0.050)	(0.050)				
Married x P(Loss)			-0.051	-0.048				
			(0.047)	(0.047)				
College degree x P(Loss)			-0.077*	-0.075*				
			(0.046)	(0.045)				
High income x P(Loss)			0.061	0.058				
			(0.047)	(0.047)				
White x P(Loss)			0.035	0.032				
			(0.070)	(0.070)				
Stock owner x P(Loss)			0.055	0.055				
			(0.043)	(0.043)				
Fin Lit x E(R)							0.028**	0.029**
							(0.013)	(0.013)
Age x E(R)							0.005	0.005
							(0.004)	(0.004)
High finance trust x E(R)							0.049	0.041
							(0.082)	(0.082)
Male x E(R)							0.136	0.135
							(0.101)	(0.100)
Married x E(R)							0.014	0.000
							(0.095)	(0.094)
College degree x E(R)							-0.012	-0.015
							(0.106)	(0.109)
High income x E(R)							0.052	0.071
							(0.103)	(0.110)
White x E(R)							-0.092	-0.074
							(0.112)	(0.108)
Stock owner x E(R)							0.007	0.004
							(0.092)	(0.094)
Marginal Effect of P(Loss) or E(R)			-0.039*	-0.039*			0.228***	0.229***
Standard Error of Marginal Effect			0.020	0.020			0.045	0.044
Respondent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Asset Class FE	No	Yes	Yes	Yes	No	Yes	Yes	Yes
R-squared	0.006	0.032	0.042	0.042	0.012	0.039	0.048	0.049
Number of respondents	462	462	462	462	462	462	462	462
Observations	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310

Table C.4: **SUR Estimates of Allocations to Broad Asset Classes and Organization-labeled Options**

This table reports Seemingly Unrelated Regression (SUR) estimates of broad asset class level and organization-labeled options within each asset class from Equation 5 for Conditions 1 and 2. Models 1 and 3 estimate percentages allocated to money market funds and Models 2 and 4 estimate total percentages allocated to all stock funds. For each pair of models, the first column estimates percentages allocated to the broad asset class level (top line of Equation 5), and the second column contains estimates for percentages allocated to the organization-labeled option within the asset class (bottom line of Equation 5). Heteroskedasticity-robust standard errors are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

	(1)	(1)	(2)	(2)	(3)	(3)	(4)	(4)
	Money Market		Stocks		Money Market		Stocks	
	Broad Asset Class	Organization -labeled Option	Broad Asset Class	Organization -labeled Option	Broad Asset Class	Organization -labeled Option	Broad Asset Class	Organization -labeled Option
Total Money Market Allocation		0.586***				0.586***		
		(0.031)				(0.031)		
Total Stocks Allocation				0.501***				0.509***
				(0.045)				(0.045)
High-trust organization		4.560***		13.074***		4.703***		13.419***
		(1.454)		(2.220)		(1.450)		(2.214)
P(Loss) Money Market	0.027	-0.036						
	(0.042)	(0.028)						
P(Loss) U.S. Large Cap			-0.041	0.004				
			(0.068)	(0.065)				
P(Loss) U.S. Small Cap			-0.050	-0.044				
			(0.062)	(0.060)				
P(Loss) Global Stocks			-0.097	-0.052				
			(0.062)	(0.060)				
E(R) Money Market					-0.074	0.028		
					(0.070)	(0.048)		
E(R) U.S. Large Cap							-0.008	0.073
							(0.112)	(0.107)
E(R) U.S. Small Cap							0.157	0.063
							(0.107)	(0.103)
E(R) Global Stocks							0.130	-0.041
							(0.094)	(0.090)
Fin Lit	-1.635***	0.104	1.942***	-0.571	-1.649***	0.153	2.033***	-0.522
	(0.468)	(0.319)	(0.499)	(0.485)	(0.463)	(0.316)	(0.498)	(0.485)
Age	0.205**	-0.026	-0.161	0.043	0.203*	-0.028	-0.188*	0.026
	(0.104)	(0.070)	(0.111)	(0.107)	(0.104)	(0.070)	(0.112)	(0.107)
High finance trust	-0.243	1.217	3.211	1.163	-0.314	1.325	3.543	1.269
	(2.174)	(1.460)	(2.327)	(2.231)	(2.169)	(1.459)	(2.326)	(2.230)
Male	-5.270**	-2.107	5.568**	-0.312	-5.419**	-1.956	5.954**	-0.171
	(2.287)	(1.544)	(2.434)	(2.342)	(2.280)	(1.543)	(2.442)	(2.349)
Married	-3.016	-0.231	3.261	-3.776	-2.910	-0.159	3.081	-4.012
	(2.511)	(1.694)	(2.684)	(2.582)	(2.511)	(1.698)	(2.694)	(2.588)
College degree	2.721	0.224	-2.821	-1.444	2.580	0.361	-3.358	-1.713
	(2.522)	(1.696)	(2.693)	(2.582)	(2.516)	(1.696)	(2.694)	(2.582)
High income	-6.556***	-0.680	3.969	6.888***	-6.594***	-0.601	4.234	7.032***
	(2.472)	(1.672)	(2.636)	(2.528)	(2.468)	(1.673)	(2.647)	(2.538)
White	2.491	-2.469	-2.052	-2.576	2.719	-2.419	-1.636	-2.054
	(3.493)	(2.348)	(3.757)	(3.600)	(3.502)	(2.358)	(3.768)	(3.607)
Stock owner	-4.512*	0.697	7.932***	2.308	-4.654*	0.840	8.101***	2.219
	(2.564)	(1.729)	(2.732)	(2.642)	(2.557)	(1.728)	(2.737)	(2.645)
Inattention	17.525***	-2.545	-12.467*	-7.532	16.693**	-2.627	-9.044	-5.922
	(6.757)	(4.582)	(7.187)	(6.923)	(6.828)	(4.636)	(7.342)	(7.045)
Constant	41.103***	0.209	42.880***	2.581	42.379***	-1.676	34.824***	-2.112
	(6.470)	(4.599)	(7.042)	(7.161)	(6.060)	(4.333)	(6.552)	(6.546)
R-squared	0.149	0.482	0.197	0.330	0.150	0.480	0.193	0.328
Observations	462	462	462	462	462	462	462	462

D Condition Four: Comparing High, Medium, and Low-trust Employer Labels

In this Appendix we examine responses from Condition 4, where respondents chose from a menu consisting of anonymous white label funds and white label funds that contain the name of their employer. For Condition 4, we divide respondents by how much they trust their own employer to assess the whether trust in organizations in general affects investment decisions. At the beginning of the survey, each respondent entered a proxy name for their employer, and UAS piped their employer proxy name into the screens for both the investment allocation and distribution builder tasks. Respondents also submitted personal ratings of their trust in their employer. The employer labels apply to zero fee index funds and, similar to Conditions 1 and 2, Condition 4 respondents should have no financial reason to prefer employer white label over anonymous white label funds, regardless of their assessment of the trustworthiness of their employer organization. Condition 4 thus offers another test of organizational trust, where the possible association is the trustworthiness of the respondent's employer instead of an asset manager. The instructions survey respondents in Condition 4 received are listed in Table D.1, below.

Table D.1: **Explanation of Mutual Fund Names for Condition 4.**

This table reproduces the text we showed respondents in Condition 4 that explained the labels on the mutual funds described in Figure 1. Respondents allocated their retirement balance among these funds in task 1 and assigned probabilities to investment outcomes in task 2.

Condition 4: Employer White Label and Anonymous White Label
Mutual Fund Names If you see the initials of your employer preceding the fund name, this means the fund has been put together for your employer's retirement plan. The fund may include one or more mutual funds which hold the same type of investment. If you see "White Label" preceding the fund name, this means the fund has been put together for your employer's retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.

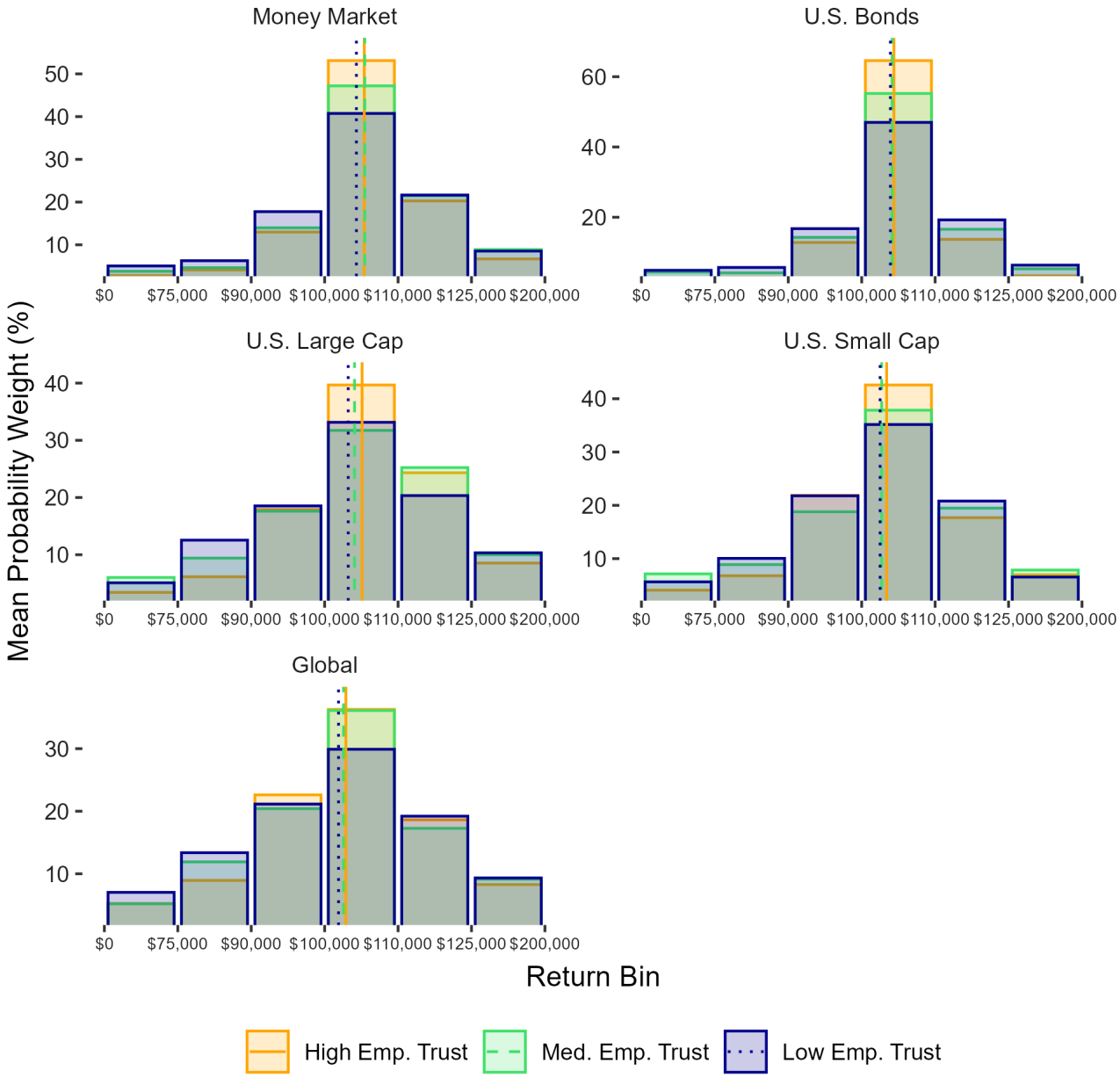
D.1 The Influence of Trust in One's Employer on Risk and Return Expectations for Employer Labeled Funds

D.1.1 Distributions of Expected Payoffs

Analogous to Figure 4, Figure D.1 compares the distribution of expectations by showing the average probability weights for each payoff bin for respondents with high, medium, or low self-reported trust in their employer. The figure demonstrates that respondents with low levels of self-reported trust in their employer place a higher probability mass on lower payoffs relative to respondents with more trust in their employers. This pattern is broadly consistent across all asset classes; for each asset class, the average expected return is increasing in the level of trust in the employer.

Figure D.1: **Average return expectations for investments by self-reported trust in employer**

This figure shows the average probability weight allocated to each payoff bin for an initial $100,000 investment for each asset class for respondents in Condition 4 with high, medium, or low self-reported trust in their employer. Solid, dashed, and dotted lines show the average expected payoff for each level of self-reported trust.



While the differences in expectations among respondents in Condition 4 are less pronounced than those in Conditions 1 and 2, the permutation tests for differences are statis-

tically significant for all asset classes except for Global Stocks funds ($p \leq .10$ for U.S. Small Caps; $p \leq .05$ for Money Market, U.S. Bond, and U.S. Large Cap funds).[32] Similar to those identified in Figure 4, the distribution-wide differences in expectations are driven primarily by differences in the probabilities assigned to small gains or losses for Money Market and U.S. Bonds funds, and by differences in the probabilities assigned to large losses for the U.S. Large Cap and U.S. Small Cap funds.

[32]The permutation tests are for differences in the distributions of expected payoffs for high versus low-trust in employers; respondents with middling trust in their employers are excluded.

D.1.2 Risk and Return Expectations

Patterns where respondents predict higher expected returns and lower probabilities of loss to funds labeled with more trusted organizations are repeated in Condition 4. Table D.2 compares predictions averaged over respondents who gave similar ratings for their trust in their employer. On average, respondents who trusted their employers comparatively more predicted that employer white label funds would generate higher expected returns and less probable losses than respondents who trusted their employers comparatively less. The pattern of results is quite similar to those presented in Table 3, where respondents reported higher expected returns and lower probabilities of loss for high-trust organizations relative to low-trust organizations.

Table D.2: **Average Expected Returns and Probabilities of Loss: Employer White Label Condition**

This table shows averages of Condition 4 respondents' expected returns and probabilities of loss from the distribution builder (Task 2). In Task 2, respondents assigned 100 balls, each representing 1 percentage point of probability, to six bins representing intervals of possible outcomes for a one-year investment of $100,000. Respondents completed this task for each of the five classes of index funds. Funds were labeled according to the condition, i.e., employer white label (Condition 4). Expected returns are calculated by equation 1 and probability of loss by equation 2. The final column in each condition panel shows results from tests of equal means in the low employer trust and high employer trust groups, where *** denotes $p \leq .01$, ** denotes $p \leq .05$, and * denotes $p \leq .10$.

	Expected return			
	Employer Condition (N=260)	**Employer Trust High (N=112)**	**Employer Trust Medium (N=86)**	**Employer Trust Low (N=62)**
Fund				
Money Market	7.1%	7.3%	7.8%	6.0%
U.S. Bonds	4.9%	4.9%	4.8%	4.8%
U.S. Large Cap	6.5%	7.5%	6.0%	5.4%
U.S. Small Cap	3.9%	4.8%	3.3%	3.1%
Global	3.9%	4.3%	4.2%	2.9%
	Probability of Loss			
Fund				
Money Market	23%	20%	22%	29%**
U.S. Bonds	22%	18%	23%	27%**
U.S. Large Cap	31%	27%	33%	36%**
U.S. Small Cap	35%	33%	35%	37%
Global	38%	37%	38%	42%

D.1.3 Allocations

We can see in Table D.3 that when we compare within asset classes, average allocations incline towards the trusted employers. Average allocations to the employer white label funds were often nearly twice as large as average allocations to the anonymous white label funds for the group of respondents who rated their employer as highly trustworthy. Average allocations to the employer white label funds were about the same as allocations to the anonymous white label fund for the group of respondents who rated their employer as not very trustworthy. Again taking U.S. Large Cap Stocks allocations as an example, respondents in the high employer trust group allocated 18%, on average, to the employer white label index fund and 10% to the anonymous white label equivalent. Respondents in the lower employer trust group allocated 15% to the employer white label and 13% to the anonymous white label on average. This result is similar to the analogous comparison for Conditions 1 and 2 (Table 5), where the average allocation to the high-trust (white label) U.S. large cap option was 18% (9%) and the average allocation to the low-trust (white label) U.S. large cap option was 11% (15%).

Table D.3: **Average Allocations to Employer Label Funds and Anonymous White Label Funds**

This table reports investment allocations made by survey respondents (Task 1) for Condition 4. The top panel shows averages over respondents by employer trust level of allocations to types of securities (money, bonds, and stock). The bottom panel shows averages over respondents by employer trust level of allocations to stock asset classes (large cap, small cap, and global equities). The third column in each section shows results from tests of equal means in the two preceding columns, where *** denotes $p \leq .01$, ** denotes $p \leq .05$, * denotes $p \leq .1$ (none of the differences in means for the low trust condition were statistically significant).

	Employer Condition				**Employer Trust High**				**Employer Trust Medium**				**Employer Trust Low**		
	Emp.	Anon.		Total	Emp.	Anon.		Total	Emp.	Anon.		Total	Emp.	Anon.	Total
Money Market	17%	9%	***	26%	20%	6%	***	26%	16%	9%	*	25%	14%	12%	26%
Bonds	9%	5%	***	14%	9%	4%	***	13%	10%	5%	**	15%	9%	7%	15%
Stocks	36%	24%	***	60%	40%	21%	***	61%	36%	24%	***	60%	31%	28%	59%
U.S. Large Cap	17%	11%	***	29%	18%	10%	***	27%	18%	13%	*	31%	15%	13%	27%
U.S. Small Cap	10%	7%	***	17%	11%	6%	***	18%	10%	6%	**	17%	8%	9%	17%
Global	9%	6%	***	14%	10%	5%	***	16%	7%	5%	*	12%	9%	7%	15%
Total Allocations	63%	37%	***		69%	31%	***		62%	38%	***		53%	47%	
N	260				112				86				62		

D.2 Effects of Self-Reported Employer Organizational Trust on Expected Risk and Return

Again following the main text, we compute marginal effects from OLS regressions:

$$M_{i,j} = \alpha_{1,j} + \beta_{1,j} ET_i + \beta_{2,j} \text{Controls}_i + \varepsilon_{i,j} \tag{8}$$

where the dependent variable is either a measure of expected return or probability of loss ($M_{i,j} : R_{i,j}; L_{i,j}$) for respondent i and asset class j, ET_i is a categorical variable indicating high, medium or low employer trust for respondent i, and Controls_i is a vector of control variables comprising gender, marital status, age, education, household income, race, stock ownership, trust in the finance sector and attention to the survey. Note that, unlike in the main text, we are unable to randomize across self-reported trust in one's employer. We use estimates of equation 8 to compute differences in predictive margins for the effects of employer organizational trust on expected returns and risk, conditioning on respondent characteristics. We do not analyze heterogeneity with respect to financial literacy; doing so would result in small sample sizes due to this inability to randomize organizational trust.

Table D.4 reports results from these tests. We find that direction of effects, by and large, are the same as as reported in Table 6, with low employer trust associated with higher probabilities of loss and lower expected returns than high employer trust. However there are no statistically significant differences, potentially due to the small sample size within the condition and the inability to experimentally manipulate trust in one's employer.

Table D.4: **Estimated Effects of Self-Reported Employer Trust on Expected Returns and Risk.**

The table reports average predicted values and results of tests that marginal differences are zero from regressions of proxies for risk and return on self-reported employer trust bins (low, medium, or high employer trust) and demographic controls (equation 3). High-trust employer sample: N=112; Medium-trust employer sample: N=86; Low-trust employer sample: N=62. Standard errors are calculated via the delta method. *** indicates p-value < 0.01; ** indicates p-value < 0.05; * indicates p-value < 0.1.

	Dependent Variable: Probability of Loss				**Dependent Variable: Expected Return**			
	Average predicted value (%)			Difference (%)	Average predicted value (%)			Difference (%)
	Low trust	Medium trust	High trust	Low - High	Low trust	Medium trust	High trust	Low - High
Money Market	26.37	22.99	20.97	5.41	6.05	7.58	7.41	-1.36
U.S. Bonds	23.30	23.47	20.15	3.15	5.59	4.64	4.61	0.99
U.S. Large Cap	32.87	33.70	28.78	4.09	6.56	5.55	7.14	-0.58
U.S. Small Cap	33.91	35.15	34.47	0.56	4.15	3.12	4.29	-0.14
Global	39.34	38.04	37.63	1.71	3.18	3.96	4.28	-1.10

D.2.1 Effects of Expected Risk and Return on Fund Allocations

Table D.5 presents estimates using the specification in Equation 4 with investment options labeled with the name of the respondent's employer. The results are consistent with those in Table C.3 but with larger standard errors, which may reflect the smaller sample size in Condition 4 as well as the inability to experimentally manipulate trust in one's employer. Higher probabilities of loss predict lower allocations to the employer-labeled option and higher expected returns predict higher allocations to the employer labeled option.

Table D.5: **Panel Estimates of Allocation to Employer-labeled Options**

The table reports estimation results from fixed effects panel models of allocations to employer-branded investment options in Condition 4. In Task 1, respondents allocated 100% of their hypothetical retirement balance to 10 fee-free index funds in 5 fund types (Money Market, U.S. Bonds, U.S. Large cap stocks, U.S. Small cap stocks and Global stocks) where funds had either an employer label or a white label. Models estimate the percentage allocation of respondent i to the employer-labeled fund in asset class j conditioning on respondents' one-year expected probability of loss $L_{i,j,c}$, P(Loss), or expected return, $R_{i,j,c}$, E(R), from Task 2, and a high-, medium-, or low-trust employer condition indicator and demographic controls. All models include individual fixed effects. Models 2-4 and 6-8 include fixed effects for money market, bond, and stock asset classes. Standard errors clustered by respondent are in parentheses. *** indicates p-value < 0.01; ** indicates p-value < 0.05; * indicates p-value < 0.1.

% Allocation to Employer-labeled Option	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
P(Loss)	-0.089**	-0.092**	-0.425**	-0.439**				
	(0.035)	(0.040)	(0.178)	(0.183)				
E(R)					0.280***	0.252***	0.366	0.281
					(0.076)	(0.075)	(0.355)	(0.371)
Med Emp Trust x P(Loss)				-0.047				
				(0.084)				
High Emp Trust x P(Loss)				-0.209***				
				(0.079)				
Med Emp Trust x E(R)								0.195
								(0.162)
High Emp Trust x E(R)								0.325*
								(0.185)
Fin Lit x P(Loss)			0.007	0.006				
			(0.013)	(0.012)				
Age x P(Loss)			0.002	0.002				
			(0.003)	(0.003)				
High finance trust x P(Loss)			0.223***	0.281***				
			(0.064)	(0.069)				
Male x P(Loss)			0.032	0.041				
			(0.070)	(0.066)				
Married x P(Loss)			-0.020	-0.006				
			(0.093)	(0.089)				
College degree x P(Loss)			-0.002	0.027				
			(0.076)	(0.073)				
High income x P(Loss)			0.013	0.025				
			(0.095)	(0.094)				
White x P(Loss)			0.084	0.120				
			(0.098)	(0.103)				
Stock owner x P(Loss)			0.027	0.034				
			(0.086)	(0.078)				
Fin Lit x E(R)							0.012	0.009
							(0.019)	(0.020)
Age x E(R)							-0.002	-0.001
							(0.008)	(0.007)
High finance trust x E(R)							-0.292**	-0.382**
							(0.132)	(0.152)
Male x E(R)							0.250	0.228
							(0.156)	(0.148)
Married x E(R)							0.062	0.060
							(0.161)	(0.166)
College degree x E(R)							0.065	0.051
							(0.133)	(0.130)
High income x E(R)							0.244	0.266
							(0.202)	(0.195)
White x E(R)							-0.275	-0.354*
							(0.169)	(0.181)
Stock owner x E(R)							0.085	0.054
							(0.188)	(0.186)
Marginal Effect of P(Loss) or E(R)			-0.075*	-0.060			0.411***	0.390***
Standard Error of Marginal Effect			0.039	0.038			0.089	0.086
Respondent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Asset Class FE	No	Yes	Yes	Yes	No	Yes	Yes	Yes
R-squared	0.006	0.032	0.033	0.034	0.012	0.039	0.046	0.047
Number of respondents	462	462	462	462	462	462	462	462
Observations	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310

D.2.2 Direct Effects of Trust in One's Employer: Do Employer Labels Guide Allocations?

To estimate direct organizational trust effects, we again assume that respondents make their asset allocation decision in a sequential manner. For respondents in Condition 4, we present SUR estimates in Table D.6, analogous to those in Table 8. To save space, coefficient estimates for the proxies for risk and return are suppressed. Participants with high self-reported trust in their employer allocated roughly 6 percentage points more to organization-labeled money market funds than white-labeled funds and 9 percentage points more to organization-labeled stock funds than white-labeled funds, relative to individuals with low self-reported trust in their employer. The effect of organizational trust on within-asset class allocations to organization-labeled money market and stock investment options are comparable to those observed in Table 8, although the effects for money market decisions are larger (6 percentage points versus 5 in Table 8) and the effects for equity funds are smaller (9 percentage points versus 13). There was no significant difference in allocation decisions between individuals with middling trust in their employer and individuals with low trust in their employer.

In summary, analysis of responses from Condition 4 offer some evidence for organizational trust influences on allocation decisions, albeit limited by small sub-sample sizes. Findings reveal a significant direct effect of high employer trust, relative to low employer trust, on employer-labeled money market and stock fund allocations. These estimates are consistent with but smaller in magnitude to those found in respondents in Conditions 1 and 2.

Table D.6: **SUR Estimates of Allocations to Broad Asset Classes and Employer-labeled Options**

This table reports Seemingly Unrelated Regression (SUR) estimates of broad asset class level and employer-labeled options within each asset class from equation 5 for Condition 4. Models 1 and 3 estimate percentages allocated to money market funds and Models 2 and 4 estimate total percentages allocated to all stock funds. For each pair of models, the first column estimates percentages allocated to the broad asset class level, and the second column contains estimates for percentages allocated to the employer-labeled option within the asset class. Models 1 and 2 include controls for participants' expected probability of loss for employer-branded options; Models 3 and 4 include controls for participants' expected return on employer-branded options. Heteroskedasticity-robust standard errors are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.1.

	(1)	(1)	(2)	(2)	(3)	(3)	(4)	(4)
	Money Market		Stocks		Money Market		Stocks	
	Broad Asset Class	Employer -labeled Option	Broad Asset Class	Employer -labeled Option	Broad Asset Class	Employer -labeled Option	Broad Asset Class	Employer -labeled Option
Total Money Market Allocation		0.647***				0.647***		
		(0.034)				(0.034)		
Total Stocks Allocation				0.506***				0.523***
				(0.064)				(0.064)
Med Emp Trust		2.784		5.901		2.877		6.164
		(2.397)		(4.532)		(2.395)		(4.547)
High Emp Trust		6.368***		8.706*		6.483***		9.272**
		(2.391)		(4.514)		(2.384)		(4.512)
P(Loss) Money Market	0.019	-0.013						
	(0.066)	(0.036)						
P(Loss) U.S. Large Cap			0.000	-0.104				
			(0.086)	(0.089)				
P(Loss) U.S. Small Cap			-0.232**	0.005				
			(0.090)	(0.094)				
P(Loss) Global Stocks			-0.038	0.003				
			(0.085)	(0.088)				
E(R) Money Market					0.002	-0.031		
					(0.115)	(0.063)		
E(R) U.S. Large Cap							-0.123	0.131
							(0.156)	(0.161)
E(R) U.S. Small Cap							0.216	0.037
							(0.167)	(0.174)
E(R) Global Stocks							0.401***	-0.120
							(0.154)	(0.162)
Fin Lit	-1.712**	0.280	2.196***	0.349	-1.721**	0.272	2.411***	0.283
	(0.717)	(0.393)	(0.714)	(0.752)	(0.717)	(0.394)	(0.715)	(0.759)
Age	0.203	-0.058	-0.226	-0.127	0.206	-0.063	-0.161	-0.135
	(0.150)	(0.082)	(0.151)	(0.157)	(0.150)	(0.082)	(0.150)	(0.155)
High finance trust	-0.707	0.048	0.938	-1.895	-0.760	0.062	2.326	-1.869
	(3.295)	(1.881)	(3.292)	(3.579)	(3.291)	(1.880)	(3.271)	(3.575)
Male	-1.613	-1.884	4.452	2.051	-1.668	-1.865	4.774	2.753
	(3.406)	(1.845)	(3.435)	(3.551)	(3.402)	(1.842)	(3.392)	(3.521)
Married	-2.924	3.670*	3.620	2.039	-2.867	3.539*	4.685	1.771
	(3.488)	(1.917)	(3.474)	(3.636)	(3.498)	(1.921)	(3.486)	(3.665)
College degree	0.654	-0.490	-0.670	1.929	0.548	-0.434	-1.126	2.081
	(3.631)	(1.969)	(3.606)	(3.724)	(3.613)	(1.959)	(3.642)	(3.773)
High income	-0.473	-4.900**	0.473	4.016	-0.517	-4.844**	-0.032	3.953
	(3.751)	(2.033)	(3.736)	(3.855)	(3.750)	(2.032)	(3.746)	(3.877)
White	-10.723*	0.508	2.403	-4.947	-11.041*	0.902	3.515	-4.141
	(5.784)	(3.163)	(5.827)	(6.027)	(5.740)	(3.141)	(5.852)	(6.079)
Stock owner	-8.577**	-3.903*	7.772*	-5.675	-8.685**	-3.800*	7.311*	-5.135
	(4.041)	(2.210)	(4.051)	(4.209)	(4.028)	(2.203)	(4.026)	(4.195)
Inattention	6.206	10.628	-12.278	8.637	6.742	10.101	-14.506	7.526
	(15.102)	(8.212)	(14.951)	(15.497)	(15.019)	(8.170)	(14.895)	(15.504)
Constant	51.810***	0.346	45.067***	8.393	52.649***	0.108	26.921***	3.363
	(10.296)	(5.896)	(10.677)	(11.511)	(9.954)	(5.712)	(9.883)	(10.494)
Marginal Effect of Medium Employer Trust		2.784		5.901		2.877		6.164
Standard Error of Marginal Effect		(2.397)		(4.514)		(2.395)		(4.512)
Marginal Effect of High Employer Trust		6.368***		8.706*		6.483***		9.272**
Standard Error of Marginal Effect		(2.391)		(4.532)		(2.384)		(4.547)
R-squared	0.127	0.650	0.209	0.278	0.127	0.651	0.211	0.275
Observations	260	260	260	260	260	260	260	260

E Robustness Checks Fractional Multivariate Logit Results

In this Appendix we present additional robustness checks for analyses in the main text. First we estimate a multivariate model where the dependent variable is the vector of each subject's portfolio share, rather than the individual elements consisting of the allocation to each of the funds. Next we re-estimate the SUR model from the main text but instrument for the broad asset class level portfolio allocations using a machine learning model trained on the control group (Condition 3).

E.1 Fractional Multivariate Logit Results

Here we present results from estimating a model where the dependent variable is the vector of each subject's portfolio share, rather than the individual allocations to each of the funds. Doing so allows us to incorporate the portfolio constraint (i.e., that the sum of shares is 100% for each individual in the data) into the estimation procedure. As with the SUR estimates in the main text, we aggregate across stock funds and the outcome of interest is the six-element vector of portfolio allocations to branded and white label funds among the three broad asset classes (money market, bonds, stocks) for each respondent in Conditions 1 and 2. To model the vector of shares, we employ a multinomial logit framework analogous to Papke and Wooldridge (1996) and Mullahy (2015). While this framework has the advantage of enforcing the portfolio adding-up constraint; to the best of our knowledge, the econometric properties of this estimator in settings such as ours where the data contain a meaningful number of portfolio shares at the boundary (i.e., individual allocations of 0% or 100%) have not been studied.

Table E.1 presents coefficient estimates from the estimation procedure. Note that the table contains only five columns even though there are six elements in the vector of portfolio shares. This is because the coefficient estimates for the first element, the allocation to organization-labeled bond funds, are normalized to one; thus, the coefficient estimates for

the other five outcomes are relative to the base outcome.[33]

As with multinomial logit models, the coefficient estimates themselves are hard to interpret, therefore we present the average partial effects in Table E.2, which are akin to the marginal effects estimates from a traditional multinomial model (and are presented for all six funds). Note that the sum of the average partial effects is equal to zero across the six funds. This is imposed by the estimation procedure and reflects the constraint that the impact of a unit change in a covariate on one outcome must be offset by the effects of that change on the other outcomes. The results in Table E.2 are very similar to those found in the panel and IV models in the main text; a high trust organizational name is associated with a higher allocation within the given asset class. Also reflecting the unconditional results in Table 4, the positive effect of a high trust brand on the allocation within that asset class is almost completely offset by a reduction to the white label fund within that asset class (e.g., moving from the low trust to the high trust condition increases the allocation to a branded bond fund by roughly 3.5 percentage points, but decreases the allocation to a white label bond fund by roughly 3.2 percentage points).

[33]This is analogous to a multinomial logit model, where the coefficient estimates for some "base outcome" are unidentified and typically normalized to one.

Table E.1: **Fractional Multivariate Logit Estimates of Portfolio Allocation: Coefficient Estimates**

The table reports estimation results from a multivariate fractional logit model (Mullahy, 2015) for subjects in Conditions 1 and 2. In task 2, subjects allocated 100% of their hypothetical retirement balance to 10 fee-free index funds among 5 fund types (Money Market, U.S. Bonds, U.S. Large cap stocks, U.S. Small cap stocks and Global stocks) where funds within fund types had either a organization label or a white label ("WL"). Models estimate the percentage allocation of respondent i to the organization- or white-labeled fund in one of three asset classes: money market, bond, or stocks (aggregating across U.S. Large cap, U.S Small cap, and Global). The base outcome is organization-labeled bond allocations. Standard errors are in parenthesis. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.1.

% Allocation	WL Bond Allocation	Organization Stock Allocation	WL Stock Allocation	Organization Money Market Allocation	WL Money Market Allocation
High trust organization	-0.989***	-0.039	-1.010***	-0.079	-0.806***
	(0.228)	(0.171)	(0.211)	(0.199)	(0.236)
Fin Lit	0.115**	0.110***	0.146***	0.034	0.023
	(0.050)	(0.037)	(0.044)	(0.040)	(0.052)
Age	-0.009	-0.007	-0.008	0.002	0.006
	(0.014)	(0.011)	(0.012)	(0.012)	(0.013)
High finance trust	0.119	0.428**	0.327	0.379*	0.199
	(0.244)	(0.193)	(0.228)	(0.216)	(0.245)
Male	-0.125	0.067	0.082	-0.387*	-0.035
	(0.258)	(0.196)	(0.231)	(0.235)	(0.247)
Married	-0.127	-0.047	0.225	-0.135	-0.096
	(0.262)	(0.204)	(0.253)	(0.246)	(0.273)
College degree	-0.421	-0.359*	-0.238	-0.125	-0.196
	(0.259)	(0.184)	(0.227)	(0.222)	(0.276)
High income	0.069	0.145	-0.338	-0.463**	-0.340
	(0.247)	(0.184)	(0.232)	(0.213)	(0.264)
White	0.459	0.225	0.405	0.278	0.545
	(0.324)	(0.256)	(0.315)	(0.300)	(0.371)
Stock owner	-0.217	0.352*	0.205	0.009	-0.093
	(0.258)	(0.188)	(0.236)	(0.201)	(0.268)
Inattention	0.637	-0.027	0.751	1.216	1.351
	(0.945)	(0.435)	(0.928)	(0.847)	(0.907)
Constant	-0.479	0.057	0.114	0.359	0.196
	(0.675)	(0.584)	(0.607)	(0.610)	(0.706)
Observations	462	462	462	462	462

Table E.2: **Fractional Multivariate Logit Estimates of Portfolio Allocation: Average Partial Effects**

The table reports average partial effects from a multivariate fractional logit model for the estimates in Table E.1. Note that the sum of average partial effects across columns within a row equal to zero; this reflects the portfolio constraint. Standard errors are calculated via the delta method. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.1.

% Allocation	Organization Bond	WL Bond	Organization Stock	WL Stock	Organization Money Market	WL Money Market
High trust organization	0.0352***	-0.0320***	0.128***	-0.145***	0.0563***	-0.0426**
	(0.0123)	(0.00860)	(0.0249)	(0.0247)	(0.0192)	(0.0170)
Fin Lit	-0.00676**	0.00157	0.00608	0.0148***	-0.00761**	-0.00805**
	(0.00272)	(0.00186)	(0.00562)	(0.00511)	(0.00378)	(0.00380)
Age	0.000285	-0.000337	-0.000762	-0.00117	0.000830	0.00116
	(0.000780)	(0.000460)	(0.00120)	(0.00115)	(0.000979)	(0.000854)
High finance trust	-0.0242*	-0.0118	0.0344	0.00434	0.0106	-0.0134
	(0.0136)	(0.00877)	(0.0252)	(0.0250)	(0.0191)	(0.0166)
Male	0.00258	-0.00631	0.0277	0.0280	-0.0516**	-0.000325
	(0.0139)	(0.00968)	(0.0265)	(0.0266)	(0.0212)	(0.0163)
Married	0.000334	-0.00864	-0.0153	0.0562**	-0.0198	-0.0127
	(0.0147)	(0.00961)	(0.0289)	(0.0271)	(0.0233)	(0.0192)
College degree	0.0190	-0.0109	-0.0332	0.00291	0.0168	0.00545
	(0.0132)	(0.0103)	(0.0280)	(0.0269)	(0.0240)	(0.0213)
High income	0.0121	0.0148	0.0882***	-0.0486*	-0.0450*	-0.0216
	(0.0126)	(0.0100)	(0.0283)	(0.0288)	(0.0234)	(0.0206)
White	-0.0268	0.00823	-0.0253	0.0226	-0.00484	0.0262
	(0.0208)	(0.0116)	(0.0439)	(0.0406)	(0.0301)	(0.0260)
Stock owner	-0.0109	-0.0227**	0.0617**	0.0184	-0.0183	-0.0282
	(0.0133)	(0.0114)	(0.0288)	(0.0298)	(0.0222)	(0.0211)
Inattention	-0.0407	-0.00549	-0.158***	0.0106	0.0906	0.103
	(0.0286)	(0.0244)	(0.0590)	(0.0842)	(0.0950)	(0.0755)
Observations	462	462	462	462	462	462

E.2 IV-SUR Results

There may be a concern that the results in Table 8 of the main text are affected by a bias coming from a non-zero correlation between $\varepsilon_{i,k}$ and $u_{i,k,Org}$ in Equation 5. In other words, if unobserved factors affecting a respondent's total allocation to money market funds are correlated with that respondent's allocation to organization labeled money market funds, then estimating Equation 5 via OLS or SUR has an endogeneity bias. To address this potential endogeneity bias, we construct an instrumental variable using a method similar to the "split-sample IV" approach of Angrist and Krueger (1995).

We construct the instrument using the portfolio choices of respondents in the control (Condition 3) whose menu contained only anonymous white label funds – one for each broad asset class. By using only respondents in the control group, we neutralize two potential concerns. First, we eliminate any effects of organizational trust on the first-stage, asset class-level allocation decision; and second, control group respondents had only one choice (instead of two) in each asset class. We model respondents' portfolio allocations to two of the three broad asset classes: stock funds and money market funds, and leave the allocation to bond funds as a residual. Treating this as a classical "prediction problem" we use demographic features, risk preferences, financial literacy and beliefs to explain Condition 3 respondents' allocations. After comparing the predictive accuracy of a variety of machine learning algorithms (specifically: the elastic net, adaptive splines, gradient-boosted linear models, and random forests) using 10-fold cross-validation, we settled on the random forest algorithm, which had an out-of-sample root-mean-squared-error of approximately 26 percentage points for both stock and money market allocations.[34]

We then use the random forest algorithm to predict stock and money market shares for respondents in the high-trust and low-trust organization, and employer label conditions. We

[34] k-fold cross-validation is a way of estimating out-of-sample prediction error while making efficient use of a relatively small sample of data. In k-fold cross-validation, the sample is partitioned into k groups; model parameters are estimated using data from $k - 1$ groups and then out-of-sample prediction error is calculated for observations in the k'th group. This process is repeated k times, which generates k out-of-sample prediction error estimates. The average of these values is taken as the estimate of out-of-sample prediction error.

use the predicted allocations to instrument for the overall stock and money market shares for these respondents in the regression equation 5. Our method creates synthetic matches for the organization labeled conditions from the anonymous white label condition and predicts, from the machine learning models, the decisions that the respondents in the organization label conditions would have taken had they been allocated to the anonymous white label control. If the variables on which machine learning predictions are based support a matching (prediction) that accounts for endogeneity bias, we can treat the machine learning predictions of allocation to broad asset class $\widehat{Y_{i,k}}$ as independent of the second error term in Equation 5, $u_{i,k,b=Org}$.

Table E.3 reports IV-Generalized Method of Moments (GMM) estimates of Equation 5 where the endogenous variable (allocation to overall asset class) is instrumented using machine learning predictions. The table shows estimates and marginal effects where explanatory variables are total asset class allocation, condition indicator (high-trust or low-trust organization label), and respondents' expected returns or probabilities of loss. Models 1 and 3 estimate percentages allocated to organization labeled money market funds and Models 2 and 4 estimate total percentages allocated to all organization labeled stock funds.

Results show a significant and large effect of high organization trust on money market allocations, at 4.9 (4.7) percentage points, measured by marginal effects for specification 1 (specification 3). The effect for stock allocations is also significant: switching from the low-trust to the high-trust organization condition causes a 14.0 (13.5) percentage point higher overall allocation to stock funds in specification 2 (specification 4). These results are consistent with and similar in magnitude to those found in Table 8 in the main text. In other words, once respondents have decided on their allocations to broad asset classes, choices between organization labeled and white labeled options within those classes are still strongly affected by trusted organization labels.

Table E.3: **IV-GMM Estimates of Allocation to Organization-labeled Options**

This table reports first and second stage IV-Generalized Method of Moments (GMM) estimates from Equation 5 for Conditions 1 and 2. Models 1 and 3 estimate percentages allocated to organization-labeled money market funds and Models 2 and 4 estimate total percentages allocated to all organization-labeled stock funds. ML-Predicted refers to predicted portfolio allocations generated by the machine learning procedure described in Section 5. Heteroskedasticity-robust standard errors are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value < 0.10.

	(1)	(1)	(2)	(2)	(3)	(3)	(4)	(4)
% Organization-labeled Option	Money Market	Money Market	Stocks	Stocks	Money Market	Money Market	Stocks	Stocks
ML-Predicted Money Market allocation	0.728***				0.757***			
	(0.162)				(0.167)			
Total Money Market allocation		0.464***				0.500***		
		(0.154)				(0.157)		
ML-Predicted Stocks allocation			0.470***				0.441***	
			(0.131)				(0.133)	
Total Stocks allocation				0.743***				0.646**
				(0.278)				(0.301)
High-trust organization	2.483	4.880***	-2.296	13.952***	2.380	4.687***	-2.661	13.482***
	(2.144)	(1.489)	(2.333)	(2.311)	(2.140)	(1.479)	(2.304)	(2.357)
E(R) Money Market	0.004	0.019						
	(0.077)	(0.054)						
E(R) U.S. Large Cap			-0.069	0.073				
			(0.133)	(0.081)				
E(R) U.S. Small Cap			0.122	0.027				
			(0.099)	(0.101)				
E(R) Global Stocks			0.067	-0.072				
			(0.128)	(0.088)				
P(Loss) Money Market					-0.029	-0.033		
					(0.048)	(0.033)		
P(Loss) U.S. Large Cap							0.018	0.010
							(0.079)	(0.053)
P(Loss) U.S. Small Cap							-0.036	-0.036
							(0.068)	(0.053)
P(Loss) Global Stocks							-0.072	-0.037
							(0.069)	(0.061)
Fin Lit	-0.528	-0.045	1.340**	-0.993	-0.530	-0.036	1.342**	-0.848
	(0.560)	(0.431)	(0.537)	(0.693)	(0.556)	(0.423)	(0.528)	(0.706)
Age	0.151	-0.004	-0.151	0.070	0.152	-0.008	-0.136	0.066
	(0.108)	(0.080)	(0.119)	(0.115)	(0.108)	(0.079)	(0.119)	(0.112)
High finance trust	2.233	1.287	1.521	0.445	2.245	1.197	1.469	0.702
	(2.155)	(1.462)	(2.393)	(2.562)	(2.141)	(1.452)	(2.397)	(2.503)
Male	-1.639	-2.611	3.063	-1.557	-1.602	-2.559	2.994	-1.113
	(2.467)	(1.728)	(2.635)	(3.061)	(2.453)	(1.692)	(2.631)	(2.982)
Married	1.016	-0.530	0.524	-4.783*	1.074	-0.503	0.864	-4.289
	(2.720)	(1.758)	(2.754)	(2.644)	(2.725)	(1.739)	(2.757)	(2.656)
College degree	3.382	0.666	-4.090	-0.952	3.318	0.455	-3.645	-1.057
	(2.725)	(1.915)	(2.909)	(2.661)	(2.717)	(1.901)	(2.935)	(2.605)
High income	-5.095*	-1.403	3.226	6.033**	-5.108*	-1.247	3.208	6.309**
	(2.659)	(2.003)	(2.836)	(2.910)	(2.660)	(1.998)	(2.833)	(2.843)
White	1.893	-2.079	-0.747	-1.634	1.741	-2.247	-1.315	-2.248
	(3.937)	(2.670)	(3.836)	(3.447)	(3.899)	(2.633)	(3.881)	(3.336)
Stock owner	-3.062	0.265	6.179**	0.292	-3.103	0.301	6.253**	1.133
	(2.631)	(2.066)	(2.944)	(3.474)	(2.627)	(2.026)	(2.944)	(3.570)
Inattention	16.005*	-0.561	-12.297	-3.699	16.297**	-1.002	-13.842*	-5.620
	(8.242)	(7.304)	(7.954)	(7.906)	(8.173)	(7.202)	(7.574)	(7.639)
Constant	2.428	3.385	20.916***	-10.513	2.439	3.686	25.811***	-3.900
	(11.260)	(8.131)	(8.054)	(11.262)	(10.992)	(7.876)	(9.579)	(14.568)
R-squared		0.463		0.287		0.473		0.315
Observations	462	462	462	462	462	462	462	462
First stage statistics								
Underidentification (K-P LM)	19.68		12.33		19.47		10.70	
Weak Identification (K-P Wald)	20.25		12.82		20.65		10.95	

F Financial Literacy and the Effect of Organizational Trust on Beliefs and Portfolio Decisions

In this Appendix we present results on how financial literacy affects the relationship between organizational trust and portfolio decisions and return beliefs. We define participants as having high financial literacy if they answer at least 11 out of 14 financial literacy questions correctly; participants answering fewer than 11 questions correctly are defined as having low financial literacy. Financial literacy responses are taken from UAS 121. Due to sample size issues in the employer-based trust condition (Condition 4), we limit the discussion here to individuals in the high and low-trust organization conditions (Conditions 1 and 2).

Table F.1 shows how financial literacy affects risk and return beliefs directly. For example, the third panel of the table shows that respondents with high financial literacy report uniformly significantly higher expected returns for all asset classes except for U.S. bond funds. The table also shows how financial literacy influences the effect of organizational trust on return beliefs. As an example, the second panel of the table shows that a significantly higher probability of loss in the low-trust organization condition (for all asset classes apart from global stocks) is associated with low financial literacy. Differences in expected returns between high- and low-trust conditions are driven almost entirely by individuals with low financial literacy (the bottom panel), although high financial literacy respondents reported higher expected returns for global equity index funds offered by the high-trust organization relative to the low-trust organization.

In Tables F.2 and F.3, we re-estimate the panel data models summarized in Table 7 and the SUR model shown in Table 8 of the main text but allow the effects to vary by financial literacy. The results in Table F.2 show that individuals with higher financial literacy have a stronger connection between expected returns and allocation decisions relative to individuals with low financial literacy. However this relationship is not significantly different when considering the relationship between the probability of loss and organization-label allocation

Table F.1: **Estimated Effects of Organizational Trust and Financial Literacy on Expected returns and Risk.**

The table reports results of tests that proxies for risk and return differ by financial literacy status (high and low financial literacy) and whether the effect of organizational trust on subjective beliefs for risk and return differs depending on financial literacy status. High-trust organization condition: N=232; Low-trust organization condition: N=230. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

	Probability of Loss			**Expected Return**		
	Average value (%)		Difference (%)	Average value (%)		Difference (%)
	Low Financial Literacy	High Financial Literacy	Low - High	Low Financial Literacy	High Financial Literacy	Low - High
Money Market	32.90	18.47	14.43**	2.69	5.42	-2.73*
U.S. Bonds	33.58	22.70	10.88***	2.35	4.18	-1.83
U.S. Large Cap	36.30	28.36	7.93***	4.75	7.38	-2.62*
U.S. Small Cap	42.52	32.73	9.80***	-0.95	4.71	-5.66***
Global	44.15	35.72	8.42***	1.37	4.34	-2.97*
	Probability of Loss | Financial Literacy Status					
	Probability of Loss | Low Financial Literacy			Probability of Loss | High Financial Literacy		
	Low-trust organization	High-trust organization	Low - High	Low-trust organization	High-trust organization	Low - High
Money Market	38.38	27.47	10.90***	20.61	16.35	4.26
U.S. Bonds	39.88	27.33	12.55***	24.86	20.56	4.29
U.S. Large Cap	40.18	32.44	7.74**	30.49	26.25	4.24*
U.S. Small Cap	46.11	38.97	7.13*	35.64	29.83	5.81**
Global	45.81	42.50	3.31	40.42	31.06	9.36***
	Expected Return | Financial Literacy Status					
	Expected Return | Low Financial Literacy			Expected Return | High Financial Literacy		
	Low-trust organization	High-trust organization	Low - High	Low-trust organization	High-trust organization	Low - High
Money Market	-0.27	5.63	-5.91**	5.41	5.44	-0.03
U.S. Bonds	-0.81	5.49	-6.30**	4.57	3.80	-0.77
U.S. Large Cap	1.00	8.47	-7.47***	6.93	7.81	-0.88
U.S. Small Cap	-3.30	1.39	-4.69*	4.16	5.26	-1.10
Global	-0.63	3.34	-3.97	3.07	5.59	-2.51*

decisions.

The results in Table F.3 show that individuals with high financial literacy allocate approximately 16 percentage points more to equities overall relative to individuals with low financial literacy. Surprisingly, the effects of organizational trust on allocations to the organization-labeled equity options are stronger for individuals with high financial literacy than for individuals with lower financial literacy, as can be seen by the positive and significant interaction between high financial literacy and the high trust condition indicator (columns 2 and 4). However, these interaction terms are insignificant when considering allocations to money market funds.

Table F.2: **Panel Estimates of Allocation to Organization-labeled Options: Effects of Expected Risk and Return**

The table reports estimation results from fixed effects panel models of allocations to organization-labeled investment options in Conditions 1 and 2. In Task 1, respondents allocated 100% of their hypothetical retirement balance to 10 fee-free index funds in 5 fund types (Money Market, U.S. Bonds, U.S. Large cap stocks, U.S. Small cap stocks and Global stocks) where funds had either an organization label or a white label. Models estimate the percentage allocation of respondent i to the organization-labeled fund in asset class j conditioning on respondents' one-year expected probability of loss $L_{i,j,c}$, P(Loss), or expected return, $R_{i,j,c}$, E(R), from Task 2, financial literacy and a high- or low-trust organization condition indicator. All models include individual fixed effects. Models 2-4 and 6-8 include fixed effects for money market, bond, and stock asset classes. Standard errors clustered by respondent are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

% Allocation to Organization Option	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
P(Loss)	-0.063***	-0.052**	-0.079***	-0.068*				
	(0.020)	(0.021)	(0.030)	(0.036)				
High Fin Lit x P(Loss)			0.064*	0.071				
			(0.038)	(0.045)				
High-trust x P(Loss)				-0.019				
				(0.057)				
High Fin Lit x High-trust x P(Loss)				-0.023				
				(0.078)				
E(R)					0.165***	0.158***	0.076	0.042
					(0.044)	(0.043)	(0.051)	(0.054)
High Fin Lit x E(R)							0.287***	0.249**
							(0.092)	(0.127)
High-trust x E(R)								0.057
								(0.094)
High Fin Lit x High-trust x E(R)								0.109
								(0.181)
Marginal Effect of P(Loss) or E(R)			-0.044**	-0.046**			0.232***	0.236***
Standard Error of Marginal Effect			(0.020)	(0.021)			(0.048)	(0.047)
Respondent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Asset Class FE	No	Yes	Yes	Yes	No	Yes	Yes	Yes
R-squared	0.006	0.032	0.033	0.034	0.012	0.039	0.046	0.047
Number of respondents	462	462	462	462	462	462	462	462
Observations	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310

Table F.3: **SUR Estimates of Allocations to Broad Asset Classes and Organization-labeled Options**

This table reports Seemingly Unrelated Regression (SUR) estimates of broad asset class level and organization-labeled options within each asset class from equation 5 for Conditions 1 and 2. Models 1 and 3 estimate percentages allocated to money market funds and Models 2 and 4 estimate total percentages allocated to all stock funds. For each pair of models, the first column estimates percentages allocated to the broad asset class level (top line of Equation 5), and the second column contains estimates for percentages allocated to the organization-labeled option within the asset class (bottom line of Equation 5). Heteroskedasticity-robust standard errors are in parentheses. *** indicates p-value ≤ 0.01; ** indicates p-value ≤ 0.05; * indicates p-value ≤ 0.10.

	(1)	(1)	(2)	(2)	(3)	(3)	(4)	(4)
	Money Market		Stocks		Money Market		Stocks	
	Broad Asset Class	Organization -labeled Option	Broad Asset Class	Organization -labeled Option	Broad Asset Class	Organization -labeled Option	Broad Asset Class	Organization -labeled Option
Total Money Market Allocation		0.583***				0.581***		
		(0.031)				(0.031)		
Total Stocks Allocation				0.517***				0.522***
				(0.043)				(0.043)
High-trust Organization		4.028*		7.046**		4.261**		6.795**
		(2.148)		(3.266)		(2.148)		(3.285)
High Fin Lit	-14.125***	-1.936	15.334***	-8.088**	-14.915***	-1.464	15.926***	-8.294**
	(2.274)	(2.139)	(2.414)	(3.220)	(2.203)	(2.107)	(2.423)	(3.225)
High-trust x High Fin Lit		1.023		11.622***		0.950		12.424***
		(2.886)		(4.417)		(2.898)		(4.421)
P(Loss) Money Market	0.080*	-0.038						
	(0.041)	(0.028)						
P(Loss) U.S. Large Cap			-0.084	-0.004				
			(0.070)	(0.065)				
P(Loss) U.S. Small Cap			-0.037	-0.044				
			(0.065)	(0.060)				
P(Loss) Global Stocks			-0.104	-0.030				
			(0.064)	(0.060)				
E(R) Money Market					-0.132*	0.031		
					(0.070)	(0.047)		
E(R) U.S. Large Cap							0.065	0.079
							(0.115)	(0.107)
E(R) U.S. Small Cap							0.143	0.071
							(0.112)	(0.103)
E(R) Global Stocks							0.114	-0.058
							(0.097)	(0.090)
Constant	33.252***	-1.449	58.113***	1.268	36.228***	-2.835	48.548***	-2.406
	(2.114)	(2.095)	(2.824)	(4.091)	(1.632)	(1.868)	(1.847)	(3.160)
Marginal Effect of Organizational Trust		4.586***		13.385***		4.779***		13.572***
Standard Error of Marginal Effect		(1.448)		(2.208)		(1.442)		(2.202)
R-squared	0.101	0.477	0.134	0.321	0.101	0.476	0.126	0.321
Observations	462	462	462	462	462	462	462	462

G Organization Premia Estimation Details

This appendix explains the estimation of the organization preference premium in Section 7 in more detail. We model investors as maximizing portfolio Sharpe ratios by choosing investment allocations in two stages. At the first stage, investors choose broad asset class weights (to stocks, bonds and money market funds).[35] At the second stage, subject to their first stage decisions, investors choose weights for the white label and organization label funds within the broad asset class.

For the n investors in each condition, let $x_{i,k}$ denote investor i's $(i = 1, ..., n)$ allocation to the three broad asset classes k, $(k = 1, 2, 3)$. Having chosen $x_{i,k}$, investor i then chooses allocations to the organization label and white label funds within asset class k, that we denote $w_{i,k,b}$, $(b = Org, WL)$.[36] Allocations to each of the six funds on the menu are therefore the product of the investor's broad asset class proportion and their organization/white label proportions, subject to two adding-up conditions. We write these allocations as the element-wise product of two (6×1) vectors $(\mathrm{x_i} \odot \mathrm{w_i})$ where the $\mathrm{x_i}$ vector lists asset class level weights twice.[37] We further simplify the problem by assuming that the investor treats the broad asset class weights as fixed and optimizes over the within-asset-class allocations, $w_{i,k,b}$.

Let $\mathrm{R_i}$ (6×1) and Σ_i (6×6) denote individual subjective beliefs about investment fund returns and covariances. We also define a (6×1) vector Θ with elements $1_{b=\mathrm{Org}} * \theta$ where the indicator takes the value of one for organization label funds and zero for white label funds. The parameter θ represents the additional non-pecuniary benefit (premium) from investing in organization label funds instead of white label funds, over and above any differences due to subjective expected returns.[38] We treat θ as constant for all asset classes and all in-

[35] We sum allocations to large cap, small cap and global stock funds into one stock class to simplify the optimization and estimation problem.

[36] Trivially, $w_{i,k,WL} = 1 - w_{i,k,Org}$. since $|\mathrm{w_{i,k}}| = 1$.

[37] To give an example, assume that an individual's allocation to stocks, bonds, and money market funds is 60%, 20%, and 20% respectively. Of this, the respondent's allocation to the organization labeled (white labeled) stock investment option is 50% (10%), organization labeled (white labeled) bond investment option is 10% (10%), and their allocation to the organization labeled (white labeled) money market investment option is 20% (0%). In this case, the vector of portfolio weights w would be equal to {50/60, 10/60, 10/20, 10/20, 20/20, 0/20}.

[38] To see this, note that the expected return on asset class k for individual i would be equal to

vestors within each condition. In other words, we allow investors in the high-trust and low-trust conditions to assign a different value to the benefit of investing in organization label funds, while fixing that benefit across stocks, bonds and money market asset classes.

Since there is no risk-free asset, the investor's problem is to choose proportions of wealth to invest in organization label and white label funds within each asset class, to maximize subjective risk-adjusted portfolio returns:

$$\begin{aligned} \max_{\mathrm{w_i}} : & \frac{(\mathrm{x_i} \odot \mathrm{w_i})'[\mathrm{R_i} + \Theta]}{\sqrt{(\mathrm{x_i} \odot \mathrm{w_i})' \Sigma_i (\mathrm{x_i} \odot \mathrm{w_i})}} \\ \text{s.t. } & 0 \leq w_{i,k,b} \leq 1 \\ & |\mathrm{w_{i,k}}| = |\mathrm{x_i}| = 1 \end{aligned} \tag{9}$$

The parameter of interest is θ, which is added to respondents' subjective expected returns for organization labeled investments but is absent from respondents' expected returns for generic white labeled options, and $\theta = 0$ in the benchmark case where organization preference has no effect on portfolio decisions independent of differing beliefs about returns. Further, θ may be equal to zero but if investor i believes that the organization label fund has different risk and return characteristics from the white label fund, investor i may choose different (optimal) portfolio weights for the funds within the same broad asset class k. For example, investor i may have no intrinsic preference for organization label investment options but may optimally allocate 100% to the organization label fund if they believe the expected return on the organization label fund is higher than that of the white label fund and that returns on the two assets are perfectly correlated. Thus, θ should be interpreted as a parameter that affects optimal portfolio choice independent of beliefs about returns distributions.

To estimate θ from the data, we require information about investor i's beliefs over both organization label and generic white label fund investment payoffs. We elicit respondents' subjective distribution of next period returns for organization labeled investment options in Task #2 for respondents in Conditions 1 and 2. The ball and bin task yield each respon-

$w_{i,k,Org}(R_{i,k,Org} - R_{i,k,WL} + \theta) + R_{i,k,WL})$.

dents' subjective distribution of next-period returns for organization label funds.[39] To impute investor i's beliefs about payoffs to investments in white label funds, we adapt the procedure used to create the instrument for portfolio weights described in Section 7. We estimate a series of machine learning models where the outcome variables are the subjective expected risk and returns for the white label money market, bond, and stock investment options using data collected from the respondents in Condition 3. The independent variables in the machine learning models are demographic characteristics and, importantly, the broad asset-class level portfolio weights chosen by the respondents. We reason that respondents' chosen portfolio weights contain information about their underlying subjective risk and return beliefs. The models trained on Condition 3 respondents are then used to impute the unobserved beliefs about the white label investment options for respondents in the high- and low-trust organization conditions (Conditions 1 and 2).

The results of Task #2 and the imputation procedure described above give us the diagonal elements of the 6 x 6 variance-covariance matrix Σ_i for each investor i in either Condition 1 or 2. For the off-diagonal elements (i.e. the correlations), we assume that investors treat the correlations between broad asset classes as equal to zero. However, we treat the within-asset class correlation (e.g. the correlation between white label and organization label money market funds) as a free parameter and jointly estimate it along with θ from the data.

[39] To account for the discrete nature of the task, we treat the payoffs as uniformly distributed between the endpoints of the bins. This has no effect on the estimate of the expected return and does not treat the distribution of payoffs as degenerate if a respondent puts 100% of the probability mass in a single bin, allowing us to infer a non-zero variance.

For the sake of clarity, the numerator for investor i in Equation 9 is:

$$\begin{bmatrix} x_{i,\text{Stocks}} * w^*_{i,\text{Stocks, Org}} \\ x_{i,\text{Stocks}} * w^*_{i,\text{Stocks, WL}} \\ x_{i,\text{Bonds}} * w^*_{i,\text{Stocks, Org}} \\ x_{i,\text{Bonds}} * w^*_{i,\text{Stocks, WL}} \\ x_{i,\text{Money Market}} * w^*_{i,\text{Money Market, Org}} \\ x_{i,\text{Money Market}} * w^*_{i,\text{Money Market, WL}} \end{bmatrix}' \begin{bmatrix} R_{i,\text{Stocks, Org}} + \theta \\ \widehat{R}_{i,\text{Stocks, WL}} \\ R_{i,\text{Bonds, Org}} + \theta \\ \widehat{R}_{i,\text{Bonds, WL}} \\ R_{i,\text{Money Market, Org}} + \theta \\ \widehat{R}_{i,\text{Money Market, WL}} \end{bmatrix}$$

where $w^*_{i,k,b}$ denotes the Sharpe-ratio maximizing portfolio weights for a given value of θ and ρ. The variance-covariance matrix Σ_i is:

$$\begin{bmatrix} \Sigma_{i,\text{Stocks}} & 0 & 0 \\ 0 & \Sigma_{i,\text{Bonds}} & 0 \\ 0 & 0 & \Sigma_{i,\text{Money Market}} \end{bmatrix}$$

where, using the two money market investment options as an example,

$$\Sigma_{i,\text{Money Market}} = \begin{bmatrix} \sigma^2_{i,\text{Money Market, Org}} & \rho * \sigma_{i,\text{Money Market, Org}} * \hat{\sigma}_{i,\text{Money Market, WL}} \\ \rho * \sigma_{i,\text{Money Market, Org}} * \hat{\sigma}_{i,\text{Money Market, WL}} & \hat{\sigma}^2_{i,\text{Money Market, WL}} \end{bmatrix}$$

and ρ and θ are parameters to be estimated from the data. Formally, our estimator is:

$$\{\widehat{\Theta}, \hat{\rho}\} = \underset{\{\Theta,\rho\}}{argmin} \left[\frac{1}{N} f(\Theta, x_i) \right]' W \left[\frac{1}{N} f(\Theta, x_i) \right]$$

$$f(\Theta, x_i) = (x_i \odot w_i) - \arg\max_{w_i} \frac{(\mathrm{x_i} \odot \mathrm{w_i})' [\mathrm{R_i} + \Theta]}{\sqrt{(\mathrm{x_i} \odot \mathrm{w_i})' \Sigma_i (\mathrm{x_i} \odot \mathrm{w_i})}}$$

$$\text{s.t. } 0 \leq w_{i,k,b} \leq 1 \quad \text{and} \quad |\mathrm{w_{i,k}}| = |\mathrm{x_i}| = 1$$

where $\Theta = \{\theta, \rho\}$ (the brand premium and the within-asset class correlation coefficient) and W is a GMM weighting matrix. We use two-step GMM estimation and set the initial weighting matrix to the identity matrix.

H UAS 148 Codebook

UnderStandingAmericaStudy

UAS 148: INVESTMENT DECISIONS

Survey author(s): Julie Agnew, Angela Hung, Nicole Montgomery, Susan Thorp

Fielded October 24, 2018 - November 15, 2018

Contents

1 INTRODUCTION

This UAS panel survey, titled ”UAS148: Investment Decisions” was designed by a team of researchers led by Julie Agnew at the College of William and Mary. Respondents were paid $13 for completing this survey and two respondents were eligible for a bonus based on a random drawing of one of their selections. An instructional video was included to demonstrate the allocation process. This survey is no longer in the field.
In the administering of the survey a small subset of answers to questions ra004 and ra005 were not properly recorded. To assist with analysis the data set contains a ”correct” variable taking one of 5 values for each respondent:

- 0: Not completed the interview and unknown eligibility
- 1: Correct: people who were eligible and completed and for whom all answers were properly recorded.
- 2: Not correct: people who were eligible and completed and for whom the answers to ra004 and ra005 were not properly recorded.
- 3: Not consented/not eligible.
- 4: Not completed but eligible and consented.

As a result, unlike typical surveys the data set for this survey contains two weights:

- final_weight_correct: contains weights for those with correctly recorded answers only. The group weighted was everyone with correct answers (variable correct == 1) OR incompletes (variable correct == 4).
- final_weight_corr_incorr: contains weights for those with correctly recorded and incorrectly recorded answers. The group weighted was everyone with correct or incorrect answers (variable correct == 1 or 2) OR incompletes (variable correct == 4).

In both cases people that did not complete and have unknown eligibility (variable correct == 0) and ineligible/nonconsented people (variable correct == 3) do not have a weight.

1.1 Topics

This survey contains questions (among others) on the following topics: Financial Literacy, Risk Preferences. A complete survey topic categorization for the UAS can be found here.

1.2 Experiments

This survey includes experiment(s) of the following type(s): Information Experiments. Please refer to explanatory comments in the Routing section for detailed information. A complete survey experiment categorization for the UAS can be found here.

1.3 Citation

Each publication, press release or other document that cites results from this survey must include an acknowledgment of UAS as the data source and a disclaimer such as, 'The project described in this paper relies on data from survey(s) administered by the Understanding America Study, which is maintained by the Center for Economic and Social Research (CESR) at the University of Southern California. The content of this paper is solely the responsibility of the authors and does not necessarily represent the official views of USC or UAS.' For any questions or more information about the UAS, contact Tania Gutsche, Project and Panel Manager, Center for Economic and Social Research, University of Southern California, at tgutsche@usc.edu.

2 SURVEY RESPONSE AND DATA

2.1 Sample selection and response rate

The sample selection for this survey was:

A custom selection of active English speaking respondents from the Nationally Representative sample who responded to UAS121 and UAS117, and answered 1 (employed) to the labor status question in their most recent demographics survey.

As such, this survey was made available to 2171 UAS participants. Of those 2171 participants, 1620 completed the survey and are counted as respondents. Of those who are not counted as respondents, 124 started the survey without completing and 427 did not start the survey. The overall response rate was 74.62%.

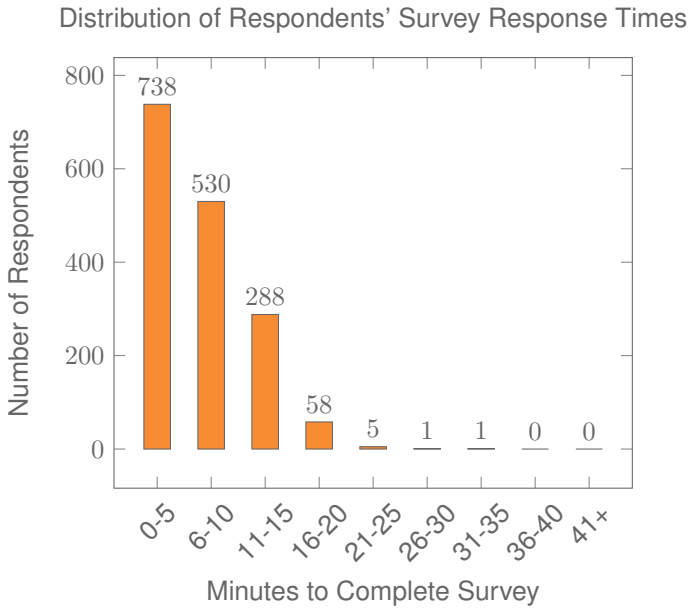
Note: We are unable to provide sample weights for a small number of UAS members (see the Sample and weighting section below for details). If they completed the survey, these members are included in the data set with a weight of zero, but accounted for in the computation of total sample size and survey response rate.%.

The detailed survey response rate is as follows:

UAS148 - Response Overview	
Size of selected sample	2171
Completed the survey	1620
Started but did not complete the survey	124
Did not start the survey	427
Response rate	74.62%

2.2 Timings

The survey took respondents an average of 7 minutes, and the full distribution of survey response times is available in the figure below. Times per question are available upon request.



2.3 Sample & Weighting

Weights are included in the data set for this survey. This survey dataset may contain respondents with a weight of zero. These respondents belong to a small group of UAS members for whom sample weights cannot be computed due to non-probability recruitment for special projects. Hence, while they are accounted for in the total number of survey respondents, they do not contribute to any statistics using sample weights. For more details on the UAS weighing procedures please refer to the UAS Weighting Procedures V1. Please contact UAS staff with any questions.

3 STANDARD VARIABLES

Each Understanding America Study data set contains a series of standard variables, consisting of individual, household and sample identifiers, language indicator, time stamps and a rating by the respondent of how much he or she liked the survey. These variables are based on the questions asked quarterly in the My Household survey after the application of a cleaning process (https://uasdata.usc.edu/page/Data+Cleaning+Process). They are the following:

- **uasid**: the identifier of the respondent. This identifier is assigned to a respondent at recruitment and stays with the respondent throughout each and every survey he/she participates in. When analyzing data from multiple surveys, the 'uasid' can be used to merge data sets.
- **uashhid**: the household identifier of the respondent. Every member is assigned a household identifier, stored in the variable ¡em¿uashhid¡/em¿. For the primary respondent this identifier is his or her 'uasid'. All other eligible members of the primary respondent's household (everyone who is 18 or older in the household) who become UAS respondents receive the uasid of the primary respondent as their household identifier. The uashhid remains constant over time for all respondents. Thus it is always possible to find the original UAS household of an UAS panel member (even after they, for example, have moved out to form another household).
- **uashhid_current**: the current household identifier of the respondent. Uniquely identifies the household a UAS panel member belongs to in a given survey INDEPENDENT of the exact composition of the household in terms of who else in the household are UAS members. Missing (.n) for respondents who are in a single-UAS member household. Available on request in data sets prior to September 3, 2025.
- **survhhid**: uniquely identifies the household a UAS panel member belongs to in a given survey DEPENDENT on the exact composition of the household in terms of who else in the household are UAS members. Is set to missing (.n) if no other household members are UAS panel members at the time of the survey. Is set to unknown (.u) for respondents who last participated in the My Household survey prior to January 21, 2015.
- **uasmembers**: is the number of other household members who are also UAS panel members at the time of the survey. Since individuals can answer the same survey at different points in time (which can be relatively far apart is the survey is kept in the field for a prolonged time), it may be possible that, within the same data set, the primary respondent of a household has a value of '0', whereas the second UAS household respondent has a value of '1'. Therefore 'uasmembers' should be interpreted as the number of household and UAS panel members at the time the respondent answers the survey. Note: in the My Household survey 'uasmembers' is set to unknown (.u) for respondents who last participated in the My Household survey prior to January 21, 2015.

- **sampleframe**: indicates the sampling frame from which the household of the respondent was recruited. All UAS recruitment is done through address based sampling (ABS) in which samples are acquired based on postal records. Currently, the variable 'sampleframe' takes on four values reflecting four distinct sample frames used by the UAS over the year (in future data sets the number of sample frames used for recruitment may increase if additional specific populations are targeted in future recruitment batches):

  1. U.S. National Territory: recruited through ABS within the entire U.S.
  2. Areas high concentration Nat Ame: recruited through ABS in areas with a high concentration of Native Americans in the zip-code. Within these batches, individuals who are not Native Americans are not invited to join the UAS.
  3. Los Angeles County: recruited through ABS within Los Angeles County.
  4. California: recruited through ABS within California.

  Note: prior to March 6, 2024 this variable was called sampletype and had the following value labels for the above list in UAS data sets:

  1. Nationally Representative Sample: recruited through ABS within the entire U.S.
  2. Native Americans: recruited through ABS in areas with a high concentration of Native Americans. Within these batches, individuals who are not Native Americans are not invited to join the UAS.
  3. LA County: recruited through ABS within Los Angeles County.
  4. California: recruited through ABS within California.

- **batch**: indicates the batch from which the respondent was recruited. Currently, this variable takes the following values (in future data sets the number of batches may increase as new recruitment batches are added to the UAS):

  1. ASDE 2014/01
  2. ASDE 2014/01
  3. ASDE 2014/01
  4. Public records 2015/05
  5. MSG 2015/07
  6. MSG 2016/01
  7. MSG 2016/01
  8. MSG 2016/01
  9. MSG 2016/02
  10. MSG 2016/03
  11. MSG 2016/04
  12. MSG 2016/05

13. MSG 2016/08
14. MSG 2017/03
15. MSG 2017/11
16. MSG 2018/02
17. MSG 2018/08
18. MSG 2019/04
19. MSG 2019/05
20. MSG 2019/11
21. MSG 2020/08
22. MSG 2020/10
23. MSG 2021/02
24. MSG 2021/08
25. MSG 2021/08
26. MSG 2022/02
27. MSG 2022/02
28. MSG 2022/08
29. MSG 2022/11
30. MSG 2022/11
31. MSG 2023/01
32. MSG 2023/06
33. MSG 2023/09
34. MSG 2023/10
35. MSG 2025/02
36. MSG 2025/09

Note: prior to March 6, 2024 this variable had the following value labels for the above list in UAS data sets:

1. ASDE 2014/01 Nat.Rep.
2. ASDE 2014/01 Native Am.
3. ASDE 2014/11 Native Am.
4. LA County 2015/05 List Sample
5. MSG 2015/07 Nat.Rep.
6. MSG 2016/01 Nat.Rep. Batch 2
7. MSG 2016/01 Nat.Rep. Batch 3
8. MSG 2016/01 Nat.Rep. Batch 4

9. MSG 2016/02 Nat.Rep. Batch 5
10. MSG 2016/03 Nat.Rep. Batch 6
11. MSG 2016/04 Nat.Rep. Batch 7
12. MSG 2016/05 Nat.Rep. Batch 8
13. MSG 2016/08 LA County Batch 2
14. MSG 2017/03 LA County Batch 3
15. MSG 2017/11 California Batch 1
16. MSG 2018/02 California Batch 2
17. MSG 2018/08 Nat.Rep. Batch 9
18. MSG 2019/04 LA County Batch 4
19. MSG 2019/05 LA County Batch 5
20. MSG 2019/11 Nat. Rep. Batch 10
21. MSG 2020/08 Nat. Rep. Batch 11
22. MSG 2020/10 Nat. Rep. Batch 12
23. MSG 2021/02 Nat. Rep. Batch 13
24. MSG 2021/08 Nat. Rep. Batch 15
25. MSG 2021/08 Nat. Rep. Batch 16
26. MSG 2022/02 Nat. Rep. Batch 17 (priority)
27. MSG 2022/02 Nat. Rep. Batch 17 (regular)
28. MSG 2022/08 Nat. Rep. Batch 18
29. MSG 2022/11 LA County Batch 6
30. MSG 2022/11 Nat. Rep. Batch 20
31. MSG 2023/01 Nat. Rep. Batch 21
32. MSG 2023/06 Nat. Rep. Batch 22
33. MSG 2023-09 Native Am. Batch 3
34. MSG 2023-10 Nat. Rep. Batch 23

- **primary_respondent**: indicates if the respondent was the first person within the household (i.e. to become a member or whether s/he was added as a subsequent member. A household in this regard is broadly defined as anyone living together with the primary respondent. That is, a household comprises individuals who live together, e.g. as part of a family relationship (like a spouse/child/parent) or in context of some other relationship (like a roommate or tenant).

- **hardware**: indicates whether the respondent ever received hardware or not. Note: this variable should not be used to determine whether a respondent received hardware at a given point in time and/or whether s/he used the hardware to participate in a survey. Rather, it indicates whether hardware was ever provided:

1. None
2. Tablet (includes Internet)

- **language**: the language in which the survey was conducted. This variable takes a value of 1 for English and a value of 2 for Spanish.
- **start_date (start_year, start_month, start_day, start_hour, start_min, start_sec)**: indicates the time at which the respondent started the survey.
- **end_date (end_year, end_month, end_day, end_hour, end_min, end_sec)**: indicates the time at which the respondent completed the survey.
- **cs_001**: indicates how interesting the respondent found the survey.

4 DEMOGRAPHICS

Every UAS survey data set also includes demographic variables, which provide background information about the respondent and their household. Demographic information such as age, ethnicity, education, marital status, work status, state of residence, family structure is elicited every quarter through the ‘‘My Household’’ survey. The demographic variables provided with each survey are taken from the most recent ‘MyHousehold’ survey answered by the respondent. If at the time of a survey, the information in ‘‘My Household’’ is more than three months old, a respondent is required to check and update his or her information before being able to take the survey.

The demographic variables are based on the questions taken from the My Household survey after the application of the cleaning process.

The following variables are available in survey data sets after October 8, 2025:

- **sex**: indicates the sex of the respondent as assigned at birth. Is set to gender if the respondent has not filled out My Household after October 8, 2025.
- **genderid**: indicates the current gender of the respondent. Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025. Available in data sets after October 8, 2025.
- **dateofbirth_year**: indicates the year of birth of the respondent.
- **age**: indicates the age of the respondent at the start of the survey.
- **agerange**: if the respondent’s age cannot be calculate due to missing information, ‘agerange’ indicates the approximate age. Should a value for both the ‘age’ and ‘agerange’ be present, then ‘age’ takes precedence over ‘agerange’.
- **citizenus**: indicates whether the respondent is a U.S. citizen.
- **bornus**: indicates whether the respondent was born in the U.S.
- **stateborn**: indicates the state in which the respondent was born. Is set to missing (.) if the respondent was not born in the U.S.
- **countryborn**: indicates the country in which the respondent was born. Is set to missing (.) if the respondent was born in the U.S.
- **statereside**: indicates the state in which the respondent is living.
- **immigration_status**: indicates whether the respondent is an immigrant. It takes one of the following values: 0 Non-immigrant, 1 First generation immigrant (immigrant who migrated to the U.S), 2 Second generation immigrant (U.S.-born children of at least one foreign-born parent), 3 Third generation immigrant (U.S.-born children of at least

one U.S.-born parent, where at least one grandparent is foreign-born), or 4 Unknown immigrant status.

- **maritalstatus**: indicates the marital status of the respondent.
- **livewithpartner**: indicates whether the respondent lives with a partner.
- **education**: indicates the highest level of education attained by the respondent.
- **white**: indicates whether the respondent identifies him or herself as white (Caucasian).
- **black**: indicates whether the respondent identifies him or herself as black (African-American).
- **nativeamer**: indicates whether the respondent identifies him or herself as Native American (American Indian or Alaska Native).
- **asian**: indicates whether the respondent identifies him or herself as Asian (Asian-American).
- **pacific**: indicates whether the respondent identifies him or herself as Native Hawaiian or Other Pacific Islander.
- **race**: indicates the race of the respondent as singular (e.g., '1 White' or '2 Black') or as mixed (in case the respondent identifies with two or more races). The value '6 Mixed' that the respondent answered 'Yes' to at least two of the single race categories. This variable is generated based on the values of the different race variables (white, black, nativeamer, asian, pacific). This composite measure is not conditional on hisplatino, so an individual may identify as Hispanic or Latino, and also as a member of one or more racial groups.
- **race_identify**: indicates the race the respondent identifies with most (if mixed). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hisplatino**: indicates whether the respondent identifies him or herself as being Hispanic or Latino. This variable is asked separately from race.
- **mena**: indicates whether the respondent identifies as being of Middle Eastern or North African ancestry. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **working**: indicates whether the respondent is working for pay.
- **sick_leave**: indicates whether the respondent is not working because sick or on leave.
- **unemp_layoff**: indicates whether the respondent is unemployed or on lay off.
- **unemp_look**: indicates whether the respondent is unemployed and looking for a job.

- **retired**: indicates whether the respondent is retired.
- **disabled**: indicates whether the respondent has a disability.
- **workemployer**: indicates whether the respondent works for an employer. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **workself**: indicates whether the respondent is self-employed. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **homemaker**: indicates whether the respondent is a homemaker. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **student**: indicates whether the respondent is a student. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **notworking**: indicates whether the respondent is not working and not looking for work. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **lf_other**: indicates whether the respondent has another labor force status.
- **laborstatus**: indicates the labor force status of the respondent as singular (e.g., '1 Working for pay' or '2 On sick or other leave') or as mixed (in case the respondent selects two or more labor statuses). The value '8 Mixed' indicates that the respondent answered 'Yes' to at least two of the single labor force status variables. This variable is generated based on the values of the different labor status variables (working, sick_leave, unempl_layoff, unempl_look, retired, disabled, lf_other).
- **hourswork**: indicates the number of hours the respondent works per week. Is set to missing (.) if the respondent is not currently working or currently on sick or other leave.
- **hhincome**: indicates the total combined income of all members of the respondent's household (living in their household) during the past 12 months.
- **anyhhmember**: indicates whether there were any members in the respondent's household at the time he/she answered the survey as reported by the respondent. Based on the hhmemberin variables if the respondent has not filled out My Household after October 8, 2025. Based on hhcomp_total if the respondent has filled out My Household after October 8, 2025.
- **hhmembernumber**: indicates the number of household members in the respondent's household at the time of the survey as reported by the respondent. It may

be that ‘anyhhmember’ is ‘Yes’, but ‘hhmembernumber’ is missing if the respondent did not provide the number of household members at the time of the survey. Based on the hhmemberin variables if the respondent has not filled out My Household after October 8, 2025. Based on hhcomp_total if the respondent has filled out My Household after October 8, 2025.

- **hhcomp_male_0_3**: indicates the number of male children ages 0 through 4 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_0_3**: indicates the number of female children ages 0 through 4 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_0_3**: indicates the number of other-gendered children ages 0 through 4 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.¡/li¿
- **hhcomp_male_4_12**: indicates the number of male children ages 5 through 12 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_4_12**: indicates the number of female children ages 5 through 12 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_4_12**: indicates the number of other-gendered children ages 5 through 12 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_male_13_17**: indicates the number of male children ages 13 through 17 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_13_17**: indicates the number of female children ages 13 through 17 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_13_17**: indicates the number of other-gendered children ages 13 through 17 who are living in the respondent’s household right now (even if they only

live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.

- **hhcomp_male_18_64**: indicates the number of male adults ages 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_18_64**: indicates the number of female adults ages 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_18_64**: indicates the number of other-gendered adults ages 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_male_65plus**: indicates the number of male adults ages 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_65plus**: indicates the number of female adults ages 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_65plus**: indicates the number of other-gendered adults ages 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total_18_64**: indicates the total number of adults 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total_65plus**: indicates the total number of adults 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total_adults**: indicates the total number of adults who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.

- **hhcomp_total_children**: indicates the total number of children who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total**: indicates the total number of people who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **parent_guardian_a**: indicates whether the respondent is the parent or guardian of one or more children ages 0 to 4. Is set to missing (".a") if hhcomp_total_children is not greater than 0. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **parent_guardian_b**: indicates whether the respondent is the parent or guardian of one or more children ages 5 to 12. Is set to missing (".a") if hhcomp_total_children is not greater than 0. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **parent_guardian_c**: indicates whether the respondent is the parent or guardian of one or more children ages 13 to 17. Is set to missing (".a") if hhcomp_total_children is not greater than 0. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.

The following variables were provided up until October 8, 2025. Several remain available in data sets created after October 8, 2025 on request.

- **gender**: indicates the gender of the respondent. Available in data sets before October 9, 2025.
- **countryborn_other**: indicates the country of birth if that country is not on the drop down list of countries shown to the respondent'.
- **hisplatinogroup**: indicates which Hispanic or Latino group a respondent identifies him or herself with. Is set to missing (.) if the respondent does not identify him or herself as being Hispanic or Latino. Available in data sets after October 8, 2025 on request.
- **employmenttype**: indicates the employment type of the respondent (employed by the government, by a private company, a nonprofit organization, or self-employed). Is set to missing (.) if the respondent is not currently working or currently on sick or other leave. Available in data sets before October 9, 2025.
- **workfullpart**: indicates whether the respondent works full or part-time. Is set to missing (.) if the respondent is not currently working or currently on sick or other leave. Available in data sets before October 9, 2025.

- **hhmemberin_#**: indicates whether a household member is currently in the household as reported by the respondent. Household members are never removed from the stored household roster and their information is always included in survey data sets. The order of the roster is the same order in which household members were specified by the respondent in the 'MyHousehold' survey. The order is identified by the suffix _# (e.g., _1 indicates the first household member, _2 the second household member, etc.).

  As an example, if the first household member is in the household at the time of the survey, 'hhmemberin_1' is set to '1 HH Member 1 is in the HH'; if he/she has moved out, 'hhmemberin_1' is set to '0 HH member 1 is no longer in the HH'. Since information of other household members (stored in the variables listed below) is always included in survey data sets, information about 'hhmemberin_1' is available whether this person is still in the household or has moved out. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmembergen_#**: indicates the gender of the household member as reported by the respondent. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmemberage_#**: indicates the age of the household member. The age is derived from the month and year of birth of the household member as reported by the respondent. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmemberrel_#**: indicates the relationship of the respondent to the household member as reported by the respondent. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmemberuasid_#**: indicates the 'uasid' of the household member if this person is also a UAS panel member. It is set to missing (.) if this person is not a UAS panel member at the time of the survey. Since this identifier is directly reported by the respondent (chosen from a preloaded list), it may differ from the actual (correct) 'uasid' of the UAS member it refers to because of reporting error. Also, this variable should not be used to identify UAS members in a given household at the time of the survey. This is because the variables 'hhmemberuasid_#' are taken from the most recent 'My Household' and changes in household composition involving UAS members may have occurred between the time of the respondent answered 'My Household' and the time the respondent answers the survey. To follow UAS members of a given household, it is advised to use the identifiers 'uashhid' and 'survhhid'. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

Lastly, data sets created after May 8, 2025 include an urbanicity variable. It is based on panel members' current census tract of residence and the 2010 Rural-Urban Commuting Area (RUCA) codes released by the US Department of Agriculture's Economic Research Service. To preserve confidentiality, the UAS collapses the 10 primary RUCA codes to 4

levels: Metropolitan, Micropolitan, Small/Rural, and Unknown. The Metropolitan level corresponds to primary RUCA codes 1-3, the Micropolitian level corresponds to RUCA codes 4-6, and the Small/Rural UAS classification corresponds to RUCA codes 7-10.

For detailed information and definitions of the 10 primary RUCA codes, please visit the USDA ERS Rural-Urban Commuting Area Codes site. Surveys conducted completely prior to May 8, 2025 will have an urbanicity data variable available on request.

5 MISSING DATA CONVENTIONS

Data files provide so-called clean data, that is, answers given to questions that are not applicable anymore at survey completion (for example because a respondent went back in the survey and skipped over a previously answered question) are treated as if the questions were never asked. In the data files all questions that were asked, but not answered by the respondent are marked with (.e). All questions never seen by the respondent (or any dirty data) are marked with (.a). The latter may mean that a respondent did not view the question because s/he skipped over it; or alternatively that s/he never reached that question due to a break off. If a respondent did not complete a survey, the variables representing survey end date and time are marked with (.c). Household member variables are marked with (.m) if the respondent has less household members (e.g. if the number of household members is 2, any variables for household member 3 and up are marked with (.m).

UAS provides data in STATA and CSV format. Stata data sets come with include variable labels that are not available in the CSV files. Value labels are provided for single-response answer option. In STATA these labels will include the labels 'Not asked' and 'Not answered' for (.a) and (.e), and will show in tabulations such as 'tab q1, missing'. For multiple-response questions a binary variable is created for each answer option indicating whether the option was selected or not. A summary variable is also provided in string format reflecting which options were selected and in which order. For example, if a question asked about favorite animals with options cat, dog, and horse, then if a respondent selected horse and then cat, the binary variables for horse and cat will be set to yes, while the overall variable would have a string value of '3-1'. If no answer was given, all binary variables and the summary variable will be marked with '.e'.

Questions that are asked multiple times are often implemented as so-called array questions. Supposing the name of such question was Q1 and it was asked in 6 different instances, your data set would contain the variables Q1_1_ to Q1_6_. To illustrate, if a survey asked the names of all children, then child_1_ would contain the name of the first child the respondent named and so on.

More information about the UAS data in general can be found on the UAS Data Pages web site.

6 ROUTING SYNTAX

The survey with routing presented in the next section includes all of the questions that make up this survey, the question answers when choices were provided, and the question routing. The routing includes descriptions of when questions are grouped, conditional logic that determines when questions are presented to the respondent, randomization of questions and answers, and fills of answers from one question to another.

If you are unfamiliar with conditional logic statements, they are typically formatted so that ***if*** the respondent fulfills some condition (e.g. they have a cellphone or a checking account), ***then*** they are presented with some other question or the value of some variable is changed. If the respondent does not fulfill the condition (e.g. they are not a cellphone adopter or they do not have a checking account), something ***else*** happens such as skipping the next question or changing the variable to some other value. Some of the logic involved in the randomization of questions or answers being presented to the respondent is quite complex, and in these instances there is documentation to clarify the process being represented by the routing.

Because logic syntax standards vary, here is a brief introduction to our syntax standards. The syntax used in the conditional statements is as follows: '=' is equal to, '$<$' is less than, '$>$' is greater than, and '!=' is used for does not equal. When a variable is set to some number N, the statement looks like 'variable := N'.

The formatting of the questions and routing are designed to make it easier to interpret what is occurring at any given point in the survey. Question ID is the bold text at the top of a question block, followed by the question text and the answer selections. When a question or variable has associated data, the name links to the appropriate data page, so you can easily get directly to the data. Text color is used to indicate the routing: red is conditional logic, gold is question grouping, green is looping, and orange is used to document randomization and other complex conditional logic processes. The routing is written for a computer to parse rather than a human to read, so when the routing diverges significantly from what is displayed to the respondent, a screenshot of what the respondent saw is included.

The name of the randomization variables are defined in proximity to where they are put into play, and like the question ID the names of the randomization variables can be used to link directly to the associated data page.

7 SURVEY WITH ROUTING

Start of section **Screener**

sc001 (currently enrolled in employer sponsored retirement plan that requires investment choices in section Screener)
Before we start we first need to determine whether you are eligible to participate in this study.

Are you currently enrolled in an employer sponsored retirement plan that requires you to make investment choices?
1 Yes
2 No

IF sc001 = 1 THEN

ELSE

sc002 (ever been in employer sponsored retirement plan that requires investment choices in section Screener)
At any point in your life, have you been a participant in an employer sponsored retirement plan that requires you to make investment choices?
1 Yes
2 No

END OF IF

IF sc001 = 1 OR sc002 = 1 THEN

ELSE

noteligible (Section Screener)
Thank you for your interest in this survey, but unfortunately you do not qualify to participate in this study. Please click "Next" to return to your panel member page.

Exit the survey

END OF IF

sc003 (consent in section Screener)
Thank you for participating in our survey. The study is being presented through the UnderStanding America Study. The principal investigator is Dr. Julie Agnew from William & Mary's Raymond A. Mason School of Business. To view the results of the study when they are ready or to ask a question, please e-mail Dr. Agnew at uashelp@usc.edu.

On the next few pages, we will ask you to make some choices related to investment funds, as well as ask you questions about various brands and products. For each question, please

select the response that best reflects your opinion. There are no right or wrong answers; we are interested in your opinion. Please understand that once you start the survey you may terminate it at any time without a penalty.

Statement of Consent: By selecting the "I Agree" radio button below, you indicate your consent to participate in this study and that you are 18 years of age or above. You may report dissatisfaction with any part of this study to the William & Mary PHSC chair at jastev@wm.edu or by phone at (757) 221-3862.
1 I agree
2 I don't agree

IF sc003 = 2 THEN
| **noconsent** (Section Screener)
| Thank you for your interest! Please click "Next" to return to your panel member pages.
|
| Exit the survey
END OF IF

End of section **Screener**

Start of section **Allocation**

/* Respondents receive one of four treatments:

- 1 Hi Trust Brand (Bank 1) vs Pure White Label
- 2 Low Trust Brand (Bank 2) vs Pure White Label
- 3 Pure White Label
- 4 Branded White Label vs. Pure White Label

*/

IF main_treatment = EMPTY THEN
| main_treatment := mt_rand(1,4)
END OF IF

Fill code of question FLBrand executed
Fill code of question FLBrand1 executed
Fill code of question FLAllocation executed

device (device in section Allocation)
Are you doing this survey on a mobile phone?
1 Yes
2 No

IF device = 1 THEN
device_instructions (Section Allocation)
For best viewing, please turn your phone horizontally to complete this survey.
ELSE
END OF IF

/* Respondents are asked to allocate their retirement funds to different types of mutual funds. The exact funds offered depend on the treatment the respondent is receiving, but they fall in several categories:

- Money Market Funds
- U.S. Bond Funds
- Large Cap U.S. Funds
- Small Cap U.S. Funds
- Global Funds

In treatments 1, 2 and 4 these fund categories consists of two funds, one branded and one non-branded fund. The order in which these two funds are presented within each category is randomized per variable al_money_randomizer. A value of '1' indicates branded, then non-branded. A value of '2' indicates non-branded, then branded. */

IF al_money_randomizer = EMPTY THEN
al_money_randomizer := mt_rand(1,2)
al_bond_randomizer := al_money_randomizer
al_large_randomizer := al_money_randomizer
al_small_randomizer := al_money_randomizer
al_global_randomizer := al_money_randomizer
END OF IF

IF main_treatment = 4 THEN
employer_name (Section Brands)
In this survey, we will ask you some questions that relate to your employer. To protect your privacy, we will not ask you to tell us your employer's full name, but we would like to know their initials or a nickname so that we can refer to your employer in later questions.

Please type your employer's initials or a nickname:
STRING
END OF IF

task_intro (Section Allocation)
Now, we would like you to imagine that your employer has started a new retirement plan.

You must decide how to invest the money that you have in your retirement account. You can invest in different investment funds that will be described on the next page.

Following the fund description page, you will see a retirement account allocation form. Please read through the form carefully, think about how you would like to invest your savings, and then decide how to allocate your retirement account balance among the investment options listed.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

disclaimer2 (Section Distributions)
Important Note: All fees related to all fund investments have been waived.

task_intro1 (Section Allocation)
On the next page, you will be asked to allocate your retirement funds to different types of mutual funds. Mutual funds are investments that pool money together from investors to purchase a collection of stocks, bonds, and/or other investment products. A portfolio manager typically oversees the investments.

You can choose among several mutual funds invested in different asset types. They are described below.

Mutual Fund Asset Type Descriptions

Money Market Funds: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

IF main_treatment = 1 THEN

task_intro2_treatment1 (Section Allocation)
Mutual Fund Names

The funds that you can choose from may be managed by one or more portfolio managers.

If you see the name of a professional investment company preceding the fund name, the fund is managed by that company.

If you see ”White Label” preceding the fund name, this means the fund has been put together for your employer’s retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.

ELSEIF main_treatment = 2 THEN

task_intro2_treatment2 (Section Allocation)
Mutual Fund Names

The funds that you can choose from may be managed by one or more portfolio managers.

If you see the name of a professional investment company preceding the fund name, the fund is managed by that company.

If you see ”White Label” preceding the fund name, this means the fund has been put together for your employer’s retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.

ELSEIF main_treatment = 3 THEN

task_intro2_treatment3 (Section Allocation)
Mutual Fund Names

If you see ”White Label” preceding the fund name, this means the fund has been put together for your employer’s retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.

ELSEIF main_treatment = 4 THEN

task_intro2_treatment4 (Section Allocation)
Mutual Fund Names

If you see the initials of your employer preceding the fund name, this means the fund has been put together for your employer’s retirement plan. The fund may include

one or more mutual funds which hold the same type of investment.

If you see ”White Label” preceding the fund name, this means the fund has been put together for your employer’s retirement plan and given a generic name. The fund may include one or more mutual funds which hold the same type of investment.

END OF IF

END OF GROUP

al_intro (Section Allocation)
Now, we would like for you to imagine that your employer has started a new retirement plan. You must decide how to allocate the money that you have in your retirement account.

On the next page, you will see a retirement account allocation form. Please read through the form carefully, think about how you would allocate your retirement account, and then decide how to allocate your retirement account balance among the investment options listed.

IF main_treatment = 3 THEN

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

disclaimer2 (Section Distributions)
Important Note: All fees related to all fund investments have been waived.

allocation_intro3 (Section Allocation)
Please allocate your retirement account balance among any of the investment options listed below. You may enter any whole number between 0 and 100 for any of the options below, but the sum of all the numbers must be 100. Please type the percentage you wish to allocate to each investment option.

As an incentive to choose carefully, we will reward two randomly selected participants with a bonus. If you are selected, you will earn money based on the investment choices you make in this task. For more information on the prize calculation, click (here/You will be rewarded a bonus based on your allocations in this task. We will assume you invest $25 according to the allocation that you enter for five years. Your bonus will equal your initial portfolio value of $25 plus or minus any gains or losses you make on your chosen portfolio. The 5 year returns for the specific funds you chose will be generated using commonly accepted methods. /Information).

SUBGROUP OF QUESTIONS

al_money_b (no brand money market fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Money Market Fund
NUMBER (NO DECIMALS ALLOWED)

al_bond_b (no brand bond index fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) U.S. Bond Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_large_b (no brand Large Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Large Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_small_b (no brand Small Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Small Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_global_b (no brand U.S. Stock Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Non U.S. Global Stock Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_total (total of allocation in section Allocation)
Total
NUMBER (NO DECIMALS ALLOWED)

END OF SUBGROUP

al_error (Section Allocation)
Please make sure the total equals 100% and no entry is less than 0% or more than 100%.

popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict

investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

Figure 1: *Example of fund allocation for treatment 3.*

END OF GROUP

ELSE

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

disclaimer (Section Distributions)
Important Note: All fees related to all fund investments have been waived.

allocation_intro (Section Allocation)
Please allocate your retirement account balance among any of the investment options listed below. You may enter any whole number between 0 and 100 for any of the options below, but the sum of all the numbers must be 100. Please type the percentage you wish to allocate to each investment option.

As an incentive to choose carefully, we will reward two randomly selected participants with a bonus. If you are selected, you will earn money based on the investment choices you make in this task. For more information on the prize calculation, click (here/You will be rewarded a bonus based on your allocations in this task. We will assume you invest $25 according to the allocation that you enter for five years. Your bonus will equal your initial portfolio value of $25 plus or minus any gains or losses you make on your chosen portfolio. The 5 year returns for the specific funds you chose will be generated using commonly accepted methods. /Information).

IF al_money_randomizer = 1 THEN

al_money_a (brand money market fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Money Market Fund
NUMBER (NO DECIMALS ALLOWED)

al_money_b (no brand money market fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Money Market Fund
NUMBER (NO DECIMALS ALLOWED)

ELSE

al_money_b (no brand money market fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Money Market Fund
NUMBER (NO DECIMALS ALLOWED)

al_money_a (brand money market fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Money Market Fund
NUMBER (NO DECIMALS ALLOWED)

END OF IF

IF al_bond_randomizer = 1 THEN

al_bond_a (brand bond index fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) U.S. Bond Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_bond_b (no brand bond index fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) U.S. Bond Index Fund
NUMBER (NO DECIMALS ALLOWED)

ELSE

al_bond_b (no brand bond index fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) U.S. Bond Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_bond_a (brand bond index fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) U.S. Bond Index Fund
NUMBER (NO DECIMALS ALLOWED)

END OF IF

IF al_large_randomizer = 1 THEN

al_large_a (brand Large Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Large Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_large_b (no brand Large Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Large Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

ELSE

al_large_b (no brand Large Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Large Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_large_a (brand Large Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Large Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

END OF IF

IF al_small_randomizer = 1 THEN

al_small_a (brand Small Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Small Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_small_b (no brand Small Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Small Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

ELSE

al_small_b (no brand Small Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Small Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_small_a (brand Small Cap U.S. Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Small Cap U.S. Index Fund
NUMBER (NO DECIMALS ALLOWED)

END OF IF

IF al_global_randomizer = 1 THEN

al_global_a (brand U.S. Stock Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Non U.S. Global Stock Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_global_b (no brand U.S. Stock Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Non U.S. Global Stock Index Fund
NUMBER (NO DECIMALS ALLOWED)

ELSE

al_global_b (no brand U.S. Stock Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Non U.S. Global Stock Index Fund
NUMBER (NO DECIMALS ALLOWED)

al_global_a (brand U.S. Stock Index Fund in section Allocation)
(Bank 1/ Bank 2/ White Label/ ^employer_name) Non U.S. Global Stock Index Fund
NUMBER (NO DECIMALS ALLOWED)

END OF IF

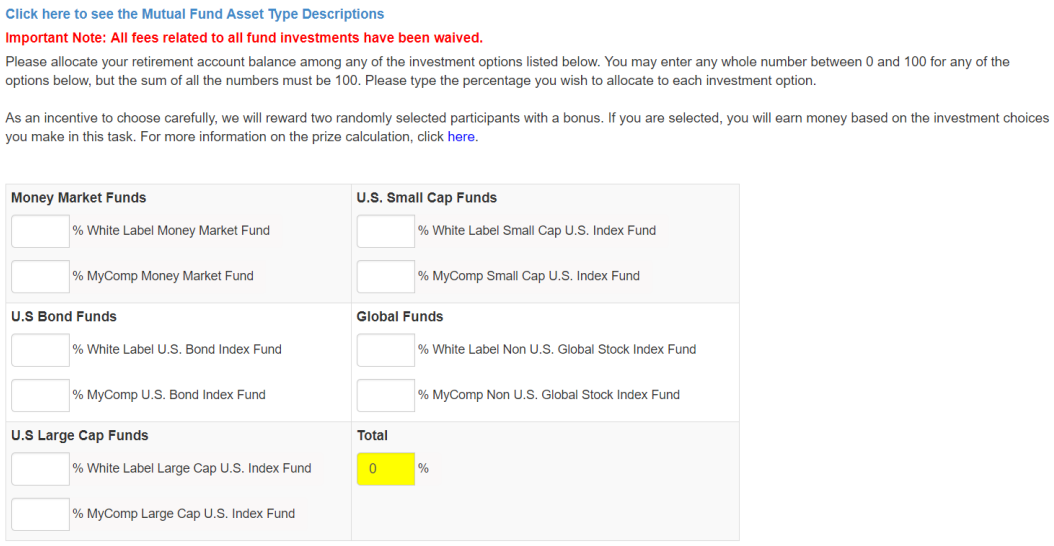
al_total (total of allocation in section Allocation)
Total
NUMBER (NO DECIMALS ALLOWED)

al_error (Section Allocation)
Please make sure the total equals 100% and no entry is less than 0% or more than 100%.

popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict

investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

Figure 2: *Example of fund allocation for treatment 1, 2 and 4.*



END OF GROUP

END OF IF

End of section **Allocation**

Start of section **Ranking**

IF main_treatment = 3 THEN

/* Respondents are asked to rank different fund types based on their level of risk from highest to lowest risk. The funds are initially presented in random order per the ra004_order variables. The resulting order is then stored in the variables ra004_1 to ra004_5. */

IF sizeof(ra004_order) = 0 THEN

ra004_order := shuffleArray(array(1 →1, 2 →2, 3 →3, 4 →4, 5 →5))

END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

disclaimer (Section Distributions)
Important Note: All fees related to all fund investments have been waived.

ra004_intro (treatment 3 ranking in section Ranking)
Below are the investment funds we just asked you to allocate your retirement account balance to in the last screen. Of these funds, which fund do you think will have the HIGHEST risk? And which fund do you think will have the LOWEST risk?

Drag the funds from the left to the right and rank them in order of risk (1 = highest risk)

Note: You have to drag all of the funds and rank them in order of risk.

ra004 (order of funds by risk in section Ranking)

ra004_error (Section Ranking)
Please drag all the funds to the right column.

popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

Figure 3: *Example of ranking for treatment 3.*

Click here to see the Mutual Fund Asset Type Descriptions

Important Note: All fees related to all fund investments have been waived.

Below are the investment funds we just asked you to allocate your retirement account balance to in the last screen. Of these funds, which fund do you think will have the HIGHEST risk? And which fund do you think will have the LOWEST risk?

Drag the funds from the left to the right and rank them in order of risk (1 = highest risk)

Note: You have to drag all of the funds and rank them in order of risk.

END OF GROUP

dummy := processFunds(ra004)

ELSE

/* Respondents are asked to rank different fund types based on their level of risk from highest to lowest risk. The funds are initially presented in random order per the ra005_order variables. The resulting order is then stored in the variables ra005_1 to ra005_10. */

IF sizeof(ra005_order) = 0 THEN

ra005_order := shuffleArray(array(1 →1, 2 →2, 3 →3, 4 →4, 5 →5, 6 →6, 7 →7, 8 →8, 9 →9, 10 →10))

END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

disclaimer (Section Distributions)
Important Note: All fees related to all fund investments have been waived.

ra005_intro (treatment 3 ranking in section Ranking)
Below are the investment funds we just asked you to allocate your retirement account balance to in the last screen. Of these funds, which fund do you think will have the HIGHEST risk? And which fund do you think will have the LOWEST risk?

Drag the funds from the left to the right and rank them in order of risk (1 = high-

est risk)

Note: You have to drag all of the funds and rank them in order of risk.

ra005 (order of funds by risk in section Ranking)

ra004_error (Section Ranking)
Please drag all the funds to the right column.

popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

Figure 4: *Example of ranking for treatment 1, 2 and 4.*

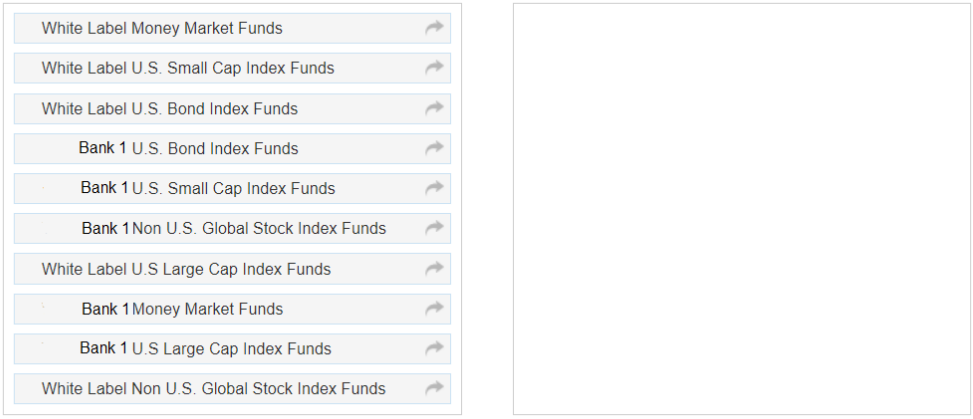
Click here to see the Mutual Fund Asset Type Descriptions

Important Note: All fees related to all fund investments have been waived.

Below are the investment funds we just asked you to allocate your retirement account balance to in the last screen. Of these funds, which fund do you think will have the HIGHEST risk? And which fund do you think will have the LOWEST risk?

Drag the funds from the left to the right and rank them in order of risk (1 = highest risk)

Note: You have to drag all of the funds and rank them in order of risk.



END OF GROUP

dummy := processFundsAll(ra005)

END OF IF

End of section **Ranking**

Start of section **Distributions**

di_intro (video intro in section Distributions)
For this next section, we will give you examples of various retirement investments and ask you how much you think each investment will be worth in one year. We will give you a range of possible future values in a chart to choose from.

To help you with this task, we will show you a short instructional video at this time. Please turn on your sound to hear the video. The video will start automatically. You will be able to continue once the video has completed.

di_intro2 (Section Distributions)
The video below should start automatically. If not, please click the video to start it. Once

the video has played, click ”Next” to continue.

di_intro3 (Section Distributions)
Now it is your turn. We will ask you to complete FIVE different charts for FIVE different investment funds.

Notice that the dollar ranges of the bins in the chart you will use now are DIFFERENT from the dollar ranges of the bins you saw in the instructional video.

IF device != 1 THEN

di_intro4 (Section Distributions)
This task can be easier to complete if you can see the entire chart. If on the next page you cannot see the entire chart, please ZOOM OUT until you can see it all.

END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

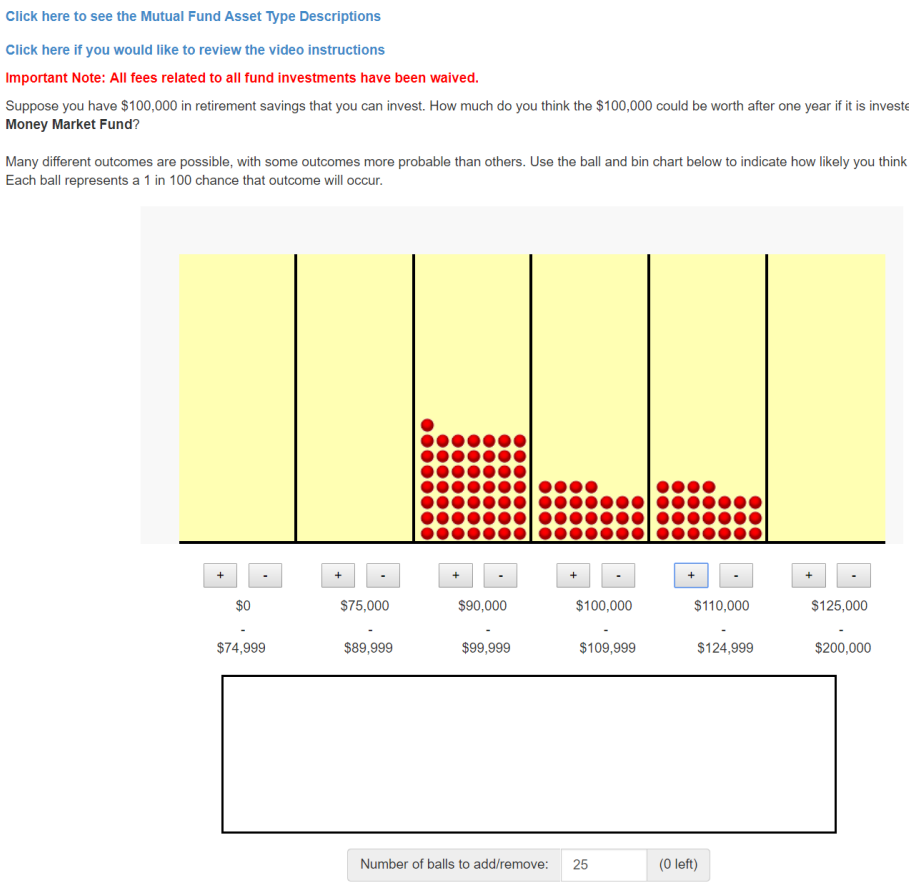
di001 (distribution money market fund in section Distributions)
Click here if you would like to review the video instructions. Important Note: All fees related to all fund investments have been waived. Suppose you have $100,000 in retirement savings that you can invest. How much do you think the $100,000 could be worth after one year if it is invested in a(**Bank 1/Bank 2/White Label/employer_name) Money Market Fund**?

Many different outcomes are possible, with some outcomes more probable than others. Use the ball and bin chart below to indicate how likely you think each outcome is. Each ball represents a 1 in 100 chance that outcome will occur.

popup (Section Distributions)
popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks.

Global Funds: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

Figure 5: *Example of expected worth distribution.*



END OF GROUP

di001_sum := array_sum(explode(”˜”, di001))

IF di001_sum = EMPTY OR di001_sum < 100 THEN

checkBalls (Section Distributions)
You did not allocate all 100 balls. Please go back to complete your answer.

END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

di002 (distribution U.S. Bond Funds in section Distributions)
Click here if you would like to review the video instructions. Important Note: All fees related to all fund investments have been waived. Suppose you have $100,000 in retirement savings that you can invest. How much do you think the $100,000 could be worth after one year if it is invested in a(**Bank 1/Bank 2/White Label/employer_name) U.S. Bond Index Fund**?

Many different outcomes are possible, with some outcomes more probable than others. Use the ball and bin chart below to indicate how likely you think each outcome is. Each ball represents a 1 in 100 chance that outcome will occur.

popup (Section Distributions)
popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

END OF GROUP

di002_sum := array_sum(explode(”~”, di002))

IF di002_sum = EMPTY OR di002_sum $<$ 100 THEN
checkBalls (Section Distributions)
You did not allocate all 100 balls. Please go back to complete your answer.
END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

di003 (distribution U.S Large Cap Funds in section Distributions)
Click here if you would like to review the video instructions. Important Note: All fees related to all fund investments have been waived. Suppose you have $100,000 in retirement savings that you can invest. How much do you think the $100,000 could be worth after one year if it is invested in a(**Bank 1/Bank 2/White Label/employer_name) U.S Large Cap Index Fund**?

Many different outcomes are possible, with some outcomes more probable than others. Use the ball and bin chart below to indicate how likely you think each outcome is. Each ball represents a 1 in 100 chance that outcome will occur.

popup (Section Distributions)
popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

END OF GROUP

di003_sum := array_sum(explode("~", di003))

IF di003_sum = EMPTY OR di003_sum < 100 THEN
checkBalls (Section Distributions)
You did not allocate all 100 balls. Please go back to complete your answer.
END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

di004 (distribution U.S. Small Cap Funds in section Distributions)
Click here if you would like to review the video instructionsImportant Note: All fees related to all fund investments have been waived. Suppose you have $100,000 in retirement savings that you can invest. How much do you think the $100,000 could be worth after one year if it is invested in a(**Bank 1/Bank 2/White Label/employer_name) U.S. Small Cap Index Fund**?

Many different outcomes are possible, with some outcomes more probable than others. Use the ball and bin chart below to indicate how likely you think each outcome is. Each ball represents a 1 in 100 chance that outcome will occur.

popup (Section Distributions)
popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

END OF GROUP

di004_sum := array_sum(explode("~", di004))

IF di004_sum = EMPTY OR di004_sum < 100 THEN
checkBalls (Section Distributions)
You did not allocate all 100 balls. Please go back to complete your answer.
END OF IF

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

popup2link (Section Allocation)
Click here to see the Mutual Fund Asset Type Descriptions

di005 (distribution Global Funds in section Distributions)
Click here if you would like to review the video instructionsImportant Note: All fees related to all fund investments have been waived. Suppose you have $100,000 in retirement savings that you can invest. How much do you think the $100,000 could be worth after one year if it is invested in a(**Bank 1/Bank 2/White Label/employer_name) Non U.S. Global Stock Index Fund**?

Many different outcomes are possible, with some outcomes more probable than others. Use the ball and bin chart below to indicate how likely you think each outcome is. Each ball represents a 1 in 100 chance that outcome will occur.

popup (Section Distributions)
popup2 (Section Distributions)
Mutual Fund Asset Type Descriptions **Money Market Funds**: These funds aim to earn interest for investors while protecting the value of the original investment. They hold different combinations of short-term (less than one year), high quality, liquid government and corporate U.S. dollar investments.**U.S. Bond Funds**: These funds mainly hold fixed income investments, including bonds issued by the U.S. Government, corporate bonds and other forms of debt backed by mortgages or other assets.**Large Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively large companies. Stocks from the largest 70 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as large-cap stocks.**Small Cap U.S. Funds**: These funds invest in U.S. stocks issued by relatively small companies. Stocks from the smallest 10 percent of firms, when firm size is measured by the number of shares times the market price of shares, are usually classified as small-cap stocks. **Global Funds**: These funds invest in stocks of established companies operating around the world. Funds can also restrict investments to companies operating in specific global regions. A fund investing in companies located only outside of the United States is an example. Investments are diversified among many countries and industries.

END OF GROUP

di005_sum := array_sum(explode(”~”, di005))

IF di005_sum = EMPTY OR di005_sum $<$ 100 THEN
checkBalls (Section Distributions)
You did not allocate all 100 balls. Please go back to complete your answer.
END OF IF

End of section **Distributions**

Start of section **Brands**

IF main_treatment = 3 THEN

brand_intro2 (Section Brands)
Now, we are interested in how much you know about White Label funds. There are no right or wrong answers so please provide us with your true opinions.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

br001 (how familiar brand in section Brands)
How familiar are you with **(Bank 1/ Bank 2/ White Label/ ^employer_name)** mutual funds?

1 1 Very unfamiliar
2 2
3 3
4 4
5 5
6 6
7 7 Very familiar

br002 (how knowledgeable brand in section Brands)
I consider myself knowledgeable about **(Bank 1/ Bank 2/ White Label/ ^employer_name)** mutual funds.
1 1 Strongly disagree
2 2
3 3
4 4
5 5
6 6
7 7 Strongly agree

br003 (how informed brand in section Brands)
I consider myself informed about **(Bank 1/ Bank 2/ White Label/ ^employer_name)** mutual funds.
1 1 Strongly disagree
2 2
3 3
4 4
5 5
6 6
7 7 Strongly agree

END OF GROUP

ELSE

brand_intro (Section Brands)
Now, we are interested in your opinions of the **(Bank 1/ Bank 2/ White Label/ ^employer_name)** funds about which you just made allocation decisions, as well as the organization managing those funds. There are no right or wrong answers so please provide us with your true opinions.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

br004 (how good brand in section Brands)
(Bank 1/ Bank 2/ White Label/ ^employer_name) mutual funds are...

1 1 Bad
2 2
3 3
4 4
5 5
6 6
7 7 Good

br005 (how favorable brand in section Brands)
1 1 Unfavorable
2 2
3 3
4 4
5 5
6 6
7 7 Favorable

br006 (how positive brand in section Brands)
1 1 Negative
2 2
3 3
4 4
5 5
6 6
7 7 Positive

br007 (how quality brand in section Brands)
1 1 Low quality
2 2
3 3
4 4

5 5
6 6
7 7 High quality

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

br001 (how familiar brand in section Brands)
How familiar are you with **(Bank 1/ Bank 2/ White Label/ ^employer_name)** mutual funds?

1 1 Very unfamiliar
2 2
3 3
4 4
5 5
6 6
7 7 Very familiar

br002 (how knowledgeable brand in section Brands)
I consider myself knowledgeable about **(Bank 1/ Bank 2/ White Label/ ^employer_name)** mutual funds.
1 1 Strongly disagree
2 2
3 3
4 4
5 5
6 6
7 7 Strongly agree

br003 (how informed brand in section Brands)
I consider myself informed about **(Bank 1/ Bank 2/ White Label/ ^employer_name)** mutual funds.
1 1 Strongly disagree
2 2
3 3
4 4
5 5
6 6
7 7 Strongly agree

END OF GROUP

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

br008 (how dependable brand in section Brands)
Now we are interested in your opinions of **(Bank 1/ Bank 2/ White Label/ ^employer_name)** as a company.

I feel that **(Bank 1/ Bank 2/ White Label/ ^employer_name)** is...

1 1 Very undependable
2 2
3 3
4 4
5 5
6 6
7 7 Very dependable

br009 (how competent brand in section Brands)
1 1 Very incompetent
2 2
3 3
4 4
5 5
6 6
7 7 Very competent

br010 (how integrity brand in section Brands)
1 1 Of low integrity
2 2
3 3
4 4
5 5
6 6
7 7 Of high integrity

br011 (how safe brand in section Brands)
1 1 Very unsafe
2 2
3 3
4 4
5 5
6 6
7 7 Very safe

br012 (how predictable brand in section Brands)
1 1 Very unpredictable

2 2
3 3
4 4
5 5
6 6
7 7 Very predictable

END OF GROUP
END OF IF

End of section **Brands**

Start of section **Final**

final_intro (Section Final)
You are almost finished. Please answer these remaining questions for us.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

rate_intro (Section Final)
Please rate the degree to which you trust the following on a seven point scale where 1 is ”I do not trust at all” and 7 is ”I trust completely.”

SUBGROUP OF QUESTIONS

fn001 (trust Stock market in section Final)
Stock market
1 1 Do not trust at all
2 2
3 3
4 4
5 5
6 6
7 7 Trust completely

fn002 (trust Banks in section Final)
Banks
1 1 Do not trust at all
2 2
3 3
4 4
5 5
6 6
7 7 Trust completely

fn003 (trust Insurance companies in section Final)
Insurance companies
1 1 Do not trust at all
2 2
3 3
4 4
5 5
6 6
7 7 Trust completely

fn004 (trust Stock brokers in section Final)
Stock brokers
1 1 Do not trust at all
2 2
3 3
4 4
5 5
6 6
7 7 Trust completely

fn005 (trust Investment advisers in section Final)
Investment advisers
1 1 Do not trust at all
2 2
3 3
4 4
5 5
6 6
7 7 Trust completely

fn006 (trust employer in section Final)
Your employer
1 1 Do not trust at all
2 2
3 3
4 4
5 5
6 6
7 7 Trust completely

fn006a (trust employer retirement plan in section Final)
Your employer's retirement plan
1 1 Do not trust at all
2 2
3 3

4 4
5 5
6 6
7 7 Trust completely

fn007 (trust People in general in section Final)
People in general
1 1 Do not trust at all
2 2
3 3
4 4
5 5
6 6
7 7 Trust completely

END OF SUBGROUP

END OF GROUP

fn008 (amount of risk willing to take in section Final)
Which of the statements on this page comes closest to the amount of financial risk that you are willing to take when you save or make investments?
1 Take substantial financial risks expecting to earn substantial returns
2 Take above average financial risks expecting to earn above average returns
3 Take average financial risks expecting to earn average returns
4 Not willing to take any financial risks

fn009 (involved with your household financial decisionmaking in section Final)
Are you involved with your household financial decisionmaking?
1 Yes, solely responsible
2 Yes, shared responsibility along with a spouse/partner
3 No

fn010 (has spent time understanding and choosing your investments in section Final)
Are you a person who, either now or in the past, has spent time understanding and choosing your investments?
1 Yes
2 No

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

fn011_intro (Section Final)
Below are statements that people sometimes make when they talk about their investments. Please tell us how much you personally agree or disagree with each statement.

SUBGROUP OF QUESTIONS

fn012 (I understand what causes the value of my investments to increase or decrease. in section Final)
I understand what causes the value of my investments to increase or decrease.
1 1 Strongly disagree
2 2
3 3
4 4
5 5
6 6
7 7 Strongly agree

fn013 (I seek out information about my investments to help me make decisions in section Final)
I seek out information about my investments to help me make decisions.
1 1 Strongly disagree
2 2
3 3
4 4
5 5
6 6
7 7 Strongly agree

fn014 (I know about different investment options. in section Final)
I know about different investment options.
1 1 Strongly disagree
2 2
3 3
4 4
5 5
6 6
7 7 Strongly agree

END OF SUBGROUP

END OF GROUP

End of section **Final**

dummy := doPayout(5)

Start of section **Closing**

notice (Section Closing)

This study was an attempt to understand how various attributes of mutual funds influence individuals' investment decisions. Thank you for your participation!

CS_001 (HOW PLEASANT INTERVIEW in section Closing)
Could you tell us how interesting or uninteresting you found the questions in this interview?
1 Very interesting
2 Interesting
3 Neither interesting nor uninteresting
4 Uninteresting
5 Very uninteresting

CS_003 (comments in section Closing)
Do you have any other comments on the interview? Please type these in the box below.(If you have no comments, please click next to complete this survey.)
STRING

End of section **Closing**

/* Please note that although question CS_003 is listed in the routing, the answers are not included in the microdata in the event identifiable information is captured. Cleaned responses are available by request. */