

Ten years of behavioral innovation

A retrospective analysis of retirement outcomes

Research by Voya's Behavioral Finance Institute for Innovation

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Voya's Behavioral Finance Institute for Innovation launched in 2016 with a goal of using behavioral science, research rigor, and digital interventions to improve financial wellness outcomes at scale. The Institute's premise was simple: inform the design of retirement plans based on how people make decisions, rather than on how we assume they should. A decade later, participants in behaviorally designed plans and experiences have experienced more than twice the improvement in savings rates compared to those in traditional plans, demonstrating that thoughtful design can meaningfully improve long-term financial wellness outcomes.

Over the past decade, the Institute has helped advance industry thinking by demonstrating the effectiveness of using smarter defaults[1], using automation to help participants translate good intentions into sustained saving behavior[2], simplifying choices to facilitate action[3], using personalization to promote action[4], and reframing complex financial concepts into simpler formats[5]. The Institute has also demonstrated the effectiveness of representations with consumers' current experiences and behavior[6,7], leveraging AI generated images to promote engagement[8], helping participants view retirement plans as a tool for both immediate financial security and future retirement goals[9], and using targeted messaging to move participants from a savings mindset to an income mindset[10].

The Institute's contributions have shaped the evolution of behaviorally informed (BeFi) plan design, and have demonstrated that participants are more likely to achieve stronger savings outcomes when behavioral principles are embedded directly into the plan experience rather than relying solely on participant initiative. The implication for plan sponsors is clear: effective retirement plans are not just investment vehicles; they are behavioral systems that can meaningfully improve participant outcomes through thoughtful design.

The impact of behavioral innovation: A retrospective analysis

The Institute conducted a retrospective analysis examining retirement outcomes among participants who were active during the nearly decade-long period since the Institute's inception. The sample included 310,931 total participants across 877 retirement plans who were active between 12/31/2017 and 06/30/2026. The analysis focused on plan design features that have been central to the Institute's research and innovation agenda, including automatic enrollment and automatic escalation. Consistent with foundational behavioral finance research, automatic enrollment helps participants overcome the initial inertia and status quo bias that often prevent them from starting to save[11], while automatic escalation helps address the ongoing inertia and present bias that can discourage participants from increasing contributions over time[12]. Together, these features make beneficial savings behaviors easier and more automatic, reducing the need for repeated participant decision-making. Outcomes were compared across plans offering automatic enrollment only, automatic escalation only, automatic enrollment combined with automatic escalation, and plans offering neither feature.

The analysis also examined differences between participants who engaged with Voya's digital experiences and those who did not. This distinction is important because Voya's enrollment and participant web experiences have served as key channels for delivering many of the behavioral interventions developed and tested by the Institute over the past decade. These interventions include smarter savings defaults, voluntary automatic escalation nudges, contribution-rate reframing, personalized projections, managed account and account consolidation nudges, personalized videos, and other behaviorally designed communications designed to help participants take positive retirement saving actions. Together, these plan design features and digital experiences provide a unique opportunity to evaluate the cumulative impact of a decade of behavioral innovation on participant outcomes.

Key takeway: Experience matters.
Behaviorally informed plan design was associated with higher savings rates; digital engagement amplified those gains and was associated with stronger long-term balance growth.

10 Years of Impact

2x

Greater savings-rate improvement

in BeFi vs. Non BeFi plans

4x

Greater savings-rate improvement

among less-engaged particpants in BeFi plans

234%

Growth in account balance

among digitally engaged particpants in BeFi plans from 2017 — 2026

Behaviorally informed plan design was associated with stronger long-term savings outcomes

Participants in behaviorally informed plans experienced more than twice the improvement in savings rates observed in traditional plans, demonstrating the long-term value of embedding behavioral science into plan design. The strongest savings gains were associated with automatic enrollment and automatic escalation, and importantly, behaviorally informed plan design meaningfully benefitted participants who did not actively engage digitally with their accounts. Additionally, digital engagement became increasingly common over the past 9 ½ years, rising from 57.5% of participants in 2017 to 76.1% by 2026, and was associated with stronger savings outcomes and higher account balances. Participants who combined digital engagement with behaviorally informed plan features achieved the strongest overall results, including average savings rates exceeding 11% of pay and average account balances exceeding $450,000 by 2026. Together, these findings suggest that retirement outcomes improve when thoughtful plan design and digital engagement work together to make beneficial financial behaviors easier and more sustainable.

Finding 1: BeFi plans delivered substantially greater savings rate growth over time

Participants in BeFi plans experienced more than 2x the increase in savings rates observed in non-BeFi plans, suggesting that behaviorally informed plan design may play an important role in improving long-term saving behavior.

Plan design impact

2x

Greater savings-rate improvement
in BeFi plans versus traditional plans

Change in savings rate

BeFi plans



Traditional plans



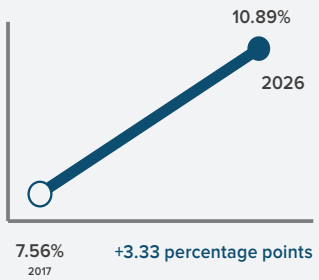
BeFi plan improvement was 2.03 times the traditional-plan improvement.

Decade-long growth

44%

Growth in participant savings rates
in BeFi plans over the decade

Average savings rate



A deeper look at the data:

Plan Type	2017 Savings Rate	2026 Savings Rate	Improvement (pp)
BeFi Plans	7.56%	10.89%	+3.33 pp
Non-BeFi Plans	7.91%	9.55%	+1.64pp



Finding 2: Behaviorally informed plan design benefited participants who were not digitally engaged

One of the most notable findings was that behaviorally informed plan design meaningfully benefited participants who were not actively engaged. Among non-digitally engaged participants, savings rates improved by just 0.99 percentage points in traditional plans, compared with 2.36 percentage points in BeFi plans with automatic enrollment and 4.09 percentage points in plans featuring both automatic enrollment and automatic escalation (**4x greater improvement among less-engaged participants**). These results suggest that thoughtfully designed defaults and automated savings features can improve retirement outcomes independent of participant engagement, demonstrating the power of plan design to help participants succeed even when retirement saving is not top of mind.

Impact without engagement

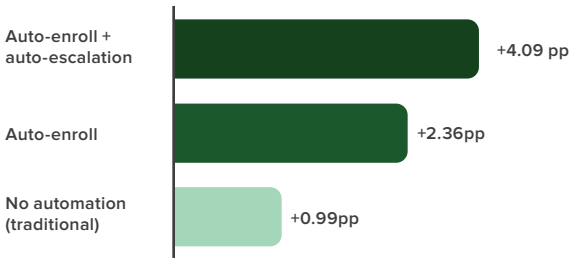
Good design works even when saving isn't top of mind

4x

Greater savings-rate improvement among participants who never engaged digitally

when plans paired automatic enrollment with automatic escalation

Savings-rate change 2017 → 2026, non-digitally engaged participants

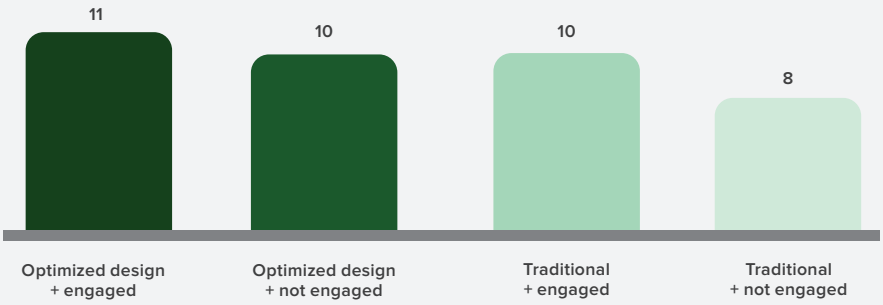


Across all participants: Plans with auto-enroll + auto-escalation rose 3.56 pp (7.08% → 10.64%) - more than double plans with neither feature.

Impact without engagement

Good design works even when saving isn't top of mind

2026 average savings rate by segment



Takeaway: For participants who never log in, plan design does the work engagement would otherwise do.

2026 average savings rates for participants active 12/31/17-6/30/26. Behaviorally optimized plans include automatic enrollment and/or automatic escalation. Digitally engaged = used Voya Enroll or participant web mobile.

Among participants who were *not* digitally engaged

Plan Design	2017 Savings Rate	2026 Savings Rate	Improvement (pp)
BeFi + Auto Enroll	8.20%	10.56%	+2.36 pp
BeFi + Auto Enroll + Auto Escalation	5.90%	9.99%	+4.09 pp
Non-BeFi / No Automation	7.00%	7.99%	+0.99 pp



Finding 3: Automatic enrollment and automatic escalation produced the strongest savings rate improvement
Plans offering both automatic enrollment and automatic escalation achieved the greatest improvement in savings over the 9 ½-year period with savings rates increasing by **3.56 percentage points**, more than double the improvement observed in plans with neither feature.

Plan Design	2017 Savings Rate	2026 Savings Rate	Improvement (pp)
BeFi + Auto Enroll	9.13%	11.73%	+2.60 pp
BeFi + Auto Enroll + Auto Escalation	7.08%	10.64%	+3.56 pp
Non-BeFi / No Automation	7.91%	9.55%	+1.64 pp

Finding 4: Digital engagement grew substantially over time

3 in 4

Participants digitally engaged by 2026
Up from 57.5% in 2017 to 76.1% in 2026; highest (77%+) in plans with auto-enroll + auto-escalation

Digital engagement involved the use of Voya Enroll or participant web/mobile. Balances: $135,301 → $452,450 (behaviorally optimized) vs. $147,644 → $444,186 (traditional). Market returns contribute to balance growth in both groups.

Digital engagement rose from 57.5% of participants in 2017 to 76.1% in 2026, reflecting an 18.6 percentage-point increase over the study period. Participants in plans featuring behaviorally informed automation consistently exhibited the highest engagement levels. By 2026, engagement rates exceeded 77% among participants in plans with automatic enrollment and automatic escalation, compared with 72.9% in plans without automation.

These findings suggest that behaviorally informed plan experiences and digital tools can work together to foster sustained participant engagement.

Year	Engaged	Not Engaged	Engagement Rate
2017	104,538	77,129	57.5%
2026	138,227	43,440	76.1%

More than 3 in 4 participants were digitally engaged by 2026.

Finding 5: Digital engagement was associated with amplified savings rates outcomes

Participants who engaged with Voya's digital experiences achieved the greatest savings rates when paired with behaviorally informed plan design. By 2026, digitally engaged participants in BeFi plans were saving more than **11% of pay on average** (1.15 percentage points above digitally engaged participants in non-BeFi plans).

> 11.18%
>
> **Average savings rate**
>
> Digitally engaged participants in behaviorally optimized plans — 1.15 pp above engaged peers in traditional plans (10.03%)

Digital engagement involved the use of Voya Enroll or participant web/mobile. Balances: $135,301 → $452,450 (behaviorally optimized) vs. $147,644 → $444,186 (traditional). Market returns contribute to balance growth in both groups.

Among digitally engaged participants:

Plan Type	2017 Savings Rate	2026 Savings Rate	Improvement (pp)
BeFi Plans	8.56%	11.18%	+2.62 pp
Non-BeFi Plans	8.74%	10.03%	+1.29 pp

Finding 6: Digital engagement was associated with higher ending balances.

Participants who engaged with Voya's behaviorally informed digital experiences started with more than double the balance of non-engaged participants, and over the 9 ½ year observation period experienced modestly faster balance growth than the non-engaged participants.

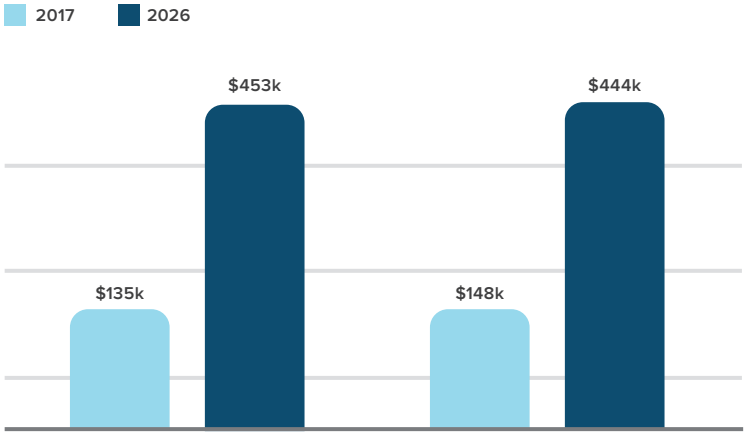
Among all participants:

Group	2017 Ending Balance	2026 Ending Balance	Growth (%)
Digitally Engaged	$139,323	$449,359	222.5%
Non-BeFi Plans	$65,062	$198,749	205.5%

Account Balance Growth — Digitally Engaged vs. Not Digitally Engaged

Among digitally engaged participants, those in behaviorally optimized retirement plans experienced stronger balance growth (+234% vs. +201%) over the 9½-year period, and ended with slightly higher average balances despite starting with lower balances.

Average balance, digitally engaged particpants



+**234%** balance growth vs. +**201%** — finishing ahead despite staring behind

Digital engagement involved the use of Voya Enroll or participant web/mobile. Balances: $135,301 → $452,450 (behaviorally optimized) vs. $147,644 → $444,186 (traditional). Market returns contribute to balance growth in both groups.

Finding 7: Digitally engaged participants in BeFi plans grew balances faster and finished ahead

Among digitally engaged participants, those in BeFi plans grew balances by 234% over the study period compared with 201% for participants in non-BeFi plans, ultimately ending with slightly higher average balances despite beginning the period with lower balances.

Among digitally engaged participants:

Plan Type	2017 Ending Balance	2026 Ending Balance	Growth (%)
BeFi Plans	$135,301	$452,450	234.4%
Non-BeFi Plans	$147,644	$444,186	200.8%

Lessons learned from a decade of behavioral innovation

A decade of research and innovation point to a consistent conclusion: when behavioral science is embedded into plan design and digital experiences, better decisions become easier decisions. The Institute's first decade has shown that thoughtful design can improve savings outcomes, engagement, and wealth accumulation, creating a stronger foundation for retirement readiness for millions of participants.

Key takeaways for benefits leaders and designers:

1. **Make automation the foundation of plan design.** Pair automatic enrollment with automatic escalation and carefully consider the defaults governing contribution rates, escalation amounts, and timing.

2. **Design for participants who may never actively engage.** Do not make retirement success dependent on participants repeatedly logging in, seeking education, or initiating changes. Build beneficial behavior directly into the plan so the default path supports progress.

3. **Use digital engagement to reinforce strong plan design.** Combine automation with accessible digital experiences that use salient defaults, behaviorally informed framing, personalization, projections, and timely prompts to help participants take their next beneficial action.

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