



The Value of Behaviorally-Informed Financial Advice Study

The first study of its kind measuring the impact of
behaviorally informed advice on investor outcomes

BEworks
RESEARCH INSTITUTE



The Value of Behaviorally-Informed Financial Advice



It is common to seek the opinion of an expert when faced with a difficult decision. We turn to doctors when we are unsure about how to treat an infection, to lawyers for legal matters, accountants for taxes, and consult with architects when looking to build a new home. BEworks' research confirms this phenomenon in a range of consumer scenarios. For instance, parents faced with purchasing a new car seat for their child report placing significantly [more trust in the recommendations of traffic safety authorities than members of their family and wider social circle](#)¹.

Beyond seeking advice, there is also the need to follow advice. In what is referred to as the 'say-do gap,' people often have intentions but do not follow through with them by changing their actual behavior. People may join a gym because they want to improve their health, but actually going to the gym is more important for their health than simply joining. Similar phenomena are found across a range of human decisions. In the context of investment decision-making, a classic [study](#)² shows that simply getting employees to attend a seminar that provides them with advice on how much to save for retirement and allocate their savings across a range of investment options succeeded in changing their intentions. They reported that they intended to save more and select a more optimal asset allocation. Unfortunately, their subsequent behavior was not significantly different from their fellow employees who did not attend the seminar and receive the advice. As a result of not following the advice, their financial well-being did not improve. This 'say-do gap'³ is a clear illustration of the importance of following advice as well as seeking it. Encouraging people to seek advice is important. Encouraging them to follow the advice provided is even more important.

With respect to seeking advice, evidence also tells us that our faith in experts is a delicate matter, constantly walking a tightrope between trust and skepticism. Other research by BEworks, conducted in partnership with an insurance industry association, has revealed that persuading clients to trust insurance advisors by emphasizing the superior expertise of the advisor can trigger reactance and defensive responses and ultimately backfire.

It is reasonable to assume that the skill and expertise of a professional financial advisor (FA) and the opportunity to save time and effort would make seeking and following professional financial advice appealing for many investors. The facts suggest otherwise. The 2021 [Canadian Retail Banking Advice Study](#)⁴ by JD Power reveals that only 19% of Canadians were very interested in receiving advice, while 26% said they were not at all interested. The fact that only 39% of respondents to the study classify as financially healthy makes the responses puzzling. Equally concerning is the fact that only 42% passed a basic financial literacy test. As well, those who already have advisors do not seem to see value in the advice. A [survey](#) [people currently using an FA](#)⁵ finds that a surprisingly large proportion plan to stop doing so. Among millennials, 34% plan to stop using an advisor, as do 31% of Gen Z and 21% of Gen X.

Investing without professional advice can be risky. With meme stocks and volatility, it is easy to let emotions dominate, and that is where the value of handholding and behavioral coaching by a professional financial advisor becomes most apparent. For example, Russell Investments puts the [value of behavioral coaching alone at 2.02% return annually](#)⁶. Behavioral coaching is but one aspect of the value of advice, with others including asset allocation, periodic rebalancing, financial planning, product selection, and tax-efficient investing. The 2.02% from behavioral coaching alone may not seem like much, but over 20 years, that would be enough to increase the value of a portfolio by almost 50%.

Russel illustrates its statement with reference to the COVID-19 market crash, in which the S&P 500 dropped 33.8% from a peak on February 19, 2020, to the trough on March 23, 2020. With \$335.6 billion pulled from US equity markets in March, many missed out on the 17.6% recovery in the first three days after March 23. They also missed out on the continuing recovery that created an overall gain of 18% by year-end. Evidently, many investors made normatively sub-optimal decisions and have now suffered a permanent reduction in their financial well-being.

The advice of a professional advisor can be immensely helpful when making complex and risky financial decisions that have enduring consequences for one's future. Fortunately or unfortunately, today we have access to more information at the touch of our fingers than could have been imagined a generation ago. While empowering, this can lead to a do-it-yourself (DIY) overconfidence, which, in the case of financial investments, can have serious and enduring negative consequences that only become evident many years into the future. Such problems arise because we continually underestimate how difficult it is to critically analyze, synthesize, and evaluate all available information to properly guide our decisions.

Ultimately, professional financial advice can easily get lost as just another piece of information for investors to consider, making it easy to overlook and undervalue. To help FAs cut through all the information noise and convey the value of their expertise, BEworks and Manulife Investment Management decided to draw upon Behavioral Economics (BE) insights. We crafted and tested distinctive styles of 'behaviorally-informed' advice to determine how they might affect investors' attitudes towards professionals' recommendations.

Exploring a behaviorally-informed approach to delivering financial advice has the potential to truly transform the investor-advisor relationship, as there are multiple cognitive and behavioral biases that likely prevent investors from appreciating the value of professional advice, adhering to recommendations, and achieving better financial and life outcomes.

The objective of this white paper is to provide a brief overview of these biases and outline the randomized, controlled experiment we conducted to evaluate tactics aimed at combating or leveraging these biases to help advisors help investors.

Our study revealed that behaviorally-informed financial advice that is aimed at key psychological and decision-making biases significantly outperforms conventional advice on various important measures. Specifically, advice designed and delivered using insights from BE had numerous advantages over conventional advice. Such advice:

1. Increases the likelihood that investors will seek advice in the future;
2. Increases the likelihood that investors will follow the advice;
3. Encourages investors to select more diversified portfolios;
4. Results in investors choosing portfolios with a higher Sharpe Ratio;
5. Increases the perceived benefits of financial advice; and
6. Increases trust in the advisor.

Financial decision-making is complex, risky, and consequential. Despite the benefits of advice, too many people take a DIY approach and either do not seek advice or ignore some, most, or all of it. The negative results for financial and life well-being are very real.

Finding proven techniques to encourage people to seek and follow advice is a critical challenge. This study, the first of its kind, reveals scientifically proven techniques to improve the likelihood of investors seeking and following advice, which can lead to enhanced financial well-being.



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Improving Financial Decision-Making



Making better financial decisions is a crucial determinant of financial well-being. Furthermore, people's financial well-being has been found to be a key predictor of their overall well-being, comparable in impact to the [combined effect of job satisfaction, relationship satisfaction, and physical health](#)⁷.

Unfortunately, a growing number of investors choose to make their own financial decisions instead of [seeking and following professional financial advice](#)⁸ from an FA. In 2020, the Canadian market securities regulator IIROC reported [2.3 million new DIY accounts were opened, up from 896,000 in 2019](#)⁹. IROC also noted that, in addition to new DIY accounts increasing almost 300% year over year, complaints are also up a similar amount.

The complaints are not unexpected since financial decision-making regarding investments is complicated, risky, and consequential, and [investors are prone to making mistakes](#)¹⁰. The effects of investment mistakes are substantial. Consider the COVID-19 market volatility and crash example illustrated above. Consider the current meme stock phenomenon as well. As just one example of many, pervasive speculation in GameStop, amplified through the online investment forum WallStreetBets, saw the stock surge from \$17.25 to \$483.00 in January 2021 and then back down to \$50 in just two weeks, leaving many investors with massive losses and life-changing consequences. To this day, the stock continues moving with high volatility and no underlying economic fundamentals to support the current valuation. With even a dated assessment, it is estimated that American consumers engaging in DIY investment earn \$30 to \$50 billion less from their savings each year than they might earn by [seeking and following professional financial advice](#)¹¹.

Given the importance of financial well-being to overall well-being, sound investment decision-making is critical. We feel it is important to understand the perception of financial advice and what affects decisions to seek and follow professional financial advice.

The research described in more detail below helps us quantify the magnitude of DIY investing and understand how people perceive financial advice. We recruited 2,991 North American male and female consumers aged 25-75 with at least \$50,000 in financial assets to take part in an online simulated investment decision-making exercise. We find that fewer people listen to advice, even if they have an advisor, than might be expected. Only 13.2% of our survey stated that they listen to all the advice, while 5.3% ignore their FA's advice completely and 16.0% do not have an advisor, meaning that there are more people who completely ignore the advice or do not have an advisor (21.3%) than the 13.2% people who have an advisor and follow all of the advice. Most importantly, this research explores perceptions and intentions regarding advice, then develops and tests hypotheses regarding how to encourage more consumers to see the value of professional investment advice and to seek and follow it.

How can we help consumers improve their financial decision-making?

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Getting people to make better financial decisions and trust advisors isn't about giving people a bigger buffet of information. It's about offering them a carefully crafted menu, rooted in a thorough understanding of what makes financial decision-making and trust so psychologically challenging in the first place.

The conventional approach to combating the dangers of inexperienced, DIY financial decision-making has been to provide education aimed at increasing investors' financial literacy. The assumption is that, with financial literacy, consumers might become better able to leverage information in order to make better financial decisions. However, research has repeatedly found that, while financial education programs do increase financial literacy, they do not beneficially impact financial behavior¹².

Making sound financial decisions requires more than just access to information. It requires the critical evaluation, analysis, and synthesis of complex information for the purposes of transforming it into actionable knowledge that yields the most optimal financial outcomes¹³.

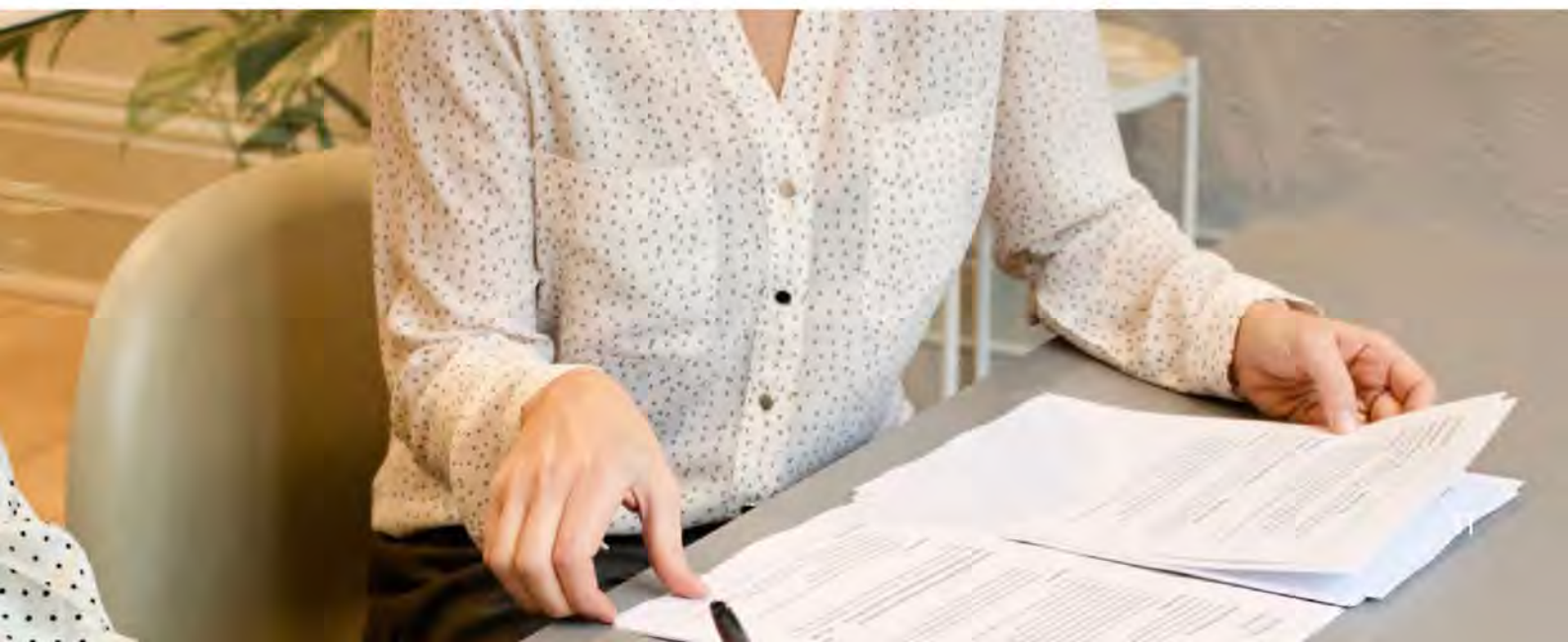
A FA provides those key services¹⁴. Advisors offer specialized knowledge¹⁵, better diversification and optimal risk¹³, improved investment performance¹⁰, and, of course, a reduced level of consumer effort required to manage one's portfolio¹⁶. Following professional financial advice also improves savings discipline and, crucially, reduces the likelihood of making poor decisions, such as anxiety-driven selling during times of market volatility¹⁷. As one industry executive quipped, "your robo-advisor won't hold your hand when the markets are going wild."

Professional financial advice is a solution to improving investors' financial decision-making. Indeed, Montmarquette and Viennot-Briot estimated that having an advisor is retrospectively correlated with incremental returns of 290% after 15 years compared to having no professional financial advice¹⁸, Note¹. However, despite its apparent value, there are still many people who would benefit from financial advice but fail to seek it out or follow it. Why do people not do what is in their best interest?

¹ The authors acknowledge that due to the design of their analysis there may be other variables that can lead to a change in the value of household financial assets, including propensity to save, inheritance, and sales of non-financial assets such as homes or businesses, and that it is difficult to eliminate simultaneous causality since increasing household financial assets may lead to seeking advice just as much as seeking advice leads to increases in household financial assets. Finally, the authors also acknowledge that the study does not tease apart having an advisor and actually following advice.

Given the large numbers who do not seek and follow advice, and the large numbers who currently do but intend to stop doing so, many apparently do not perceive the benefits. Unfortunately, there is far [too little research on financial decision-making¹⁹](#) in general, and insufficient [understanding of decisions regarding advice²⁰](#) in particular. Anecdotal evidence suggests that the principal-agent problem is likely operative. When principals (clients) hire an agent (FA), there is always a concern that the agent may have incentives to act in their own best interests first and their clients' second, if at all. Clients may ask if the advisor is giving them advice that benefits them or provides the most compensation for the advisor themselves. Since the benefits of advice may not be perceived, but the costs are, it is understandable that [fees and the desire to maintain control⁵](#) rather than hand everything to an agent, are the two most important reasons why consumers decline advice. In other words, if people see the costs but not the benefits, and if people fear that advisors act in their own interests first, the DIY decision is understandable.

There is likely a complex interplay of factors affecting the decision regarding advice. On the one hand, investors may be drawn to advice by: their personal relationship with an advisor, the benefits of easier and better decisions, their trust in the advisor, and their concern with investing wisely. On the other hand, investors may perceive the fees as excessive, be wary of opportunistic advisors taking advantage of them, and want to maintain control of their money. The result is [ambivalence, where investors have difficulty weighing the pros and cons and evaluating the decision to seek and follow advice in general²¹](#). Note that ambivalence is not indifference. With indifference, people do not care one way or the other. With ambivalence, they feel strongly conflicted and are unable to decide. Strengthening the perceptions of the positives while addressing the perceived negatives is necessary to resolve the ambivalence.



We know that advice has value whether it is perceived as such or not, and we also know that people decline advice to their detriment. What we need is a deeper understanding of the perceptions and intentions regarding advice if we are to help people make better investment decisions. We also need to go beyond the assumptions of traditional economics.

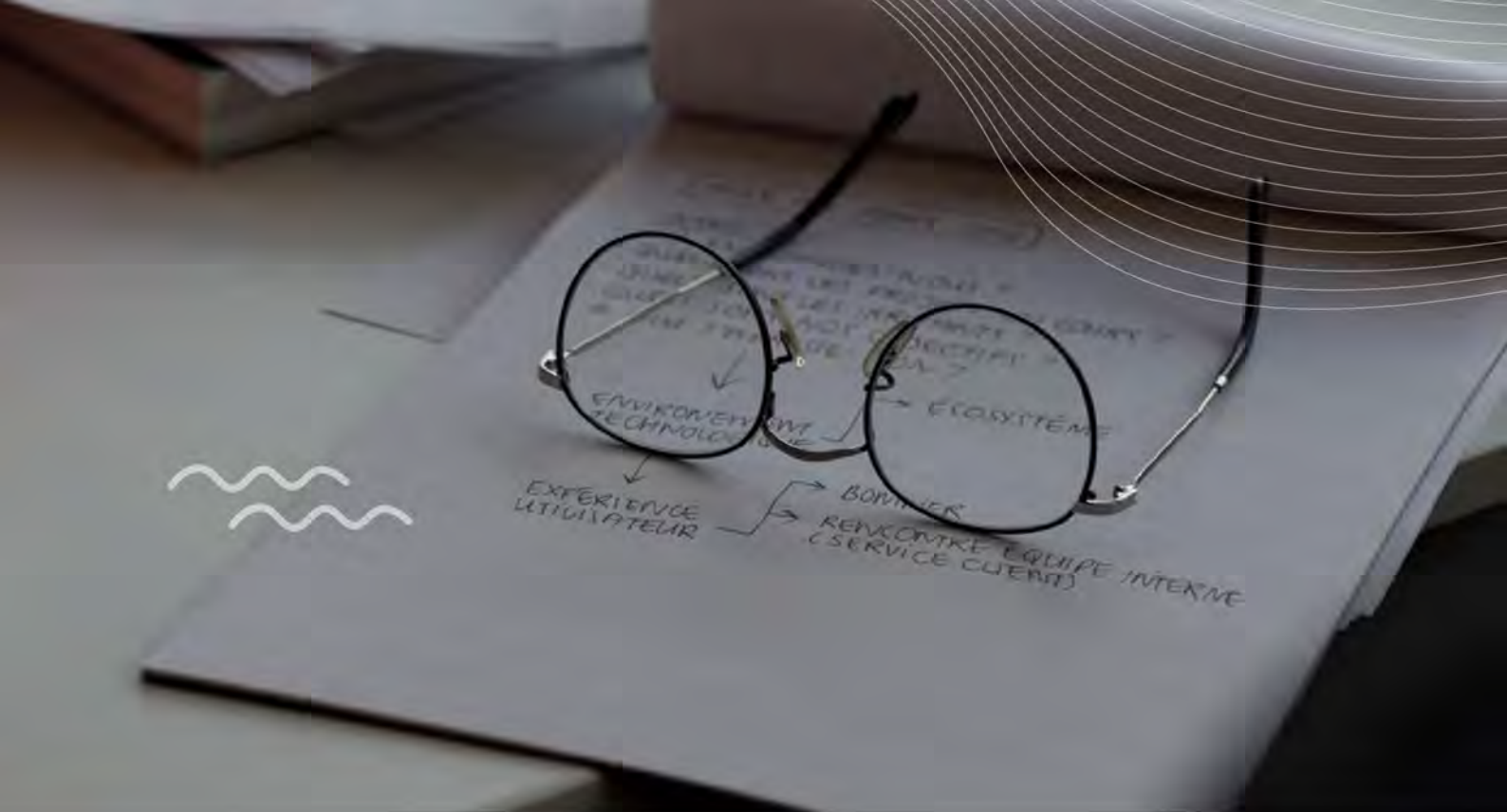
Taking a Behavior Economics Lens to the Challenge

To understand perceptions and intentions regarding advice, we can turn to BE. BE is a field of research that aims to understand why people make the decisions they do—unpacking the social, cultural, psychological, and emotional factors that influence people’s attitudes and beliefs, and ultimately their behaviors. A traditional economics approach assumes that people always use the information available to them to make rational decisions²² – that is, decisions that would result in the best possible outcome for themselves. Given the demonstrated value of professional financial advice, a traditional economics approach would predict that people would consistently seek and follow advice, acting appropriately on all information they are given.

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Humans are **boundedly rational**: rather than making every decision by perfectly weighing each relevant option, they are often vulnerable to decision biases and make "good enough" decisions given the effort they want to expend.

– Kelly Peters



A BE approach, on the other hand, acknowledges that we do not always behave rationally. It recognizes that, unlike computers, [we cannot approach every decision dispassionately with thorough analysis](#)²³. Humans rarely have the time, energy, or resources to search information exhaustively, create a complex calculus that weighs every variable, and double-check answers. What underlies our decision-making is a concept known as bounded rationality. Simply put, humans often seek a decision that is good enough given the effort they want to expend, rather than the best possible decision. While we are sometimes able to engage in intensive analytics to make a decision—for example, carefully weighing our choices when deciding what car to buy or university to send our kids to—for the vast majority of our decisions, we rely on a combination of intuition, prior experience, and heuristics (i.e., mental shortcuts).

Our reliance on these mental shortcuts can considerably simplify our decision-making process (that is, in fact, at the root of the appeal of shortcuts). For non-consequential decisions, simplification is welcome. But it [can also make us vulnerable to biases](#)²⁴. Thus, our decisions come to be influenced by many factors: [our emotional state](#)²⁵, what we perceive others are doing, and something as [irrelevant as the context and order in which information is presented to us](#)²⁶.

The Scientific Study of Behavioral Biases

The underlying biases that influence our decisions are large and systematic enough to allow us to predict people's behavior. This "predictable irrationality"²⁷ also enables us to leverage these biases to 'nudge' people towards better choices and outcomes by designing a conducive choice architecture—that is, the landscape of environmental and internal factors that shapes how our choices play out. Factors like how our choices are presented to us can have profound consequences for what we end up choosing. For instance, when presented with a set of options, we tend to make our decisions based on the relative, rather than absolute, value of a given option. Think about when you order a cup of coffee: when the menu offers a small, medium, or large, most people typically order a medium coffee. We have an aversion to extremes and prefer to select the 'middle of the road' option, regardless of the actual monetary value or, in the case of coffee cups, the absolute size. This extremity aversion bias is also present in investment decision-making.

This type of contextual environment bias is illustrated with an example from previous BEworks research in Box 1. When presented with a choice of four portfolios of increasing risk (options A, B, C, and D), individuals, by and large, choose the middle-of-the-road options B and C. But when we alter the choice architecture by removing the lowest-risk option A and adding a new and even riskier option D+ to the mix, people's perceptions of the spectrum of risk and, consequently, which options constitute the 'middle-of-the-road' exhibit a dramatic shift. Now, option B—formerly an intermediate-risk option—becomes the least risky 'fringe' option and suffers a decline in popularity, while a higher percentage of investors turn to the now more intermediate option D (which only moments ago was triggering feelings of risk aversion). In other words, the mere presence of the riskier option D+ resulted in more people perceiving option D as the optimal 'middle of the road' in terms of risk. Rather than making investment decisions based on a fully rational cost-benefit analysis of risks versus returns and probabilistic outcomes, people are evidently swayed by something as volatile as the visual or verbal context of the choices before them.

Box 1.

The influence of context: People prefer medium coffees, no matter the absolute coffee size, and the same is true for investment choices

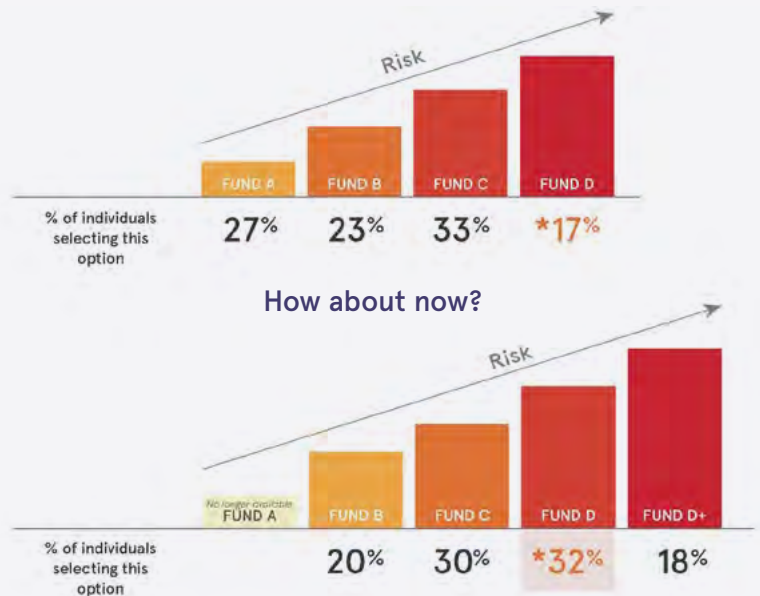
Scenario 1: Picking a coffee
Which one do you prefer?



How about now?



Scenario 2: Financial Decision-Making:
Which fund would you invest in?



**Note the instantly greater popularity of the option that is framed as middle-of-the-road*

The example above underscores that how information is presented and how options are framed can vastly alter the choices people ultimately make. The parallel with the decision regarding advice is that how the advice value proposition is presented and how advice is delivered may matter as much or more than the value proposition itself. With a more thorough understanding of how people make investment decisions and the underlying biases that may be influencing them, we can develop strategies for presenting advice that break through the informational noise, overcome biases that block investors from appreciating the financial advice, and help investors make better financial decisions.

Hypothesized Barriers to Seeking and Following Financial Advice

By taking a BE lens to this challenge, we gain insight into the true drivers underlying people's financial decisions and can be better equipped to develop actionable recommendations for members of the public who are hesitant in seeking and following advice.

As a first step, we need to understand the biases that may be influencing consumers' decision not to seek or follow professional financial advice. While there are literally hundreds of biases that have been thoroughly researched and validated over more than 50 years of research, we hypothesized that some in particular would have disproportionate effects in the context of investment decision making. What follows below is a brief overview of the biases likely to play the most prominent roles.

Overconfidence Bias

Also sometimes referred to as illusory superiority, in this context, overconfidence bias refers to the tendency by individuals to overestimate their knowledge and skills, while also being unaware that their overconfidence is unfounded²⁸. One route to investing overconfidence has been the unfettered access to financial information on the internet, which inflates people's estimates of their internal knowledge on the subject matter²⁹. Overconfident investors have an unhealthy belief in their own ability to predict market outcomes, and rose-colored self-belief that they can 'beat the odds' and avoid investment biases, mistakes, and pitfalls that befall other investors. They are likely to over-trade, be careless, neglect risk, and are less willing to seek and follow advice³⁰. One way this can be observed is in investors' overconfident belief in their ability to consistently 'beat the market' (i.e., beat the professionals) when not even professionals are able to consistently outperform it.

Illusion-of-Control Bias

This is the tendency by individuals to believe they can [exert control over essentially random outcomes](#)³¹. We like to think we can control events when we really cannot - e.g., by wearing lucky socks or a lucky jersey, convinced that this will help our favorite sports team win. In the context of investment decision-making, the illusion-of-control bias inflates how much control investors feel they have over unpredictable events, such as future market performance, when this is, in fact, impossible. Those with higher levels of illusion-of control bias believe that they can pick the perfect investments, at the perfect time, and do so consistently. Unfortunately, studies have shown that investors are terrible at timing the market, resulting in [significant financial losses](#)³².

Representativeness Bias

Individuals tend to believe that [current conditions will continue indefinitely](#)³³. As humans, we tend to focus too much on current conditions without considering how they might change in the future. We extrapolate current conditions as being normal without considering possible future disasters. In investment-decision making, this bias manifests in the belief that current market conditions would continue well into the future, without consideration of risks that might lead to vastly different returns.



Loss Aversion Bias

Loss aversion bias refers to people's excessive sensitivity to the risk of losses. For many, the emotional discomfort of losing money far exceeds the pleasure of winning an equal amount²³ and this leads people to ignore the possibility of gains and focus too much on the possibility of losses. Excessive loss aversion may lead to over-allocation to low-risk low-return investments with a corresponding long-run failure to achieve sufficient returns and achieve financial goals³⁴.

The Four Biases

In sum, the powerful influence of the four biases described above may ultimately override the advice of FAs, leading investors to devalue and disregard that advice and instead rely excessively on their own abilities to make investment decisions. Robo-advisors, fear-mongering ads, and offers of low-fee limited advice further exacerbate these biases, and can make investors question the value and utility of seeking and following professional financial advice. For example, an investor might choose DIY to save 1.50% in fees to an advisor without realizing that the behavioral coaching from the advisor will increase their returns by 2.02%. A rational analysis shows that saving 1.50% and losing 2.02% every year is a bad trade, yet we know we all have bounded rationality. Advice can easily get lost as just another piece of information for consumers to consider. As such, professional financial advice needs to cut through a substantial amount of "information noise" and be presented in a way that overcomes the many biases to reach and be acted on by consumers.

Information Overload

Even when people do seek advice, they may be dissatisfied with the advice provided. A common and commendable approach exercised by professional advisors in all domains is to provide their clients with comprehensive information supporting and explaining their recommendations. However, at a certain point, access to more and more information can quickly overload cognitive processing capacity, and advisees cannot effectively analyze and synthesize the high volume of incoming information.

Under these circumstances, having access to a lot of information does not lead individuals to become better informed. The individuals receiving the advice cannot appropriately prioritize and separate the most important information from supplementary information or information that should be discarded as completely unreliable or untrue. This creates a [choice overload situation](#)³⁵. Whether we are tasked with picking a breakfast cereal or assembling an investment portfolio, having many options can induce choice overload – a [decision paralysis](#)³⁶ caused by [excessive awareness of opportunity costs](#)³⁷ and fear of [making a suboptimal choice](#)³⁸. Oftentimes, a state of choice overload pushes us towards the ‘safest’ and most familiar option (e.g., status quo of no advice) and away from potentially risky novelties (seeking and following advice). Sometimes it causes us to avoid making a selection altogether.

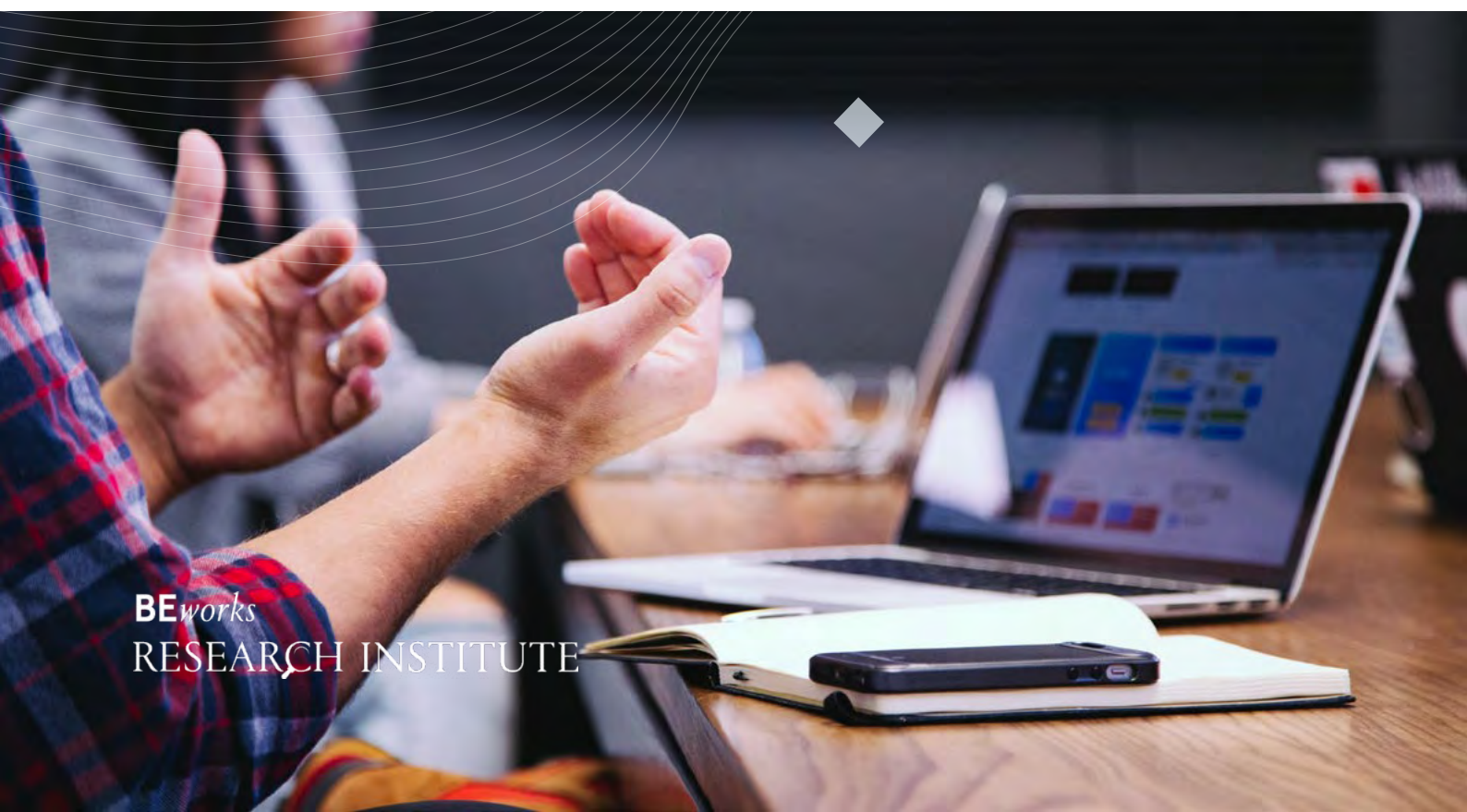
So while it is important to [provide investors with the essential information](#)³⁹, including [too much information and less relevant information](#)⁴⁰ has consistently been shown to [hinder comprehension and decision-making](#)⁴¹ and may even backfire when it comes to [consumer perception of the quality of the product](#)⁴². Thus, financial advice that tries to follow a ‘more is better’ approach to information will inevitably fail at the goal of being the signal that cuts through all the rest of the information noise about investing. A 2019 BEworks report commissioned by the [Investment Funds Institute of Canada \(IFIC\)](#)⁴³ offers one of the most recent and thorough overviews of the critical importance of advisors reducing information overload to effectively communicate and disclose details of their role with clients.



The Current Study

How can FAs encourage people to seek advice that will help them make better investment decisions, and then nudge them to follow the advice? To address this question, Manulife commissioned the BEworks Research Institute to undertake research on the value of financial advice and the impact of the style of advice delivery on investor decision-making and perceptions. Armed with BE insights into why investors may fail to seek and follow advice, we designed and tested behaviorally-informed advice communications aimed at overcoming biases and improving investor behaviors and outcomes.

Many prior studies have examined the correlation between having an FA and improvements in financial well-being; however, these retrospective correlational studies cannot provide compelling evidence that having an FA actually causes wealth to increase. Many other factors influence the likelihood that someone both has an advisor and has higher financial assets over time (e.g., savings rate, inheritance, selling a business, converting non-financial assets into financial assets, etc.) For example, the incidence of drowning while swimming and the sale of ice cream are highly correlated but concluding that ice cream causes drowning is likely not valid. That both occur during summer is a much better explanation for the relationship between the two. There is an association between the two variables but not necessarily causation. As well, simply having an FA does not mean that the client actually follows the advice. We know, as illustrated above, that clients may follow all, most, some, or none of the advice so it is difficult to claim that the FA causes the enhanced wealth outcomes.





To disentangle the relationship and demonstrate causality, we ran randomized controlled trial experiments. We tested types of advice that would help overcome overconfidence bias, illusion of control bias, representativeness bias, loss aversion bias, and information overload. We then measured if there was a significant difference in outcomes. In other words, we tested the hypothesis that incorporating the insights of BE into the delivery of advice would create better outcomes versus a control condition of conventional financial advice. A similar method to test whether ice cream causes drowning would have a control group that received no ice cream and a treatment group that eats ice cream. Both would then go swimming, and observation would determine if a significantly higher proportion who ate ice cream subsequently drowned. Since it is merely a correlational association, it is a hypothesis that we expect would be rejected. This scientific method is the only real way to demonstrate that the suggested treatment (advice incorporating BE insights) is actually causing the desired outcomes.

To our knowledge, this collaborative Manulife-BEworks study is the first of its kind to examine, systematically and empirically, the extent to which different forms of financial advice impact investors' willingness to seek and follow advice and result in measurable enhancements to client decision-making and attitudes. By collecting both quantitative and qualitative measures of the value of advice, our research provides a deeper understanding of professional financial advice and how we can encourage more people to seek and follow it to improve their financial and overall well-being.

Types of Advice We Tested

The hypotheses we tested involved comparing conventional advice with behaviorally-informed advice. We then measured whether the clients who received this behaviorally-informed advice (treatment groups) were more likely to seek and follow advice and more likely to have a favorable view of their FA than the group that received conventional advice (control group) that did not incorporate the insights of BE.

Conventional Advice

Three Chartered Financial Analysts (CFAs) and staff at Manulife and BEworks collaborated to create a baseline “control” condition of conventional advice. Acknowledging the caveat that it is certainly not possible to create one example of financial advice that represents the entire industry, we collaboratively agreed that this exemplar could be considered typical of information that would be provided by an advisor to an investor to support the rationale for the advisor’s recommendations and encourage following the advice.

Simply Directive

The conventional advice provided investors with a lot of information; however, that information lacked the best balance between highlighting what would be most important for making the forthcoming investment decision (i.e., the asset allocation task) and what should be considered additional supporting information. As noted above, contrary to [some intuition](#)³⁹, [inclusion of too much information](#)⁴⁰ has been shown repeatedly to [hinder comprehension and decision-making](#)⁴¹, [and may even backfire when it comes to consumer perception of the quality of the product](#)⁴². It is thus theoretically and practically important to test the effects of communicating with investors in a manner that cuts back the ‘bulk’ of advice and reduces the number of parameters to consider while making choices.





A 2019 BEworks report commissioned by the [Investment Funds Institute of Canada \(IFIC\)](#)⁴⁴ offers one of the most recent and thorough overviews of the critical importance of reducing information overload when it comes to advisors effectively communicating and disclosing details of their role with clients. Our behavioral audit and randomized controlled trial experiment revealed that comprehension of the information given and trust that the advisor was engaging in honest disclosure could be tangibly boosted by disclosure tactics geared towards simplification. This included the use of simple language and relevant visuals, thematic chunking of information, and an intuitively linear representation of the timeline of the advisor-client relationship.

In this experiment, the BEworks Behavioral Audit of the conventional advice revealed that there is essential information that can be made more salient to provide the appropriate weight for investor decisions. At the same time, there are other chunks of information that are more likely to distract than drive the desired behavior and these received too much focus. Following the audit, the first BE condition de-prioritized less behaviorally-relevant content, such as background information on the composition of fund categories. Instead, it emphasized language surrounding the investment allocation call to action. All other BE tactics were then additionally layered on top of this “Simply Directive” framing of the advice.

Leveraging Expertise

A common and intuitively appealing strategy people use to influence opinions or behavior is to convince the listener of the speaker's expertise and that their expert assessment of a situation should be given greater weight when the listener is forming their opinions and behavior. There is scientific evidence, not to mention ample real-world examples, demonstrating that people will follow the directions of [authorities and experts to an extreme degree sometimes](#)⁴⁵. Appeal to authority is chosen based on a biased assumption that people naturally believe that experts make better decisions and fewer mistakes.

“

However, the [science](#)⁴⁶ also notes that the [power of authority](#)⁴⁷ is [not universally consistent](#)⁴⁸ and varies for many reasons, such as changes in the politico-social environment across time, as well as the [characteristics of the authority themselves as well as the listener](#)⁴⁹.

Furthermore, individuals make personal choices as to whom they consider an expert. That status, and the power that may come with it, are not open for anyone to claim. For these reasons, it was important for us to test the effects of the advisor leveraging their authority on investor decision making and perception.

Social Norms

People's reference groups (the people whose opinions matter) are often the strongest influence on behavior. Thus, people are more likely to change behavior if they perceive that others whose [opinions matter to them are doing so](#)⁵⁰. These may be others who are like them – members of the same age cohort, religion, ethnic group or local community – or opinion leaders, such as religious authorities or celebrity role models.

“

For example, the UK Behavioral Insights Team found that the messaging of “96% of council tax is paid on time. You are currently in the small minority of people who have not paid us yet”⁵¹ increased payments by 11%⁵².



Additionally, when risk is a factor in the decision, social norms may help to reduce risk aversion, as the common choice demonstrates that it may be safer. Finally, social norms are more likely to influence decision-making when the individuals do not have a strong preference and they perceive themselves to have lower levels of knowledge in the decision domain.

Extremeness Aversion

Financial advice is loaded with potentially contradictory warnings that investors need to ‘make sure they take on enough risk to make money, but not so much risk that they overly increase their chances of risking it all.’ This may leave many investors still unsure of the optimal balance and perhaps even more confused and cautious than before. The messaging in this Extremeness Aversion condition (see Box 1) was designed to concretize the recommendation of 60/30/10 Equity/Fixed-Income/Money Market over the five-year time horizon as that comfortable medium choice between other extreme options, such as ‘If you had a longer time horizon, for example 15 years, I might suggest you could take on more risk with an 80% Equity and 20% Fixed Income split that would be expected to pay off in the long-term.’ The extremeness aversion advice leverages the natural inclination to avoid extremes.

Integrated BE

In the final condition we tested the additive effects of combining Simply Directive (as the previous BE conditions also did), Social Norms, Leveraging Expertise, and Extremeness Aversion.

Simulating Investment Portfolios

We recruited a random online sample of 2,991 North American male and female consumers aged 25-75 with at least \$50,000 in financial assets to take part in an online simulated investment decision-making exercise. While such an experimental scenario cannot replicate the true potential risks and payoffs of making decisions about one's own portfolio, we offered respondents a cash prize of \$100 for the best portfolio returns to closely approximate real-life decision-making and encourage thoughtful engagement. In the exercise, respondents were instructed to invest a hypothetical \$250,000 to achieve the best returns at the end of five years (see Box 2).



Box 2.

Instructions given to our experimental “investors”

“

Imagine that you have recently inherited \$250,000, and you have decided to invest that money for the next 5 years. You will want to maximize the amount of money that will be available and yet you will not want to risk losing it as well. You will choose your investments from a list of mutual funds. You will be asked to indicate how much of the total you would allocate to any or all the funds. Your allocation will determine your return on your investments.

To assist you in your decisions, you will be shown a video on current topics related to investment decision-making. You will then see a list of investment options to choose from, categorized by fund type. You will indicate (as a percentage value) how much of your \$250,000 investment you would allocate towards each of the presented mutual funds. You can allocate funds to one, a few, most, or even all the available mutual funds depending on your preference. The only constraint is that the total allocated must equal 100%.

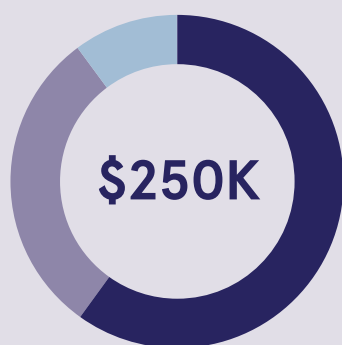
Please take your time as if you were making a real decision with your own money and therefore assuming real risk. Please imagine that these are real investment funds. At the end of the investment decision-making exercise, we will ask you some questions regarding the details of the available investments to determine whether you considered the options carefully. We will also be able to calculate the performance of your portfolio from the funds you select. To make this more interesting, there will be a prize of \$100 awarded to the respondent who creates the best investment portfolio.

To help participants construct their portfolios, we presented them with a realistic list of 36 mutual funds from the Morningstar database, disguising the funds with generic names (e.g., US Equity Fund) to remove confounds of branding. The available funds included both high and low returns as well as high and low volatility, and we categorized the funds as equities, fixed income, and money market funds with both domestic and international exposure (see Appendix A for full list of funds). We presented the real historical 1-, 3- and 5-year return data, and 3-year standard deviations as a measure of volatility for each of the funds with data from the Morningstar database as of March 2015. While the respondents were unaware that we were using data from 5 years ago, historical data from real funds allowed us to calculate the true portfolio performance over the course of five years given the experimental period of March 2020.



BE Communication Tactics

All participants received the same advice urging them to allocate 60% of their hypothetical \$250,000 to equity, 30% to fixed income, and 10% to money market. They were randomly allocated to a range of experimental conditions with members of each condition receiving a different variant of advice in order to enable a scientific exploration of the behavioral effects of varying advice delivery. Our behaviorally-informed communication conditions were carefully crafted to overcome the investment decision biases of overconfidence, illusion-of-control, representativeness, loss aversion, and information overload (described in an earlier section). Communications aimed at these factors were contrasted with advice delivered using current standard procedures and are outlined on the opposite page.



60% - Equity
30% - Fixed Income
10% - Money Market

Source: BEworks Research Institute - *The Value of Behaviorally Informed Advice Study, 2021*

Conventional
Advice
(Control)

Prepared in collaboration with CFAs and staff at BEworks and staff at Manulife, and validated as typical financial advice mostly focused on providing information and education.

Simply
Reactive

Enhance the saliency of pieces of information most relevant for investment decisions and actions, thus reducing the risk of information overload and consequent decision paralysis. This formed the foundation upon which all other BE tactics were layered.

Leveraging
Expertise

Highlight the advisor's expertise, relying on deference to experts and authority.

Descriptive
Social
Norms

Frame recommendations as common for people in the investor's peer group or community to leverage social proof and help investors feel safe and more comfortable with the investment recommendations.

Extremeness
Aversion

Leverage consumer bias toward middle-of-the-road options and aversion to extremes (see example in Box 1) by framing investment recommendations as a comfortable medium-level choice between the two extreme examples of either taking on too much risk or not taking on enough of it.

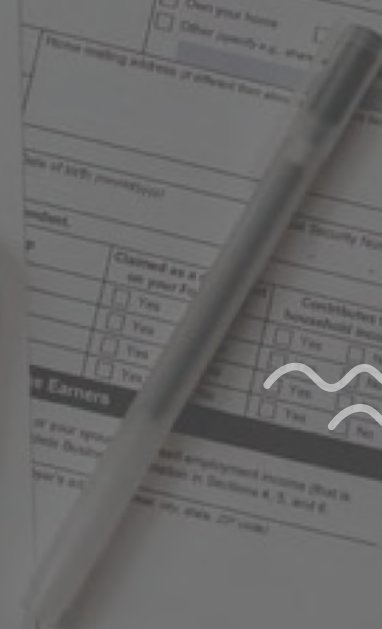
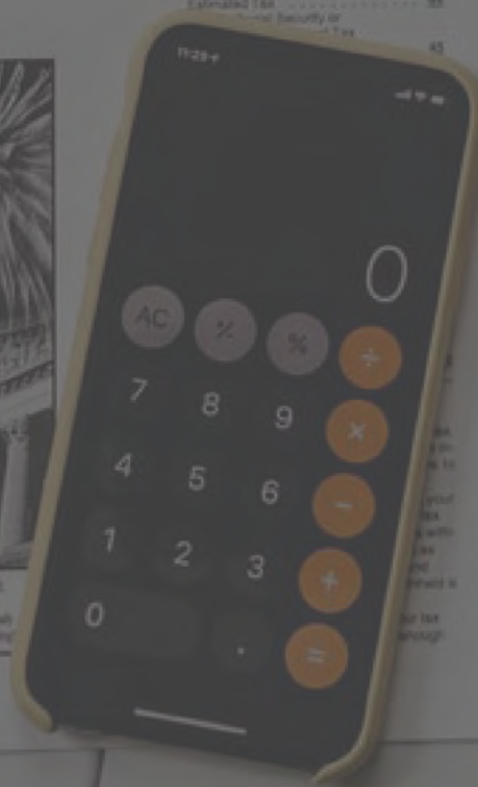
Integrated
BE

Fuse elements from multiple BE conditions to try to achieve the additive effect of addressing the individual biases.

What We Found

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Behavioral Biases Influence Financial Decisions

Respondents in our study conformed to what previous science has already told us: cognitive biases influence financial decision-making.

- ◇ Participants high on objective investment knowledge (what you actually know) choose funds that are more likely to balance risk with reward by selecting the recommended optimal asset allocation of 60% equity and selecting greater portfolio diversification within asset classes.
- ◇ Individuals with higher subjective investment knowledge (what you think you know rather than actually know i.e., objective knowledge), overconfidence, illusion-of-control, and representativeness bias take on too much risk, as measured through higher than recommended proportions of equity allocation.
- ◇ Individuals who perceive investing to be low risk allocated more to equity funds than recommended.
- ◇ On average, individuals report expecting to save 2% less than they would like over the course of a year. This is a clear example of the intention-action (say-do) gap in financial decision-making, as well as some degree of introspective awareness that this is taking place.

BE Advice Increased the Willingness to Seek and Follow advice

As noted above, existing research often describes the value of advice in terms of enhanced return. The value of 2.02% from behavioral coaching described above is one such measure. But that value is realized only after the advice has been sought and followed; it is a measure of financial outcomes of advice. This type of decision is described as being based on [credence](#)⁵³ since the value is determined after the outcome rather than before. One could consider choosing a bottle of wine as a similar decision since you only find out if the wine is good after purchasing and tasting it.



When deciding whether to seek and follow advice, the client has to trust that the value they will receive in the future exceeds the current cost. Their current perceptions regarding the value therefore matter. Stated differently, how much credence do they ascribe to the FA and their ability to deliver better outcomes? If advice is seen as having value, investors will seek it and follow it. In what has sometimes been described as a 'race to the bottom,' fees for advice are under pressure with many consumers turning to low-fee robo-advisors and DIY accounts to save fees. In our experiment, only 15% of respondents said they would not pay for advice. The remainder were willing to pay an average of 1.21% and 40% were willing to pay 1.5% or more annually. The challenge seems to be less associated with the amount of the fee and more associated with whether there is perceived value for the cost. The decision is a cost-benefit analysis for the investor considering advice. The key then is to ensure that the investor sees value in the advice being offered. For example, an over-confident investor might devalue advice since they have an inflated perception of their ability to invest using a DIY account without any advice.



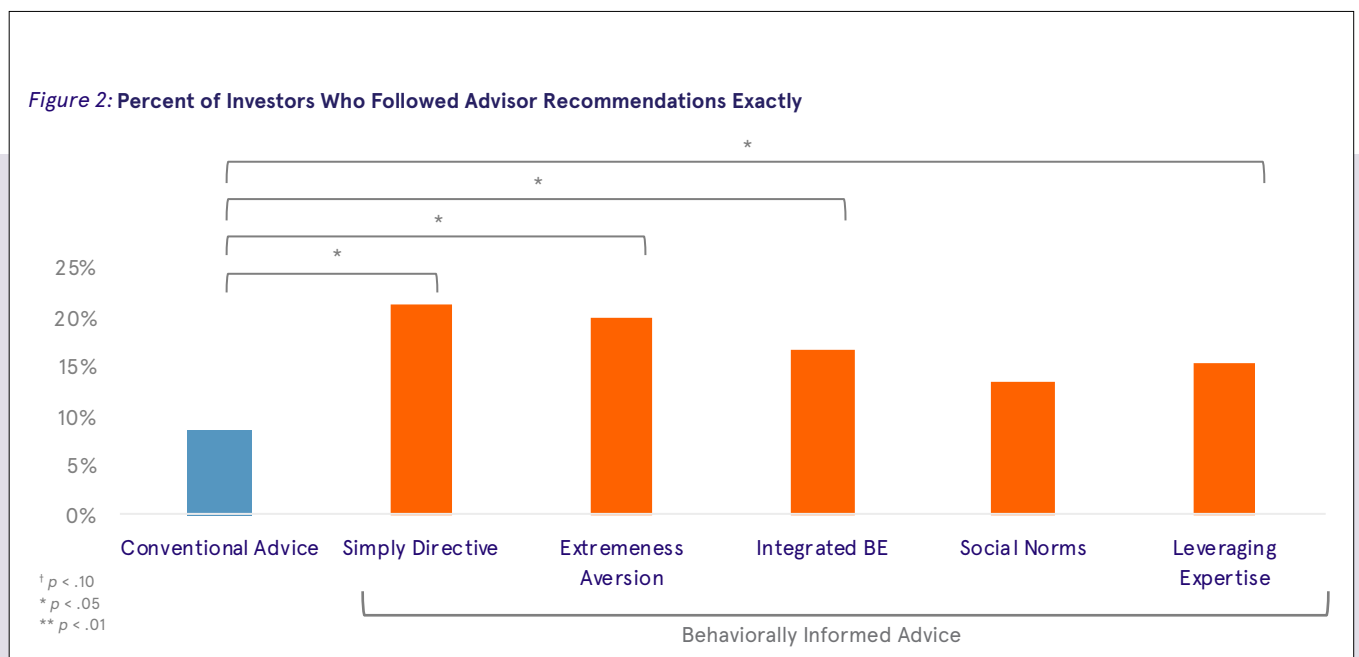
Our experiment examined whether seeking and following advice, as well as financial outcomes, could be affected by offering investors financial advice crafted in accordance with current standards of practice versus those crafted with behavioral insights to overcome common contributors to both poor financial decision-making and reluctance to seek and follow professional advice. Specifically, our behaviorally-informed advice tactics aimed to address four cognitive biases (i.e., overconfidence, illusion of control, loss aversion and representativeness), as well as overcome information overload. These lead individuals to make their own decisions without professional advice. Behaviorally-informed advice also leveraged biases such as extremeness aversion to help advisors' recommendations become psychologically appealing by virtue of tapping into our automatic and boundedly rational preference for middle-of-the-road options. Finally, we also examined the possibility of leveraging social proof and appeals to authority as a means of harnessing people's tendencies to conform and defer to experts, thus boosting the appeal of seeking and following professional advice. All of these interventions are intended to increase the likelihood that respondents will seek and follow advice.

BE Advice Made Investors More Likely to Value Advice and Seek Advice in the Future

Relative to conventional advice, BE advice was associated with improved perceptions of and intentions toward FAs (with one crucial caveat that tactics aimed at extremeness aversion and leveraging advisors' authority and expertise failed to improve investor perceptions). Compared to conventional advice, participants who heard BE advice (specifically, Simply Directive, Social Norms, and Integrated BE) reported that they were 4.9%-5.6% more likely to seek advice from an FA for a future financial decision (Figure 1). As well, people given advice that leveraged Social Norms perceived the benefits of working with an advisor as 2.6% greater than those who received conventional advice. Trust was also positively affected. Simply Directive (+4.5%) and Integrated BE (+4.7%) led to significantly higher trust in their FA than was the case with conventional advice.

Investors Were More Likely to Follow Behaviorally-Informed Advice

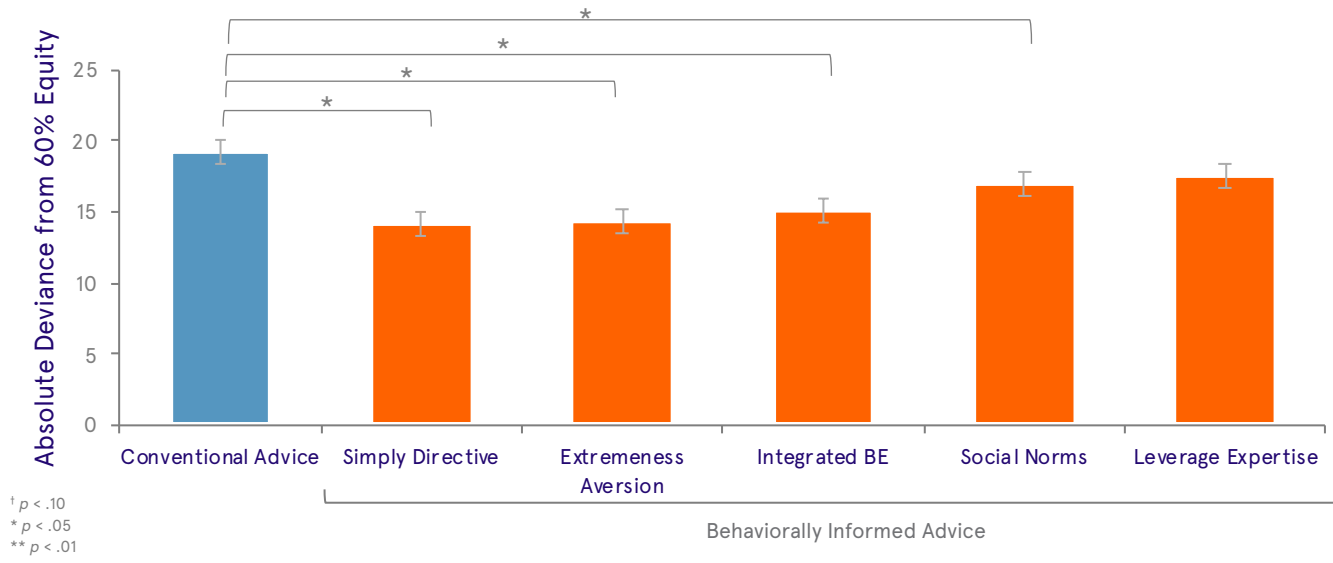
An important finding of this research is that many people may have an advisor, but they vary widely on how much of the advice they subsequently follow. Our results reveal that, with a single exception described below, participants who received behaviorally-informed advice were significantly more likely to follow it than respondents who received conventional advice. Specifically, participants in the BE conditions were around two times more likely to follow the recommendations of the advisor exactly (Figure 2). Investors who received the conventional advice significantly deviated from the asset allocation advice—on average, 13%-36% more than investors who received BE advice (Figure 3).



Source: BEworks Research Institute - *The Value of Behaviorally Informed Advice Study, 2021*

Interestingly, the one exception to this trend was the advice that leveraged appeals to authority and expertise, which did not significantly increase advice adherence compared to standard advice delivery (Figure 3). This could be true for many reasons. Perhaps the respondents in our survey did not fully accredit the advisor in the experiment the status of “expert”, suggesting that authority is not evoked easily enough for it to have universally favorable effects on which advisors can rely.

Figure 3: Average Deviance from Allocation Advice by Condition



Source: BEworks Research Institute - The Value of Behaviorally Informed Advice Study, 2021

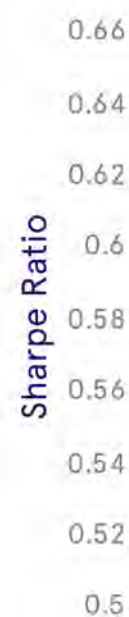
Interestingly, these results regarding an appeal to expertise failing were also found in another BEworks study focusing on professional investment advice. That study shows that the appeal to authority actually reduces trust and intention to follow advice, suggesting that investors fear opportunism and deceit on the part of their FA (agent). They fear that the advisor may take advantage of their superior knowledge to recommend investments that are not actually in the investor’s best interests.

BE Advice Led to Higher Sharpe Ratios

The funds available for asset allocation in our experiment were disguised real funds from the Morningstar database as of March 2015, which allowed us to simulate portfolio performance with real fund data over the subsequent five years (the time horizon communicated to our experiment participants).

To evaluate the performance of our participants' portfolios, we calculated their Sharpe Ratios as of March 2020. This index of [risk-adjusted return on investment](#)⁵⁴ is the [industry standard](#)⁵⁵, which considers returns as well as the amount of volatility in returns over time. A higher Sharpe Ratio indicates higher returns per unit of risk and therefore more optimal performance. For a five-year horizon, some investors might achieve high gross returns if that period happened to be within a sustained bull market, but it would be achieved by taking on too much risk and returns would be substantially lower if there was a market correction during the five-year period. As such, Sharpe Ratio is less vulnerable to the biases of end-point sensitivity than gross returns.

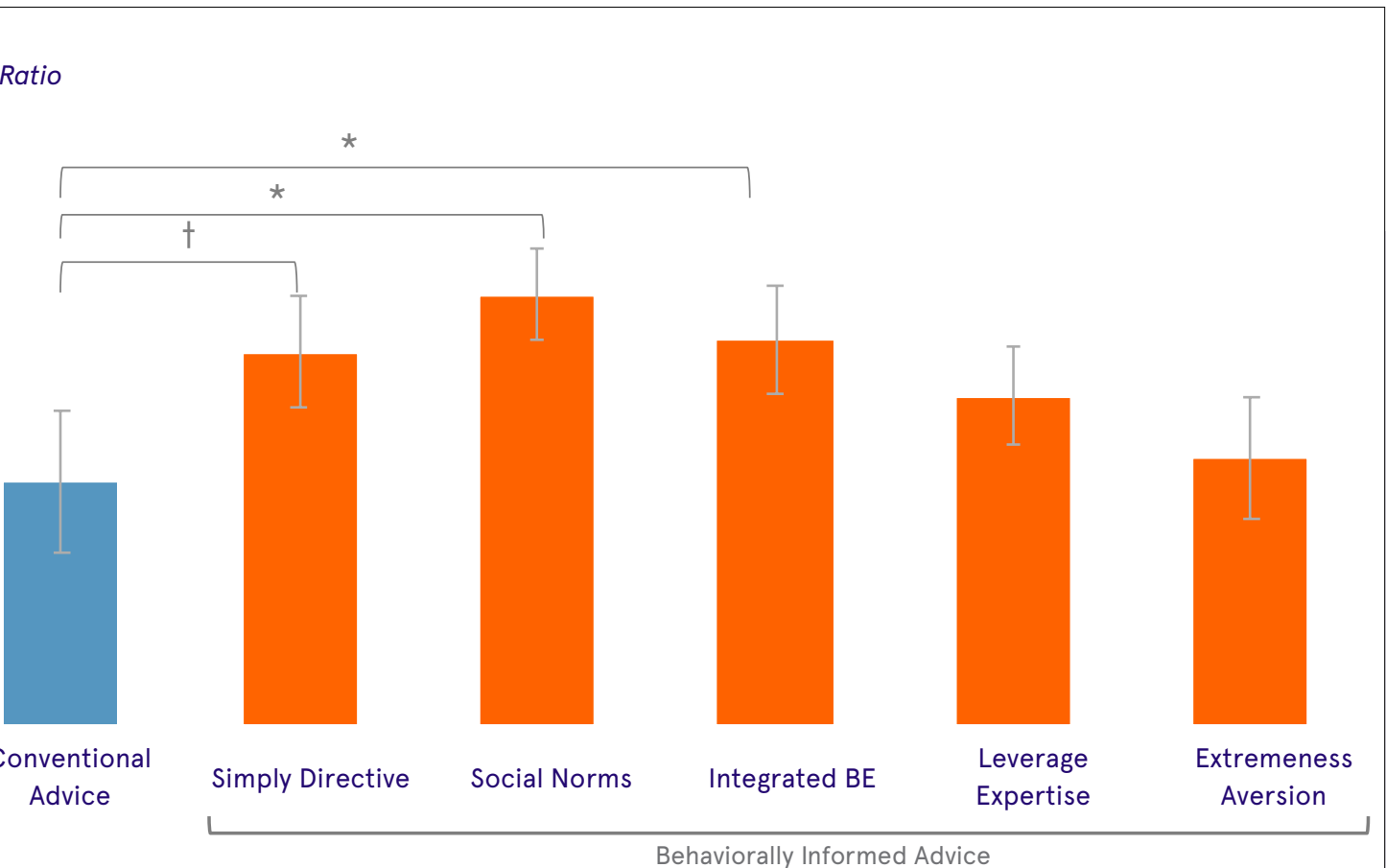
Figure 4: Sharpe



[†] $p < .10$
^{*} $p < .05$
^{**} $p < .01$

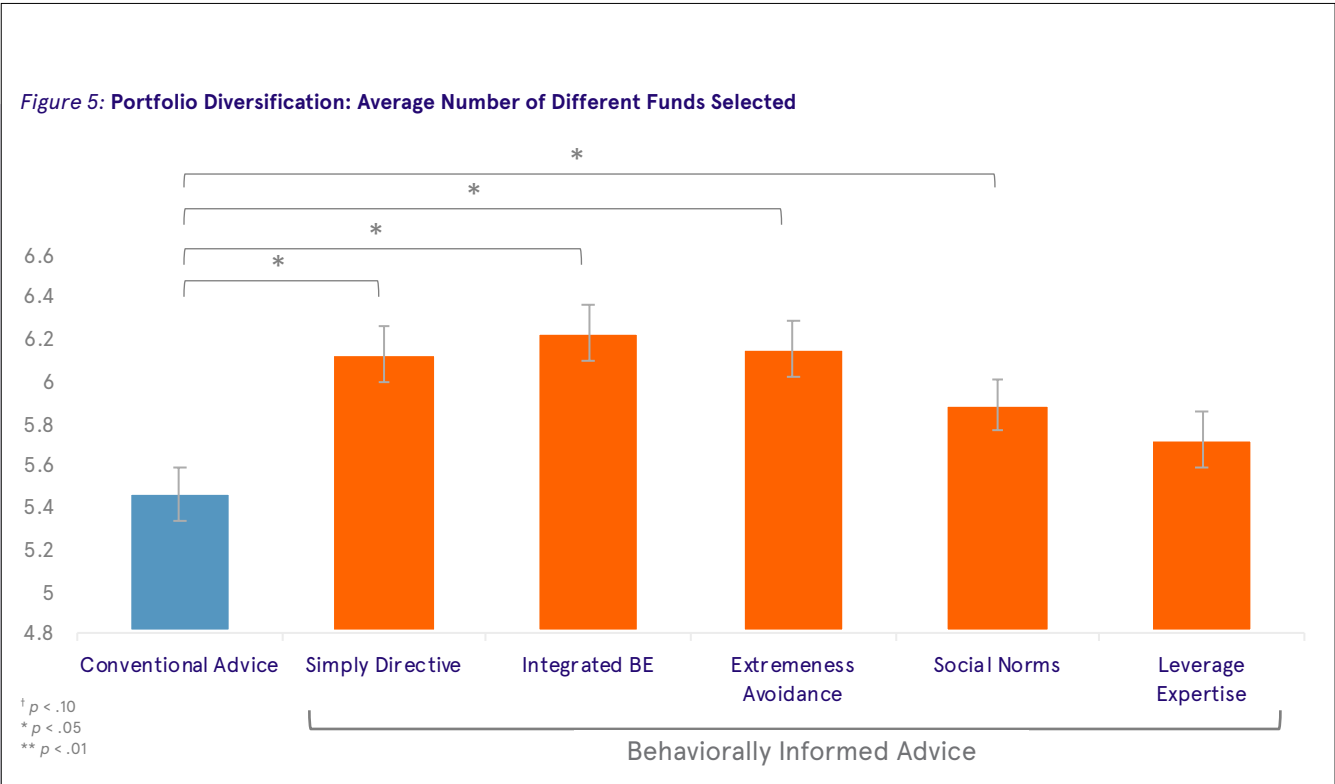
Source: BEworks Rese

Investors who heard advice rooted in BE were more likely to follow the equity distribution advice (60/30/10) given by the FA. This led them to have returns with significantly superior Sharpe Ratios than those achieved by investors who had received conventional advice. Figure 4 displays the Sharpe Ratios. Specifically, the BE conditions that yielded higher Sharpe Ratios than conventional advice were Social Norms (+8.6% higher Sharpe Ratio than conventional), as well as the Integrated BE condition (+6.8%), which integrated multiple BE tactics. Advice that offered Simple Directives (+6.2%) aimed at reducing information overload achieved marginally significant positive effects. Advice that offered Leverage Expertise and Extremeness Aversion did not show significant differences from conventional advice.



BE Advice Led to Greater Portfolio Diversification

With the exception of tactics that leveraged advisors’ authority and expertise, behaviorally-informed styles of delivering advice led our participants to select significantly more diverse portfolios compared to more conventional advice. This diversification effect is reflected both in participants’ tendency to choose a greater number of funds to invest in (Figure 5), as well as the selection of more diverse fund types, thereby spreading risk. The number of funds selected for investment was significantly greater than conventional advice in Simply Directive (+12.2%), Integrated BE (+14.0%), Extremeness Aversion (+12.7%) and Social Norms (+7.7%).



Source: BEworks Research Institute - The Value of Behaviorally Informed Advice Study, 2021



Significance of the Results

While the effects described above are statistically significant, one might question the magnitude of the differences. One thing to consider is that any positive change is still welcome. Another is that this was an experiment, and the advice was a short five-minute video. The fact that significant results were observed with just a five-minute intervention indicates the power of behaviorally-informed advice to improve perceptions of FAs and encourage investors to seek and follow their advice. Relative to conventional advice, these positive changes would easily be magnified over time by an FA consistently delivering behaviorally-informed advice.

Conclusions

Our study reveals that incorporating BE tactics into the way advisors interact with their clients has the power to create tangibly superior outcomes. BE tactics encourage clients to seek and follow advice, resulting in more normatively optimal investment decisions, such as selection of portfolios with increased diversification and higher Sharpe Ratios. Qualitative benefits were also apparent in clients' perception of increased value of advice and increased trust in the advisor.

The behavioral tactics tested were geared towards counteracting psychological barriers that stand in the way of investors seeking and following advice—i.e., overconfidence bias, illusion-of-control bias, representativeness bias, loss aversion bias, and information overload. We designed and tested advice that overcomes the negative aspects of biases and heuristics or that leverages these heuristics and biases to create better outcomes. For instance, framing communication strategies around people's natural extremeness aversion enabled us to frame professional advisors' recommendations as 'middle of the road' in terms of risk, thereby making the advice more psychologically appealing. We also tested the effects of incorporating social norms into advisor communications, as these can be expected to tap into individuals' innate desire to conform.

Measurable, quantitative benefits of behaviorally-informed advice are apparent. Relative to conventional advice, behaviorally-informed advice increased client willingness to follow advice, as evidenced by their selecting investments more aligned to the optimal asset allocation recommended by the advisor. As well, they selected portfolios that were more diversified across and within asset classes. The result was enhanced investment performance, evidenced by higher Sharpe Ratio for these portfolios.

Significant qualitative benefits were apparent as well. Clients receiving behaviorally-informed advice reported higher perceived benefits of working with an advisor. In other words, they placed a higher value on advice. They also reported greater trust in the advisor. Perhaps most importantly, they indicated a higher likelihood of seeking advice in the future.

In particular, the observed quantitative and qualitative benefits were greatest for individuals who received simplified directives aimed at overcoming choice overload, advice that appealed to social norms (i.e., by framing advisors' recommendations as something already being widely followed by Canadians and Americans like them), as well as those who received the "Integrated BE advice" which combined multiple behavioral tactics.

This research therefore provides solid evidence-based recommendations for tactics that professional advisors can use to enhance clients' perceptions of their value as an advisor, improve adherence to their advice, reduce price sensitivity, and in turn, enhance financial outcomes for clients. We recommend the following strategies for advisors:



Ideally, leverage all of these insights with an integrated approach that simultaneously overcomes as many of the biases as possible.

5

Take advantage of opportunities to learn more about behavioral economics. Every advisor has their own style, and every client is unique. By combining investment expertise and professional experience with knowledge of behavioral science, FAs will no doubt be able to craft approaches that are far more powerful than what we could accomplish with a short five-minute video.

6

Admittedly, these recommendations encompass merely a fraction of the behavioral tactics that can help professional advisors convey the value of their services and improve outcomes for their clients. If there is one lesson to be learned from our research, it is that BE can enhance financial decision-making.

The rigorous experimental approach of this research reveals many important insights regarding which tactics will be effective and which should be avoided. **Understanding the variety of cognitive factors at play should form a crucial part of any advisor's approach to helping their clients.** We know that encouraging investors to seek and follow professional financial advice creates better outcomes. It is now apparent that advisors should incorporate the insights of BE to enhance their relationship with their clients and ensure that clients follow the advice and continue to seek it in the future thus creating better financial and life outcomes.





Appendix A



Appendix A

2015 Data

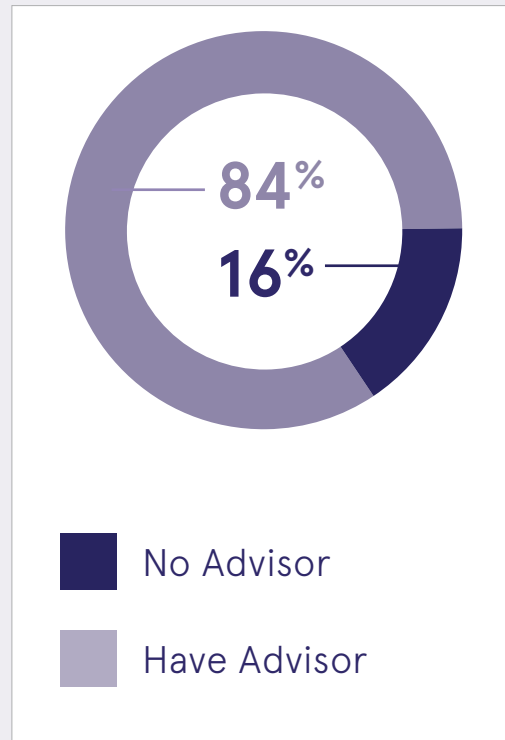
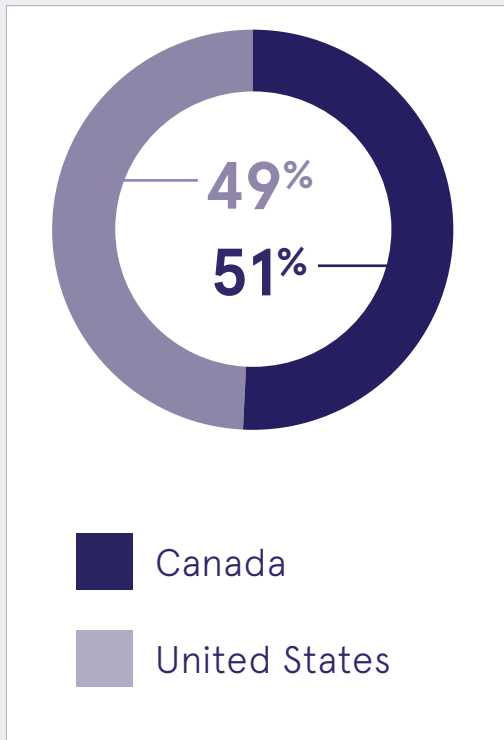
Disguised Fund Name	3 Yr Standard Deviation	1 Year	3 Year	5 Year
Canadian Equity				
Canadian Companies: Large-cap securities.	7.00	1.04	14.00	11.52
Canadian Growth: Long-term capital growth.	5.85	1.98	12.04	8.65
U.S. Equity				
American Growth: Long-term capital growth.	18.32	35.22	26.92	23.30
Nasdaq Index: Large non-financial companies.	11.77	26.87	26.93	22.95
U.S. Growth: Long-term capital growth.	18.34	32.16	24.00	20.47
Global Equity				
Global Technology: Long-term growth.	13.19	33.13	27.14	19.40
Global Portfolio: Global equity securities.	9.05	19.65	25.00	18.28
Entertainment and Communications: Long-term capital appreciation.	11.36	22.81	24.35	20.25
Global Growth: Diversified non-Canadian equities.	17.13	22.18	22.98	15.87
Asia Pacific Equity				
Asian Equity: Asian-pacific companies.	10.59	13.79	15.31	6.29
Indo-Pacific: Indo-pacific region companies.	10.76	2.53	15.96	7.89
Asia USD: Under-valued Asian equities.	8.46	(1.10)	11.96	6.12
Australasia: Asia and Pacific rim companies.	13.61	8.38	13.38	5.62
Real Estate Equity				
Global Real Estate: High total investment from real estate.	13.43	23.49	16.02	12.26
Real Estate: Investment in real estate companies.	10.10	11.69	16.87	13.18
Real Estate Investment Trust: Quarterly real estate income distributions.	7.95	9.81	8.62	14.43
Residential and Commercial: Regular current income.	9.24	6.36	4.93	8.84
Real Estate Securities: Global entities engaged in real estate.	15.40	22.47	16.03	13.63
Canadian Fixed Income				
Canadian Bonds: Income with capital preservation.	2.65	4.36	3.61	4.65
Bond Fund: High income bonds and debentures.	4.27	4.14	2.33	3.04
Global Fixed Income				
US Bond: US Dollar denominated Canadian bonds.	10.21	21.41	9.66	5.92
Corporate Global: Investment and non-investment grade bonds.	9.10	20.28	12.19	8.74
Global Fixed Income: Global bonds.	2.18	2.30	1.04	1.92
Global Bond: International fixed income.	9.01	15.58	5.93	4.28
High Yield Fixed income				
Emerging Markets: High yield emerging markets debt.	8.36	20.12	11.94	9.60
American High Yield: Lower quality US fixed income.	8.19	18.72	13.92	10.67
Emerging Markets Bond: Government debt securities.	8.36	19.34	11.20	8.87
Canadian Money Market				
Cash Management: Income with liquidity.	0.10	1.08	1.14	1.15
Savings: Current income with capital preservation.	0.03	0.91	0.97	0.96
Canadian Money Market: Income, capital preservation and liquidity.	0.04	0.97	1.06	1.07
Money Market: High liquidity.	0.00	0.10	0.10	0.10
Short Term Income: Higher income short term duration.	1.32	(0.87)	(0.22)	(0.10)
U.S. Money Market				
US Money Market US: US money market securities in US dollars.	8.64	20.48	10.81	5.10
US Money Market: Canadian money market securities in US dollars.	8.64	19.88	10.53	5.01
Premium US Money Market: Money market with currency diversification.	8.64	19.90	10.52	5.02
Short Term Corporate: Shorter term corporate debt securities.	8.64	19.70	10.36	4.90



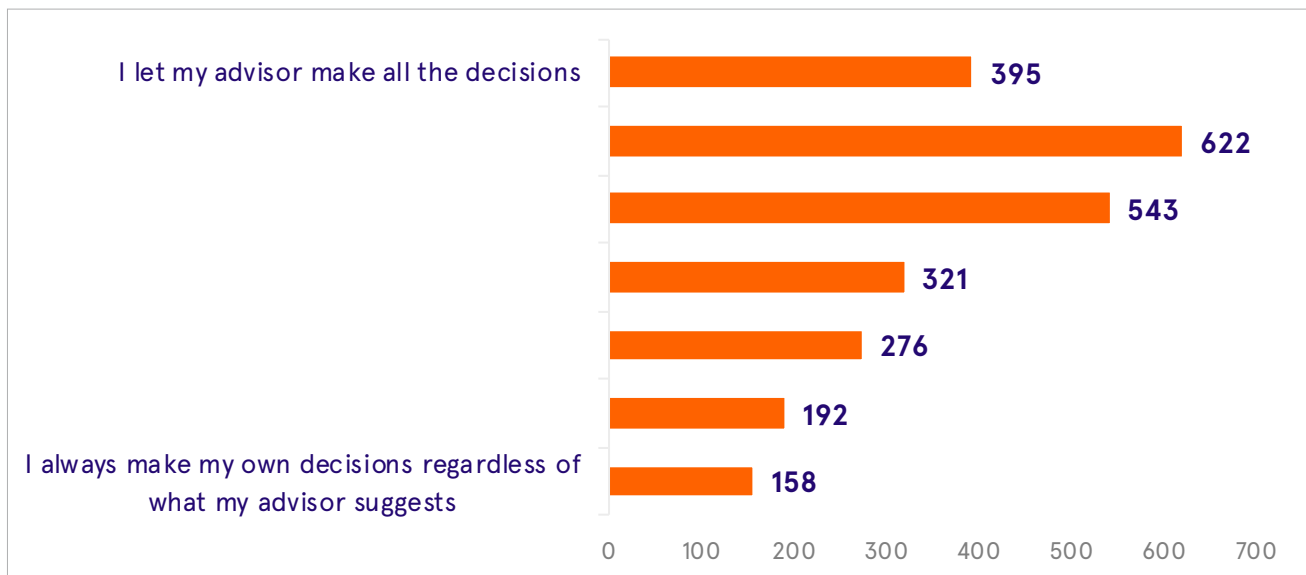
Appendix B



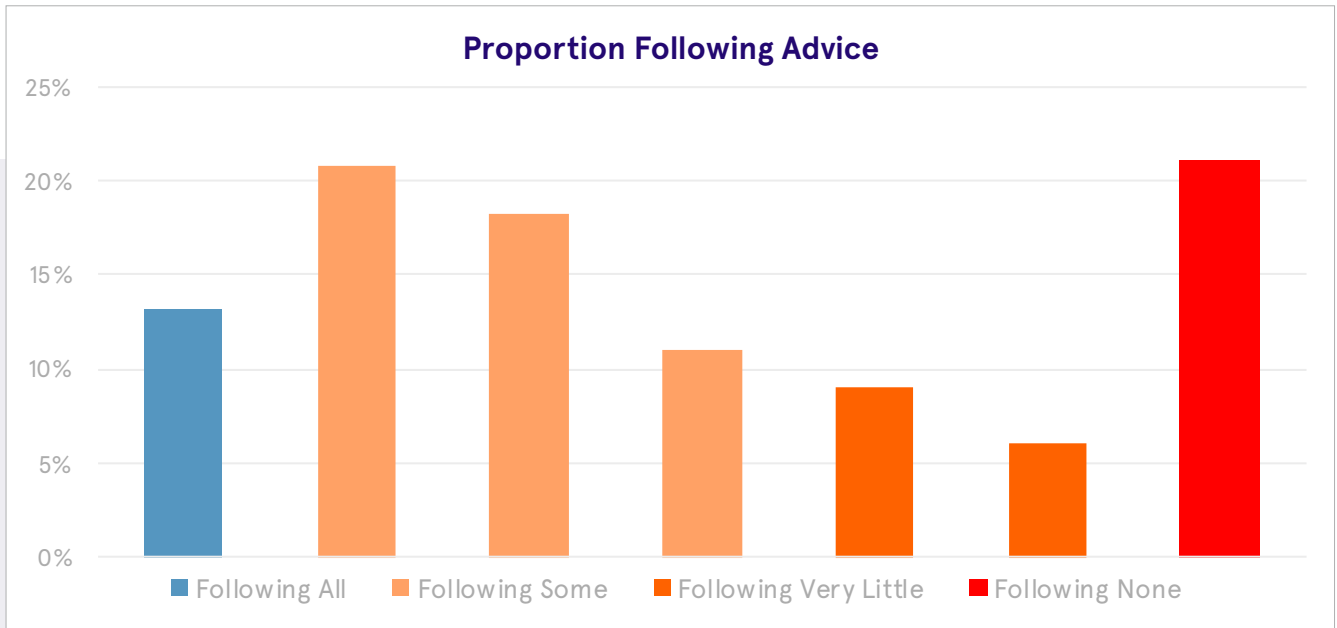
Appendix B - Experiment Sample Composition



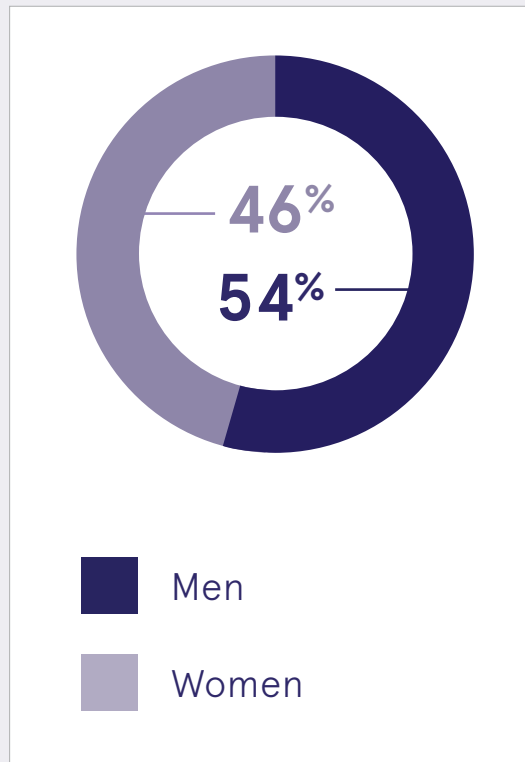
Source: BEworks Research Institute - The Value of Behaviorally Informed Advice Study, 2021



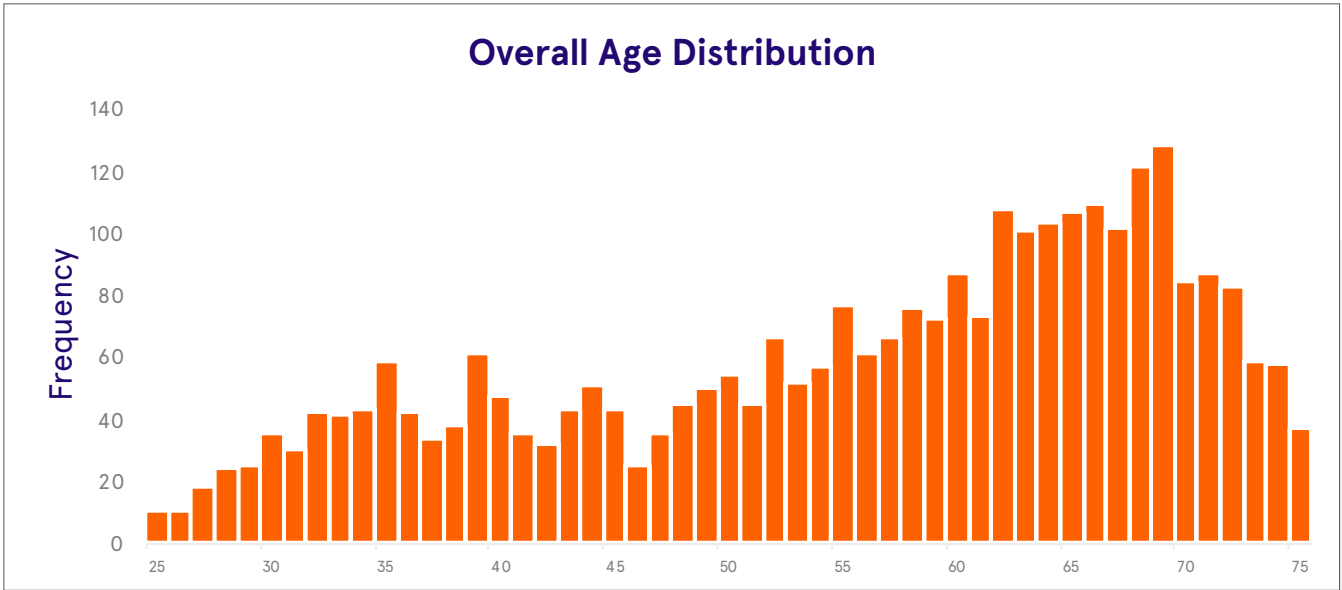
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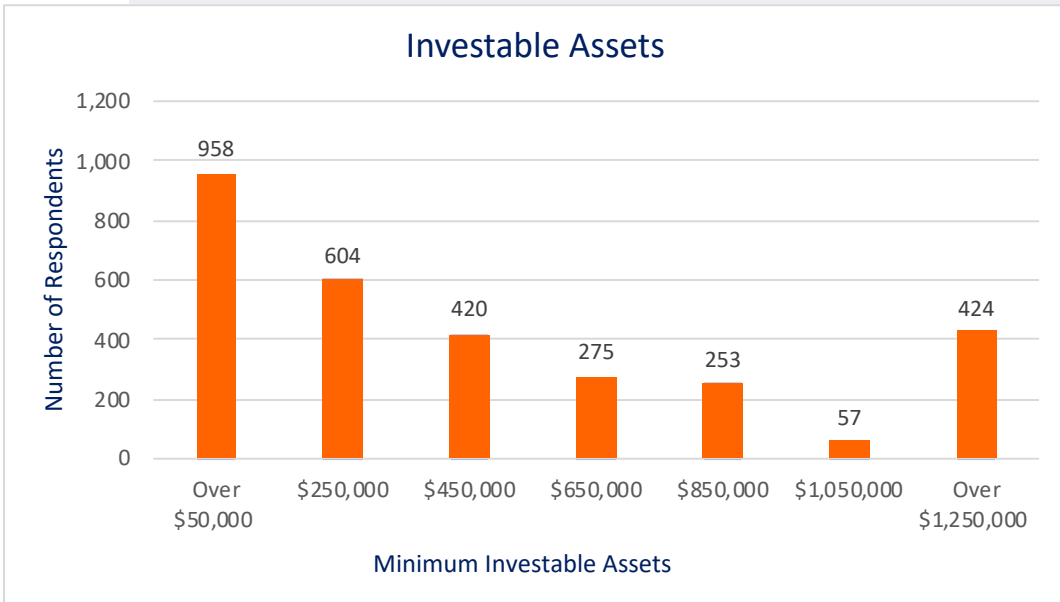
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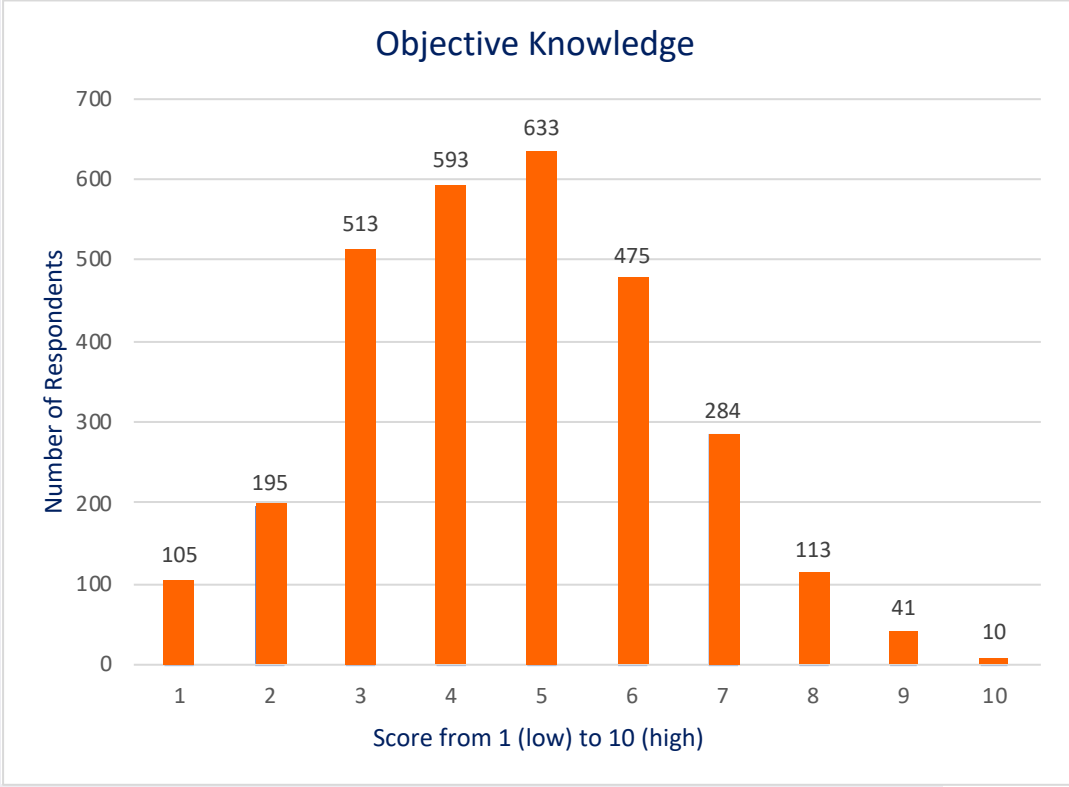
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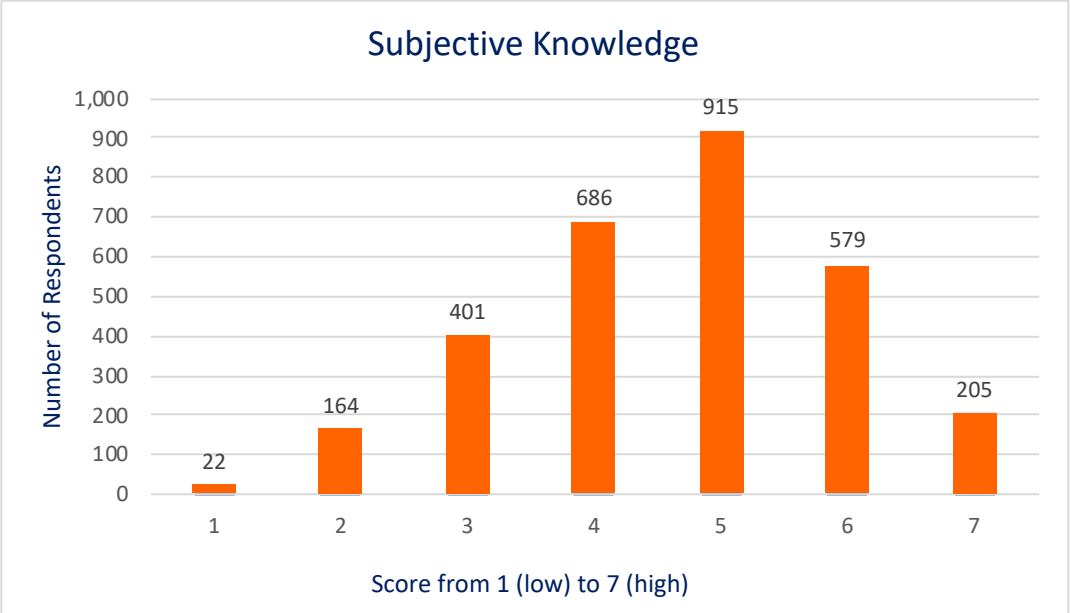
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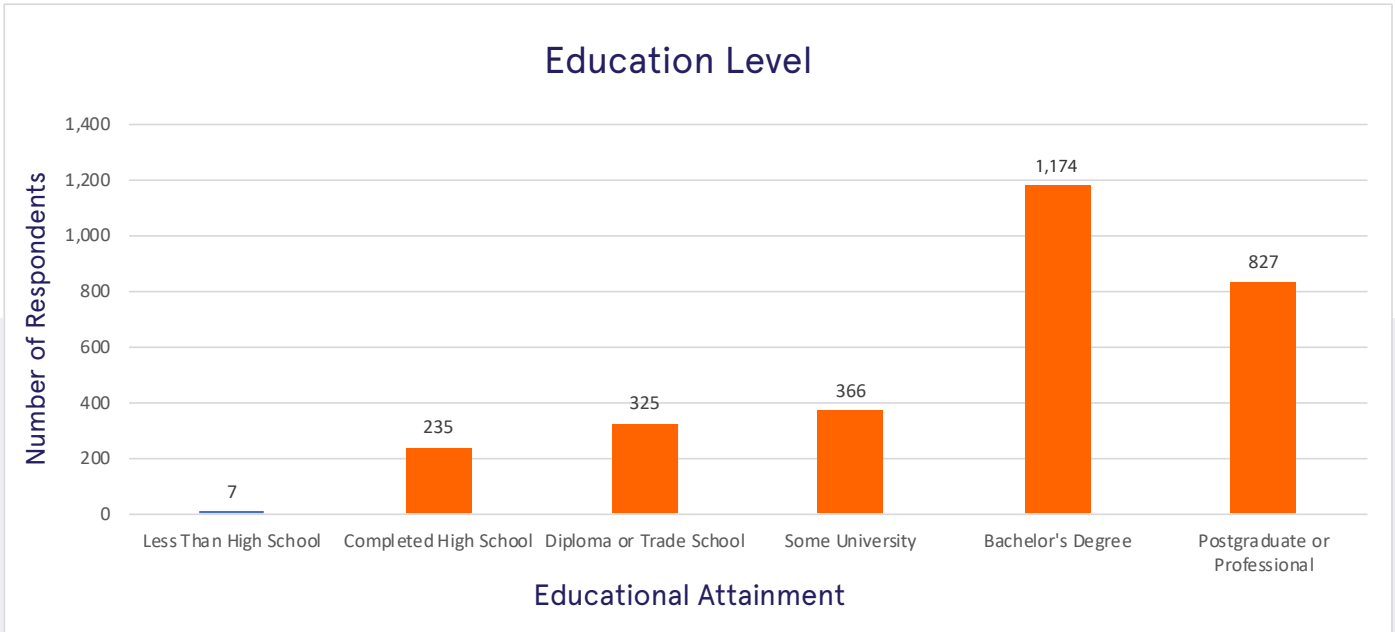
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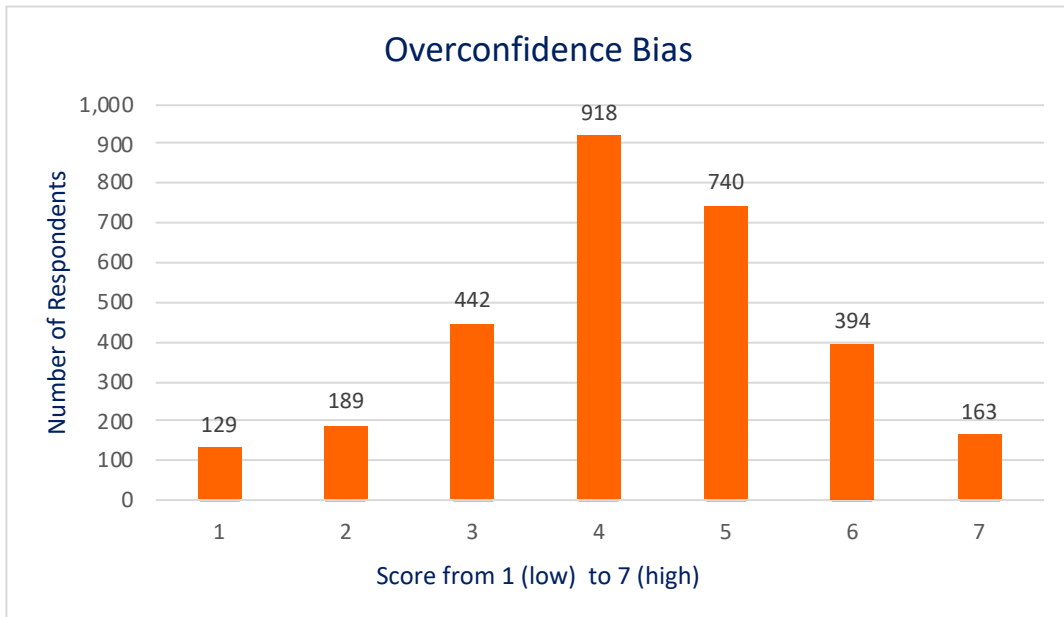
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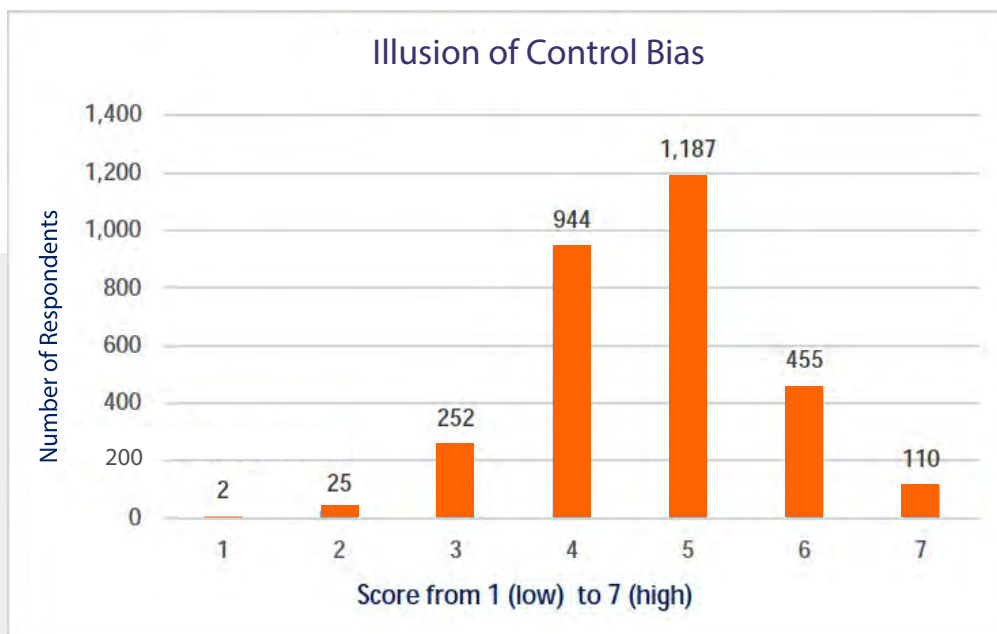
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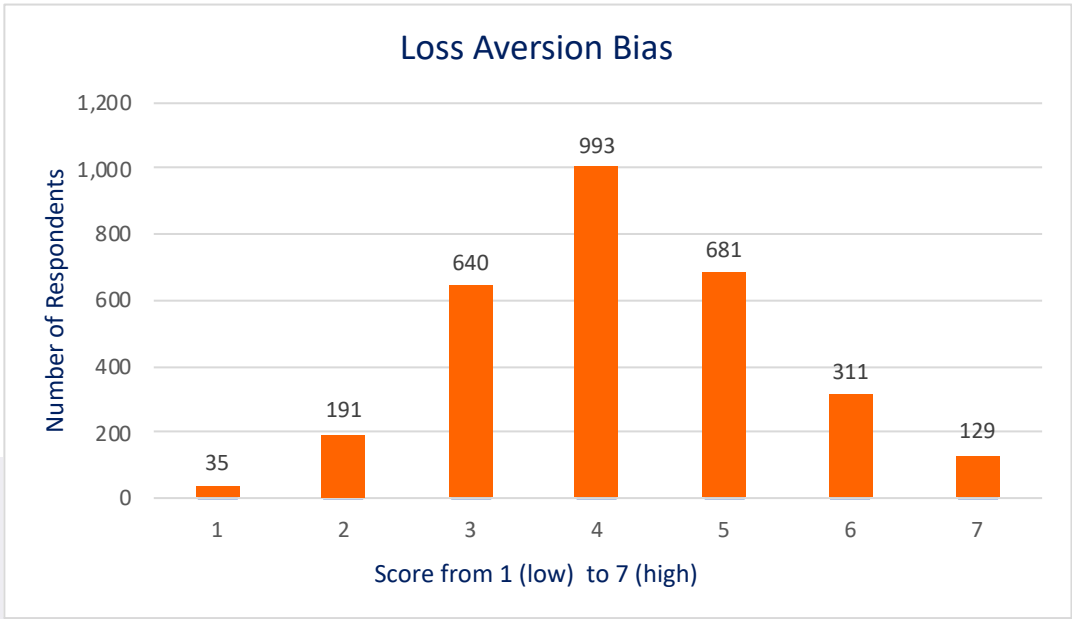
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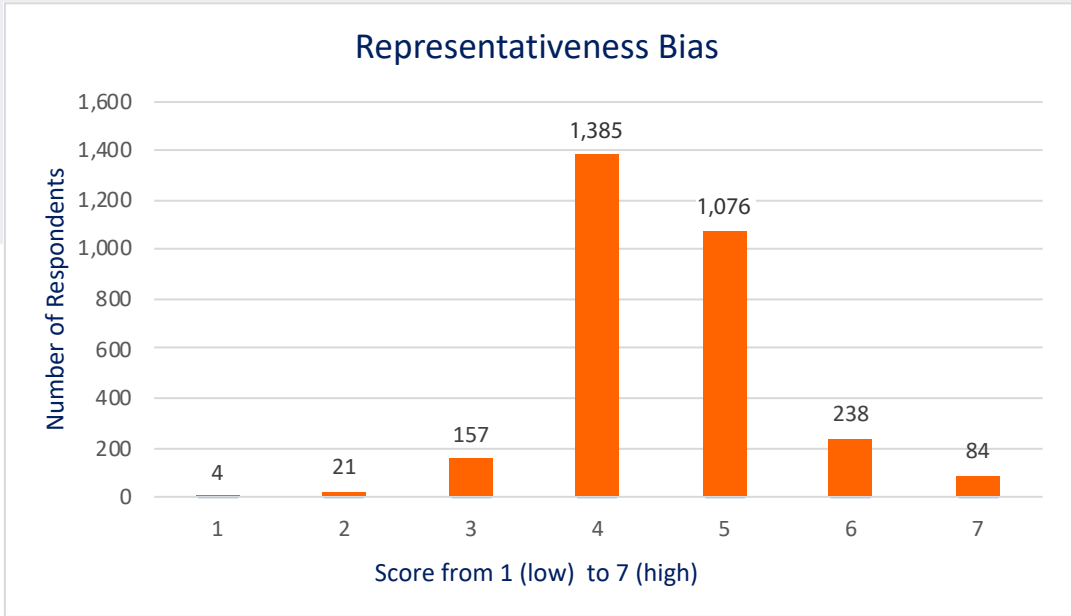
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Source: BEworks Research Institute - The Value of Behaviorally Informed Advice Study, 2021



Source: BEworks Research Institute - The Value of Behaviorally Informed Advice Study, 2021

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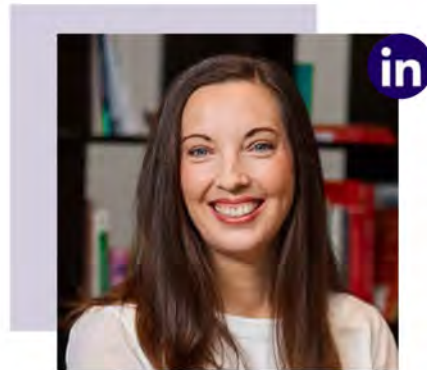
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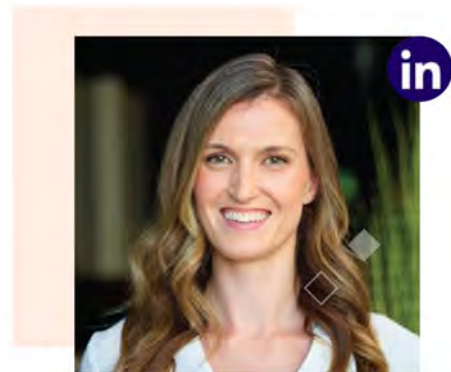
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