

Financial wellness programs in the workplace: Evidence from a Fortune 25 company

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This work was conducted with
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Financial wellness programs in the workplace are the best ways to reach a vast majority of the adult population. This report is part of a more comprehensive study that focuses on a particular financial wellness program launched by Edelman Financial Engines (EFE) in April 2022 as a six-week challenge in a Fortune 25 company. This report aims to analyze the impact of the six-week challenge on financial knowledge, confidence, and behavior. Adopting a before-and-after design, we conduct the impact evaluation on 668 employees; we found that after being exposed to financial education resources, employees improved their financial knowledge (2.5 percentage points, p.p.), their self-assessed financial knowledge (4.5 p.p.), and their attitudes toward retirement planning (5 p.p.). Exposure to the six-week challenge might have also increased employees' awareness of their financial issues, which may make them feel more anxious when talking about their personal finances (5 p.p.) and more worried about running out of money in retirement (5.5 p.p.). This report also includes insights on forward-looking behaviors, such as employees' willingness to be savvier about their finances in the future and greater eagerness to talk with a financial counselor before taking important decisions. Our findings should interest both companies and researchers that are validating existing financial wellness tools and guiding stakeholders and policymakers toward future policies to improve financial wellness in the workplace.

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1. Executive summary

Financial wellness programs are one of the benefits employers can offer their employees to improve their financial knowledge and well-being in the long term. This report is part of a more comprehensive study that focuses on a particular financial wellness program the “Fast Track to Financial Health” launched by EFE in April 2022 in a Fortune 25 company ².

The aim of this second report is twofold. First of all, it sheds light on the wellness program implementation in the workplace. Second, it investigates any differential effects that arise from participation in a financial wellness program. In the first section, we discuss which employees are more likely to be highly engaged and the kind of resources (articles, webinars, or one-to-one meetings with financial counselors) they prefer. In the second section, we investigate the effect of employee engagement and financial education exposure on the employees’ knowledge and behaviors. In particular, we show the results of a before-and-after analysis of the six-week challenge “Fast Track to Financial Health” launched by Edelman Financial Engines (EFE) in April 2022.³ The main outcomes of interest are employees’ financial knowledge, confidence, well-being, and forward-looking behaviors. We define engagement as the employees’ self-reported compliance with working through the provided resources. The three provided resources are articles, webinars, and meetings with a financial counselor; those who engaged with at least one resource are defined as treated. The “highly engaged” employees are those who engaged with all three types of resources, i.e., they read at least some articles, participated in webinars, and had at least one meeting with a financial counselor.

The three main findings can be summarized as follows:

1) Those who engaged the most in the six-week challenge tend to be those who already used EFE services, those with higher annual income, males, white employees, those closest to retirement age, and those with an internal locus of control.

² For a complete analysis of the study please see the first report “Are your employees in good financial shape? Evidence from a Fortune 25 company” edited by Hasler, A., Lusardi, A., Orellana, N., and Sconti, A. (2022).

³ Only 668 employees took both surveys providing the same unique identifier ID for both the pre-and-post surveys.

2) Being exposed to at least some of the financial resources provided by EFE improved employees' financial literacy, confidence and forward-looking behaviors.⁴

3) Reading material is the favorite delivery method. Reminders, dedicated time slots, and well-advertised programs may boost employee engagement and, ultimately, the effectiveness of the program.

The outline of this report is as follows: Section 2 provides the motivation for conducting an impact evaluation of financial wellness programs and sheds light on some limitations that likely affect the analysis. Section 3 discusses program implementation details, including a timeline of the project and the incentive system offered to employees to boost engagement. Section 4 reports summary statistics of the final sample and describes those who engaged the most in the six-week challenge. Section 5 reports the results of the before-and-after analysis, and Section 6 concludes the study.

2. Motivation

Financial wellness programs in the workplace aim to improve employees' financial knowledge and well-being in the long term. The economic importance of financial literacy is largely documented in the growing empirical literature (Lusardi and Mitchell, 2014⁵; Lührmann et al., 2018⁶). This is particularly true when it comes to financial behavior. Higher levels of financial literacy are associated with savvy financial behaviors such as retirement planning and precautionary savings, which lead to greater financial well-being (CFPB, 2015, 2017a,b⁷; Lusardi and Mitchell, 2011⁸; Lusardi et al., 2017⁹; Collins and Urban, 2020¹⁰).

Hence, it is important to promote financial wellness and evaluate the effects of the initiatives proposed. This report is part of a more comprehensive study that focuses on a particular financial wellness program launched by EFE in April 2022 in a Fortune 25 company. Our aim is to conduct an impact evaluation of the program.

⁴ As expected, due to the short time frame of the program, no statistically significant effects emerge in the FinHealth score.

⁵ Lusardi, A., and Mitchell, O. S. (2014) "The Economic Importance of Financial Literacy: Theory and Evidence." *Journal of Economic Literature* 52 (1): 5–44. <https://doi.org/10.1257/jel.52.1.5>.

⁶ Lührmann, M., Serra-Garcia, M., and Winter, J. (2018). "The Impact of Financial Education on Adolescents' Intertemporal Choices." *American Economic Journal: Economic Policy* 10 (3): 309–32. <https://doi.org/10.1257/pol.20170012>.

Conducting a rigorous impact evaluation is conditional on having the opportunity to design the project according to the gold standard of research methods: Randomize Controlled Trials (RCT). For this project, we are only able to conduct the analysis adopting a before-and-after design. However, comparing the average outcomes for each employee, before and after their participation in the financial wellness program, may support the company in validating existing tools and guiding other stakeholders and policymakers toward future policies to improve financial wellness in the workplace.

Before delving deeper into the discussion, it is critical to acknowledge a limitation which affects this analysis. The adopted design deviates from the gold standard suggested in the impact evaluation literature. Consequently, our sample is biased by self-selection, meaning it was the employee's decision whether to participate in the six-week challenge or not. Moreover, the intensity of an employee's exposure to the resources provided (i.e., the degree to which participants accessed the material) is affected by factors such as lack of time, lack of knowledge of the availability of some resources, and so on. However, we take advantage of the different treatment's intensity by comparing those who reported being exposed to financial resources with different intensities of treatment to those who completed both surveys but reported that they did not look at the resources (classified as the not treated group). In this way, we can better describe those who were most engaged in the six-week challenge.

⁷ Consumer Financial Protection Bureau. (2015) "Financial well-being: The goal of financial education." CFPB Report January 2015. https://files.consumerfinance.gov/f/201501_cfpb_report_financial-well-being.pdf

Consumer Financial Protection Bureau. (2017a) "Financial Well-Being in America." CFPB Report September 2017. https://files.consumerfinance.gov/f/documents/201709_cfpb_financial-well-being-in-America.pdf

Consumer Financial Protection Bureau. (2017b) "Financial Well-Being Scale: Scale Development Technical Report." May 2017. https://files.consumerfinance.gov/f/documents/201705_cfpb_financial-well-being-scale-technical-report.pdf

⁸ Lusardi, A., and Mitchell, O. S. (2011) "Financial Literacy and Planning: Implications for Retirement Well-being" in Annamaria Lusardi and Olivia S. Mitchell (eds), *Financial Literacy. Implications for Retirement Security and the Financial Marketplace*, Oxford: Oxford University Press, pp. 17-39.

⁹ Lusardi, A., Michaud, P.-C., and Mitchell, O. S. (2017) "Optimal Financial Knowledge and Wealth Inequality." *Journal of Political Economy* 125 (2): 431-77. <https://doi.org/10.1086/690950>.

¹⁰ Collins, M., and Urban, C., (2020) "Measuring Financial Well-being over the Lifecourse." *European Journal of Finance Special Issue on Financial Literacy and Responsible Finance in the FinTech Era: Capabilities and Challenges*, 26(4-5): 341-359.

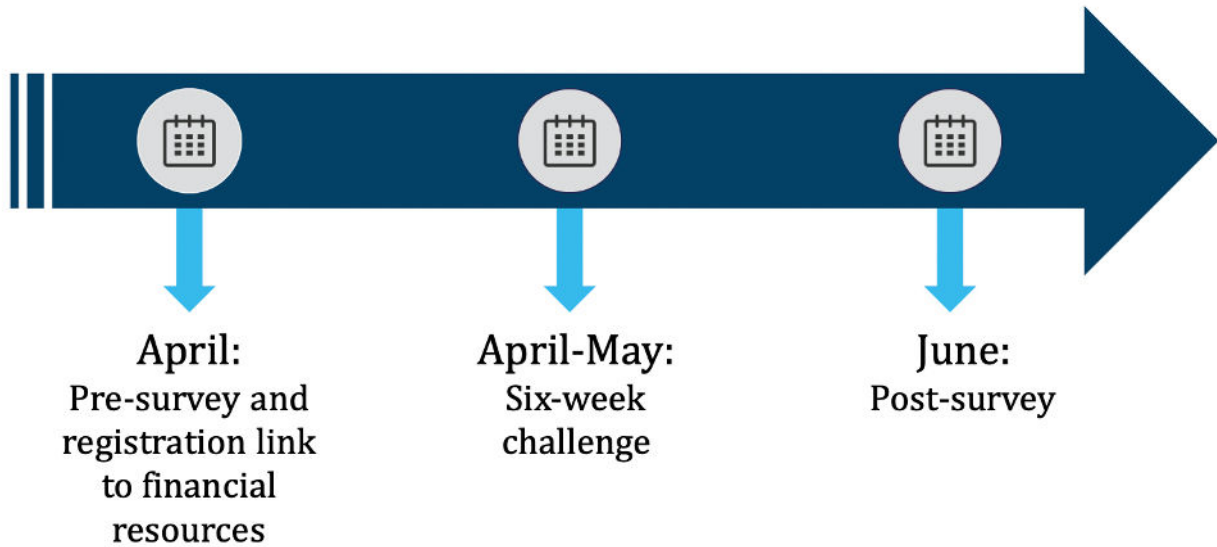
In the next section, we will go into more detail on how the program was implemented, the description of the sample, and the results of the treatment effects.

3. Program implementation

This report is part of a more comprehensive study that focuses on a particular financial wellness program launched by EFE in April 2022 in a Fortune 25 company. About 28,000 salaried employees of the company received an email directly from their employer with an invitation and instructions on how to participate in a six-week challenge called “Fast Track to Financial Health.” Participation in the program was voluntary.

The company implemented the six-week challenge to improve its employees’ financial wellness. The financial wellness program promoted by EFE used a financial health score (the FinHealth Score) to provide personalized counseling and, based on the score, to provide access to tailored educational resources. This score summarizes information about employees’ financial situations, such as indebtedness, retirement planning, the ability to make ends meet, and financial fragility. In order to collect information on employees’ sociodemographic characteristics, financial behavior, confidence, and attitudes, we administered a survey both before (baseline survey, April 2022) and after (follow-up survey, June 2022) the intervention through Qualtrics. Sociodemographic-related questions were included only at the baseline. Both surveys carried the same questions about financial knowledge and behaviors in order to assess any potential effect of the six-week challenge on employees’ financial health. New questions in the post-survey gauge forward-looking behavior and employees’ satisfaction with the program.

Figure 1: Timeline of the project “Fast Track to Financial Health”



Note: The “Fast Track to Financial Health” is a financial wellness program promoted by EFE as a six-week challenge. We conducted a baseline survey before the Fast Track to Financial Health and a follow-up survey after the challenge to gauge how the program impacted the participants. The surveys were conducted in April and June of 2022, respectively.

One week after administering the first survey, EFE launched the six-week challenge. The financial resources it offered were articles, webinars, and one-to-one financial counseling. All the resources were available only to those who completed the first (or baseline) survey since the registration link to those resources was only provided on the final screen of the baseline survey. To maximize engagement in the six-week challenge, the employer offered benefits and incentives using Castlight. Under Castlight, each employee received 250 points for completing the baseline survey and 500 additional points for joining the program and completing the follow-up survey. (These 750 points are equivalent to \$50 in gift card value).¹¹

The topics covered in the program were mainly related to retirement planning, investments, savings, and daily money management. Once employees submitted the baseline survey, they each received a message explaining the financial topics they could improve on (based on their answers to the baseline survey) and a link to access the educational resources on those financial topics (as described in Section 3 of the first report).

¹¹ Castlight points can be used for donations, gift cards, or sweepstakes entries. Employees can earn up a \$50 gift card if they receive the program’s full 750 Castlight points. The points gained through the six-week challenge are considered a large amount on the spectrum of comparable rewards and would move employees further ahead in accumulating points and dollars earned through other wellness-related activities.

In the following sections, we will describe in more detail the financial resources that were provided. We will also look at which resources were most popular and to what extent people engaged in the six-week challenge.

4. Results I: summary statistics

In line with previous EFE programs, about 10% of the Fortune 25 company's employees accepted the invitation to fill out the baseline survey in April 2022. The follow-through rate for program completion was 50% for the post-survey in June 2022, leaving us with a total of 1,023 employees. In this report, the aim is to evaluate the impact of the six-week challenge by comparing pre- and post-survey outcomes. For this reason, we consider only the subsample of 688 employees who provided the same unique identifier¹² in both pre-and post-surveys, thus making the comparison possible.¹³

In this section, we first describe the demographic characteristics of the final sample and then provide details about the distribution of those who engaged the most in the six-week challenge and the distribution of the most popular financial resources.

Table 1: Socio-demographic summary statistics of employees with ID for both surveys

VARIABLES		Obs	Mean	Std. Dev.	Min	Max
<i>Gender</i>						
	Male	668	.663	.473	0	1
	Female	668	.334	.472	0	1
<i>Age</i>						
	Age	668	44.322	11.743	22	71
	Young (18-34 years)	668	.295	.456	0	1
	Middle (35-54 years)	668	.455	.498	0	1

¹² The unique identifier is a personalized code used to anonymously identify a user from the pre-survey in the post-survey. The personalized code was created using the answer employees gave to the following three questions: *For privacy reasons, we will not ask you for your name. Instead, we use the following three questions to link your answers here to your answers in the previous survey*

1. *What is the first letter of your mother's first name?*
2. *What is the first letter of your last name?*
3. *What is your street number? (Please fill in all digits, e.g., "7" or "143")*

¹³ Tables A1 and A2 in the Appendix show that the FinHealth distribution in the subsample (668 participants) is very similar to the distribution across total sample (2,792 participants). The restriction does not bias the result. Additional results are available upon request.

Old (55+ years)	668	.25	.433	0	1
<i>Race/Ethnicity</i>					
White	668	.728	.446	0	1
Black	668	.058	.235	0	1
Hispanic	668	.033	.179	0	1
Asian	668	.15	.357	0	1
Other	668	.031	.175	0	1
<i>Highest degree obtained</i>					
High school or less	668	.012	.109	0	1
Some college	668	.072	.258	0	1
Bachelor's degree	668	.422	.494	0	1
Post-graduate degree	668	.494	.5	0	1
<i>Marital Status</i>					
Married	668	.675	.469	0	1
Single, Not Married	668	.238	.426	0	1
Divorced/Separated	668	.078	.268	0	1
Widowed	668	.009	.094	0	1
<i>Children</i>					
No kids	668	.476	.5	0	1
Two kids or less	668	.415	.493	0	1
Three kids or less	668	.109	.312	0	1
<i>Household income</i>					
Income < \$25K	668	0	0	0	0
Income \$25K-49K	668	.007	.086	0	1
Income \$50K-74K	668	.033	.179	0	1
Income \$75K-99K	668	.124	.33	0	1
Income <\$100K	668	.825	.38	0	1
<i>Financial exposure</i>					
Current EFE Users	668	.325	.469	0	1
Online Advice	668	.109	.312	0	1
Professional Management	668	.196	.397	0	1
Personal Advisor	668	.019	.138	0	1
<i>Financial literacy</i>					
Big 3 correct	668	.817	.387	0	1
<i>FinHealth</i>					
FinHealth	668	2.419	.667	1	3
Poor FinHealth	668	.1	.301	0	1
Fair FinHealth	668	.38	.486	0	1
Good FinHealth	668	.519	.5	0	1

Note: All data are from the Edelman Financial Engines April 2022 and June 2022 surveys. The sample is restricted to those who answered both the April and June 2022 surveys. The dependent variable *FinHealth* indicates a respondent's

financial health based on a score from 1 to 3 derived from a respondent's answer to questions assessing their financial health. Symptoms of poor financial health are difficulty making ends meet (bill payments), being financially fragile, lacking emergency funds, being overindebted, and engaging in poor retirement planning. The *FinHealth* variable takes a value of 1, indicating poor financial health, if a respondent exhibits three, four, or five symptoms of poor financial health; a value of 2 if a respondent has one or two symptoms of poor financial health; and a value of 3 if a respondent has no symptoms of poor financial health. *Poor FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 1, 0 otherwise. Employees included in this cohort received a red stoplight image at the end of the baseline survey as an indicator of their performance. *Fair FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 2, 0 otherwise. Employees included in this cohort received a yellow stoplight image at the end of the baseline survey as an indicator of their performance. *Good FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 3, 0 otherwise. Employees included in this cohort received a green stoplight image at the end of the baseline survey as an indicator of their performance. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise.

Table 1, consistent with the results noted in the first report, shows that the majority of the sample is made up of males (66%), with an average age of 44, predominantly white (73%), highly educated, and with an annual income of \$100,000 or more. These characteristics are important to keep in mind when interpreting the results reported in the subsequent subsections since they are generally associated with higher financial knowledge and savvy financial behavior. Even though this subsample generally shows a higher level of financial health at baseline, there is still room for improvement. In fact, 10% of the sample falls into the Poor FinHealth cohort and only 50% are in the Good FinHealth cohort. Moreover, pre-survey data shows that the average FinHealth score was 2.42 which means that those employees engaged in at least one or two costly money management practices out of five. However, 82% of the employees were able to correctly answer the Big Three financial literacy questions at baseline. Those questions measure the ability to know and apply the fundamental financial concepts of inflation, interest compounding, and risk diversification. Risk diversification is the most difficult topic for people to grasp while inflation is the easiest. Risk diversification has always been the least understood topic. However, the results related to inflation might have been influenced by the economic landscape at the time, in which inflation made the headlines on TV and in newspapers worldwide.

The information collected in both surveys about the employees' intensity of engagement and their preference in learning methods (article, webinar, financial counseling) allows us to better identify

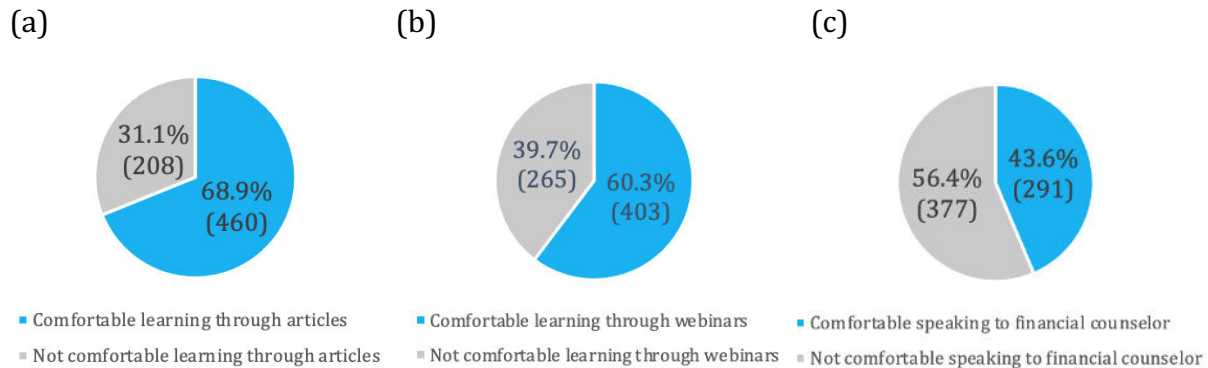
which of the three is their favorite resource (Figure 2) and who engaged the most in the six-week challenge (Table 2).

In the baseline survey, before accessing the financial resources, we asked employees to report their level of comfort in learning financial topics through different methods, such as reading articles, watching webinars, or engaging in one-on-one meetings with a financial counselor. What emerges is that, among those employees who took both surveys, the majority feel most comfortable learning through articles (almost 70%, Figure 2(a)). Reading articles is the most flexible learning method; employees can decide autonomously when to dedicate time to reading about financial topics. The next most-preferred method is learning through webinars (60%, Figure 2(b)). Finally, only 44% of the employees feel comfortable speaking with a financial counselor to learn more about personal finance topics (Figure 2(c)). These results might guide future financial education and wellness interventions, taking into consideration that most employees prefer learning through reading articles and that they may need more nudging to take advantage of a one-on-one meeting with a financial counselor. Previous research has shown that speaking to a financial counselor is the most effective way to gain a deep understanding of financial topics (Sconti, 2022¹⁴; Kaiser et al. 2021¹⁵), since employees would have the ability to ask questions and receive information tailored to their particular financial situation. Thus, finding new ways to promote access to and improve trust in speaking to a financial counselor may help boost the effects of such a financial wellness program.

¹⁴ Sconti, A., (2022) "Digital vs. in-person financial education: What works best for Generation Z?" *Journal of Economic Behavior & Organization*, Vol. 194, February 2022, 300-318. This paper compares the effects of two randomly assigned treatments (lessons with a financial advisor and digital courses) to understand which method is more effective at increasing the financial literacy of Gen Z. Both are effective three weeks later, but a follow-up study reveals that the effects persist three months later only for treatments involving a financial advisor.

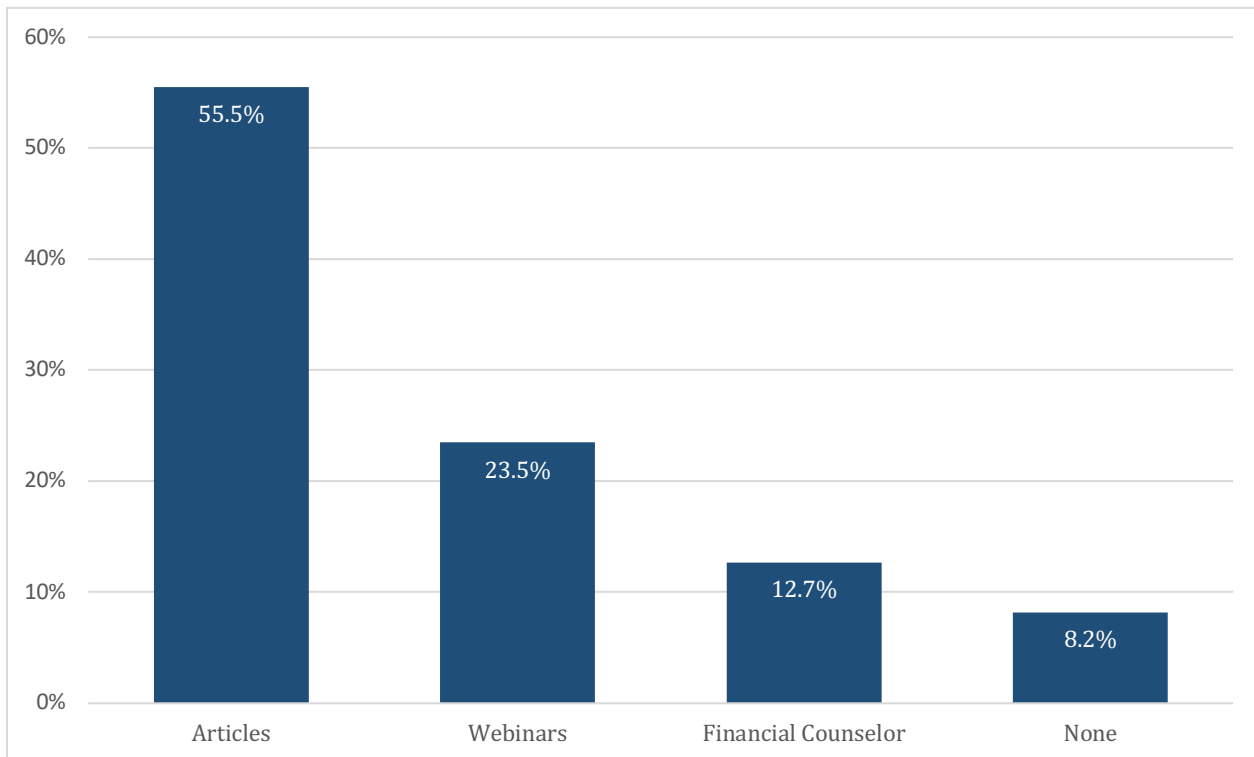
¹⁵ Kaiser, T., Lusardi, A., Menkhoff, L., Urban, C., (2021) "Financial education affects financial knowledge and downstream behaviors." *Journal of Financial Economics*, Volume 145, Issue 2, Part A, 2022, Pages 255-272, ISSN 0304-405X. This paper is the first meta-analysis of its kind and involves 76 Randomized Control Trials (RCTs, which are known as the gold standard to determine causality) in more than 30 countries and six continents and reveals that financial literacy affects behaviors, and the way it is taught affects the results. Higher expertise of instructors and longer courses (about 20-40 hours) are the most effective ways to improve financial literacy and behavior.

Figure 2: Feeling comfortable learning about personal finance through articles, webinars, and one-on-one meetings with a financial counselor



Note: All data are from the Edelman Financial Engines April 2022 survey. Considering the subsample of employees who took both surveys, we report the percentage of those who felt comfortable or very comfortable in learning financial topics through (a) articles, (b) webinars, (c) one-on-one meetings with a financial counselor.

Figure 3: Favorite financial education resources across groups



Note: All data are from the Edelman Financial Engines June 2022 survey. Considering the subsample of employees who took both surveys, we show the percentage of those who reported their favorite financial education resources among (a) articles, (b) webinars, (c) one-on-one meeting with a financial counselor, (d) none of them since they did not use the financial resources at all.

Knowing the distribution of employees' financial resource preferences from the pre-survey, we now turn to the post-survey, where we asked employees what their favorite learning method was after having access to the financial education resources. In Figure 3 we report the distribution of each answer option to the question "*Of the resources provided, which type did you prefer the most?*" Even after being exposed to the six-week challenge, employees did not change their opinion: reading article seemed to be their favorite learning method (56%). In addition, we were able to identify a small subsample of 8% who declared using no financial education resources.

Based on the information about their engagement with the financial resources, we define different intensity levels of treatment. "Treated" is how we classify the group of employees who said they have read at least some articles *or* attended some webinars *or* had at least a one-on-one meeting with a counselor. "Treated max" is the group of employees who said they have read at least some articles *and* attended some webinars *and* had at least a one-to-one meeting with a counselor. Finally, we use "Not treated" to refer to the group of employees who said they used no financial education resources. By analyzing the demographic differences across treatment groups at baseline, we can conclude that employees who are 35 years old or older, highly educated, married, with at least one child, and with higher levels of annual income engaged the most in the six-week challenge (Table 2).

Table 2: Demographic characteristics across treatment levels

VARIABLES		Pre-survey	Both surveys	Treated	Treated max	Not treated
<i>Gender</i>						
	Male	.667	.663	.679	.705	.601
	Female	.326	.334	.32	.295	.390
<i>Age</i>						
	Age	43.118	44.322	45.088	46.611	41.240
	Young (18-34 years)	.318	.295	.275	.221	.375
	Middle (35-54 years)	.473	.455	.456	.411	.451
	Old (55+ years)	.209	.25	.269	.368	.172
<i>Race/Ethnicity</i>						
	White	.692	.728	.736	.716	.691
	Black	.069	.058	.064	.084	.037
	Hispanic	.048	.033	.026	.032	.060
	Asian	.149	.15	.146	.158	.165
	Other	.042	.031	.028	.011	.045

<i>Highest degree obtained</i>					
High school or less	.018	.012	.009	0	.022
Some college	.09	.072	.073	.074	.067
Bachelor's degree	.413	.422	.409	.337	.473
Post-graduate degree	.479	.494	.508	.589	.436
<i>Marital status</i>					
Married	.666	.675	.682	.695	.646
Single, Not Married	.259	.238	.236	.211	.248
Divorced/Separated	.069	.078	.075	.095	.090
Widowed	.006	.009	.007	0	.015
<i>Children</i>					
No kids	.476	.476	.479	.474	.466
Two kids or less	.419	.415	.413	.442	.421
Three kids or less	.105	.109	.108	.084	.112
<i>Household Income</i>					
Income < \$25K	.004	0	0	0	0
Income \$25K-49K	.016	.007	.007	0	.007
Income \$50K-74K	.044	.033	.03	.011	.045
Income \$75K-99K	.135	.124	.129	.105	.105
Income >\$100K	.783	.825	.824	.884	.827
Observations	2792	668	535	95	133

Note: All data are from the Edelman Financial Engines April 2022 survey. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree.

Sociodemographic characteristics are not the only variables of interest for analyzing who engaged the most in the six-week challenge. The following three tables report the baseline values regarding financial health, knowledge, and behavior to better describe who engaged the most in the six-week challenge. As shown in Table 3, those who engaged the most in the financial wellness program are those who already have higher financial health, as well as higher real and self-assessed financial knowledge.

Table 3: Financial health and financial knowledge indicators treatment levels

VARIABLES	Pre-survey	Both (Pre)	Treated (Pre)	Treated max (Pre)	Not treated (Pre)
FinHealth	2.318	2.419	2.43	2.463	2.376
Good FinHealth	.455	.519	.529	.558	.481
Fair FinHealth	.409	.38	.372	.347	.414
Poor FinHealth	.136	.1	.099	.095	.105
Big Three correct	.753	.817	.834	.832	.752
Self-assessed FinLit	.668	.705	.723	.674	.632
Observations	2792	668	535	95	133

Note: All data are from the Edelman Financial Engines April 2022 survey. The variable *FinHealth* indicates a respondent's financial health based on a score from 1 to 3 derived from respondents' answers to questions assessing their financial health. Symptoms of poor financial health are difficulty making ends meet (bill payments), being financially fragile, lacking emergency funds, being overindebted, and engaging in poor retirement planning. The *FinHealth* variable takes a value of 1, indicating poor financial health, if a respondent exhibits three, four, or five symptoms of poor financial health; a value of 2 if a respondent has one or two symptoms of poor financial health; and a value of 3 if a respondent has no symptoms of poor financial health. *Poor FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 1, 0 otherwise. Employees included in this cohort received a red stoplight image at the end of the baseline survey as an indicator of their performance. *Fair FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 2, 0 otherwise. Employees included in this cohort received a yellow stoplight image at the end of the baseline survey as an indicator of their performance. *Good FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 3, 0 otherwise. Employees included in this cohort received a green stoplight image at the end of the baseline survey as an indicator of their performance. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three), which measure understanding of interest rate, inflation, and risk diversification, 0 otherwise. *Self-assessed FinLit* is a dummy variable equal to 1 if the respondent answers 5, 6, or 7 to the question. "On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?", 0 otherwise.

A very interesting result is shown in Table 4. Although those who engaged the most with the resources had good financial behavior, they were also the ones with the most financial anxiety. Furthermore, 43% of those who used all three resources felt anxious prior to the intervention compared to 38% of those who did not use any of the provided resources. Also, among those employees who engaged the most, 45% were worried about running out of money in retirement and 21% about savings, compared to 32% and 16%, respectively, of those not engaged with the financial resources.

Table 4: Summary statistics on financial confidence and anxiety across treatment levels

VARIABLES	Pre-survey	Both (Pre)	Treated (Pre)	Treated max (Pre)	Not treated (Pre)
Financially fragile	.069	.057	.049	.053	.090
Hours with finance problems (general)	3.47	3.043	2.936	3.337	3.477
Hours with finance problems (work)	1.51	1.158	1.051	1.064	1.597
Anxiety (≥ 8 hours)	.11	.082	.079	.116	.098
Feeling anxious	.386	.359	.355	.432	.376
Retirement worries	.371	.361	.37	.453	.323
Savings worries	.17	.156	.155	.211	.158
Observations	2792	668	535	95	133

Note: All data are from the Edelman Financial Engines April 2022 survey. *Financial Fragility* is a dummy variable that takes the value of 1 if respondents indicate “probably not” or “certainly not” to the question (0 otherwise) “How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month?” 1 I am certain I could come up with the full \$2,000, 2 I could probably come up with \$2,000, 3 I could probably not come up with \$2,000, 4 I am certain I could not come up with \$2,000, 98 Don’t know. *Hours with finance problems (general)* is a variable that takes a value of 0 to 168 to answer the question “How much time do you typically spend thinking about and dealing with issues and problems related to your personal finances? Please report approximate hours per week.” *Hours with finance problems (work)* is a variable that takes a value of 0 to 80 to answer the question “How many of these hours occur during work? Please report approximate hours per week.” The dummy variable *Anxiety* takes the value of 1 if the respondent reported feeling anxious for eight hours or more a week, 0 otherwise. The dummy variable *Feeling anxious* takes the value of 1 if the respondent answers 5, 6, or 7 on a seven-point scale with 1 meaning strongly disagree and 7 meaning strongly agree to the statement (0 otherwise) “Thinking about finances can make me feel anxious.” The dummy variable *Retirement worries* takes the value of 1 if the respondent answers 5, 6, or 7 on a seven-point scale with 1 meaning strongly disagree and 7 meaning strongly agree to the statement (0 otherwise) “I worry about running out of money in retirement.” The dummy variable *Savings worries* takes the value of 1 if the respondent answers 4 or 5 on a five-point scale with 1 meaning not at all and 5 meaning completely to the statement (0 otherwise) “I am concerned that the money that I have or will save won’t last.”

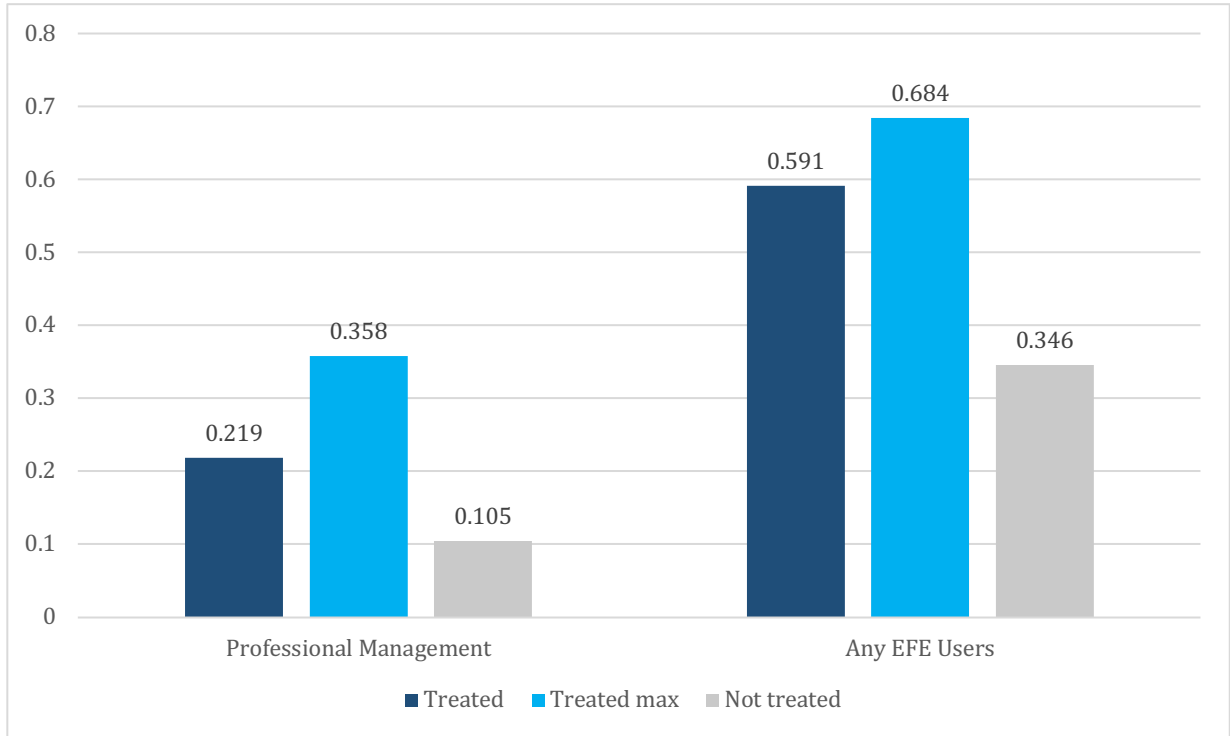
Table 5 shows some of the components of the FinHealth indicator. By analyzing its components separately, we see that employees who engaged the most with the financial wellness program were less indebted (85% compared to 79% of those not engaged) and planned more for retirement (81% compared to 72% of those not engaged) prior to the intervention.

Table 5: Summary statistics of participant financial behavior across treatment levels

VARIABLES	Pre-survey	Both (Pre)	Treated (Pre)	Treated max (Pre)	Not treated (Pre)
Emergency fund	.678	.738	.735	.747	.752
Not too much debt	.753	.799	.802	.853	.789
Make ends meet	.847	.882	.888	.842	.857
Retirement planning	.699	.753	.761	.811	.722
Observations	2792	668	535	95	133

Note: All data are from the Edelman Financial Engines April 2022 survey. *Emergency fund* is a dummy variable that equals 1 if respondents answer “Yes” to the question “Have you set aside emergency or rainy-day funds that would cover your expenses for 3 months in case of sickness, job loss, economic downturn, or other emergencies?” 1 Yes, 2 No, 98 Don’t know. *Not too much debt* is a dummy variable equal to 1 if respondents answer “strongly disagree,” “somewhat disagree,” or “neither agree nor disagree” to the statement “I have too much debt right now,” 0 otherwise. *Make ends meet* is a dummy variable that equals 1 if respondents answer “Not at all difficult” to the question (0 otherwise) “In a typical month, how difficult is it for you to cover your expenses and pay all your bills?” 1 Very difficult, 2 Somewhat difficult, 3 Not at all difficult, 98 Don’t know. *Retirement planning* is a variable that equals 1 if respondents answer “Yes” to the question (0 otherwise) “Have you ever tried to figure out how much you need to save for retirement?” 1 Yes, 2 No, 98 Don’t know. *Outside ret plan* is a variable that equals 1 if respondents answer “Yes” to the question (0 otherwise) “Do you have any other retirement accounts NOT through your current employer, like an IRA, Keogh, SEP, or any other type of retirement account that you have set up yourself or got through a previous employer?” 1 Yes, 2 No, 98 Don’t know.

In analyzing the results in the first report, we also considered other outcomes of interest, such as the exposure to financial resources offered by EFE and job satisfaction. Considering employees’ exposure to EFE financial resources from the baseline survey, other insights emerge. As shown in Figure 4, those who engaged the most in the six-week challenge are those who had already known and engaged with EFE services prior to the start of the challenge. We focus on Professional Management since it is the most adopted high-touch service EFE offers. We compare this subgroup of employees to those who used other services offered by EFE, such as Online Advice or Personal Advisor. In fact, among those who used Professional Management in the past, 36% reported to have read at least some articles and attended some webinars; they also had at least a one-on-one meeting (treated max group). The percentages almost double when it comes to those who are currently using or have used any EFE services in the past.

Figure 4: Average employees' financial exposure across treatment levels

Note: All data are from Edelman Financial Engines April 2022 survey. The dependent variable *Professional Management* is a dummy variable that equals 1 if the respondent answers "Professional Management" to the question "Are you currently using or enrolled in any of the following Edelman Financial Engines services: 1 Online Advice, 2 Professional Management, 98 Don't know, 4 None the above," 0 otherwise. The dependent variable *Any EFE users* is a dummy variable that equals 1 if the respondent answers "Online Advice," "Professional Management," or "Personal Advisor" to both of the following questions (0 otherwise): "Are you currently using or enrolled in any of the following Edelman Financial Engines services?" and "Have you previously engaged with Edelman Financial Engines educational resources?".

Also, job satisfaction plays a critical role. Table 6 shows that the employees who engaged the most in the six-week challenge are mainly those who reported being satisfied with benefits, compensation, and job security. This means that if employers want to engage less satisfied employees, they should consider a different incentive system and outreach campaign.

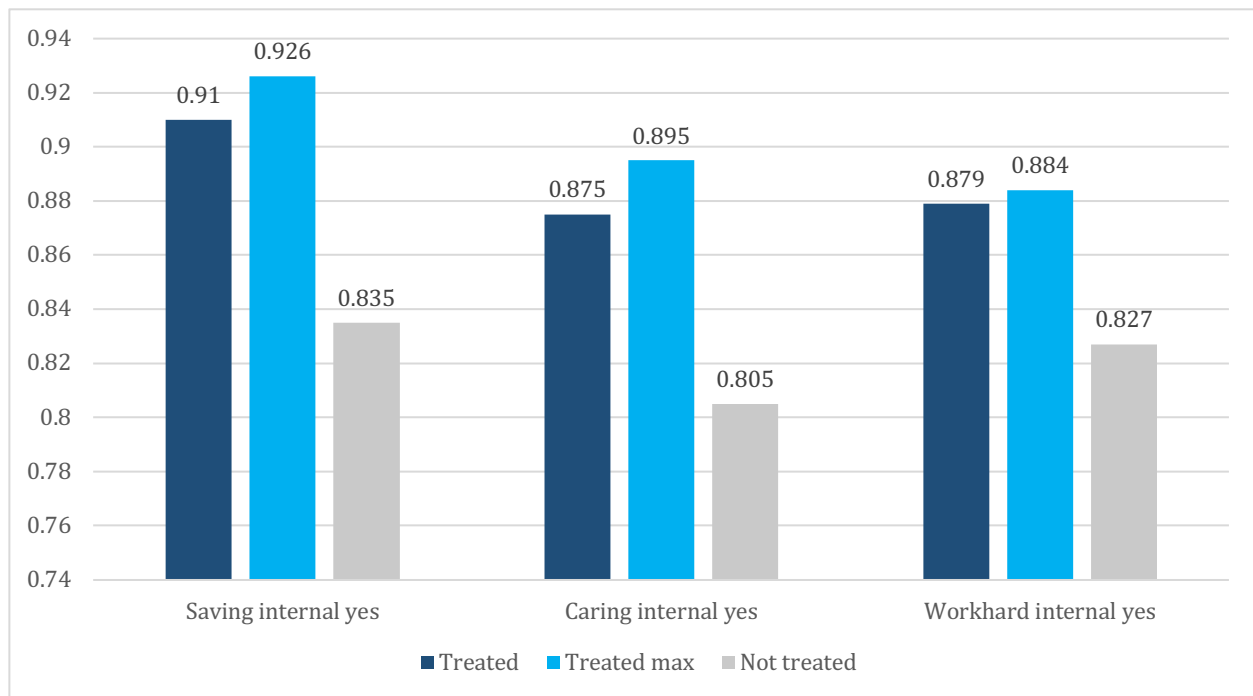
Table 6: Average employees' job satisfaction across treatment levels

VARIABLES	Pre-survey	Both (Pre)	Treated (Pre)	Treated max (Pre)	Not treated (Pre)
Job security	.441	.46	.467	.484	.428
Benefits	.361	.41	.421	.474	.368
Compensation	.592	.623	.628	.674	.601
Job satisfaction	.542	.569	.578	.589	.533
Observations	2792	668	535	95	133

Note: All data are from the Edelman Financial Engines April 2022 survey. *Job security* is a dummy variable that equals 1 if the respondent answers “Very True” to the following statement “My job security is good,” 0 otherwise. *Benefits* is a dummy variable that equals 1 if the respondent answers “Very True” to the following statement “My fringe benefits are good,” 0 otherwise. *Compensation* is a dummy variable that equals 1 if the respondent answers 3, 4, or 5 on a scale of 1 to 5, where 1 = “much lower annual wages,” 5 = “much higher annual wages,” and 3 = “wages were the same” to the following question: “Do you believe your annual wages in the calendar year 2021 were higher or lower than those of employees with similar experience and job descriptions in other companies in your region?”, 0 otherwise. *Job satisfaction* is a dummy variable that equals 1 if the respondent answers “Very True” to the statements “My job security is good” or “My fringe benefits are good”; or answers 5 on a scale of 1 to 5, where 1 = “much lower annual wages,” 5 = “much higher annual wages,” and 3 = “wages were the same” to the following question: “Do you believe your annual wages in the calendar year 2021 were higher or lower than those of employees with similar experience and job descriptions in other companies in your region?”, 0 otherwise.

Finally, the post-survey includes questions about the employees’ locus of control. Locus of control is the belief that events and personal changes happen either by chance (external locus of control) or due to our efforts (internal locus of control). An internal locus of control affects decision-making related to positive financial behaviors and precautionary savings mitigating risks (see Bucciol and Trucchi, 2021¹⁶). Figure 5 highlights that those who have an internal locus of control in money matters are very likely to engage in the six-week challenge. This means that messaging should be directed at employees with an external locus of control in order to make the point that putting more effort into their financial wealth management will improve their financial well-being.

Figure 5: Average employees’ locus of control across treatment levels



¹⁶ Bucciol, A., Trucchi, S. (2021) “Locus of control and saving: The role of saving motives”, Journal of Economic Psychology, Volume 86, 2021, 102413, ISSN 0167-4870, <https://doi.org/10.1016/j.joep.2021.102413>.

Note: All data are from Edelman Financial Engines April 2022 survey. The variable *Saving internal yes* is a dummy variable equal to 1 if the respondent answers 5, 6, or 7 to the question “For the following statements, please indicate the extent to which you agree or disagree, where 1 means “totally disagree” and 7 means “totally agree.” Saving and careful investing is a key factor in becoming rich,” 0 otherwise. The variable *Caring internal yes* is a dummy variable equal to 1 if the respondent answers 5, 6, or 7 to the question “For the following statements, please indicate the extent to which you agree or disagree, where 1 means “totally disagree” and 7 means “totally agree.” In the long run, people who take very good care of their finances stay wealthy,” 0 otherwise. The variable *Workhard internal yes* is a dummy variable equal to 1 if the respondent answers 5, 6, or 7 to the question “For the following statements, please indicate the extent to which you agree or disagree, where 1 means “totally disagree” and 7 means “totally agree.” When I get what I want, it’s usually because I worked hard for it,” 0 otherwise.

Before discussing the impact of the six-week challenge in the next section, we want to conclude this section by looking at the average distribution of employees' looking-forward behaviors. Considering that behavioral changes take time to be implemented, in the follow-up survey we included some questions concerning looking-forward behaviors. The “looking-forward” questions investigate how likely a participant is to change a financial habit of theirs in the future. In other words, these “looking-forward” questions investigate hypothetical changes in behaviors, which may identify a new perspective on managing their finances in the future. Table 7 sheds light on an interesting result. Employees who were more exposed to the treatment declared to be very likely to plan for future expenses (78%), track expenses regularly (76%), reconsider their expenses in terms of wants and needs (78%), look for information before making important financial decisions (78%), pay their bills on time (94%), and to try to figure out how much they should save for retirement (79%) and plan accordingly (83%).

Table 7: Average employees' hypothetical behaviors across treatment levels

VARIABLES	Post-survey	Both (Post)	Treated (Post)	Treated max (Post)	Not treated (Post)
Plan to save	.685	.705	.723	.779	.631
Tracking expenses	.682	.695	.708	.758	.639
Considering wants and needs	.697	.702	.721	.779	.624
Comparing info and offers	.71	.719	.755	.779	.571
Building emergency fund	.752	.765	.764	.779	.766
Pay bills on time	.898	.909	.92	.937	.864
Plan for retirement	.219	.689	.708	.789	.609
Save for retirement	.78	.793	.811	.832	.721
Observations	1023	668	535	95	133

Note: All data are from the Edelman Financial Engines April 2022 and June 2022 surveys. *Plan to save* is a dummy variable that equals 1 if respondents answer “Very likely” to the question “Going forward, how likely are you to pursue the following financial habits? Making a plan to save for major future expenses.” 1 Not at all likely, 2 Somewhat likely,

3 Very likely, 98 Don't know. *Tracking expenses* is a dummy variable that equals 1 if respondents answer "Very likely" to the question "Going forward, how likely are you to pursue the following financial habits? Tracking my income and expenses on a regular basis." 1 Not at all likely, 2 Somewhat likely, 3 Very likely, 98 Don't know. *Considering wants and needs* is a dummy variable that equals 1 if respondents answer "Very likely" to the question "Going forward, how likely are you to pursue the following financial habits? Considering my expenses in terms of wants and needs before spending money." 1 Not at all likely, 2 Somewhat likely, 3 Very likely, 98 Don't know. *Comparing info and offers* is a dummy variable that equals 1 if respondents answer "Very likely" to the question "Going forward, how likely are you to pursue the following financial habits? Collecting information and comparing offers from different companies before applying for a credit card or loan." 1 Not at all likely, 2 Somewhat likely, 3 Very likely, 98 Don't know. *Building emergency fund* is a dummy variable that equals 1 if respondents answer "Very likely" to the question "Going forward, how likely are you to pursue the following financial habits? Regularly putting aside money for financial emergencies." 1 Not at all likely, 2 Somewhat likely, 3 Very likely, 98 Don't know. *Pay bills on time* is a dummy variable that equals 1 if respondents answer "Very likely" to the question "Going forward, how likely are you to pursue the following financial habits? Paying my expenses (including credit cards and loans) and bills on time." 1 Not at all likely, 2 Somewhat likely, 3 Very likely, 98 Don't know. *Plan for retirement* is a dummy variable that equals 1 if respondents answer "Very likely" to the question "Going forward, how likely are you to pursue the following financial habits? Trying to figure out how much I would need to save for retirement." 1 Not at all likely, 2 Somewhat likely, 3 Very likely, 98 Don't know. *Save for retirement* is a dummy variable that equals 1 if respondents answer "Very likely" to the question "Going forward, how likely are you to pursue the following financial habits? Trying to save enough that I can live comfortably throughout my retirement." 1 Not at all likely, 2 Somewhat likely, 3 Very likely, 98 Don't know.

In the next section, following the main objectives included in the first report, we will discuss the impact of the six-week challenge on financial knowledge, financial health, behavior, and confidence outcomes.

5. Results II: evaluation findings

This section sheds light on the results of the six-week challenge and reports on the estimates of a before-and-after design. In Tables 8, 9 and 10, we report the results of an investigation into how each demographic variable affects each financial outcome, while holding all other variables constant. Based on previous literature, several demographic characteristics play a key role in predicting better financial knowledge and, consequently, better financial behavior and well-being. Disentangling the effects of these predetermined characteristics is critical in identifying how the six-week challenge affects respondents.

5.1 Effects of being exposed to six-week challenge

In particular, Table 8 reports marginal effects computed after a Probit estimation (except for Column 3, which reports the estimation outputs of an OLS model) and shows that by being exposed to the financial wellness program, employees improve both their real knowledge and confidence

in their knowledge. The estimated coefficient of interest is shown in the first row in Table 8 labeled as *Post Period*. This coefficient shows whether there has been a change between the pre- and post-survey answers and whether this change is significantly different from zero. In particular, the marginal effects of correctly answering the Big Three after being exposed to the six-week challenge is equal to 2.5 p.p. (at a 5% statistical significance level). A slightly lower statistically significant effect has been identified on the perception of employees' financial knowledge. In fact, being exposed to the financial wellness program increases the probability that a respondent reports being very knowledgeable about financial topics by 4.2 p.p. Note, these results are not trivial. Before the intervention, a high percentage of employees answered all the Big Three questions correctly and said they were confident in their finances. As expected, due to the short period of time between the intervention and the post-survey data collection, no changes in the FinHealth cohorts occurred. Changes in behaviors take time, but the results about increasing confidence and knowledge should be part of an ultimate long-term goal. In fact, these results might positively affect financial behavior in the future. However, we have to be cautious, we cannot make any statements about causality since this is a biased sample in which employees who decide to participate may tend to learn easily. For this reason, we would need further data and evaluations to strengthen our results.

In line with mainstream literature and results included in the first report, a gender gap emerges. In the post-survey, females performed worse than their male counterparts in general (see Bucher-Koenen et al. 2017,¹⁷ Klapper and Lusardi 2020,¹⁸ OECD 2013¹⁹). In particular, females had more trouble correctly answering the Big Three questions and reported lower confidence in their financial knowledge compared to their male counterparts (Bucher-Koenen et al. 2021²⁰). In more detail, female employees are 3.2 p.p. less likely to answer the Big Three correctly compared to their

¹⁷ Bucher-Koenen, T., Lusardi, A., Alessie, R., J., M. and van Rooij, M. (2017). "How financially literate are women? An overview and new insights." *Journal of Consumer Affairs* 51(2): 255-283.

¹⁸ Klapper, L., and Lusardi, A. (2020). "Financial literacy and financial resilience: Evidence from around the world." *Financial Management* 49(3): 589-614.

¹⁹ OECD (2013). "Women and financial education: Evidence, policy responses and guidance."

<http://dx.doi.org/10.1787/9789264202733-en>

²⁰ Bucher-Koenen, T., Alessie, Rob J. M., and Lusardi, A., and van Rooij, M. (2021). "Fearless Woman: Financial Literacy and Stock Market Participation. ZEW - Centre for European Economic Research Discussion Paper No. 21-015, Available at SSRN: <https://ssrn.com/abstract=3798304> or <http://dx.doi.org/10.2139/ssrn.3798304>

male colleagues. Further analysis reveals that no differential treatment effects on knowledge emerge for females after being exposed to the six-week challenge. (Those estimates are available upon request.) This means that in our study, the treatment did not have any different effect on women compared to men. Going back to Table 8, we further show that females are also less likely to classify themselves as very knowledgeable about personal finances, compared to their male colleagues. Moreover, in line with previous results included in the first report, financial health is positively correlated with being middle-aged or older but negatively correlated with being Black (17.4 p.p.), where Black employees are 7 p.p. more likely to be in the Poor FinHealth cohort. Better education, higher financial knowledge, and higher annual income levels are positively correlated with better financial health and a lower probability of being included in the Poor and Fair FinHealth cohorts. In particular, employees who correctly answer the Big Three questions are more likely (19 p.p.) to be included in the Good FinHealth cohort. Also, family size matters. The larger the family, the higher the probability of being involved in costly money management practices, hence, being part of the Poor FinHealth cohort.

In conclusion, results from the multivariate analyses suggest that older, highly educated, higher-income, and financially literate employees are better able to engage in sound wealth management.

Table 8: Regressions investigating employees' financial knowledge and health

VARIABLES	(1) FinLit Big 3 correct	(2) FinLit Self- assessed	(3) FinHealth	(4) Poor FinHealth Cohort	(5) Fair FinHealth Cohort	(6) Good FinHealth Cohort
<i>Post period</i>	0.025** (0.011)	0.042* (0.022)	0.018 (0.035)	-0.007 (0.015)	-0.000 (0.026)	0.009 (0.026)
<i>Age (BL: Young 18-34 years)</i>						
Middle (35-54 years)	0.006 (0.018)	0.039 (0.030)	0.159*** (0.048)	-0.029 (0.020)	-0.111*** (0.035)	0.137*** (0.036)
Old (55+ years)	0.026 (0.020)	0.037 (0.034)	0.202*** (0.051)	-0.053** (0.024)	-0.118*** (0.039)	0.162*** (0.040)
<i>Gender (BL: Male)</i>						
Female	-0.032*** (0.012)	-0.085*** (0.024)	-0.052 (0.041)	0.036** (0.017)	-0.016 (0.030)	-0.016 (0.030)

Race/Ethnicity (BL: White)

Black	-0.040 (0.025)	0.055 (0.051)	-0.174* (0.096)	0.070** (0.028)	-0.051 (0.061)	-0.059 (0.062)
Hispanic	-0.017 (0.028)	0.017 (0.060)	-0.146 (0.102)	0.054 (0.033)	-0.048 (0.076)	-0.056 (0.074)
Asian	-0.018 (0.018)	-0.110*** (0.032)	0.002 (0.047)	-0.032 (0.025)	0.038 (0.038)	-0.018 (0.039)
Other	0.027 (0.032)	0.046 (0.070)	0.053 (0.097)	-0.107* (0.061)	0.135* (0.076)	-0.046 (0.082)

Highest degree obtained (BL: High school or less)

Some college	0.093** (0.045)	-0.103 (0.105)	0.203 (0.194)	-0.049 (0.069)	-0.104 (0.128)	0.185 (0.144)
Bachelor's degree	0.136*** (0.042)	-0.014 (0.099)	0.289 (0.180)	-0.071 (0.065)	-0.132 (0.119)	0.238* (0.135)
Post-graduate degree	0.165*** (0.043)	0.055 (0.099)	0.385** (0.180)	-0.091 (0.066)	-0.183 (0.119)	0.310** (0.134)

Household income (BL: Less than \$25K)

\$25-49K	0.003 (0.058)	0.152 (0.168)	0.169 (0.340)	-0.010 (0.101)	-0.271 (0.206)	0.258 (0.231)
\$50-74K	-0.035 (0.049)	0.103 (0.116)	0.292 (0.189)	-0.041 (0.070)	-0.153 (0.149)	0.259 (0.166)
\$75-99K	0.002 (0.043)	0.151 (0.105)	0.224 (0.166)	-0.029 (0.061)	-0.116 (0.136)	0.207 (0.154)
\$100K+	-0.025 (0.041)	0.214** (0.101)	0.374** (0.158)	-0.077 (0.059)	-0.135 (0.132)	0.289* (0.150)

Marital Status (BL: Married)

Single/Not married	0.002 (0.018)	-0.002 (0.034)	0.063 (0.052)	-0.008 (0.025)	-0.052 (0.040)	0.058 (0.041)
Divorced/Separated	0.004 (0.022)	-0.003 (0.043)	-0.046 (0.069)	0.005 (0.031)	0.049 (0.051)	-0.046 (0.051)
Widowed	-0.065 (0.050)	0.143 (0.168)	0.141 (0.150)		0.015 (0.141)	0.059 (0.146)

Children (BL: No kids)

Two kids or less	-0.013 (0.015)	-0.021 (0.030)	-0.092** (0.045)	0.058*** (0.022)	-0.027 (0.033)	-0.033 (0.034)
Three kids or more	0.002 (0.027)	-0.029 (0.045)	-0.227*** (0.073)	0.102*** (0.030)	0.013 (0.051)	-0.119** (0.051)

Financial literacy

Big 3 correct	0.256***	0.242***	0.277***	-0.070***	-0.095***	0.188***
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	(0.011)	(0.027)	(0.052)	(0.019)	(0.037)	(0.036)
Constant			1.476*** (0.242)			
Observations	1,336	1,336	1,336	1,324	1,336	1,336
R-squared			0.095			

Note: All data are from the Edelman Financial Engines April 2022 and June 2022 surveys. The sample is restricted to those who answered both the April and June 2022 surveys. The dependent variable *FinHealth* indicates a respondent's financial health based on a score from 1 to 3 derived from a respondent's answer to questions assessing their financial health. Symptoms of poor financial health are difficulty making ends meet (bill payments), being financially fragile, lacking emergency funds, being overindebted, and engaging in poor retirement planning. The *FinHealth* variable takes a value of 1, indicating poor financial health, if a respondent exhibits three, four, or five symptoms of poor financial health; a value of 2 if a respondent has one or two symptoms of poor financial health; and a value of 3 if a respondent has no symptoms of poor financial health. *Poor FinHealth cohort* is a dummy variable that equals 1 if the respondent has equal to 1, 0 otherwise. Employees included in this cohort received a red stoplight image at the end of the baseline survey as an indicator of their performance. *Fair FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 2, 0 otherwise. Employees included in this cohort received a yellow stoplight image at the end of the baseline survey as an indicator of their performance. *Good FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 3, 0 otherwise. Employees included in this cohort received a green stoplight image at the end of the baseline survey as an indicator of their performance. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise. *Self-assessed FinLit* is a dummy variable equal to 1 if the respondent answers 5, 6, or 7 to the question. "On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?", 0 otherwise. BL stands for baseline and indicates the baseline value of categorical variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

5.2 Six-week challenge and financial anxiety

Effects on confidence and anxiety are important to study as they impact money management practices and financial decision making. Table 9 shows that being exposed to the six-week challenge increased the probability that employees feel anxious talking about personal finances (5 p.p.) and that employees feel worried about running out of money in retirement (5.5 p.p.). These results may sound counterintuitive, but there is a plausible explanation. Being exposed to financial topics may increase employees' awareness of their personal financial situation and the potential financial gaps they need to fill. For example, some employees could have thought themselves to be in good financial shape when it comes to retirement savings before reading what they should save to maintain their current living standard. In this sense, the additional knowledge has increased their anxiety. Even if the coefficients of hours spent dealing with financial issues and problems is not statistically significant, their positive sign shows that some employees spend more time

dealing with financial issues both in general and in the workplace. However, this may be the reason why some employees engaged with all of the resources linked to the six-week challenge. They felt the need to fill the gap in both knowledge and behavior.

Overall, previous evidence suggests that some demographic characteristics may affect the financial anxiety and confidence of respondents. Employees 35 years and older felt more anxious because they are getting closer to retirement age. In line with previous results at baseline included in the first report, female employees spend fewer hours dealing with financial issues and problems compared to male counterparts, but they are more likely to experience anxiety in thinking about their finances, both in their daily life as well as in their future (savings and retirement worries). In addition, previous results confirm the critical role of financial literacy in reducing financial fragility and any forms of financial anxiety. This is crucial to improving employees' financial well-being in the long-term.

Table 9: Regressions investigating employees' financial confidence and anxiety

VARIABLES	(1) Financial Fragility	(2) Hours with finance problem (general)	(3) Hours with finance problem (work)	(4) Anxiety (≥8 hours)	(5) Feeling anxious	(6) Retirement worries	(7) Savings worries
<i>Post period</i>	-0.008 (0.012)	0.402 (0.463)	0.381 (0.280)	-0.007 (0.014)	0.049* (0.026)	0.055** (0.026)	0.013 (0.020)
<i>Age (BL: Young 18–34 years)</i>							
Middle (35–54 years)	0.027 (0.017)	-0.902 (0.699)	-0.329 (0.406)	-0.016 (0.019)	-0.015 (0.036)	0.108*** (0.037)	0.033 (0.028)
Old (55+ years)	0.027 (0.019)	-0.516 (0.649)	-0.284 (0.429)	-0.023 (0.022)	-0.001 (0.039)	0.161*** (0.040)	0.049 (0.030)
<i>Gender (BL: Male)</i>							
Female	0.015 (0.014)	-1.102* (0.665)	-0.292 (0.419)	-0.026 (0.017)	0.098*** (0.029)	0.100*** (0.029)	0.052** (0.021)
<i>Race/Ethnicity (BL: White)</i>							
Black	0.024 (0.021)	-1.709** (0.859)	-1.212*** (0.413)	-0.028 (0.032)	-0.141** (0.058)	-0.050 (0.057)	0.002 (0.042)
Hispanic	0.032 (0.023)	4.333 (2.920)	2.068* (1.220)	0.094*** (0.030)	0.008 (0.074)	0.085 (0.074)	0.093** (0.046)
Asian	-0.028 (0.020)	0.057 (0.381)	0.343 (0.429)	0.006 (0.021)	-0.021 (0.038)	-0.072* (0.039)	-0.044 (0.032)
Other		-1.065 (0.997)	-1.169** (0.490)	0.008 (0.043)	-0.041 (0.077)	0.061 (0.075)	0.011 (0.053)
<i>Highest degree obtained (BL: High school or less)</i>							
Some college	0.360***	5.484**	0.261	0.064	-0.090	-0.081	-0.086

	(0.048)	(2.585)	(3.055)	(0.078)	(0.133)	(0.130)	(0.084)
Bachelor's degree	0.385***	0.407	-2.785	0.035	-0.136	-0.189	-0.129*
	(0.046)	(0.760)	(2.686)	(0.075)	(0.124)	(0.122)	(0.078)
Post-graduate degree	0.366***	0.258	-2.970	0.002	-0.146	-0.213*	-0.158**
	(0.046)	(0.717)	(2.680)	(0.075)	(0.125)	(0.122)	(0.079)
<i>Household income (BL: Less than \$25K)</i>							
\$25-49K	0.051	13.834	3.910	0.029	0.039	-0.375*	0.169
	(0.068)	(13.854)	(3.464)	(0.098)	(0.202)	(0.218)	(0.138)
\$50-74K	-0.055	1.842	0.944	-0.077	0.172	-0.064	-0.046
	(0.054)	(1.635)	(0.968)	(0.100)	(0.146)	(0.154)	(0.098)
\$75-99K	-0.003	4.236**	3.138**	0.045	0.091	-0.038	-0.031
	(0.044)	(2.099)	(1.322)	(0.085)	(0.132)	(0.142)	(0.087)
\$100K+	-0.071	2.993*	1.762*	0.038	0.007	-0.124	-0.045
	(0.044)	(1.626)	(0.980)	(0.084)	(0.129)	(0.137)	(0.085)
<i>Marital Status (BL: Married)</i>							
Single/Not married	-0.041*	1.170*	0.139	0.011	0.011	0.045	0.058*
	(0.021)	(0.680)	(0.417)	(0.023)	(0.041)	(0.041)	(0.031)
Divorced/ Separated	-0.057*	-0.136	-0.206	-0.013	0.040	-0.057	0.032
	(0.033)	(0.791)	(0.387)	(0.030)	(0.050)	(0.052)	(0.035)
Widowed		-0.041	0.198		-0.412**	-0.288*	0.025
		(0.695)	(0.389)		(0.199)	(0.153)	(0.098)
<i>Children (BL: No kids)</i>							
Two kids or less	-0.006	0.605	-0.086	0.018	0.028	0.005	0.021
	(0.016)	(0.439)	(0.245)	(0.019)	(0.034)	(0.034)	(0.026)
Three kids or more	0.014	1.762**	0.587	0.037	0.122**	0.006	0.038
	(0.022)	(0.829)	(0.387)	(0.027)	(0.050)	(0.051)	(0.039)
<i>Financial literacy</i>							
Big 3 correct	-0.038**	-2.933***	-1.370**	-0.063***	-0.134***	-0.063*	-0.054**
	(0.016)	(0.940)	(0.537)	(0.018)	(0.036)	(0.037)	(0.026)
Constant		1.766	3.260				

		(1.949)	(2.913)				
Observations	1,280	1,335	1,236	1,324	1,335	1,317	1,327
R-squared		0.094	0.081				

Note: All data are from the Edelman Financial Engines April 2022 and June 2022 surveys. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise. BL stands for baseline and indicates the baseline value of categorical variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

5.3 Did the six-week challenge affect financial behaviors?

Finally, effects on behaviors are critically important for validating financial wellness programs. Table 10 shows the huge impact the six-week challenge had on retirement planning. After being exposed to financial resources, the marginal effect on employees who took both surveys is equal to 5 p.p., which means they are significantly more likely to plan for retirement. Out of all the financial outcomes in Table 10, retirement planning is the only one where we can see an immediate effect in the short term. To plan for retirement, an individual does not need additional resources. All other behaviors in Table 10 need resources. Our results suggest that the program is effective, but employees do not have enough time to change their financial situation just a few weeks after the six-week challenge. To see an impact on measures that involve more saving and time requires a longer time-horizon.

Multivariate regression analyses shed light on how much predetermined characteristics impact behavioral outcomes. They are important for developing targeted programs. Based on these findings, we have more insights into the drivers of financial behavior, which can then inform the development of more effective financial wellness programs. Considering this subsample, female employees are less likely to put aside money for emergencies. Also, results show that higher personal finance knowledge is essential to being more financially savvy. The marginal effects for employees who correctly answer the Big Three questions are equal to 11 p.p. when it comes to putting aside money for emergencies, 6 p.p. in making ends meet, and huge—equal to 19 p.p. —in retirement planning, compared to employees lacking financial literacy.

Table 10: Regressions investigating employees' positive financial behavior

VARIABLES	(1) Emergency Fund	(2) Not too much debt	(3) Make ends meet	(4) Retirement planning
<i>Post period</i>	0.015 (0.023)	-0.031 (0.022)	-0.004 (0.017)	0.048** (0.021)
<i>Age (BL: Young 18–34 years)</i>				
Middle (35–54 years)	0.098*** (0.030)	0.037 (0.030)	0.024 (0.022)	0.101*** (0.027)
Old (55+ years)	0.091*** (0.034)	0.063* (0.033)	0.014 (0.025)	0.175*** (0.032)

<i>Gender (BL: Male)</i>				
Female	-0.060** (0.025)	-0.009 (0.025)	-0.019 (0.019)	-0.019 (0.023)
<i>Race/Ethnicity (BL: White)</i>				
Black	-0.102** (0.050)	-0.102** (0.045)	-0.065* (0.034)	0.005 (0.049)
Hispanic	-0.088 (0.058)	-0.062 (0.057)	-0.066* (0.038)	-0.030 (0.057)
Asian	0.061* (0.036)	0.070** (0.035)	-0.007 (0.025)	-0.099*** (0.030)
Other	0.007 (0.067)	-0.100* (0.060)	0.173* (0.095)	0.107 (0.066)
<i>Highest degree obtained (BL: High school or less)</i>				
Some college	0.069 (0.120)	-0.058 (0.109)	0.026 (0.076)	0.035 (0.100)
Bachelor's degree	0.150 (0.114)	0.013 (0.103)	0.060 (0.072)	0.104 (0.094)
Post-graduate degree	0.178 (0.114)	0.060 (0.103)	0.059 (0.072)	0.149 (0.094)
<i>Household income (BL: Less than \$25K)</i>				
\$25-49K	-0.105 (0.177)	0.195 (0.162)	-0.107 (0.112)	-0.048 (0.156)
\$50-74K	-0.164 (0.122)	0.134 (0.117)	-0.016 (0.083)	0.010 (0.121)
\$75-99K	-0.091 (0.113)	0.102 (0.105)	-0.019 (0.072)	-0.034 (0.109)
\$100K+	-0.044 (0.109)	0.147 (0.102)	0.023 (0.070)	0.001 (0.107)
<i>Marital Status (BL: Married)</i>				
Single/Not married	0.023 (0.035)	0.029 (0.034)	0.051* (0.028)	-0.022 (0.032)
Divorced/Separated	-0.036 (0.044)	-0.029 (0.042)	0.017 (0.035)	-0.052 (0.041)
Widowed	0.164 (0.163)		0.053 (0.093)	0.023 (0.140)
<i>Children (BL: No kids)</i>				
Two kids or less	-0.085*** (0.029)	-0.040 (0.028)	-0.045* (0.023)	-0.044 (0.027)
Three kids or more	-0.200*** (0.042)	-0.058 (0.043)	-0.140*** (0.030)	-0.064 (0.043)
<i>Financial literacy</i>				
Big 3 correct	0.106*** (0.030)	0.036 (0.030)	0.063*** (0.022)	0.189*** (0.026)

Observations	1,314	1,319	1,331	1,306
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Note: All data are from the Edelman Financial Engines April 2022 and June 2022 surveys. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise. BL stands for baseline and indicates the baseline value of categorical variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The results in Table 10 are not trivial considering that most of the participants already have a high level of financial knowledge, income, and financial behaviors. All of the results in Table 10 are robust to different model specifications (see Appendix, Table A3, A4, A5). Further estimates are available upon request.

6. Conclusion and policy implications

The workplace is the perfect environment for financial wellness programs. The evidence shows these programs can increase both engagement and financial security. Employers may offer a financial wellness program to elevate employees' financial engagement and well-being.

Exposure to the financial wellness program examined in this report improves employees' financial knowledge (Big three correct) and escalates confidence in their knowledge and retirement planning behavior. In particular, being exposed to the six-week challenge increases the probability of getting the Big Three correct by 2.5 p.p. at a 5% statistically significant level. Moreover, the probability of being very knowledgeable about financial topics rises by 4.2 p.p. after exposure to the financial wellness program. Finally, positive and statistically significant marginal effects show that employees are 5 p.p. more likely to plan for retirement after being exposed to the treatment.

Further, we find that higher educational attainment, higher financial knowledge, and higher annual income levels are all positively correlated with better financial health. In particular, employees who correctly answer all of the Big Three questions are more likely (19 p.p.) to be included in the Good FinHealth cohort. Also, family size matters. The larger the family, the higher the probability of engaging in costly money management practices.

The post-survey offers several insights into forward-looking behaviors. Employees who engaged in the six-week challenge are more likely to adopt savvy financial habits in the future, such as saving for both emergencies and retirement, planning for future expenses, looking for information before making huge financial decisions, and asking for advice from a financial counselor. This result is not trivial considering that most of these employees already have a high level of financial knowledge, income, and financial behaviors.

Overall, our results suggest that the program is effective both in terms of knowledge and behavior. However, we do not see strong effects on all the behavioral outcomes because employees do not have enough time to change their financial situations just a few weeks after the six-week challenge. Uniquely, retirement planning increases after the intervention since it does not require additional resources in the short term. To see an impact on measures that involve more saving and time, the program needs a longer time-horizon.

Our results should interest to many different stakeholders. Policymakers are interested in understanding what financial education program works best in terms of efficacy. Employers and companies are interested in implementing financial wellness programs that will boost their employees' job satisfaction, engagement, productivity, and financial well-being. Researchers are interested in the most effective way to spread financial literacy and the financial well-being it can generate.

The post-survey reveals useful information for future financial wellness programs. Data shows that those who were not engaged with the program said that they did not have enough time to join the six-week challenge or were unaware of how to access its resources. This suggests that additional advertisement and information might be required to fully engage employees in the program. Reminders and recommendations about using lunch breaks or other regular time slots for the program may be the key to maximizing engagement and reaching all employees. A second insight is linked to the program's delivery method. The results of this report suggest that the favorite delivery method for learning about financial topics is reading material. Articles are a flexible type of delivery method that employees can put to good use during a break at work.

Appendix

Table A1: Sample distribution across FinHealth cohorts in pre-survey (restricted)

		(1) Poor FinHealth Cohort FH 0-2 (3- 5 symptoms)	(2) Fair FinHealth Cohort FH 3-4 (1- 2 symptoms)	(3) Good FinHealth Cohort FH 5 (0 symptoms)
	<i>Total sample</i>	10.03	38.02	51.95
<i>Age</i>				
	Young (18-34 years)	8.63	46.70	44.67
	Middle (35-54 years)	13.16	34.87	51.97
	Old (55+ years)	5.99	33.53	60.48
<i>Gender</i>				
	Male	6.77	39.95	53.27
	Female	16.59	34.53	48.88
<i>Household income</i>				
	\$25-49K	40.00	40.00	20.00
	\$50-74K	18.18	36.36	45.45
	\$75K-\$99K	20.48	42.17	37.35
	\$100K+	7.80	37.21	54.99
<i>Race/Ethnicity</i>				
	White, non-Hispanic	10.08	36.42	53.50
	Black, non-Hispanic	25.64	35.90	38.46
	Hispanic	18.18	50.00	31.82
	Asian, non-Hispanic	3.00	40.00	57.00
	Other, non-Hispanic	4.76	57.14	38.10
<i>Highest degree obtained</i>				
	High school or less	25.00	37.50	37.50
	Some college	22.92	35.42	41.67
	Bachelor's degree	10.64	42.20	47.16
	Post-graduate degree	7.27	34.85	57.88
<i>Marital Status</i>				
	Married	9.31	37.25	53.44
	Single/Not married	12.58	39.62	47.80
	Divorced/Single	9.62	40.38	50.00
	Widowed/Widower	0.00	33.33	66.67
<i>Children</i>				
	No kids	7.86	39.31	52.83
	Two kids or less	10.47	37.18	52.35
	Three kids or more	17.81	35.62	46.58
<i>Financial literacy</i>				
	Not financially literate	21.31	46.72	31.97
	Financially literate (Big 3 correct)	7.51	36.08	56.41
Observations		67	254	347

Note: All data are from the Edelman Financial Engines April and June 2022 surveys. The sample is reduced to include only those who responded to both the April and June surveys. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories High school or less, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three), which measure understanding of interest rate, inflation, and risk diversification, 0 otherwise.

Table A2: Regressions investigating employees' pre-survey financial health status restricted

VARIABLES	(1) FinHealth Index (1-3 scale)	(2) Poor FinHealth cohort (3-5 symptoms)	(3) Fair FinHealth cohort (1-2 symptoms)	(4) Good FinHealth cohort (0 symptoms)
<i>Age (BL: Young 18–34 years)</i>				
Middle (35-54 years)	0.099 (0.066)	0.018 (0.030)	-0.136*** (0.052)	0.118** (0.051)
Old (55+ years)	0.163** (0.071)	-0.012 (0.029)	-0.139** (0.057)	0.151*** (0.057)
<i>Gender (BL: Male)</i>				
Female	-0.058 (0.060)	0.065** (0.029)	-0.072* (0.042)	0.007 (0.043)
<i>Race/Ethnicity (BL: White)</i>				
Black	-0.198 (0.134)	0.089 (0.072)	0.020 (0.086)	-0.109 (0.087)
Hispanic	-0.180 (0.124)	0.037 (0.070)	0.106 (0.110)	-0.143 (0.094)
Asian	0.062 (0.066)	-0.046* (0.024)	0.029 (0.055)	0.016 (0.056)
Other	0.058 (0.145)	-0.111* (0.059)	0.164 (0.114)	-0.053 (0.116)
<i>Highest degree obtained (BL: High school or less)</i>				
Some college	0.178 (0.321)	-0.082 (0.171)	-0.014 (0.174)	0.096 (0.193)
Bachelor's degree	0.217 (0.301)	-0.126 (0.162)	0.036 (0.160)	0.091 (0.179)
Post-graduate degree	0.305 (0.301)	-0.145 (0.162)	-0.015 (0.161)	0.160 (0.179)
<i>Household income (BL: Less than \$25K)</i>				
\$25-49K	-0.060 (0.472)	0.107 (0.277)	-0.155 (0.306)	0.047 (0.285)
\$50-74K	0.147 (0.269)	0.035 (0.139)	-0.218 (0.214)	0.183 (0.199)
\$75-99K	0.036 (0.234)	0.067 (0.121)	-0.170 (0.198)	0.103 (0.180)
\$100K+	0.226 (0.222)	-0.034 (0.113)	-0.157 (0.192)	0.191 (0.174)
<i>Marital Status (BL: Married)</i>				
Single/Not married	0.020 (0.073)	0.009 (0.031)	-0.037 (0.058)	0.029 (0.058)
Divorced/Separated	-0.031 (0.100)	-0.015 (0.049)	0.060 (0.075)	-0.045 (0.073)

	Widowed	0.173 (0.234)	-0.104*** (0.031)	0.035 (0.201)	0.069 (0.215)
<i>Children (BL: No kids)</i>					
	Two kids or less	-0.118* (0.062)	0.060** (0.027)	-0.002 (0.048)	-0.058 (0.049)
	Three kids or more	-0.271** (0.105)	0.129** (0.052)	0.013 (0.072)	-0.142* (0.074)
<i>Financial literacy</i>					
	Big 3 correct	0.279*** (0.073)	-0.082** (0.038)	-0.116** (0.054)	0.197*** (0.052)
Constant		1.454*** (0.398)	0.368* (0.204)	0.810*** (0.268)	-0.178 (0.272)
<hr/>					
Observations		668	668	668	668
R-squared		0.101	0.101	0.037	0.071

Note: All data are from the Edelman Financial Engines April 2022 and June 2022 surveys. The sample is restricted to those who answered both the April and June 2022 surveys. The dependent variable *FinHealth* indicates a respondent's financial health based on a score from 1 to 3 derived from a respondent's answer to questions assessing their financial health. Symptoms of poor financial health are difficulty making ends meet (bill payments), being financially fragile, lacking emergency funds, being overindebted, and engaging in poor retirement planning. The *FinHealth* variable takes a value of 1, indicating poor financial health, if a respondent exhibits three, four, or five symptoms of poor financial health, a value of 2 if a respondent has one or two symptoms of poor financial health, and a value of 3 if a respondent has no symptoms of poor financial health. *Poor FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 1, 0 otherwise. Employees included in this cohort received a red stoplight image at the end of the baseline survey as an indicator of their performance. *Fair FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 2, 0 otherwise. Employees included in this cohort received a yellow stoplight image at the end of the baseline survey as an indicator of their performance. *Good FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 3, 0 otherwise. Employees included in this cohort received a green stoplight image at the end of the baseline survey as an indicator of their performance. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise. BL stands for baseline and indicates the baseline value of categorical variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A3: Regressions investigating employees' financial knowledge and health (LPM)

VARIABLES	(1) FinLit Big 3 Correct	(2) FinLit Self Assessed	(3) FinHealth Index	(4) Poor FinHealth Cohort	(5) Fair FinHealth Cohort	(6) Good FinHealth Cohort
<i>Post period</i>	0.043*** (0.012)	0.043* (0.023)	0.018 (0.035)	-0.009 (0.016)	-0.000 (0.026)	0.009 (0.027)
<i>Age (BL: Young 18–34 years)</i>						
Middle (35-54 years)	-0.002 (0.020)	0.044 (0.031)	0.159*** (0.048)	-0.023 (0.022)	-0.112*** (0.036)	0.136*** (0.036)
Old (55+ years)	0.012 (0.019)	0.039 (0.033)	0.202*** (0.051)	-0.042* (0.022)	-0.119*** (0.040)	0.161*** (0.040)
<i>Gender (BL: Male)</i>						
Female	-0.036** (0.015)	-0.091*** (0.027)	-0.052 (0.041)	0.034* (0.020)	-0.016 (0.030)	-0.018 (0.030)
<i>Race/Ethnicity (BL: White)</i>						
Black	-0.054 (0.038)	0.058 (0.053)	-0.174* (0.096)	0.113** (0.049)	-0.052 (0.060)	-0.061 (0.063)
Hispanic	-0.017 (0.042)	0.018 (0.062)	-0.146 (0.102)	0.097* (0.056)	-0.048 (0.076)	-0.049 (0.071)
Asian	-0.016 (0.017)	-0.114*** (0.035)	0.002 (0.047)	-0.020 (0.018)	0.039 (0.039)	-0.019 (0.039)
Other	0.034 (0.049)	0.050 (0.074)	0.053 (0.097)	-0.096** (0.039)	0.139* (0.079)	-0.043 (0.079)
<i>Highest degree obtained (BL: High school or less)</i>						
Some college	0.165* (0.088)	-0.126 (0.126)	0.203 (0.194)	-0.050 (0.112)	-0.104 (0.130)	0.154 (0.122)
Bachelor's degree	0.236*** (0.084)	-0.021 (0.118)	0.289 (0.180)	-0.079 (0.106)	-0.131 (0.120)	0.210* (0.110)
Post-graduate degree	0.262*** (0.084)	0.046 (0.118)	0.385** (0.180)	-0.101 (0.106)	-0.182 (0.120)	0.284** (0.111)
<i>Household income (BL: Less than \$25K)</i>						
\$25-49K	0.010 (0.121)	0.159 (0.201)	0.169 (0.340)	0.053 (0.195)	-0.275 (0.205)	0.222 (0.202)
\$50-74K	-0.048 (0.097)	0.112 (0.130)	0.292 (0.189)	-0.066 (0.111)	-0.159 (0.157)	0.226* (0.134)
\$75-99K	-0.010 (0.085)	0.173 (0.113)	0.224 (0.166)	-0.051 (0.100)	-0.123 (0.144)	0.174 (0.119)
\$100K+	-0.030 (0.082)	0.244** (0.109)	0.374** (0.158)	-0.116 (0.096)	-0.142 (0.140)	0.258** (0.114)

Marital Status (BL: Married)

Single/Not married	0.007 (0.021)	-0.002 (0.036)	0.063 (0.052)	-0.006 (0.024)	-0.051 (0.041)	0.057 (0.041)
Divorced/Separated	0.008 (0.021)	-0.008 (0.041)	-0.046 (0.069)	-0.001 (0.032)	0.048 (0.052)	-0.047 (0.052)
Widowed	-0.063 (0.076)	0.104 (0.093)	0.141 (0.150)	-0.078*** (0.019)	0.015 (0.139)	0.063 (0.143)

Children (BL: No kids)

Two kids or less	-0.010 (0.015)	-0.024 (0.030)	-0.092** (0.045)	0.060*** (0.020)	-0.027 (0.034)	-0.033 (0.034)
Three kids or more	-0.003 (0.019)	-0.037 (0.042)	-0.227*** (0.073)	0.107*** (0.036)	0.012 (0.051)	-0.119** (0.052)

Financial literacy

Big 3 correct	0.709*** (0.030)	0.298*** (0.037)	0.277*** (0.052)	-0.089*** (0.028)	-0.098** (0.039)	0.187*** (0.037)
Constant	0.043 (0.118)	0.255 (0.163)	1.476*** (0.242)	0.336** (0.146)	0.852*** (0.186)	-0.188 (0.159)

Observations	1,336	1,336	1,336	1,336	1,336	1,336
R-squared	0.624	0.141	0.095	0.080	0.030	0.069

Note: All data are from the Edelman Financial Engines April 2022 survey. The sample is restricted to those who answered both the April and June 2022 surveys. The dependent variable *FinHealth* indicates a respondent's financial health based on a score from 1 to 3 derived from a respondent's answer to questions assessing their financial health. Symptoms of poor financial health are difficulty making ends meet (bill payments), being financially fragile, lacking emergency funds, being overindebted, and engaging in poor retirement planning. The *FinHealth* variable takes a value of 1, indicating poor financial health, if a respondent exhibits three, four, or five symptoms of poor financial health; a value of 2 if a respondent has one or two symptoms of poor financial health; and a value of 3 if a respondent has no symptoms of poor financial health. *Poor FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 1, 0 otherwise. Employees included in this cohort received a red stoplight image at the end of the baseline survey as an indicator of their performance. *Fair FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 2, 0 otherwise. Employees included in this cohort received a yellow stoplight image at the end of the baseline survey as an indicator of their performance. *Good FinHealth cohort* is a dummy variable that equals 1 if the respondent has *FinHealth* equal to 3, 0 otherwise. Employees included in this cohort received a green stoplight image at the end of the baseline survey as an indicator of their performance. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise. BL stands for baseline and indicates the baseline value of categorical variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A4: Regressions investigating employees' positive financial behavior (LPM)

VARIABLES	(1) Emergency fund	(2) Not too much debt	(3) Make ends meet	(4) Retirement planning
<i>Post period</i>	0.015 (0.023)	-0.030 (0.022)	-0.003 (0.017)	0.048** (0.021)
<i>Age (BL: Young 18–34 years)</i>				
Middle (35–54 years)	0.095*** (0.031)	0.037 (0.031)	0.021 (0.022)	0.111*** (0.030)
Old (55+ years)	0.089*** (0.034)	0.062* (0.032)	0.013 (0.025)	0.165*** (0.031)
<i>Gender (BL: Male)</i>				
Female	-0.059** (0.027)	-0.008 (0.026)	-0.020 (0.020)	-0.019 (0.025)
<i>Race/Ethnicity (BL: White)</i>				
Black	-0.120* (0.064)	-0.117** (0.056)	-0.081 (0.049)	0.012 (0.054)
Hispanic	-0.104 (0.069)	-0.076 (0.069)	-0.094* (0.056)	-0.034 (0.070)
Asian	0.052* (0.030)	0.060** (0.028)	-0.006 (0.024)	-0.105*** (0.034)
Other	-0.002 (0.073)	-0.122 (0.080)	0.115*** (0.033)	0.108* (0.063)
<i>Highest degree obtained (BL: High school or less)</i>				
Some college	0.095 (0.156)	-0.067 (0.122)	0.030 (0.111)	0.032 (0.127)
Bachelor's degree	0.187 (0.148)	0.014 (0.112)	0.065 (0.105)	0.106 (0.119)
Post-graduate degree	0.215 (0.148)	0.062 (0.113)	0.068 (0.105)	0.148 (0.119)
<i>Household income (BL: Less than \$25K)</i>				
\$25–49K	-0.143 (0.204)	0.230 (0.205)	-0.208 (0.180)	-0.063 (0.200)
\$50–74K	-0.189 (0.124)	0.164 (0.155)	0.010 (0.093)	0.045 (0.131)
\$75–99K	-0.089 (0.108)	0.128 (0.145)	0.007 (0.082)	-0.015 (0.116)
\$100K+	-0.036 (0.102)	0.179 (0.141)	0.048 (0.078)	0.032 (0.111)
<i>Marital Status (BL: Married)</i>				
Single/Not married	0.024 (0.034)	0.029 (0.034)	0.037 (0.025)	-0.020 (0.034)
Divorced/Separated	-0.036 (0.047)	-0.030 (0.045)	0.018 (0.033)	-0.044 (0.040)

Widowed	0.150 (0.101)	0.185*** (0.024)	0.048 (0.077)	0.014 (0.087)
<i>Children (BL: No kids)</i>				
Two kids or less	-0.087*** (0.028)	-0.043 (0.028)	-0.050** (0.023)	-0.043* (0.026)
Three kids or more	-0.211*** (0.047)	-0.059 (0.044)	-0.172*** (0.042)	-0.062 (0.041)
<i>Financial literacy</i>				
Big 3 correct	0.118*** (0.036)	0.041 (0.033)	0.068** (0.026)	0.239*** (0.037)
Constant	0.519*** (0.181)	0.560*** (0.183)	0.755*** (0.132)	0.384** (0.170)
Observations	1,314	1,330	1,331	1,306
R-squared	0.078	0.042	0.058	0.114

Note: All data are from the Edelman Financial Engines April 2022 survey. The sample is restricted to those who answered both the April and June 2022 surveys. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise. BL stands for baseline and indicates the baseline value of categorical variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A5: Regressions investigating employees' financial confidence and anxiety (LPM)

VARIABLES	(1) Financial Fragility	(2) Hours with finance problems	(3) Hours with finance problems at work	(4) Anxiety (≥ 8 hours)	(5) Feeling Anxious	(6) Saving worries	(7) Retirement worries
<i>Post period</i>	-0.009 (0.012)	0.402 (0.463)	0.381 (0.280)	-0.007 (0.015)	0.050* (0.026)	0.013 (0.020)	0.055** (0.026)
<i>Age (BL: Young 18–34 years)</i>							
Middle (35– 54 years)	0.025 (0.015)	-0.902 (0.699)	-0.329 (0.406)	-0.012 (0.020)	-0.016 (0.036)	0.034 (0.027)	0.108*** (0.037)
Old (55+ years)	0.025 (0.016)	-0.516 (0.649)	-0.284 (0.429)	-0.017 (0.021)	-0.001 (0.040)	0.053* (0.029)	0.161*** (0.040)
<i>Gender (BL: Male)</i>							
Female	0.012 (0.015)	-1.102* (0.665)	-0.292 (0.419)	-0.024 (0.016)	0.101*** (0.030)	0.056** (0.023)	0.101*** (0.030)

*Race/Ethnicity (BL:
White)*

Black	0.051 (0.037)	-1.709** (0.859)	-1.212*** (0.413)	-0.026 (0.029)	-0.140** (0.056)	0.007 (0.050)	-0.048 (0.058)
Hispanic	0.077 (0.048)	4.333 (2.920)	2.068* (1.220)	0.158** (0.063)	0.009 (0.078)	0.120* (0.064)	0.092 (0.078)
Asian	-0.018 (0.014)	0.057 (0.381)	0.343 (0.429)	0.005 (0.021)	-0.021 (0.038)	-0.035 (0.025)	-0.072* (0.037)
Other	-0.070*** (0.014)	-1.065 (0.997)	-1.169** (0.490)	-0.003 (0.052)	-0.037 (0.076)	0.020 (0.064)	0.063 (0.076)

*Highest degree obtained
(BL: High school or less)*

Some college	0.039 (0.029)	5.484** (2.585)	0.261 (3.055)	0.067 (0.071)	-0.091 (0.137)	-0.125 (0.134)	-0.087 (0.124)
Bachelor's degree	0.070*** (0.020)	0.407 (0.760)	-2.785 (2.686)	0.027 (0.062)	-0.141 (0.127)	-0.190 (0.127)	-0.199* (0.116)
Post-graduate degree	0.050*** (0.018)	0.258 (0.717)	-2.970 (2.680)	-0.007 (0.062)	-0.149 (0.127)	-0.218* (0.127)	-0.222* (0.116)

*Household income (BL:
Less than \$25K)*

\$25-49K	0.085 (0.180)	13.834 (13.854)	3.910 (3.464)	0.080 (0.127)	0.044 (0.208)	0.297 (0.196)	-0.388* (0.213)
\$50-74K	-0.140 (0.112)	1.842 (1.635)	0.944 (0.968)	-0.021 (0.086)	0.177 (0.151)	-0.060 (0.128)	-0.073 (0.157)
\$75-99K	-0.072 (0.110)	4.236** (2.099)	3.138** (1.322)	0.074 (0.087)	0.095 (0.137)	-0.043 (0.118)	-0.047 (0.144)
\$100K+	-0.151 (0.109)	2.993* (1.626)	1.762* (0.980)	0.058 (0.083)	0.008 (0.133)	-0.061 (0.115)	-0.134 (0.140)

*Marital Status (BL:
Married)*

Single/Not married	-0.031 (0.020)	1.170* (0.680)	0.139 (0.417)	0.013 (0.024)	0.011 (0.042)	0.063* (0.033)	0.047 (0.041)
Divorced/Separated	-0.047** (0.020)	-0.136 (0.791)	-0.206 (0.387)	-0.014 (0.026)	0.039 (0.051)	0.038 (0.039)	-0.058 (0.053)
Widowed	-0.056*** (0.013)	-0.041 (0.695)	0.198 (0.389)	-0.041** (0.016)	-0.312*** (0.090)	0.032 (0.105)	-0.240** (0.101)

Children (BL: No kids)

Two kids or less	0.002 (0.017)	0.605 (0.439)	-0.086 (0.245)	0.021 (0.019)	0.030 (0.034)	0.025 (0.026)	0.006 (0.034)
Three kids or more	0.024	1.762**	0.587	0.039	0.125**	0.042	0.004

	(0.027)	(0.829)	(0.387)	(0.027)	(0.052)	(0.040)	(0.051)
<i>Financial literacy</i>							
Big 3 correct	-0.043**	-2.933***	-1.370**	-0.074***	-0.140***	-0.063**	-0.066*
	(0.021)	(0.940)	(0.537)	(0.024)	(0.038)	(0.031)	(0.038)
Constant	0.159	1.766	3.260	0.072	0.547***	0.379**	0.621***
	(0.110)	(1.949)	(2.913)	(0.101)	(0.188)	(0.175)	(0.183)
Observations	1,334	1,335	1,236	1,336	1,335	1,327	1,317
R-squared	0.058	0.094	0.081	0.042	0.052	0.057	0.062

Note: All data are from the Edelman Financial Engines April 2022 survey. The sample is restricted to those who answered both the April and June 2022 surveys. The variable *household income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. The education variable *highest degree obtained* includes the categories *High school or less*, indicating that the respondent's highest degree received is a high school diploma; *some college*, indicating that respondents have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree); *bachelor's degree*, indicating that respondents have earned a four-year degree; *post-graduate degree*, indicating that respondents have a degree beyond a bachelor's degree. *Big 3 correct* is a dummy variable equal to 1 if the respondent correctly answers the three basic financial literacy questions (Big Three) that assess understanding of interest rate, inflation, and risk diversification, 0 otherwise. BL stands for baseline and indicates the baseline value of categorical variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1



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