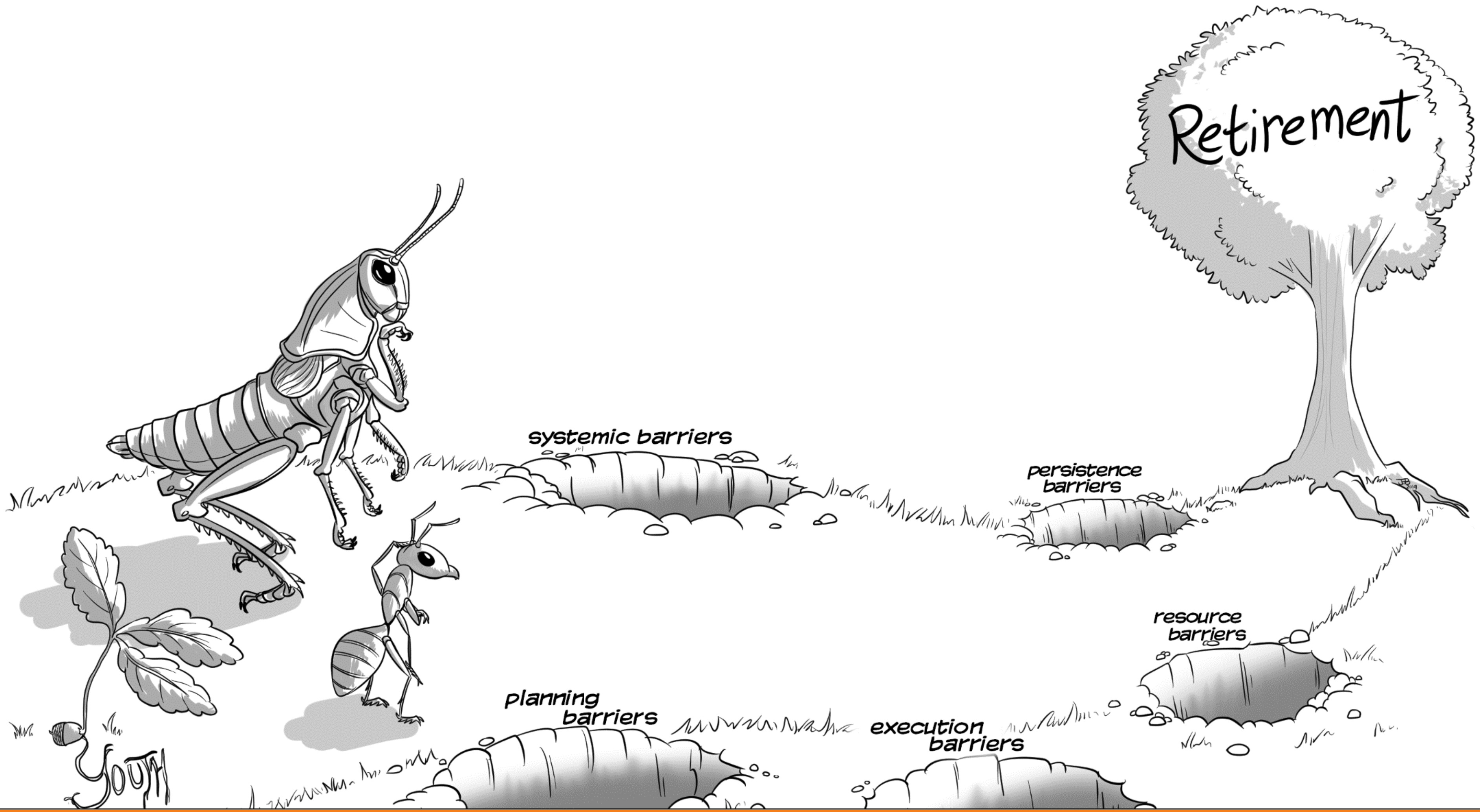
Retirement Savings Research

Colorado Secure Savings Plan Board

Contents

Executive Summary 3
Main Report 28
Research Process 30
Current Retirement Savings 34
Perceptions of Retirement 40
Barriers to Saving for Retirement 50
Assessing Barriers 59
Analysis of Specific Barriers 63
Potential Actions to Help Residents 133
Appendix 160



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Executive Summary

Goals: The Big Picture

Our overarching goal in the research is to …

Assess the effects that greater financial education among Colorado residents would have on increasing their retirement savings

Goals: Supporting Goals

- In support of the big-picture goal, we wish to understand and assess…
  1. The underlying causes for Coloradans not saving enough for retirement.
  2. The number of Coloradans that would increase the amount of their retirement savings.
  3. The amount of increase in retirement savings related to the effects of greater financial education.
  4. The demographics of the Coloradans that would increase the amount of their retirement savings related to the effects of greater financial education.
  5. The type of financial education that is most likely to result in an increase in the amount of Coloradans' retirement savings and the associated cost.
  6. The providers of financial education who are most likely to have the greatest effect on increasing the amount of Coloradans' retirement savings and their cost.

Categories of Retirement Savings Barriers

- The research team identified 11 key barriers to saving for retirement, which we classified into five categories.
  - > Planning Barriers
    - Challenges that prevent people from understanding their needs and developing a plan for retirement saving.
  - > Execution Barriers
    - Challenges in taking advantages of the long-term beneficial effects of saving over one's earnings lifetime.
  - > Systemic Barriers
    - Challenges in starting up a retirement account.
  - > Resource Barriers
    - Lacking specific skills or income to effectively save money.
  - > Persistence Barriers
    - An inability to maintain long-term gains due to a lack of consistent saving and/or prematurely withdrawing money from retirement savings for other purposes.

Specific Retirement Savings Barriers

- Within the five main categories of barriers, the 11 specific barriers are described on the next two pages.

Category	Specific Barriers			
Planning	Lack of vision about retirement – *can't calculate savings needs*	Lack of interest/ skill/ confidence in personal finance – *can't (or won't) manage and plan savings*		
Execution	Belief that one can "catch up" later on retirement savings – *costs years of growth*	Not starting early on retirement savings – *costs years of growth*	Not making retirement savings a priority relative to other saving/ spending/ debt service – *costs years of growth*	Suboptimal investment strategies – generally being too conservative in investments - *lowers long-term returns*

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Specific Retirement Savings Barriers

- Within the five main categories of barriers, the team identified 11 specific barriers, as described on the next two pages.

Category		
Systemic	Not having a workplace retirement account – *adds work to the process of saving, possibly loses matching funds*	Minimum size barriers – *account balances, investment minimum, and psychological inhibitions can prevent investment*
Resource	Not enough income to make investment possible – *living below the subsistence level in Colorado may make saving impossible*	Lacking access to technology – *inhibits access to low-cost investment tools and processes*
Persistence	Has gaps in contributing to retirement savings or withdraws funds from retirement savings – *costs years of growth*	

Prioritization and Analysis Approach

- When examining barriers and how to solve them, we want to understand how common the barriers are, how easy or difficult they are to overcome, whether they lead to (or feed) other barriers, and how we might address them. Because barriers can be complex and intertwined, this is not a straightforward discussion, so it is most productive to process them in combination and draw conclusions about their outcomes and how they manifest themselves in the Colorado population.
- These conclusions were drawn from original research with the Colorado public (both measurement and in-depth research), interviews with experts and practitioners in Colorado and across the nation, and examination of data and conclusions from other existing research. The following pages present our key conclusions and suggestions for moving forward.

Conclusion 1: Retirement is an important topic that is not top of mind for many Coloradans.

➲ The Challenge

Coloradans recognize that retirement savings is an important topic. However, several factors inhibit them from fully embracing it. Our in-depth research revealed several potential reasons for this.

- Cost of living is a top of mind issue, and for many Coloradans this keeps their financial thinking in the short term.
- There is a widespread lack of understanding of how retirement saving needs to work, from envisioning it to planning for it to saving for it.
- There is uncertainty about who to approach for help and learning.
- There is a common belief that you cannot really start the process if you do not have significant funds, and/or that a typical person cannot save enough anyway.
- For many Coloradans, retirement is a long time horizon and can easily be procrastinated.
- If a person is not thriving financially, it can be unpleasant to think about the large cost of funding retirement, so they choose not to think about it.

Conclusion 1: Retirement is an important topic that is not top of mind for many Coloradans.

How common is the challenge?

> Only 39 percent of Coloradans say that they have a clear vision for retirement, and only 24 percent of individuals making under $50,000 a year have a clear vision. Only 29 percent say that retirement savings is a "very high" priority for them, and the figure is only 18 percent for those making less than $50,000 per year. Only 56 percent have a financial goal for their retirement savings., and while 86 percent expect to live a similar or even more comfortable lifestyle in retirement, only 74 percent report saving at all.

How easy is the challenge to address?

> The collective research shows that many people in the population are willing and receptive to learning more about saving for retirement. The key is to find a trusted advisor who they can feel comfortable talking to without embarrassment, secrecy, or judgment. (This trust issue is discussed further later.)

Potential solution

> The state has credibility to provide, sponsor, or partner with financial advisors to offer no-cost initial one-on-one financial consultation or financial education, or online tutorials as a lower cost approach. Such a program might involve income limits for participation to be welcoming to middle and lower income residents. A positive and empowering public information campaign on key elements of personal finance could also have significant impact as a means of educating the broad population.

Conclusion 1: Retirement is an important topic that is not top of mind for many Coloradans.

- **Potential solution (continued)**
  - Another solution frequently heard in the research is that people need to learn financial concepts and values in youth, in what is termed "financial socialization". Suggestions for this approach included teaching personal finance in schools and training parents in how to instill financial socialization in their children.
- **Who will it help?**
  - While there are certainly Colorado residents who are well-positioned and well-served in this area, it appears that this challenge would help a broad swath of the state's population. Those with higher incomes often get this help through the financial services industry, so solving this issue would be of particular value to middle class individuals. Lower income individuals would benefit more from other types of services, as discussed later, but could also benefit from these services.
- **Potential Impact**
  - National data indicates that households who say that retirement is the most important reason for saving have 88% more in retirement savings compared to those who don't, even after controlling for characteristics such as age, income, and other predictive factors.

Conclusion 2: Savings systems need to be available, simple, automated, and back of mind.

The Challenge

A number of hurdles must be overcome for a successful retirement savings process.

- The individual must start an account.
- The individual must consistently contribute to the account.
- The individual must select appropriate investments relative to his or her time horizon.

The most common tool to accomplish all of these elements is to have a workplace retirement program in place.

How common is the challenge?

- Only 60 percent of Colorado adults under 65 reported having access to a workplace retirement plan, and only 53 percent use a workplace retirement plan. (70 percent of workers have access, adjusting for people who are not in the workforce).

How easy is the challenge to address?

- Addressing the challenge is straightforward if employers participate. Experts interviewed for this study were strongly supportive of workplace plans and their effectiveness in helping people save for retirement.

Conclusion 2: Systems need to be simple, automated, and back of mind.

Potential solution

> There was strong consensus among experts, existing research, and the public that workplace retirement plans were a strong way to support retirement saving. Selected elements of a successful program included:

- An opt-out process rather than opt-in. This would assume participation by default unless the worker took action to remove himself or herself from the program. Residents generally liked this approach as well, since it took little action.
- An easy choice of retirement options (or a default option). Experts tended to like a simple approach where savings were automatically placed into a target date fund, though some preferred a few more choices. Colorado residents were less specific, but wanted it to be simple and/or to get coaching from employers or employer-trusted representatives in investment options.
- Experts also liked an auto-increase option where the percentage of pay being withheld increased automatically each year unless the employee opted out of such a system. While most residents were not aware of this investment approach, a few who were involved in such programs spoke well of them.
- A matching contribution was seen as particularly valuable for lower income workers, both for leveraging and because these workers get lower tax benefits from a retirement account.

Conclusion 2: Systems need to be simple, automated, and back of mind.

- **Who will it help?**
  - The collective research shows that expanded workplace retirement plans would assist lower income workers disproportionately, as long as they are above the subsistence level.
- **Potential Impact**
  - National data indicates that households with access to a workplace plan tend to have 790 times more in retirement savings than those who don't, even after controlling for characteristics such as age, income, and other predictive factors. (This large figure reflects both the increased likelihood of starting an account and of persistence in contributing to that account.)
  - Holding other variables at the means for the state of Colorado, the predicted retirement savings for a person without a workplace plan is $22. The predicted retirement savings for someone with a workplace plan is $22, 995.
  - The size of this effect needs to be understood in context. In many ways, having a workplace account is one and the same as saving for retirement. Access to these accounts is strongly correlated with retirement savings because these accounts always yield retirement savings in the data (The Federal Reserve only reports a household having this account if it contains a balance greater than $0). Nonetheless, households that have these accounts perform much better than households with other types of retirement accounts, and having a workplace plan consistently has the largest effect size on retirement savings across models and specifications.

Conclusion 3: Coloradans do not know how to get information about saving for retirement

The Challenge

Coloradans are wary of traditional sources of data and learning and are looking for ways to learn.

- Many Coloradans are starting at a very low level of investment knowledge, and feel uncomfortable seeking assistance for fear of being judged or rejected.
- There is frequent suspicion of financial advisors as being salespeople rather than advisors. There is also concern about costs and fees, particularly if the client does not have significant assets or is just starting out. These concerns appear to be more prevalent among those with less assets to absorb fees or costs.
- While some people will talk to family, friends, or coworkers, finances are often viewed as deeply personal and are not discussed with others.
- While the opinion is not universally held, employers are often seen as viable conduits of training (if not the trainers themselves), and organizations such as government and nonrprofits that have no perceived self-interest can overcome the trust barrier.

How common is the challenge?

- There is interest in learning more about personal finance, with 67 percent of Coloradans saying that somewhat or strongly agree that they have an interest in learning more.

Conclusion 3: Coloradans do not know how to get information

Potential solution

- Similar to the suggestion for Conclusion 1, a state-sponsored advisory program for those in middle and lower income groups could offer no-cost initial one-on-one financial consultation or financial education, or online tutorials as a lower cost approach.
- An initial thought at content for an online tutorial is to simply walk people through the three steps of beginning retirement savings: find a company to start the account with, choose an account type, and choose an investment type. More in-depth tutorials could expand on these first three steps.

How easy is the challenge to address?

- As noted in Conclusion 1, the collective research shows that many people in the population are open to learning more. The key is to find a trusted advisor who they can feel comfortable talking to without embarrassment, secrecy, or judgment.

Who will it help?

- While it would potentially help a large part of the population that does not have access to a professional financial advisor or other credible advisors, the research indicates that addressing this problem might particularly help the segment of the population that is not currently saving for retirement. The research suggests that there is a very significant barrier to entry for retirement savings, in that many people may lack the confidence to engage with formal financial advisors.

Conclusion 3: Coloradans don't know how to get information

➲ Potential Impact

> National data suggests that people who have higher financial literacy (one additional correct question out of three) have 35% more money in retirement savings. Additionally, people who have consulted a financial advisor have 148% more in retirement savings, even after controlling for characteristics such as age, income, and other predictive factors.

Conclusion 4: Coloradans need help thinking about "investing" versus "saving" for retirement.

The Challenge

Coloradans may not be getting the best value out of the money that they're saving.

- Experts and practitioners believed that people are often too conservative in their investments under the belief that retirement savings should be "safe". Volatility in the market, which smooths out over the long term, is often seen as risk without acknowledgement of this long-term smoothing. The result is that Colorado residents could losing the opportunity to increase their retirement savings significantly without having to increase their savings contributions.

How common is the challenge?

- 45 percent of Coloradans say that their investment philosophy for retirement savings is "somewhat conservative" or "very conservative". While this could be appropriate for older residents who are approaching retirement, this figure varies little by age and income. Overly conservative investing could have significant negative impacts on retirement savings for younger people.
- Additionally, 43 percent strongly or somewhat agree that they do not know where to invest their money, and the figure is over 50 percent for those under 35. 33 percent say that confusion about the language of investing is a major or moderate barrier to saving for retirement (and the figure is 43 percent for those under 35).

Conclusion 4: Coloradans need help thinking about "investing" versus "saving" for retirement.

How easy is the challenge to address?

- Newer investment tools such as target date funds have a goal of making investing simple. However, in many cases the problem is even more basic. The research team's in-depth research revealed that many people believe that retirement savings should be in a regular savings account or secure finance fund (such as a money market). Others confuse having secure savings (such as a savings account) with the investing that is valuable for long-term growth in a retirement account.

Potential solution

- Again, as suggested earlier, online tutorials, an educational ad campaign, or one-on-one counseling with trusted advisors would be helpful.

Conclusion 4: Coloradans need help thinking about "investing" versus "saving" for retirement.

Who will it help?

- This type of education would help a large portion of the state's population given the breadth of the problem. The research suggests that younger people would benefit to the greatest extent given that they have more time to benefit from proper investing. Additionally, the research suggests that younger adults (Gen Z) may be more prone to this problem as they grew up during the recession and saw the impacts of a major shock to the market (and often to their parents). The Gen Z generation is theorized as being more conservative in general, which may help in savings habits but not in investing.

Potential Impact

- Over the past 40 years, a person who held their retirement investments in stocks (100%) would have 900 percent more money in their retirement account over a person who invested the same amount of money in CDs.
- National data suggests that people who are totally unwilling to take a financial risk have 62% less money in retirement savings than those who accept some level of risk.

Conclusion 5: Some Coloradans realistically cannot save for retirement (right now).

The Challenge

Many Coloradans do not earn enough to overcome the cost of living in Colorado, which makes saving and long-term planning difficult.

- Experts agreed that for the population living below the subsistence line, promoting retirement savings is not effective, and can in fact be counterproductive if it places an additional stress or worry on a population that is already stressed on finances.

How common is the challenge?

- 43 percent of Coloradans in the survey stated that not making enough money is a major or moderate barrier to saving for retirement, though this may include some debt-burdened households that have what would normally be a sufficient income. Additionally, the Colorado Center on Law and Policy recently estimated that 27 percent of Coloradans live below the subsistence line, earning less than they need to cover basics such as food, housing, transportation, and other costs.

How easy is the challenge to address?

- Experts unanimously agreed that this is a very difficult issue to address, and indeed stated that it is the most difficult barrier to address among those cited in this study.

Conclusion 5: Some Coloradans realistically can't save for retirement (right now).

Potential solution

- It was generally agreed that the solution to this barrier falls outside the scope of retirement savings. Instead, other programs and measures should be the focus to assist these households in meeting their living costs and gaining skills that will help them increase their income in the long run.
- Of course, any public education and financial planning assistance should be available and be seen by this market segment. However, it is unlikely to have a positive impact if not preceded or accompanied by other types of general financial assistance or training.

Who will it help?

- Programming would be targeted by those living below the subsistence level, and is already largely in place.

Potential Impact

- No specific retirement programs or interventions are proposed for this conclusion.

Conclusion 6: Coloradans are generally interested in receiving information via employers

The Challenge

As noted earlier, Coloradans are looking for sources of information that they can trust. During the course of the research, relationships with employees were considered, and it was generally found that workers would like to leverage their employers to learn more about retirement savings. Therefore, this conclusion represents an opportunity more than a challenge.

How common is the challenge?

- Employers are currently the fourth-most commonly used source for information on retirement savings, following friends and family, online searching, and professional financial advisors. Over 40 percent of Coloradans in the research survey indicated an interest in investment optimization training, financial planning, personalized planning, and training on types of investments through their employer.

How easy is the challenge to address?

- The use of employers as a resource is much more common among younger people, so the pattern is positive. Whereas fewer than 15 percent of those over 15 are "extremely likely" to use their employer as an information source, the figure is over 30 percent for those under 35.

Conclusion 6: Coloradans are generally interested in receiving information via employers

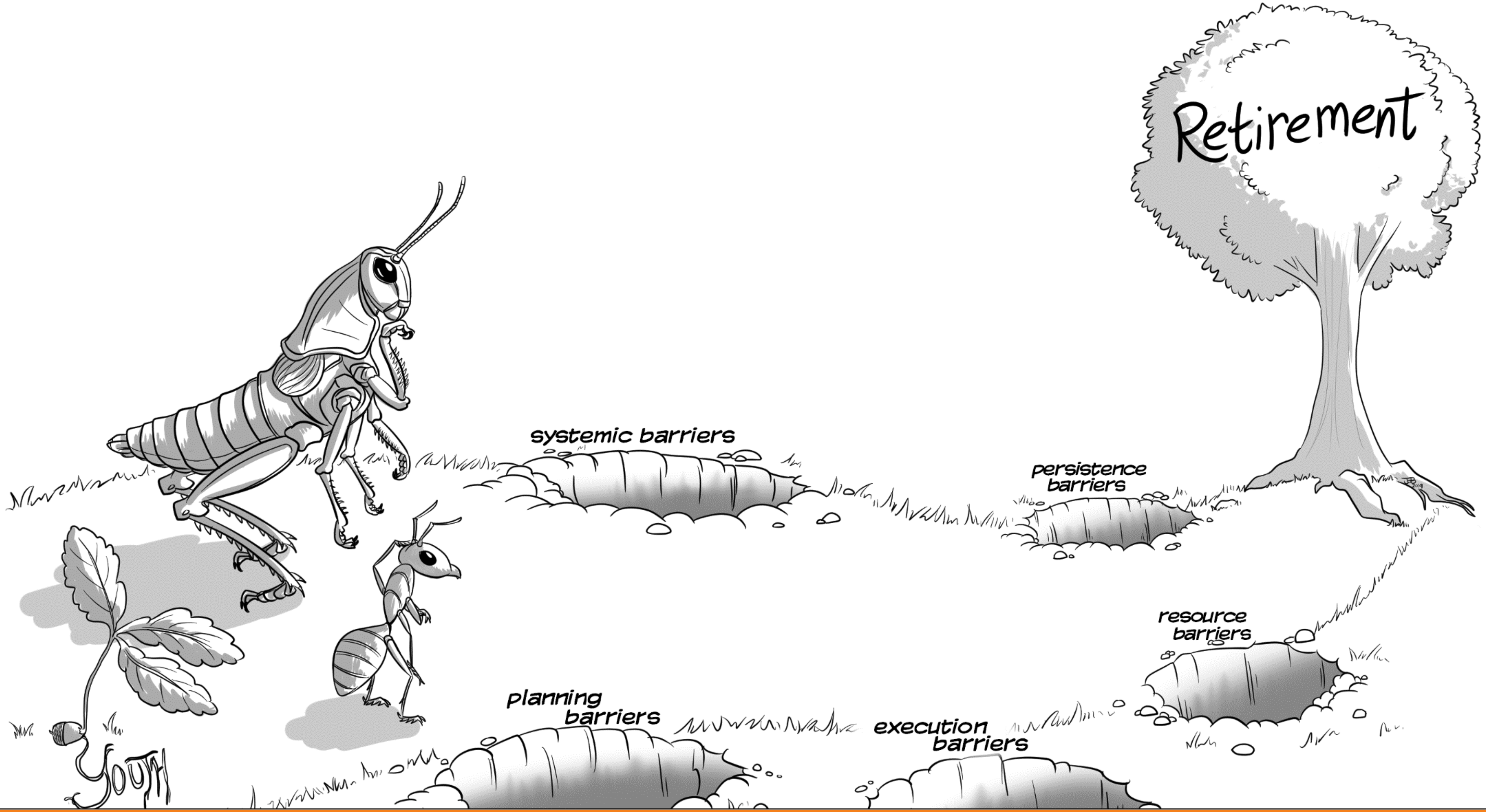
- **Potential solution**
  - If the state offers financial planning services to the public, or online videos, services could potentially be coordinated through employers to provide these offerings via the workplace. This would add additional credibility to the courses, given that the public is wary about identifying trusted sources in this area.
- **Who will it help?**
  - Employees of companies would be assisted, and particularly lower-wage companies whose employees may be less likely to obtain professional advice.
- **Potential Impact**
  - This conclusion addresses the delivery of services more than the services themselves. See Conclusions 1 and 3 to examine potential impacts.

Thoughts on Messaging

- Charts and graphs are welcome here.
  - Interestingly, on a tactical note, the research consistently revealed that visual elements such as charts and graphs are effective tools at teaching these concepts.
- Concentrate on small and simple steps.
  - Our research indicates that retirement is daunting in part because it involves large amounts of money and the need for long time horizons. This is somewhat alien to the challenges that people consider and overcome in other parts of their lives. In developing messaging and programs, we need to remember that…
    - A significant barrier for a majority of people in their retirement planning is knowing where and how to start better saving habits. Generally, people want to save more but lack the confidence to know that what they are doing is right and that certain courses of action may help them save more. Simple tactical steps can start this positive process.
    - To improve saving behaviors, future opportunities should focus on what people themselves see as feasible changes in their lives. From here, participants are likely to build confidence and see improved savings as something that is manageable.
    - As evidenced by discussions with Colorado residents, starting efforts to save are the hardest. Once habits are formed, saving more and doing so more efficiently come easier. Financial education should have a goal of building saving habits, no matter how small.

Thoughts on Messaging

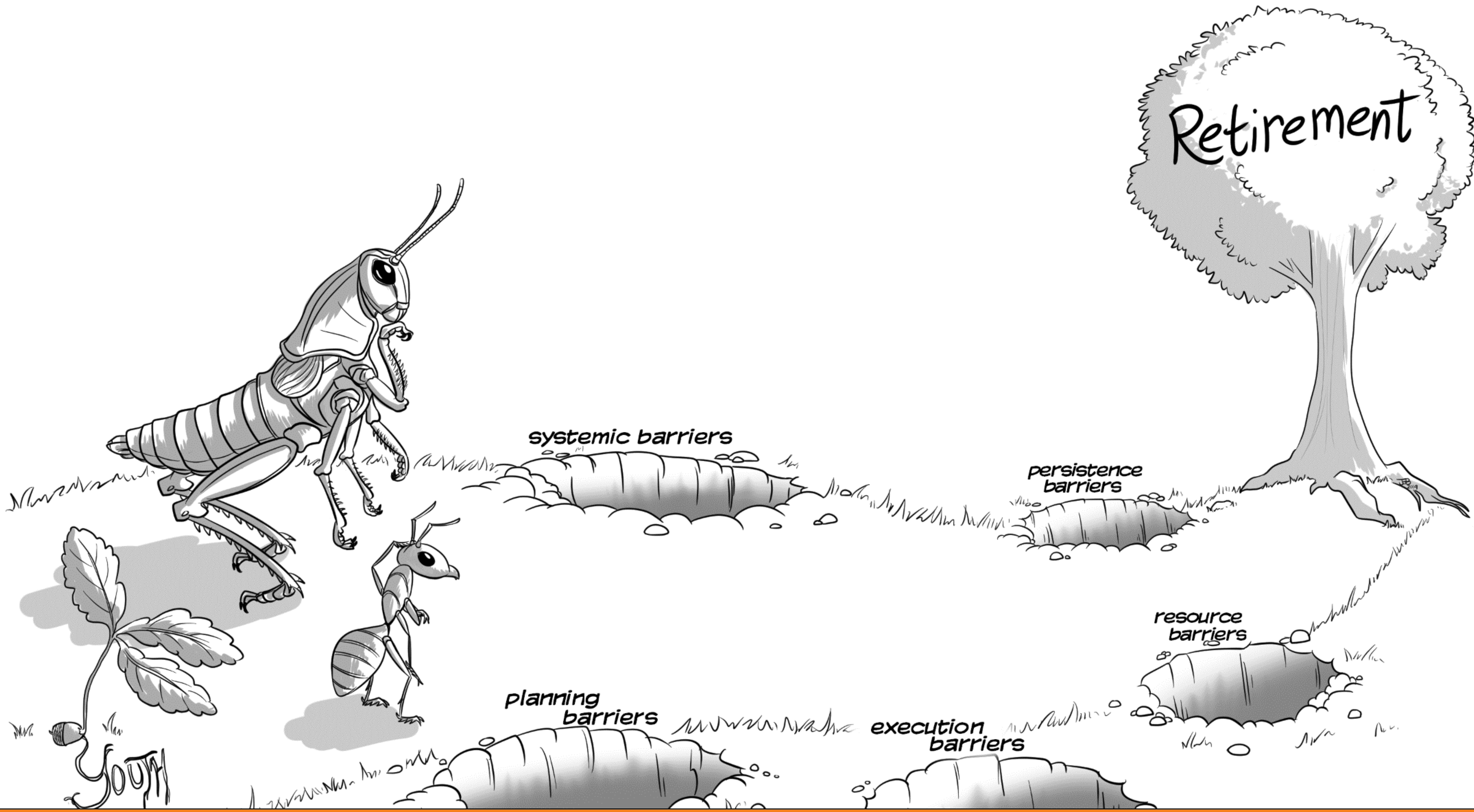
- Positivity and empowerment are likely the best tone to take.
  - The research showed two schools of thought, one that focused on empowering individuals ("save your way to a positive retirement") and another that focused on frightening individuals ("if you don't save, retirement is going to be really hard for you"). We acknowledge that different approaches work well for different people, but propose that messages that build confidence and empowerment may be most effective for Colorado's broad population, for the following reasons.
    - Retirement savings is already a source of stress and anxiety for Coloradans.
    - Those who are not saving (or not saving enough) already feel insecure about their past saving efforts, their lack of knowledge today, and an uncertainty of their stability in the future.
    - Coloradans would like help moving forward, but don't know where to turn.
  - Based on this knowledge, we suggest that messaging and approaches should build confidence and empowerment.


Retirement
systemic barriers
persistence barriers
resource barriers
planning barriers
execution barriers
Youth

Main Report

This Report

- The remainder of this report contains the detailed process and findings that led to the conclusions in the executive summary. The interested reader is welcome to read and review this work in detail.



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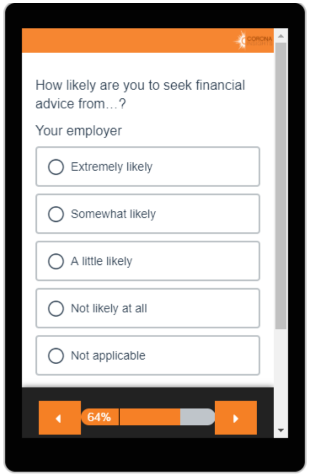
Research Process

Research Process



The research process included:

- Phase 1 – Exploration
  - Mining of existing data sources
  - Two bulletin board online focus groups with Colorado residents Front Range residents and the other including non-Front Range residents).
  - Literature review of existing research on the topic
  - One-on-one interviews with financial planning experts and practitioners
- Phase 2 – Measurement and Strategy
  - Mining of existing data sources
  - One-on-one interviews with financial planning experts and practitioners
  - A panel survey of Colorado residents
  - Three focus groups with members of the public (conducted in Denver, Fort Morgan, and Colorado Springs)

Icons Representing Research Methods for Detailed Findings Throughout the Report

Refers to findings from data mining and econometric models

Refers to findings from online bulletin board focus groups

Refers to findings from literature review of existing research

Refers to findings from interviews with financial experts and practitioners

Refers to findings from panel survey of Colorado residents

Refers to findings from three in-person focus groups

Look Here for Icons

Prevalence Estimates

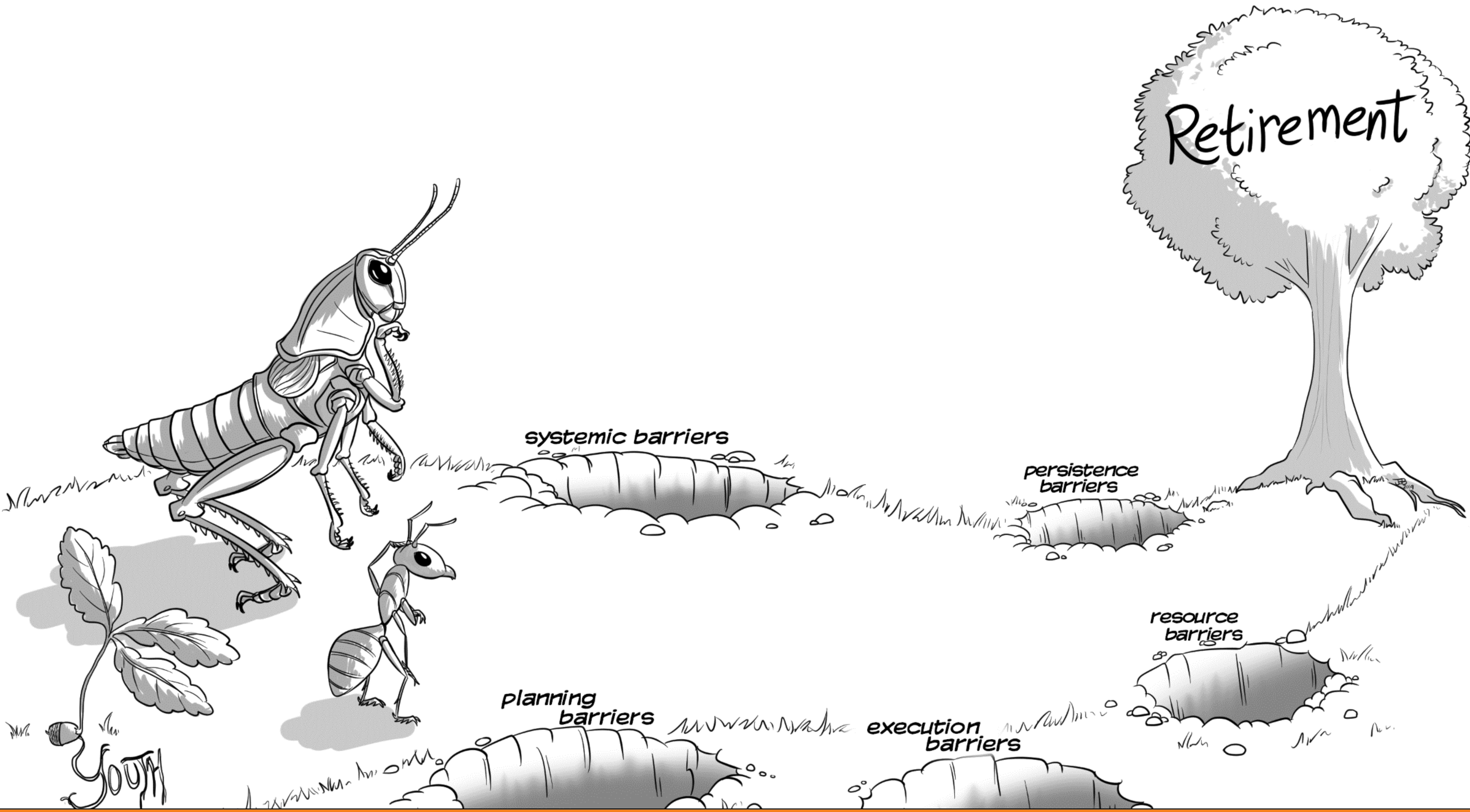
- Throughout this report, the reader will see tables that break out the Colorado and national populations into nine roughly equal segments by age and income. The thresholds that define those segments are shown below. A small number of non-retired 65+ individuals are included in the survey data for Colorado. Note that the state and national figures are not always apple to apple comparisons due to data limitations.

Colorado

Income / Age	Youngest 1/3 (Under 35)	Middle 1/3 (35-49)	Oldest 1/3 (50-64)
Lowest 1/3 ($0-$49k)			
Middle 1/3 ($50k-$99k)			
Highest 1/3 ($100k+)			

National *(Survey of Consumer Finances). Data based on the National Financial Well-Being Survey uses the Colorado categories.)*

Income / Age	Youngest 1/3 (Under 40)	Middle 1/3 (40-51)	Oldest 1/3 (52-64)
Lowest 1/3 ($0-$37.5k)			
Middle 1/3 ($37.6k-$86.1k)			
Highest 1/3 ($86.1k+)			



Current Retirement Savings

Notes on Median Retirement Account Amounts

- The following should be considered when comparing the Colorado and national median values of retirement accounts.
  - Corona Insights' survey of Colorado residents employed a categorical approach to asking for retirement savings due the reality that asking for dollar values of personal financial information drastically reduces response rate.
  - The Federal Reserve's Survey of Consumer Finances (used to develop national estimates) systematically asks respondents about balance values across tens of account types in an interview process that can take hours. The national values are the median value of any and all retirement accounts. Individuals who lack a balance across retirement accounts are included in this calculation as having $0 in retirement.
  - Given the question wording, respondents to the Colorado survey are more likely to include value from non-retirement account sources in this estimate (traditional savings accounts, real estate, etc.). This dynamic contributes to the higher median estimates observed at the state level.
  - The relative differences across income and age segments are consistent in the national and state data. We found no evidence that suggests savings behavior in Colorado is drastically different than it is in the country at large.

Americans Aren't Saving Enough

- **As of 2013, the median working-age family only had $5,000 saved in retirement accounts (Morrissey, 2016) and the percent of workers having inadequate funds to maintain their lifestyle through retirement has increased from 31% in 1983 to 53% in 2010 (Benartzi & Thaler, 2013).**
  - Only half of Americans families age 25-64 participate in a retirement plan at work (Stanford Center on Longevity, 2016) and approximately 56% of Americans don't know how much they will need to comfortably retire (Northwestern Mutual, 2019).
  - While in 2019, the United States' retirement security ranked 18th out of 150 countries (Global Retirement Index: Natixis Investment Managers, 2019) Colorado ranks in the top 10 states for financial literacy (Banerjee, 2011).

Proportions who have a retirement account

- **Colorado estimate: 59%**

Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	27%	28%	45%
Middle 1/3	51%	68%	73%
Highest 1/3	47%	86%	77%

- **National estimate (NFWBS): 52%**

Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	16%	23%	34%
Middle 1/3	50%	65%	74%
Highest 1/3	57%	86%	88%

Median Current Retirement Savings

- **Colorado estimate: $50,000 to $99,999** (Categorical estimates)

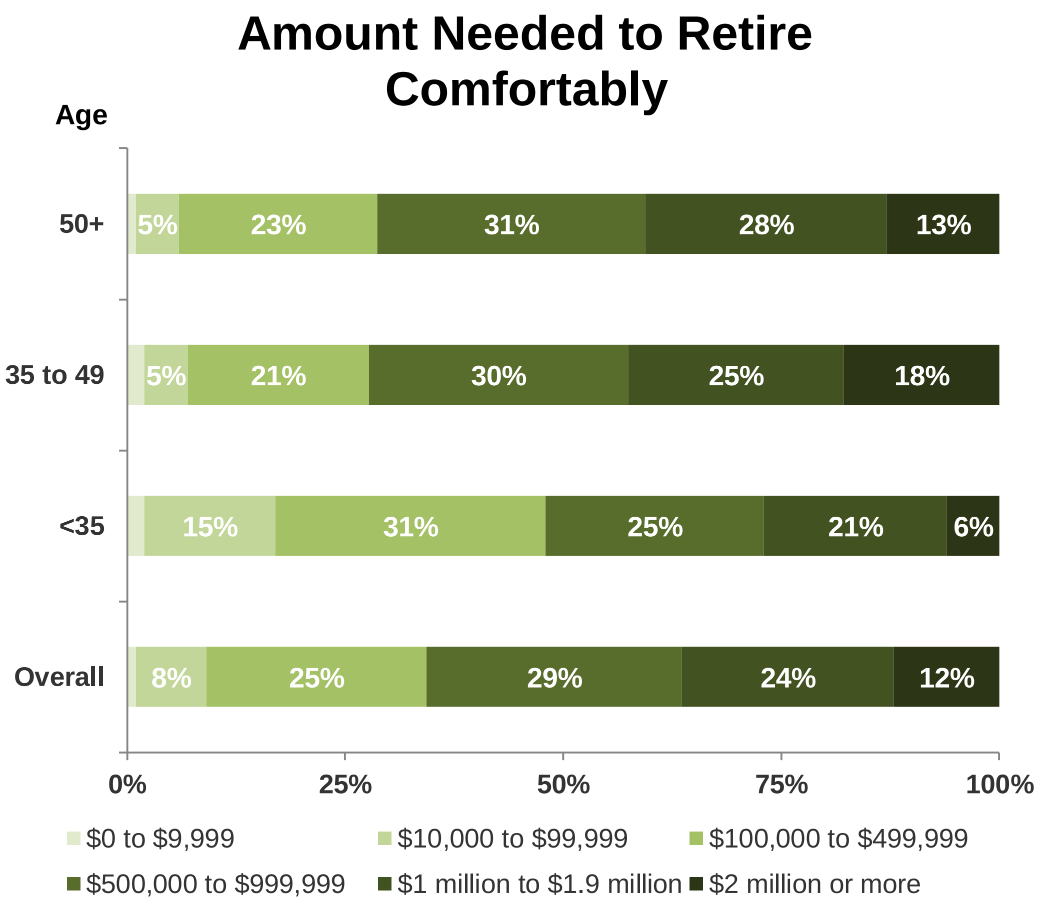
Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	$0 to $24,999	$0 to $24,999	$0 to $24,999
Middle 1/3	$25,000 to $49,999	$50,000 to $99,999	$150,000 to $199,999
Highest 1/3	$50,000 to $99,999	$150,000 to $199,999	$250,000 to $499,999

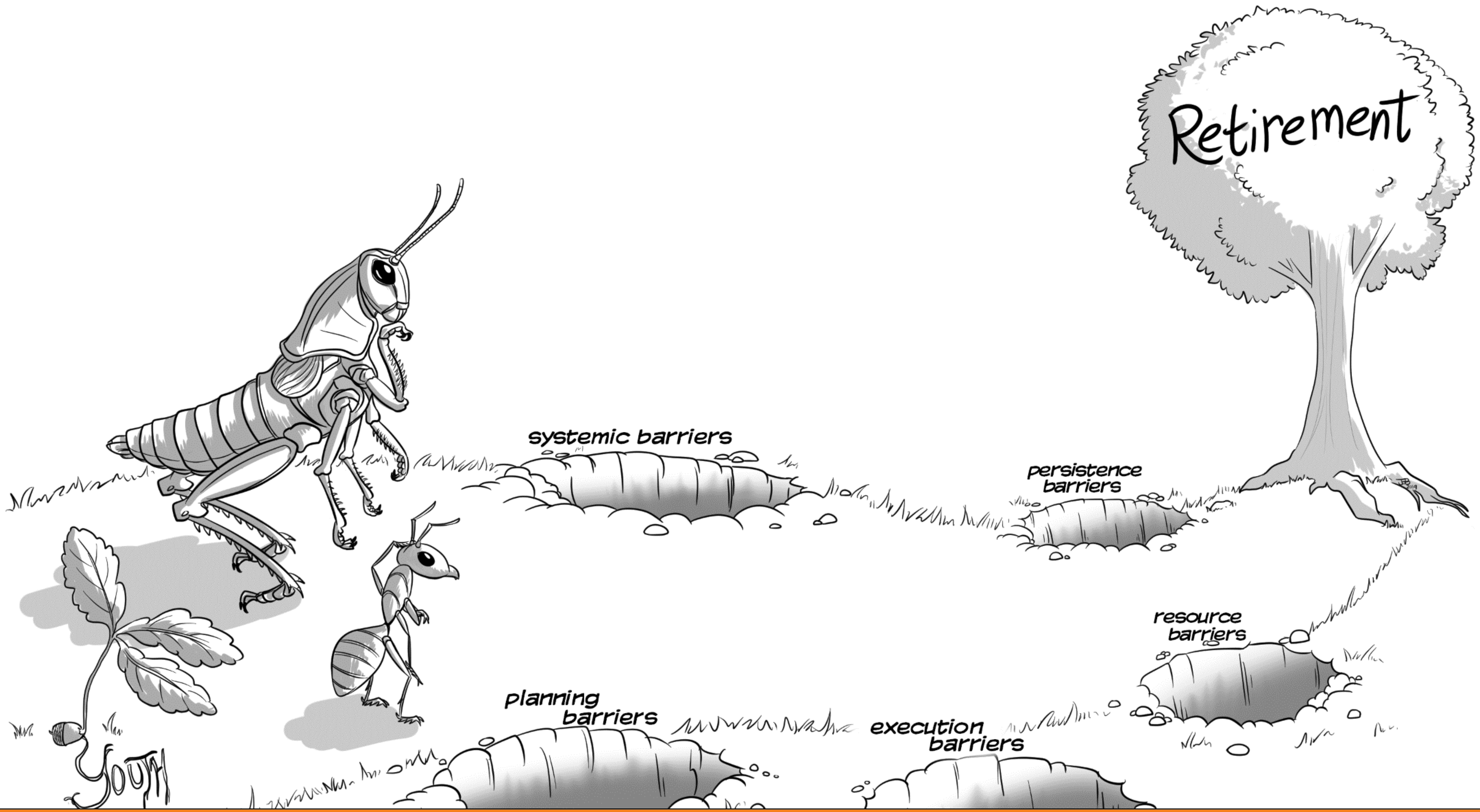
- **National estimate (SCF): $2,000**

Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	$0	$0	$0
Middle 1/3	$2,000	$10,099	$20,000
Highest 1/3	$30,000	$82,000	$207,500

Coloradans have a wide range of estimates of how much one needs to retire comfortably

- There was quite a large discrepancy based on age. Younger survey respondents believed they needed less money to retire comfortably. Similarly, those with smaller household incomes and lower education levels also believed that they needed less money to retire comfortably.
- Respondents currently saving for retirement and those who scored higher on a measure of financial literacy believed that they would need more to retire comfortably.





Perceptions of Retirement

Coloradans see themselves as responsible for their own retirement savings

- Many participants do not expect that social security will be sufficient monetary assistance during retirement with younger persons expressing that social security will become obsolete and not available, despite years of paying into social security.
- This suggests many are planning to have to fully cover all of their expenses once they retire with little assistance, if any, from government sources. This leads to people anticipating higher savings amount needed and may also increase stress and anxiety of retirement among Millennials and Gen Z residents.
- While they want help improving their education and remaining accountable to saving commitments, they acknowledge that information and support is useless without action. Many expressed a belief that their personal behaviors ultimately will determine their success or failure in relation to retirement savings.

"I'm paying into Social Security now, but it might not be an option when I retire. It's almost as if I'm investing in others' retirements without getting any return on that investment."

- Online Discussion Participant

Geography and views of retirement

- Respondents were asked to estimate how much money they believe needs to be saved to adequately cover living expenses during retirement. Residents from across the state generally suggested they needed at least a million dollars saved, if not more. Around a third of Front Range residents said they needed more than 2 million dollars for retirement.
- Interestingly, residents from other areas of the state generally expressed they could retire on less money than those who live in the Front Range. This could be due to lower costs of living and simpler visions of retirement.
- Many non-Front Range participants said they have done a reasonable amount of information gathering related to retirement savings. Of all participants, those who have not done much research attribute this to a belief that it is already too late to start saving and have effectively given up on trying to maximize their retirement savings.

Retirement savings must cover most, if not all, living expenses

- A majority of in-depth research participants said they will need to save for ALL expenses, with most others indicating they need to save for MOST expenses.
- Most expect mortgage to be paid off, as well as short term debts like car loans. However, they conjectured that savings will need to cover:
  - Healthcare and insurance
  - Food
  - Utilities and monthly bills
  - Travel
- Healthcare costs are of particular concern for Coloradans, as the costs of healthcare are expected to continue to rise. In addition to rising health insurance costs, many recognized the probability of increased medical care as they age.

Family members are often at the center of retirement savings decisions

- Participants noted they often make retirement savings decisions in coordination with their spouses or partners. Higher income individuals may also seek advice from professional financial planners.
- Younger people may look at their parents for financial advice and strategies, especially at the beginning of their career when they first become exposed to retirement savings options. However, some young people felt that their parents' advice was not applicable since "they grew up in a different time" with regard to retirement savings and investing.
- It is important to note that many are not seeking outside assistance or recommendations on retirement savings, suggesting there are many avenues through which to increase retirement savings and financial literacy in general.

"My parents give me a lot of guidance and I appreciate their concern for my future…I definitely look to them for assistance and guidance because I do not know a lot of legal terms and technical details about retirement savings."

- Online Discussion Participant

People generally have a feeling of unease and shame when it comes to their own retirement

- When respondents were asked how thinking about retirement planning made them feel, many expressed sentiments of nervousness and anxiety. Many also expressed that they wouldn't purse help in planning their retirement because they do not feel comfortable asking questions because they were ashamed by their lack of knowledge and risked hurting their pride in admitting their retirement saving amounts.
- While participants may want to talk about personal finances, they feel held by social taboos. However, most did seem open to discussing money more to make getting help more accessible and finances to be less isolating.

"[I feel] mostly stress. We have so many financial goals (some small, some large). And while we are meeting some of them, and feel REALLY good about it, it feels like something sets us back again and we start all over.

- In-Person Discussion Participant

Fear of making the wrong choice and not knowing who to trust are paralyzing

- Trusting a source means you are receiving legitimate information. This can be tricky for some, as in the age of the internet there is a large amount of information out there that is not necessarily good. Many also do not understand the fiduciary responsibility of financial planners versus financial product salespeople, leading to higher levels of distrust.
- People also understand that everyone's situation is different, but in trying to decipher the wealth of information available, people often get overwhelmed in having to determine if a specific approach is right for them. Therefore, rather than making any decision, many choose to put off making changes or setting a path to retirement at all
- People are more inclined to listen to the advice of another knowing that they have a proven track record, that they have the person's best interest in mind, and there are strong relational foundations already built.

"There are a lot of sources of information these days that are nothing more than vessels for advertisers…I don't trust them because I question their motives. I prefer to stick with a primary source to avoid any bad information those others may provide, such as the companies I've trusted to invest my money."

- Online Discussion Participant

"I think when you have a good idea of your finances and you feel like you're in control about them, you feel better about them, versus you don't know what decision to make and so, that makes you feel bad, so you avoid it."

- In-Person Discussion Participant

Out of sight, out of mind savings strategies are most manageable

- Overall, savings strategies that require minimal action are more successful and make retirement savings easy for people.
- Many research participants said they take advantage of employer retirement savings plan. Employer matching plays a large role when determining retirement savings contributions. For instance, if an employer matches 3%, the employee is likely to also contribute 3% to maximize the benefit.
- Those without employer sponsored retirement savings, whether they are self-employed, employed part-time, or unemployed, experience higher levels of difficulty saving for retirement than those who benefit from an employer sponsored plan.

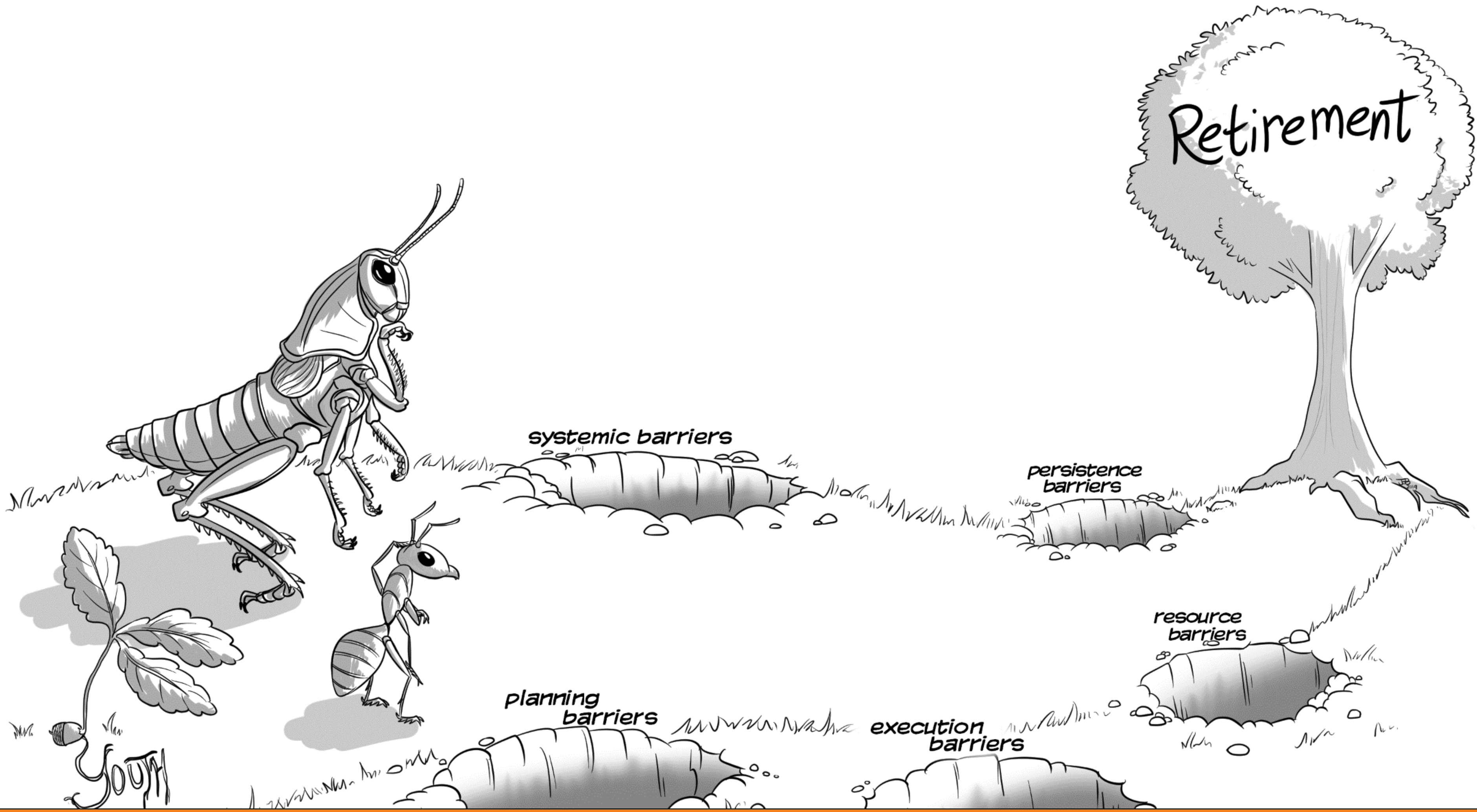
"My employer matches 4% of my salary in 401K, which has been a tremendous benefit. I have thought about going out on my own at various times, but it is hard to leave behind this forced savings that a 401K offers."

- Online Discussion Participant

Current sources for information on retirement savings

- Sources of information regarding retirement savings in the Front Range tend to be media and professional based, while non-Front Range people refer to persons in their community for information. Overall, young persons are more inclined to consider the advice of their parents but are also wary of asking perceptions of those who built their retirement in a different time.
- Some specific sources mentioned included:
  - Books
  - Bloggers
  - Online Courses
  - Articles
  - Fund specific (i.e. Vanguard)
  - WSJ
  - Dave Ramsey
  - Financial Planner
  - Friends and family members
  - AARP magazine
  - Coworkers
  - HR Departments
  - Google
  - Bank Personnel
  - Library

"Warren Buffett, he made his wealth over time in a different situation."
- In-Person Discussion Participant



CORONA INSIGHTS

Barriers to Retirement Saving

Categories of Retirement Savings Barriers

- Five types of barriers were identified to achieving successful retirement savings. As discussed on the following pages, each category contains one or more barriers.
  - Planning Barriers
    - Challenges in identifying what retirement means, and how develop a plan for retirement savings that meets ones needs.
  - Execution Barriers
    - Challenges in saving money (regardless of the amount), or in saving money effectively.
  - Systemic Barriers
    - Challenges in developing or using infrastructure to save for retirement
  - Resource Barriers
    - Lacking specific skills or income to effectively save
  - Persistence Barriers
    - The inability or unwillingness to save consistently and leave money in the account to accrue over time.

Category A - Planning Barriers

- Challenges in planning fell around two major areas, with selected sub-challenges beneath one.
  - The first challenge is envisioning what the person wants from retirement. This is necessary to understand what retirement needs are, and subsequently how much money needs to be saved. Understanding how much money needs to be saved can also be used to adjust the person's vision if their savings ability is higher or lower than the vision requires.
  - The second challenge is not having an interest in personal finance. If a person is not interested in personal finance, then they will likely not follow all of the subsequent steps in the path toward a successful retirement savings plan. This can be related to the concept of 'financial socialization', or being raised in a manner that increases interest and confidence in personal finance.

Category B - Execution Barriers

- Execution barriers relate to challenge in the saving process. This can include both starting and account and contributing to it. Several challenges can occur during the process.
  - Startup challenges
    - The first challenge is the belief that saving later is the same as saving earlier, and that a person can start saving later in life. This eliminates the massive potential of long-term growth.
    - The second challenge is related to the first, and that is not starting early. Saving early in a person's working career has outsized effects on total retirement savings.
  - Execution challenges
    - Not prioritizing retirement savings is similar to the first challenge above, in that a person my under contribute to savings when the potential for long-term growth is strong, choosing instead to pursue other goals.
    - Suboptimal investment strategies can rob a person of long-term growth, particularly if investments are too conservative. This is related to the concept of 'financial literacy'.

Category C - Systemic Barriers

- Systemic barriers are primarily related to the practice and/or ability to open accounts and make investments. These have three main components.
  - Not having a savings account that is dedicated to retirement savings, and particularly a tax-deferred account such as a 401K or Roth account.
  - Not having access to a workplace account where savings can automatically be deducted from pay.
  - In some cases, minimum startup account balances or investment purchases may inhibit a person from investing.

Category D - Resource Barriers

- Two types of resource-based barriers were identified.
  - The first is simply not having enough income to be able to save money. As opposed to overspending or debt, this relates specifically to people whose incomes place them below the self-sufficiency level for Colorado.
  - The second is a lack of access or skill in technology to allow the person to access low-cost investment tools online, or to take advantage of technology boosts such as innovative savings techniques, online support communities, or other resources.

Category E - Persistence Barriers

- The final category of retirement savings challenges is about maintaining savings rates and savings balances once saving has begun. This consists of two similar challenges.
  - Inconsistent contributions to retirement savings – Halting or lowering savings contributions
  - Outright withdrawal of funds from retirement savings accounts, which can incur penalties and also costs significant long-term accrual of assets.

Specific Retirement Savings Barriers

- Within the five main categories of barriers, the 11 specific barriers are described on the next two pages.

Category	Specific Barriers			
Planning	Lack of vision about retirement – *can't calculate savings needs*	Lack of interest/ skill/ confidence in personal finance – *can't (or won't) manage and plan savings*		
Execution	Belief that one can "catch up" later on retirement savings – *costs years of growth*	Not starting early on retirement savings – *costs years of growth*	Not making retirement savings a priority relative to other saving/ spending/ debt service – *costs years of growth*	Suboptimal investment strategies – generally being too conservative in investments - *lowers long-term returns*

Specific Retirement Savings Barriers

- Within the five main categories of barriers, the team identified 11 specific barriers, as described on the next two pages.

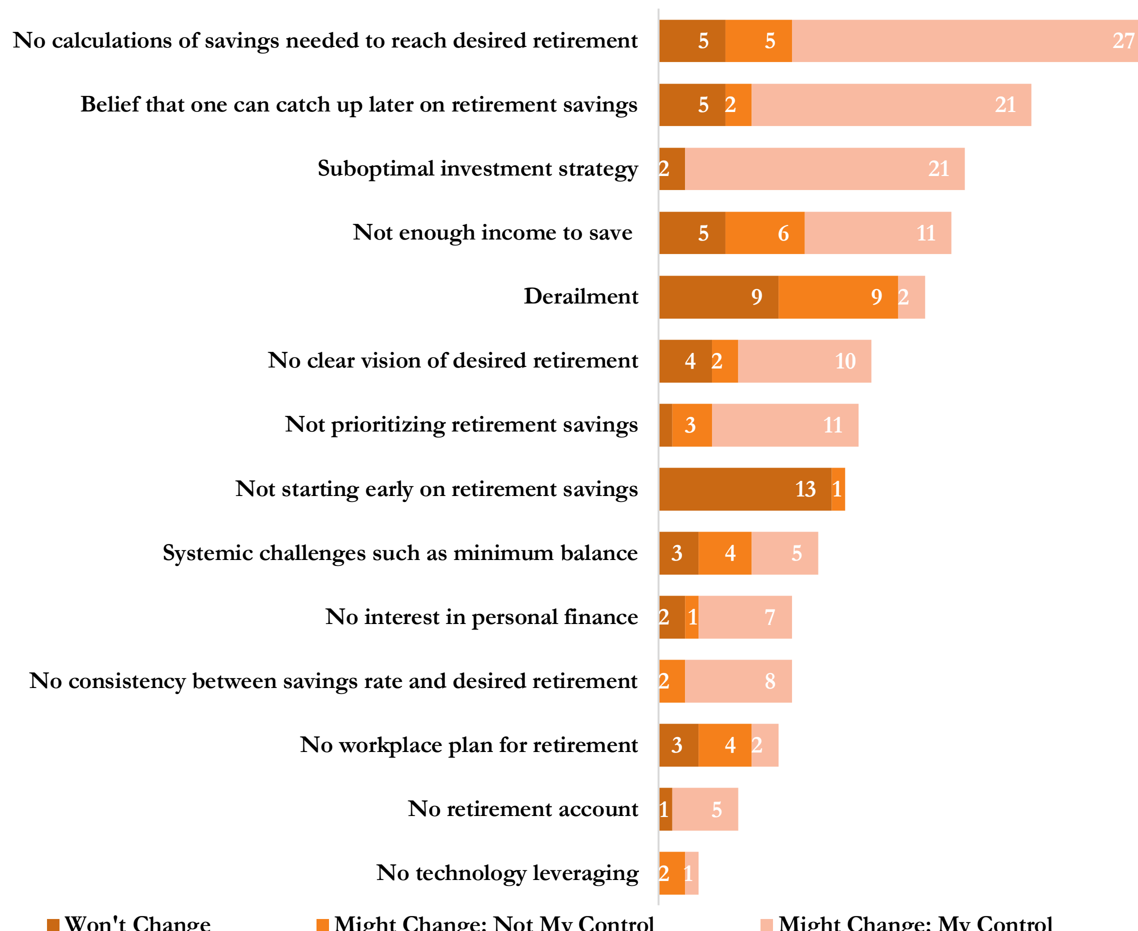
Category		
Systemic	Not having a workplace retirement account – *adds work to the process of saving, possibly loses matching funds*	Minimum size barriers – *account balances, investment minimum, and psychological inhibitions can prevent investment*
Resource	Not enough income to make investment possible – *living below the subsistence level in Colorado may make saving impossible*	Lacking access to technology – *inhibits access to low-cost investment tools and processes*
Persistence	Has gaps in contributing to retirement savings or withdraws funds from retirement savings – *costs years of growth*	

Assessing Barriers

Control over Challenges in Saving

- Discussion respondents conceptualized different challenges they face in saving for retirement that won't changes as falling between two categories: things that happened in the past and systemic problems in our society that hinder their saving behavior such as lower salaries and healthcare costs.

Focus Groups' Counts of Barriers



Perceptions of Challenges in Saving

- Of saving challenges that might change, participants differentiate between things that are in their control versus not in their control. Participants categorized challenges as in their control more often than out of their control.
  - Of challenges listed (225), 76% were identified as might change in the future
  - Of challenges that might change in the future (172), respondents indicated that 58% were in the control of the respondents
- Overcoming saving barriers can be especially challenging for lower income residents
  - Competing financial priorities present the largest challenge to saving for retirement. Lower income residents in particular noted they feel less optimistic about overcoming barriers to save for retirement. Some of the specific concerns that participants cited include:
    - Single income
    - Disability/unemployed
    - Monthly expenses such as utilities
    - Student loans
    - Kids and associated expenses
    - Kids and associated expenses
    - Taxes
    - Increasing cost of living
    - Taxes
    - Increasing cost of living

“Wages are stagnant, cost of living keeps rising, health insurance is astronomical - I am now going to be going through a divorce, not sure if I will ever really be able to fully recover or get close to being able to retire and live comfortably.

- In-Person Discussion Participant

Analysis of Specific Barriers

Barrier 1 (Planning) – Envisioning Retirement

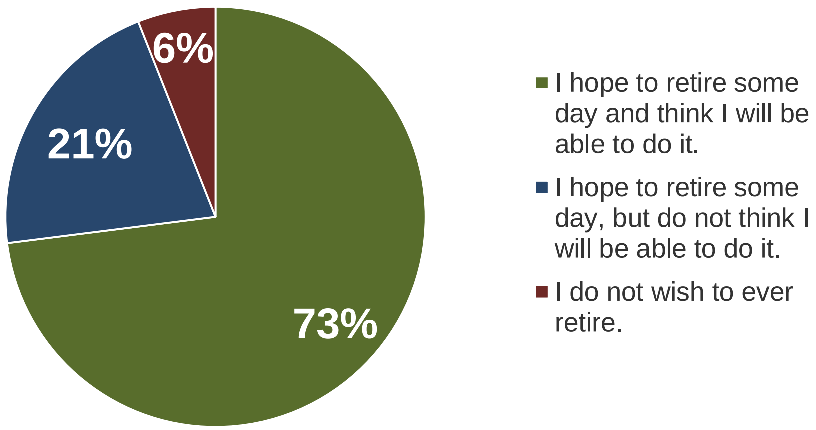
- **Prevalence of barrier Colorado estimate: 42%.** Percentage of segments saying they lack a retirement savings goal (a specific amount that they are trying to save).

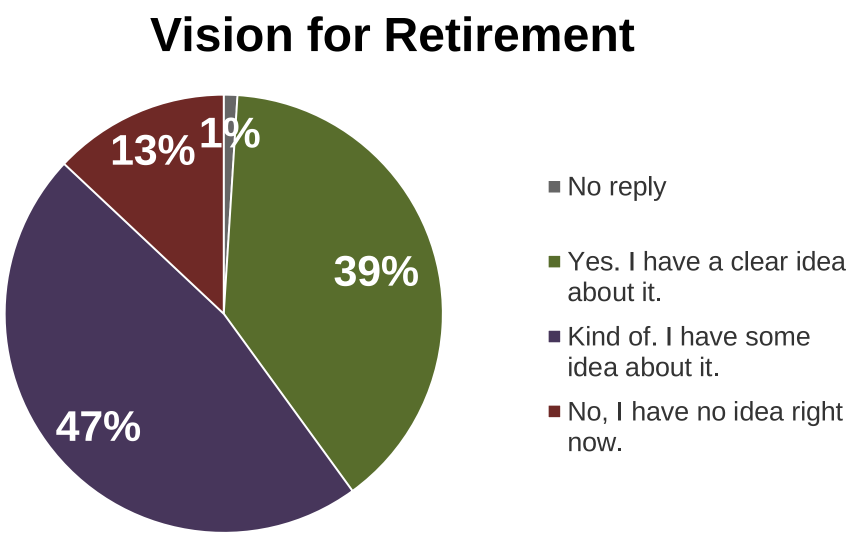
Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	62%	70%	56%
Middle 1/3	35%	43%	42%
Highest 1/3	32%	32%	37%

- **Prevalence of barrier national estimate (NFWBS): 36%.** Percentage of segments that do not set financial goals.

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	42%	47%	43%
Middle 1/3	34%	36%	40%
Highest 1/3	29%	29%	28%

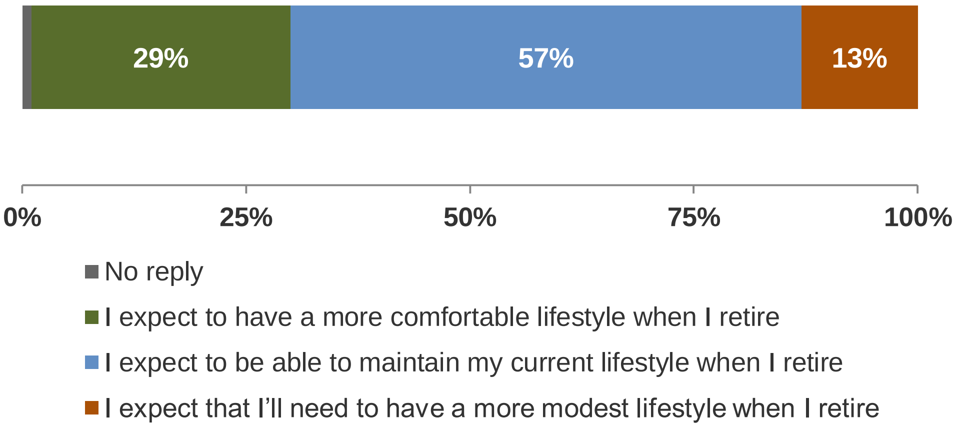
Barrier 1 (Planning) – Envisioning Retirement





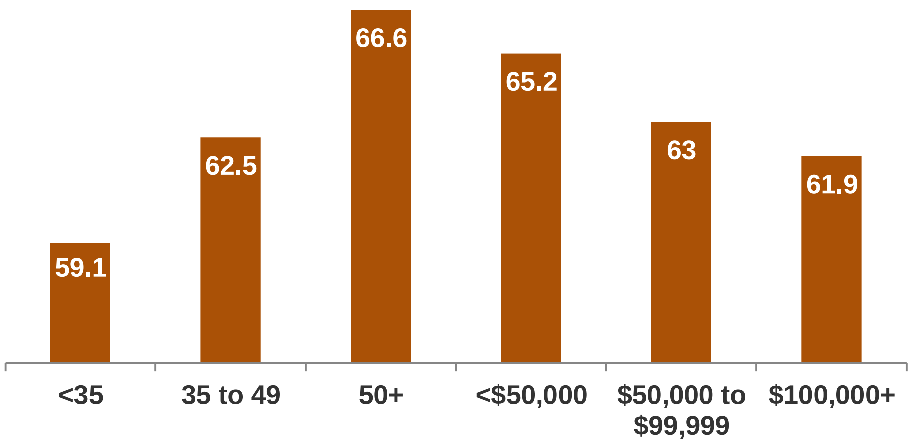
- Almost three quarters of survey respondents believe that they will be able to retire some day. Those with smaller household incomes, those without retirement savings goals, those who were not currently saving, and those without access to a retirement plan at work. were less sure they would be able to retire.
- A little over half of survey respondents reported that they had a retirement savings goal. Respondents with larger household incomes, those with higher education levels, and those with access to a retirement savings plan at work were more likely to have a goal.
- Almost 40 percent of survey respondents reported that they had a clear idea of what kind of life they wanted in retirement.
- Respondents with greater household income were more likely to have a clear idea. Not surprisingly those with retirement goals, those who were currently saving for retirement, and those with access to retirement savings plans at work also were more likely to have a clear idea.

Barrier 1 (Planning) – Envisioning Retirement



- Of those survey respondents who believe that they will be able to retire, the majority expected to be able to maintain their current lifestyle in retirement.
- Those with a retirement savings goal were more likely to think that they would have a more comfortable lifestyle in retirement. Interestingly, those not currently saving for retirement and those with smaller household incomes also frequently expected to have a more comfortable lifestyle in retirement.

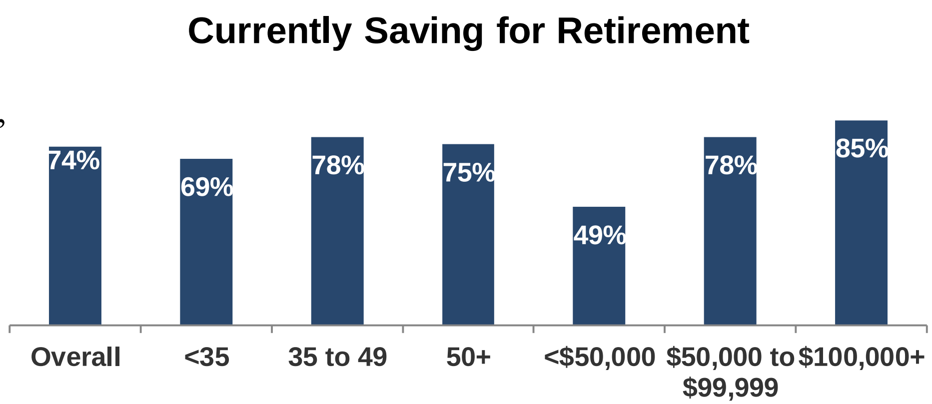
Expected Age of Retirement

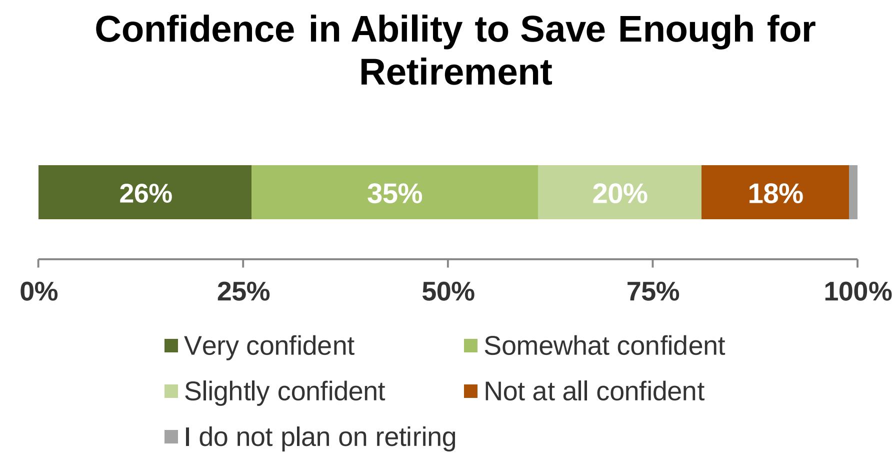


- Survey respondents thought they would retire when they were approximately 63 years old. However, there was some variation, with younger people and those with larger household incomes expecting to retire sooner.

Barrier 1 (Planning) – Envisioning Retirement

- Almost three quarters of survey respondents reported that they were currently saving for retirement. Older respondents, those with greater household incomes, men, those with greater education levels, those with retirement savings goals, and those with access to a retirement savings plan at work were more likely to be currently saving.
- Three quarters of survey respondents were confident that they would be able to save enough for retirement, although only a quarter were very confident. Those with larger household incomes, men, and those with higher levels of education were more confident. Additionally, those with a retirement savings goal, those who are currently saving, and those with access to a retirement savings plan at work were more confident.
- Respondent who had less financial socialization from their youth were less confident.

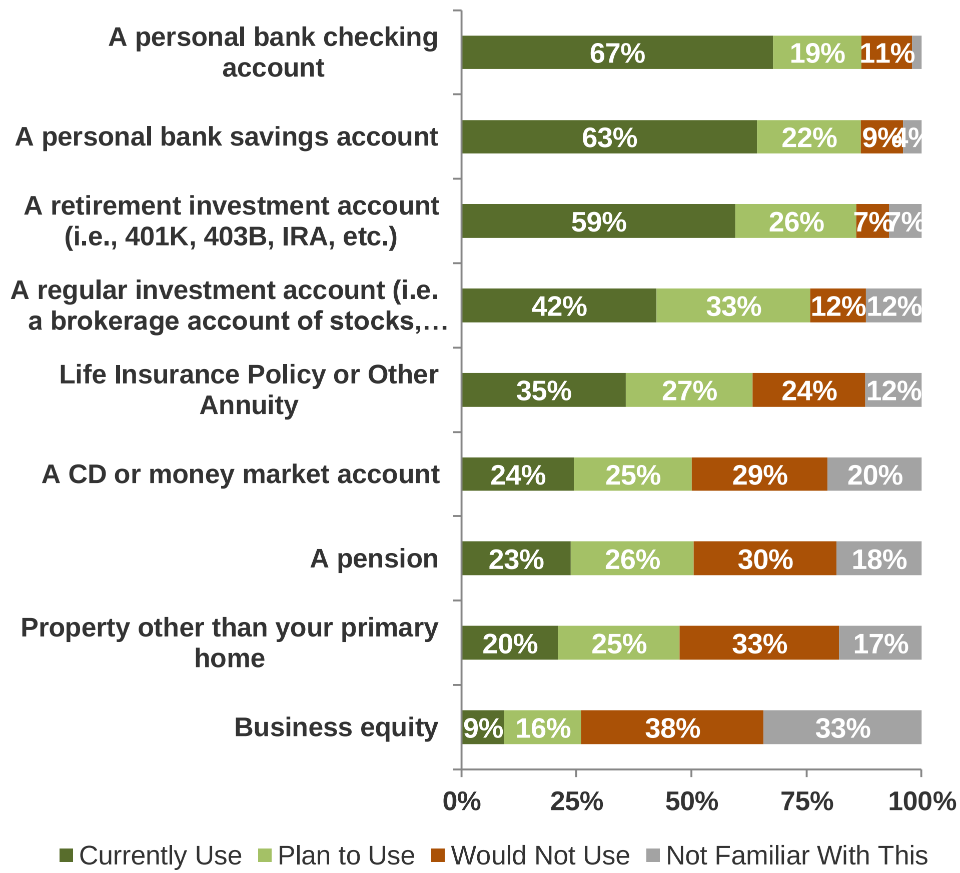




Barrier 1 (Planning) – Envisioning Retirement

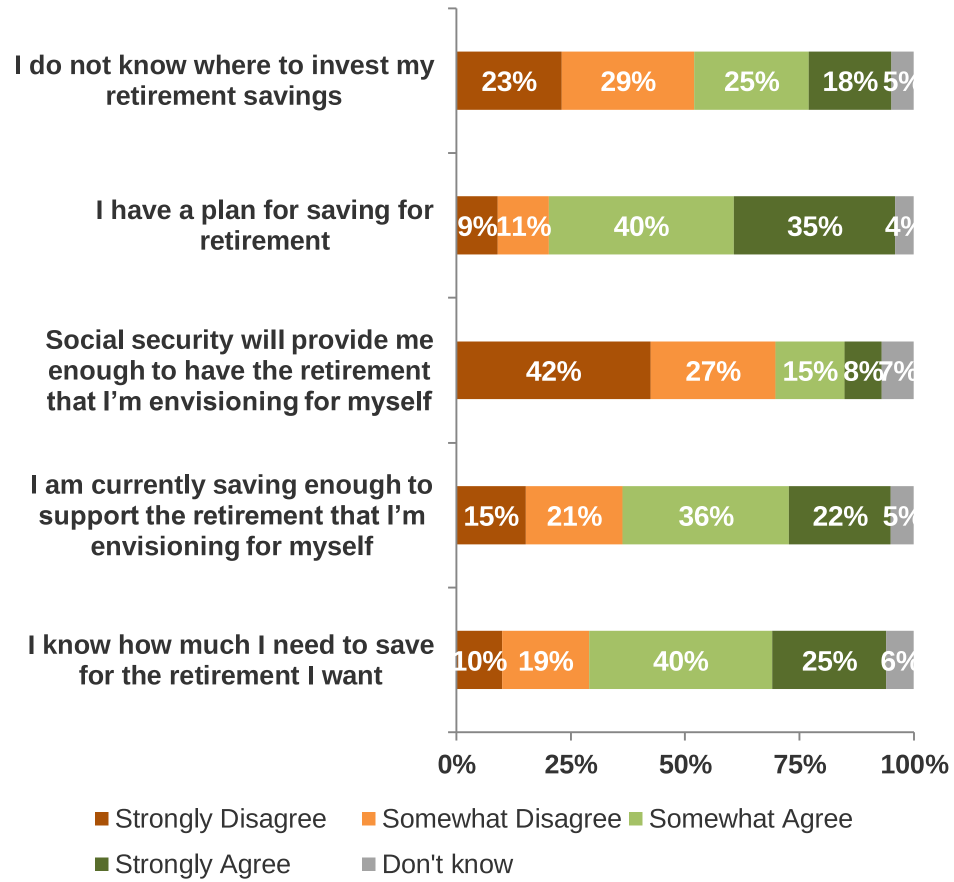
- Survey respondents were most likely to be using a checking or savings account to save for retirement, although just over half reported using a retirement investment account. Respondents who were currently saving, those with a retirement savings goal, and those with higher household incomes were more likely to be using most of the various methods.
- Younger respondents were more likely than older respondents to report that they were planning to use different savings methods, as opposed to currently using them.

Methods of Saving for Retirement



Barrier 1 (Planning) – Envisioning Retirement

- Almost two thirds of survey respondents who want to retire reported that they knew how much they needed to save for retirement and that they had a plan for saving for retirement. A little over half reported that they were currently saving enough to support the retirement that they envisioned for themselves. However, more than a third said that they did not know where to invest their retirement savings.
- Respondents with greater household income were more likely to have a plan, to know how much they needed to save, and to be currently saving enough.
- Younger respondents, those with smaller household incomes, those with lower education levels, and those who scored worse on a measure of financial literacy were more confused about where to invest their retirement savings.



Barrier 1 (Planning) – Envisioning Retirement

- Coloradans' visions of retirement may be geographically determined. Residents in larger communities on the Front Range envision a retirement full of travel, adventure, and maximizing recreational time. Non-Front Range residents are more likely to envision a simpler retirement for themselves, necessitating lower retirement savings amounts. However, these residents are still bought in to the Colorado lifestyle of adventure and exploring the outdoors.
- Despite these visions of retirement, few research participants were able to correlate their visions with the needed retirement savings amounts today. The knowledge required to translate their vision into a coherent savings strategy is lacking for many.

"I don't think it's necessarily that I can't envision what my retirement will look like, but more so how to get there."

- In-Person Discussion Participant

Barrier 1 (Planning) – Envisioning Retirement

- **Experts say that a clear idea of what retirement is, and how to get there, is critical for success. However, most people lack this vision.**
  - For those with the means to do so, envisioning retirement can start a chain of positive action that moves from a plan, to tangible steps, reaching goals, and changing saving behavior.
  - Those who plan for retirement accumulate greater levels of wealth (van Rooij, Lusardi, and Alessie, 2012).
  - Financial self-efficacy, or believing in one's ability to control and influence their own financial situation, is a predictor of positive saving behavior (Asebedo and Seay, 2018).

"They can see that it's real when they come up with a plan. The first thing we do with any client is ask them what their objectives are. When do they want to retire? We then drill back to where they are now. If they want to retire at 65 or whatever, what do they expect to spend?"

- Financial Expert

Barrier 1 (Planning) – Envisioning Retirement

- Calculating retirement needs has a positive effect on executing plans (Lusardi and Mitchell, 2011). Without these calculations, people often assume their savings will last longer and deliver more than it can.
- There is no universal strategy for visualizing what is needed for any individual to retire. Some may benefit from seeing monthly retirement income given a series of savings targets, others may be discouraged when confronting significant savings goals.
- Thinking about retirement is often unnecessarily complicated. Simplifying concepts and process goes a long way to starting the planning process.

"100 percent [of my clients] have never given thought to putting numbers to what they're doing in retirement. You have to visualize what retirement looks like and put numbers to it. The worry is that it might demoralize some people. Not everyone can do it. Saving is not a possibility for some people."

- Financial Expert

Barrier 1 (Planning) – Envisioning Retirement

- Individuals who do not set financial goals have less savings than those who do.
- Setting financial goals has a **large effect** on savings level. The difference between those who do and do not set these goals is about the size of the difference between those who do and do not have a college degree, even accounting for differences in age, income, and other predictive factors.

Barrier 2 (Planning) - Lack of Interest in Personal Finance

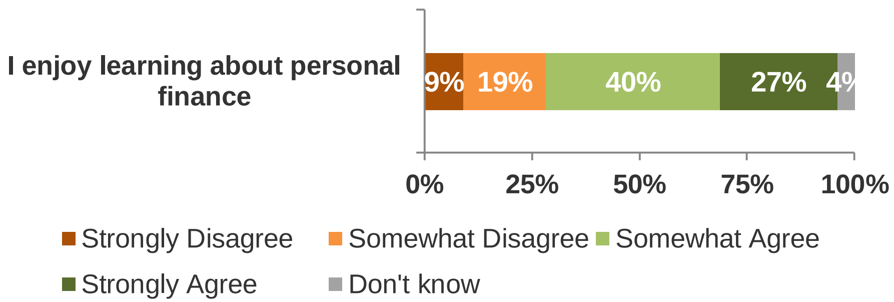
- **Prevalence of barrier Colorado estimate: 28%.** Percentage of segments saying they do not enjoy learning about personal finance.

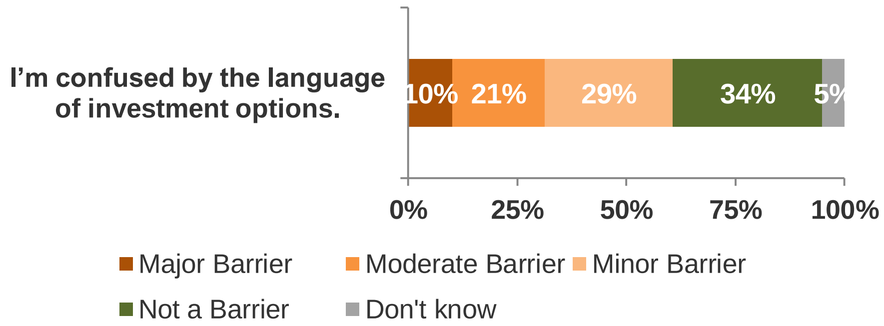
Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	21%	35%	40%
Middle 1/3	22%	28%	36%
Highest 1/3	22%	26%	31%

- **Prevalence of barrier national estimate (NFWBS): 60%.** Percentage of segments that say they struggle with understanding finance.

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	66%	67%	72%
Middle 1/3	59%	58%	62%
Highest 1/3	58%	51%	48%

Barrier 2 (Planning) - Lack of Interest in Personal Finance





- Two thirds of survey respondents reported an interest in learning about personal finance. Younger respondents, men, and respondents with more education reported greater interest. Additionally, respondents with a retirement savings goal, those who are currently saving for retirement, and those with access to a retirement plan at work also reported greater interest.

- More than half of survey respondents reported that confusion with the language of investment options was a barrier to saving for retirement. Younger respondents, those with smaller household incomes, women, those with lower education levels, and those who scored lower on a measure of financial literacy were more likely to report that this was a barrier.

Barrier 2 (Planning) - Lack of Interest in Personal Finance

- **Coloradans perceive that their lack of retirement planning is better described as procrastination and also comes from not knowing where to begin.**
  - Limited financial education may lead Coloradans to procrastinate in beginning the retirement savings process. Given the time horizon, many may not feel a sense of urgency and therefore, do not invest personal time and/or energy into financial literacy around retirement savings strategies and options.

"I always say, oh, can I can save next year, the year after that or things like that as opposed to right now because I have that mindset of 'I want these clothes now so retirement can wait, it's the future.'"

- In-Person Discussion Participant

Barrier 2 (Planning) - Lack of Interest in Personal Finance

- **Experts say that there is commonly a lack of interest in retirement savings and most people feel reluctant to approach the topic.**
  - Unlike many topics, experts note that the public seems receptive to charts and graphs related to retirement savings.
  - People who are more interested in retirement savings are more likely to save and engage more frequently with their retirement plans/accounts (Pence, 2002; Deetlefs, Bateman, Dobrescu, Newell, Ortmann, and Throp, 2018).
  - Both objective and subjective (confidence) measures of financial literacy predict positive savings behavior. Confidence matters more for younger people and objective knowledge matters more with age (Henager and Cude, 2016).

"Charts are powerful. Showing people compound interest and slow and steady increases are powerful. Infographics or something really works on this topic over text."

- Financial Expert

Barrier 2 (Planning) - Lack of Interest in Personal Finance

> Even financially savvy individuals are resistant to learning about the technical aspects of retirement savings. (Experts often used this to reinforce that simpler methods of saving are superior because they produce better execution.)

> While Americans are frequently approached with offers for credit cards, loans, and other financial services, retirement saving services are comparatively scarce.

> Individuals are socialized into engaging with finance from an early age, either positively or negatively.

> Often, people look to peers and superiors for inspiration and advice related to retirement savings.

"The reality is that there's not much interest in learning this stuff. I hate to sound jaded, but a lot of it is based on their upbringing and interest level. A lot of it stems from upbringing. That's the place to turn it around – in their youth."

- Financial Expert

Barrier 2 (Planning) - Lack of Interest in Personal Finance

- Regardless of the process, though, individuals who say they struggle with understanding finance do not have a statistically significant difference in savings than those who do.

Barrier 3 (Execution) - Belief That One Can Catch Up Later On Retirement Savings

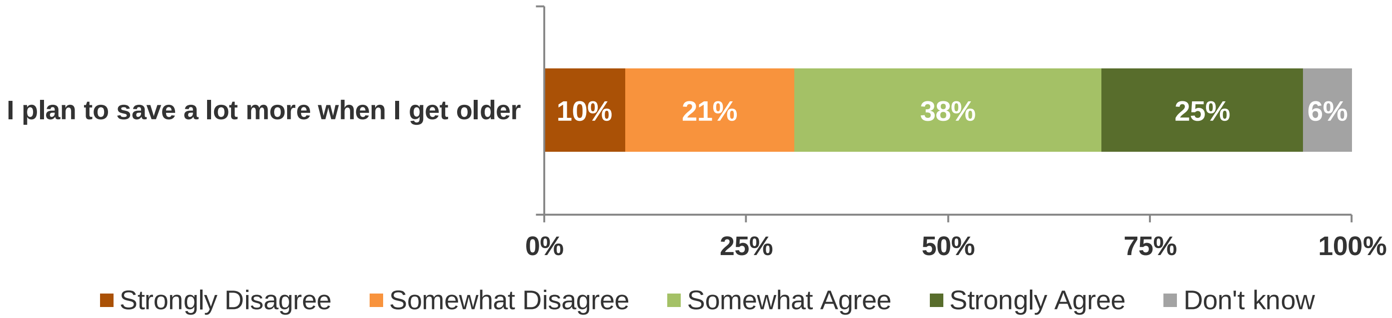
- **Prevalence of barrier Colorado estimate: 63%.** Percentage of segments agreeing that they "plan to save a lot more when I get older."

Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	83%	70%	37%
Middle 1/3	79%	76%	30%
Highest 1/3	76%	71%	41%

- **Prevalence of barrier national estimate (NFWBS): 61%.** Percentage of segments that say their financial planning focuses on their immediate future (the n

Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	74%	77%	71%
Middle 1/3	74%	56%	61%
Highest 1/3	53%	40%	46%

Barrier 3 (Execution) - Belief That One Can Catch Up Later On Retirement Savings



- The majority of survey respondents report that they plan to save a lot more when they get older. Younger respondents were more likely to report this. Respondents who scored worst on the measure of financial literacy were also more likely to report this.

Barrier 3 (Execution) - Belief That One Can Catch Up Later On Retirement Savings

- **Coloradans believe that they will save for retirement later because they have to meet immediate needs today.**
  - People may not explicitly believe they can catch up later on, but see this as a structural problem in our costs of living today. Younger generations attribute not being able to save and not being able to catch up to why they likely won't be able to retire in the future.

"I just don't see myself being able to, because of financial student loans, cost of living in general. It would be a great dream. But I still set aside money in my 401k and I get my statements monthly."

- In-Person Discussion Participant

Barrier 3 (Execution) - Belief That One Can Catch Up Later On Retirement Savings

- Messaging
  - Messaging needs to stress the importance of saving early and educate population on how investments grow over a longer period of time.
  - Building and encouraging a sense of discipline when it comes to retirement savings will also encourage residents to put needs of tomorrow before wants of today.

"I don't care if it's a dollar a month, it's about the practice of putting it and thinking about it and training yourself. And then once it's in there, never touch it, don't ever touch it.”

- In-Person Discussion Participant

Barrier 3 (Execution) - Belief That One Can Catch Up Later On Retirement Savings

- **Experts say that this belief is widespread and risky.**
  - Many Americans think they can make a big (risky) move like starting a business or making more risky investments to catch up in retirement savings late in life. (Or rather, they may resort to making a more risky move.)
  - Even if the person saves a lot of money in later years, it has little payoff since it has less time to grow.
  - People systematically underestimate exponential growth. Experiments demonstrate that a majority expect retirement savings to grow linearly. This misunderstanding increases the belief that saving later is an effective option. Informing participants about exponential growth led to better savings behavior in experimental games (McKenzie and Liersch, 2011).

"The belief that people can catch up later goes hand in hand with financial literacy – people think they'll understand better when they're older, or that they'll save more when they make more money."

- Financial Expert

Barrier 3 (Execution) - Belief That One Can Catch Up Later On Retirement Savings

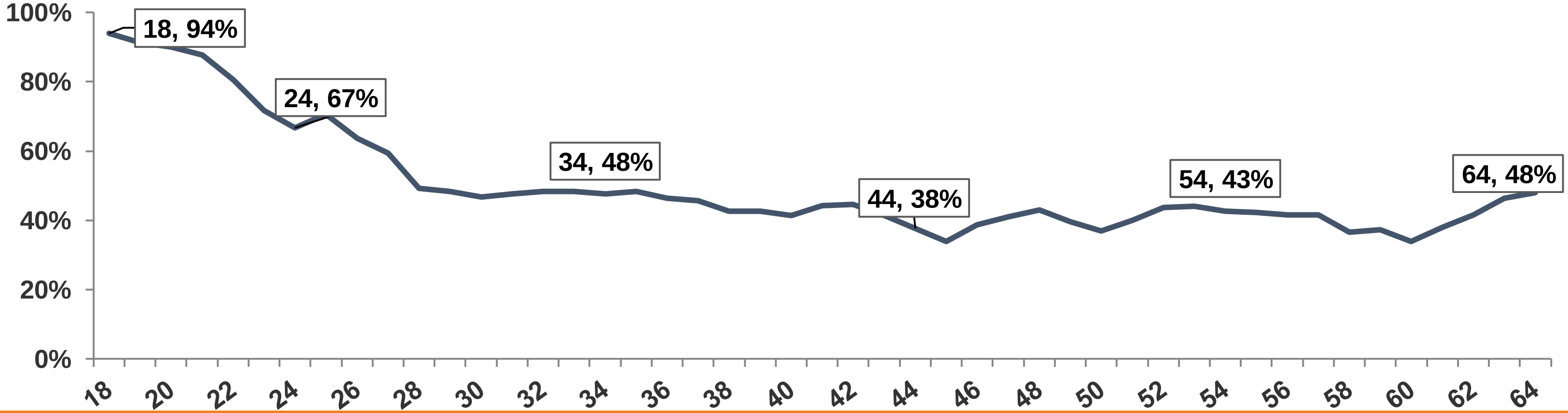
- Individuals who have a short financial time horizon (those who say the most important time period for their family's finances is 5 years or less) have less in savings than those who have a longer time horizon.
- Taking a short financial time horizon has a **large effect** on savings level. The difference between those have long and short financial time horizons is almost the size of the difference between those who do and do not have a college degree.

Barrier 4 (Execution) - Not Starting Early On Retirement Savings

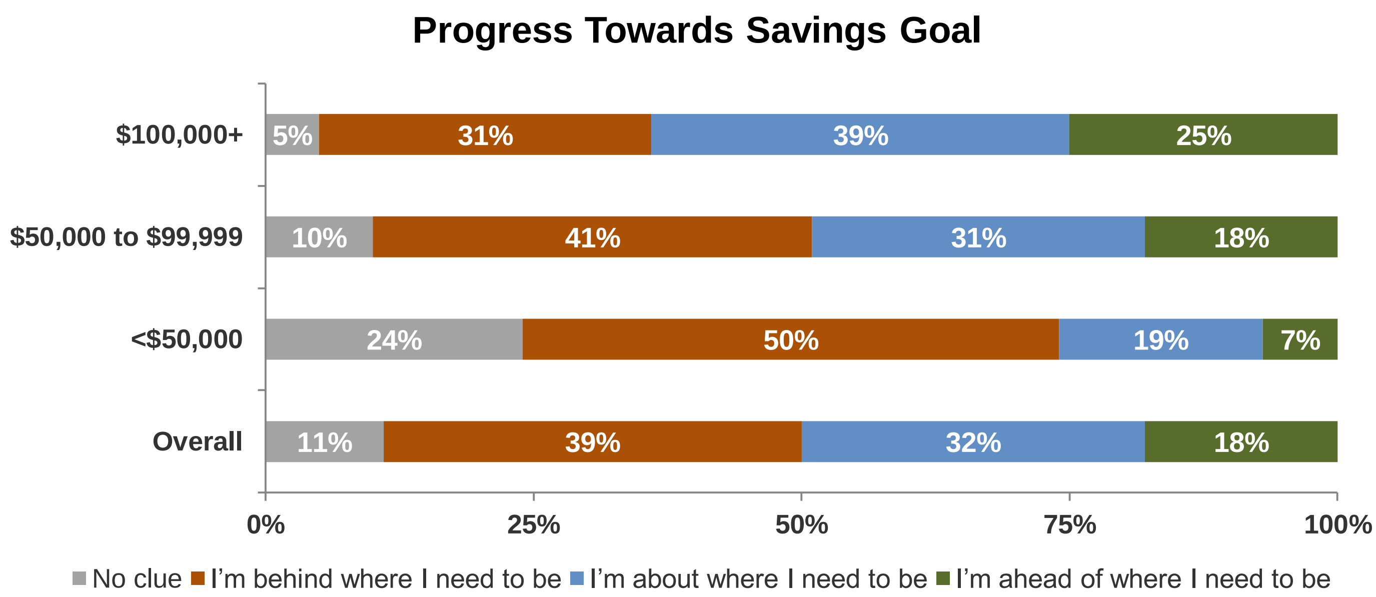
- **Prevalence of barrier Colorado estimate:** Percentage of segments saying they are behind where they need to be on retirement savings

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	49%	54%	47%
Middle 1/3	49%	37%	34%
Highest 1/3	30%	38%	24%

- **Prevalence of barrier National estimate (SCF):** Percentage of American households with nothing in retirement savings accounts by age.



Barrier 4 (Execution) - Not Starting Early On Retirement Savings



- The average age that survey respondents reported starting saving for retirement was 29 years old.
- Only a third of respondents reported that they were about where they needed to be when it came to making progress towards their retirement savings. Younger respondents and those with smaller household incomes were more likely to report that they were behind or that they had no clue.
- Respondents with a retirement savings goal and those currently saving were more likely to be on track or ahead of where they need to be.

Barrier 4 (Execution) - Not Starting Early On Retirement Savings

- **Residents agree that they cannot change their past but wish they had started saving earlier.**
  - When questioned about what financial advice they would provide others regarding retirement savings, overwhelming respondents emphasized the importance of starting savings early in order to maximize savings potential and developing disciplined behaviors.

"Really drive it home with young people! Encourage these retail, hospitality, and food companies that hire young people to provide them with the option to save. It's hard for people with families, especially those on the lower income side to even be able to do that. Perhaps a government incentive for those people. Improve access to financial education."

- Online Discussion Participant

Barrier 4 (Execution) - Not Starting Early On Retirement Savings

- **Experts say starting early on saving for retirement reduces anxiety, increases ease, and drastically increases future options.**
  - Taking long-term time horizons for savings goals can increase the savings levels of even low-income households (Hogarth and Anguelov, 2003).
  - Financial advisors enjoy working with younger clients (in their 30s) because they feel they can make a real difference. Advising clients in their 50s is more difficult because they have bigger and more tangible goals combined with less effective savings options.

"I see a lot of converts by simply teaching them about compound interest. You can save early and stop and still be ahead of the game if you start young enough."

- Financial Expert

Barrier 4 (Execution) - Not Starting Early On Retirement Savings

- **Recommended Messaging/Programs**
  - Destigmatizing conversations about finances, especially in younger populations, has the power to increase financial knowledge and equip young professionals and those entering the work force with the tools needed to begin their savings journey early.
  - Equipped with this knowledge, people are more likely to hold themselves accountable for their retirement savings while simultaneously creating a culture where retirement savings and strategies are openly discussed and shared.

Barrier 5 (Execution) - Prioritizing Other Expenses/Investments/Debts Over Retirement Savings

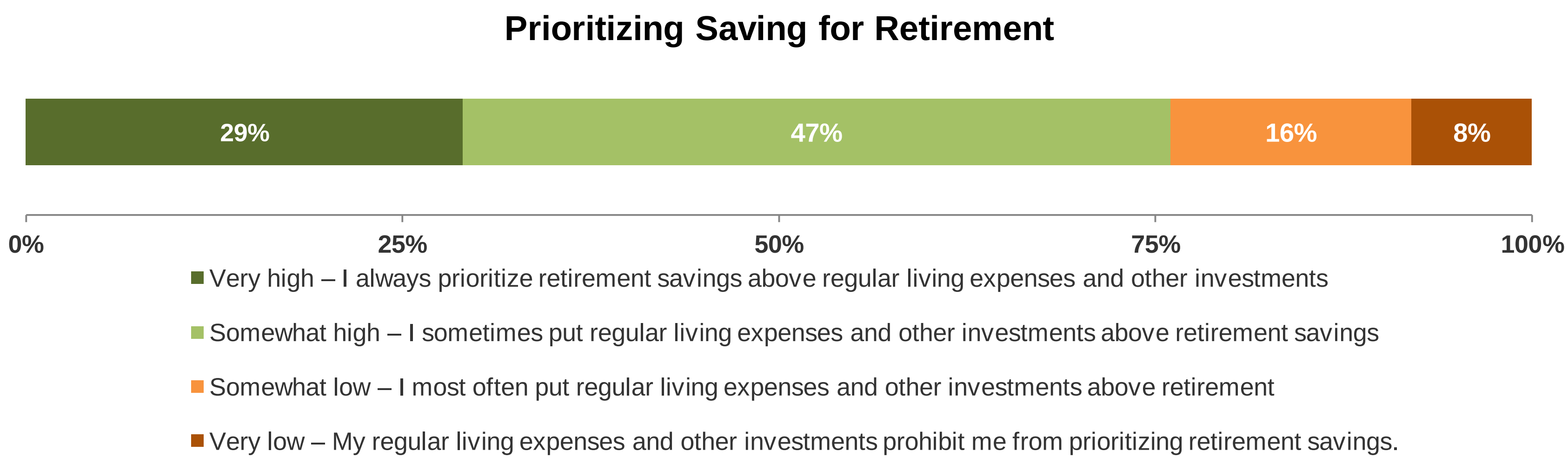
- **Prevalence of barrier Colorado estimate: 71%.** Percentage of segments saying the saving for retirement is less than a "very high" priority.

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	85%	80%	77%
Middle 1/3	79%	74%	66%
Highest 1/3	66%	66%	58%

- **Prevalence of barrier national estimate (SCF): 68%.** Percentage of segments that say they have a savings priority other than retirement.

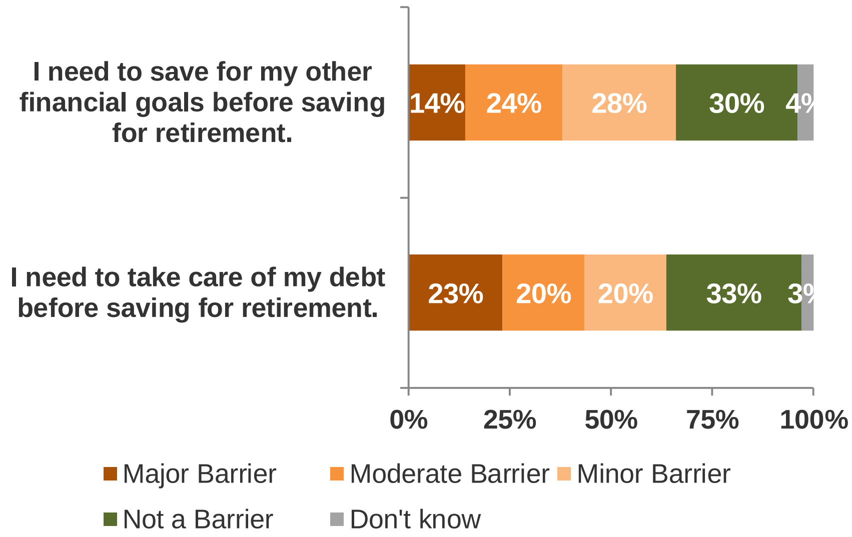
Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	91%	79%	70%
Middle 1/3	80%	69%	55%
Highest 1/3	73%	53%	37%

Barrier 5 (Execution) - Prioritizing Other Expenses/Investments/Debts Over Retirement Savings



- Older respondents and those with larger household income were more likely to prioritize saving for retirement. Those with retirement saving goals, those currently saving for retirement, and those with retirement plans at work were also more likely to prioritize saving for retirement.

Barrier 5 (Execution) - Prioritizing Other Expenses/Investments/Debts Over Retirement Savings



- More than two thirds of respondents reported that needing to save for other financial goals and taking care of debt were barriers to saving for retirement.
- These were greater barriers for younger respondents, those with smaller household incomes, and those with lower education levels. These were also larger barriers for those who scored worse on a measure of financial literacy.

Barrier 5 (Execution) - Prioritizing Other Expenses/Investments/Debts Over Retirement Savings

- **Immediate needs such as living expenses and short-term debts are often perceived to be more pressing to Coloradans than saving for retirement.**
  - Systemic issues and challenges may keep people from being capable of beginning retirement savings early on in their careers and many participants discussed how their immediate needs feel more urgent than planning for retirement.
  - People also struggle to see how they can both pay off debts while still saving for retirement and often choose to reduce debt first.

"My kids aren't going to have a future if I can't feed them this month. It was hard for me to think about me saving for me in retirement when my family needs money right now."

- In-Person Discussion Participant

Barrier 5 (Execution) - Prioritizing Other Expenses/Investments/Debts Over Retirement Savings

- **Experts say that many people inappropriately focus on low interest debts or low yield investments over retirement.**
  - Student debt burden significantly lowers retirement savings (Elliot, Grinstein-Weiss, and Nam, 2013). However, the time value of gains from retirement savings almost always outweighs the cost of interest associated with these loans.
  - Retirement savings is easy to put off and lacks immediate reward. Individuals who prioritize sensation seeking experiences and value a dollar in the present more than the future have less in retirement savings (Finke and Huson, 2013).

"Retirement savings is the number 1 priority because it's the longest-term need. Have savings for education or skills (like 529 plans) for yourself more than others can be number 2. There are other things like buying a house that might jump up to number 2 in the short term."

- Financial Expert

Barrier 5 (Execution) - Prioritizing Other Expenses/Investments/Debts Over Retirement Savings

- Households who say that retirement is the most important savings priority for their family have more in retirement savings than those who prioritize other goals.
- Articulating retirement as a family's top savings priority has a **moderate effect** on level of savings. The difference between those who do and do not say retirement is their top priority is similar that of 10 years of age for the head of the household.

Barrier 6 (Execution) - Suboptimal Investment Strategies

- **Prevalence of barrier Colorado estimate: 45%.** Percentage of segments saying the best investment strategy for saving retirement for them is somewhat/very conservative.

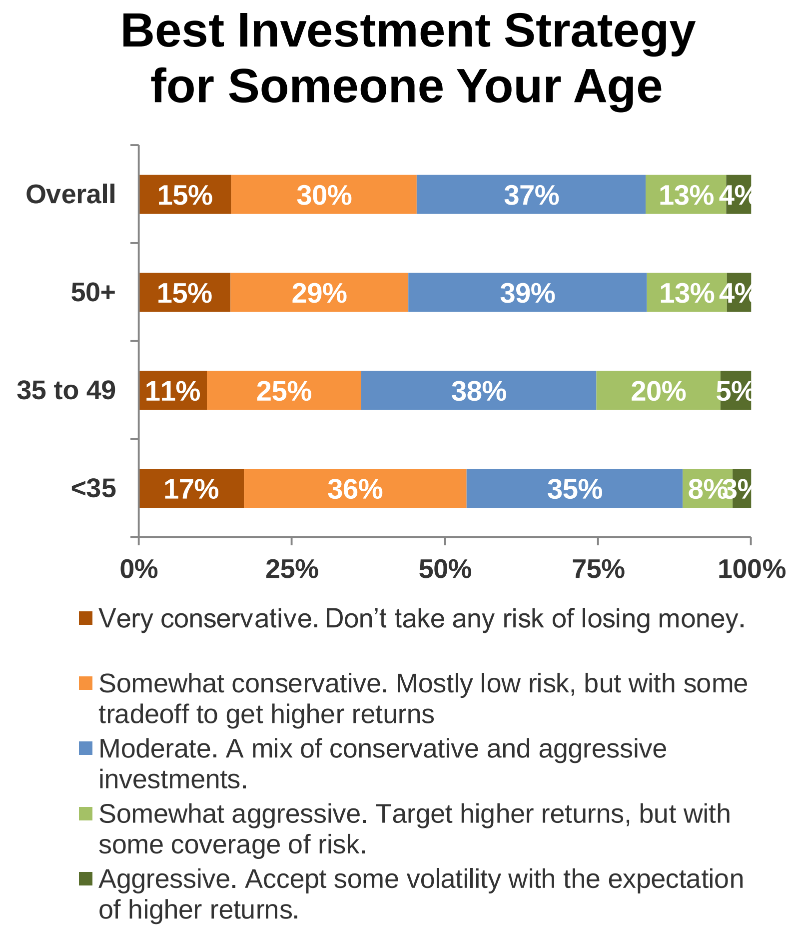
Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	48%	43%	55%
Middle 1/3	58%	48%	47%
Highest 1/3	53%	27%	36%

- **Prevalence of barrier national estimate (SCF): 36%.** Percentage of segments that say they are totally unwilling to take a financial risk.

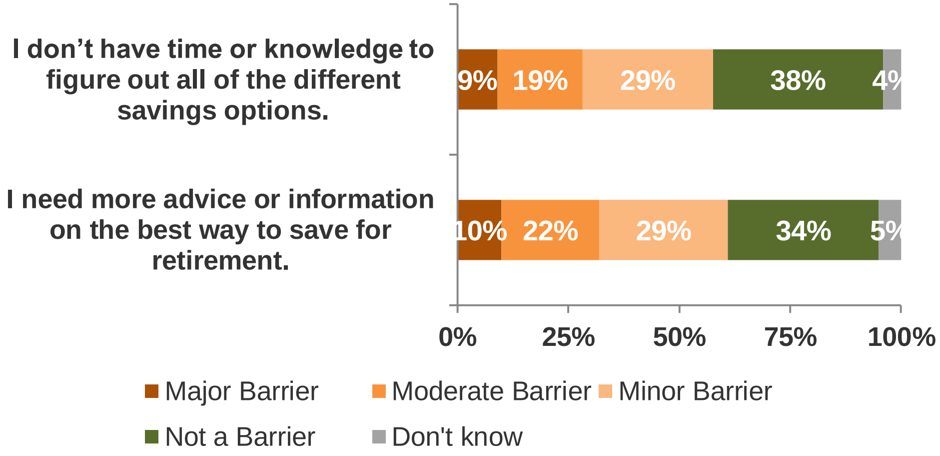
Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	40%	58%	67%
Middle 1/3	29%	36%	39%
Highest 1/3	17%	14%	18%

Barrier 6 (Execution) - Suboptimal Investment Strategies

- Overall, survey respondents were very risk adverse when it came to identifying the best investment strategy for someone their age. This was especially true for the youngest respondents who were more likely than older respondents to believe that a conservative investment approach was best for someone their age.
- Respondents with less education and those who scored worse on a measure of financial literacy were also more likely to say that a conservative investment approach was best.



Barrier 6 (Execution) - Suboptimal Investment Strategies



- Not having time or knowledge to figure out savings options and needing more advice or information on the best way to save for retirement were common barriers to saving for retirement among survey respondents.
- These were greater barriers for younger respondents, those with smaller household incomes, and those with lower education levels. These were also larger barriers for those who scored worse on a measure of financial literacy.

Barrier 6 (Execution) - Suboptimal Investment Strategies

- **Many Coloradans shy away from risk in investing and don't know how to maximize their savings.**
  - There is a perception that sophisticated financial knowledge is exclusive and not afforded to all. Therefore, lower income, younger, and minoritized populations may not possess the financial knowledge or access to the financial knowledge to make informed savings decisions.
  - People may also be less inclined to invest in retirement because they are risk-averse or don't trust mechanisms of investment. This is especially true of younger generations.

"I invest in retirement, but don't know how to maximize my savings. What we are doing, I just wonder if I can be getting better returns on investment for what I am doing."

- In-Person Discussion Participant

Barrier 6 (Execution) - Suboptimal Investment Strategies

- **Experts say that people are generally too conservative with retirement investments, especially when they are young.**
  - Getting good returns can cover for smaller contributions.
  - Lack of knowledge about finance and investing leads to a passive/conservative bias (Benartzi and Thaler, 2007).
  - Many do not understand that their retirement accounts are in fact investments and consider them akin with CDs or other low interest vehicles.
  - Bad experiences can reinforce unnecessary risk aversion. Insulating young and first-time investors from significant losses will lead to more savings over time.

"A major step is figuring out how to save. Even if they have an idea, they're not maximizing their value. They're not putting it into high-return accounts."

- Financial Expert

Barrier 6 (Execution) - Suboptimal Investment Strategies

> **Many do not understand that their retirement accounts are in fact investments and consider them akin with CDs or other low interest vehicles.**

"I wish that I was taught the difference between saving and investing. When I was little it was - you must save, you must save - so my money just sits there - that's what I thought. You just keep adding to this one thing and it sits there for your life and you use it later when you have grey hair. I didn't differentiate between all the ways you could save and invest and I thought it just sat."

- In-Person Discussion Participant

Barrier 6 (Execution) - Suboptimal Investment Strategies

> Advanced financial literacy is correlated with greater levels of planning for retirement (van Rooij, Lusardi, and Alessie, 2012).

> Most people desire to improve investment strategies, but do not know the means to get better returns. People are open to taking the right risks.

> People need to be pushed to pursue new investment strategies. Employers have the potential to play a significant role encouraging new investment strategies.

"The middle and upper middle class may not be optimizing their investments. They may have their 401k through their job, but they're not putting it into their limits. They don't get the math behind what it really costs."

- Financial Expert

Barrier 6 (Execution) - Suboptimal Investment Strategies

- Encourage Coloradans to see the positive potential of investing early and investing well. While some may be hesitant of investing money into the stock market, they may still be open to investing into real estate or other commodities
- The word "risk" is ill perceived by many. There is a need to educate people on what risk means in relation to long term gains.

"…maybe it stems more from personal experience, just because I feel like my parents took a lot of chances, and it never really paid off. So for me, taking a chance on myself, I'm like, "I want to be a little bit more conservative."

- In-Person Discussion Participant

Barrier 6 (Execution) - Suboptimal Investment Strategies

- Households who say they are totally unwilling to take a financial risk have less in retirement savings than those who say they accept some level of risk.
- Being totally unwilling to take a financial risk has **a moderate effect** on savings level. The difference between those who do and do not say they are willing to take a financial risk is a bit smaller than that of 10 years of additional age for the head of the household.
- Individuals with higher levels of financial literacy have more in retirement savings than those with lower levels of financial literacy.
- Increasing a financial literacy score has a **small effect** on savings level. The difference between those who score 1 out of 3 and those who score 3 out of 3 on the Federal Reserve's financial literacy battery is about the size of 10 years of additional age for the head of the household.

Barrier 7 (Systemic) - No Workplace Retirement Program

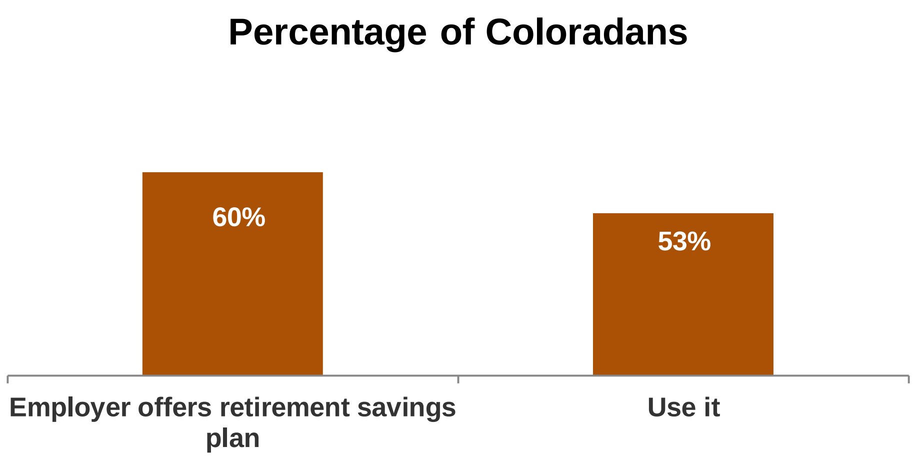
- **Prevalence of barrier Colorado estimate: 40%.** Percentage of segments that are not offered a retirement savings plan through an employer (note the national estimate is more discriminatory as respondents need to report a balance to be counted).

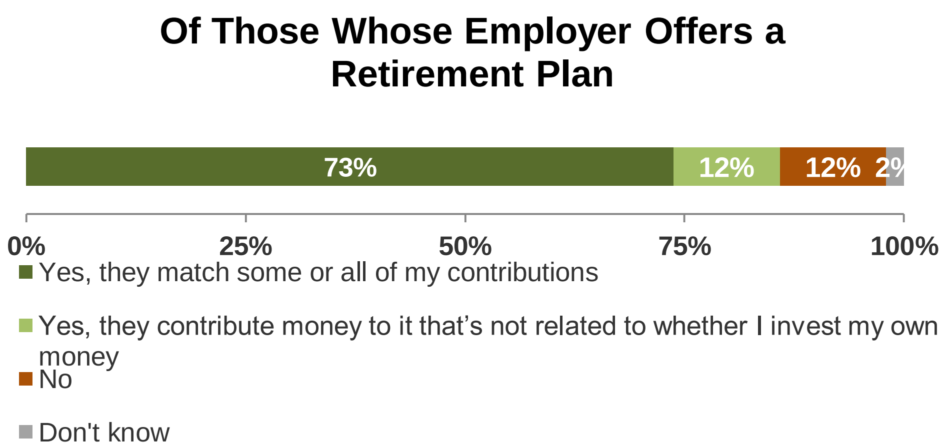
Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	77%	72%	62%
Middle 1/3	34%	28%	40%
Highest 1/3	30%	25%	29%

- **Prevalence of barrier national estimate (SCF): 59%.** Percentage of household segments that lack a workplace retirement account-based plan (or have a $0 balance).

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	85%	87%	88%
Middle 1/3	53%	51%	56%
Highest 1/3	31%	30%	38%

Barrier 7 (Systemic) - No Workplace Retirement Program





- Of all survey respondents, 60 percent had access to a retirement savings plan at work and more than half used it. Respondents with greater household income, those in the Denver metro, and those with higher education levels were more likely to have access.
- Older respondents, those with greater household income, women, and those who scored higher on a measure of financial literacy were more likely to use a retirement savings plan if offered at work.
- The majority of survey respondents who have access to a retirement savings plan at work report that their employer matches some or all of their contribution.

Barrier 7 (Systemic) - No Workplace Retirement Program

- **Out of sight, out of mind savings strategies are the most effective in helping people maintain saving behaviors. Therefore, residents who have workplace retirement plans note an easier beginning to their savings journey.**
  - However, self-employed, part-time, or unemployed residents who do not have access to a workplace plan have more difficulty beginning the savings process. Even with savings accounts, many still acknowledge that they could be saving more effectively with workplace accounts.

"Another big thing like you were saying is health care. I'm fine. My health care is fine, but two of my three kids do not have jobs with benefits. So every day, you never know what quite you have to pay that money in every month to have your catastrophic coverage."

- In-Person Discussion Participant

Barrier 7 (Systemic) - No Workplace Retirement Program

- **Experts say that workplace retirement savings programs are effective because they make retirement savings automatic.**
  - Many have argued that expanding workplace retirement savings accounts is the key to solving America's lack of saving (Rhee, 2013; Hannah, Kim, and Chen 2018). However, these plans need automatic enrollment, effective default investment rules, and default escalation of contribution to maximize effectiveness (Benartzi and Thaler, 2013).
  - People are slow to join advantageous plans and make few changes once they do (Benartzi and Thaler, 2007).

"Wherever we can automate savings, it works better if they don't think about it. It's true for a 401k and a workplace plan where it just comes out. It's more challenging if it's not a workplace plan."

- Financial Expert

Barrier 7 (Systemic) - No Workplace Retirement Program

- Studies demonstrate that education from employers about the benefits of retirement programs and explanation of matching incentives increase employee participation (Olsen and Whitman, 2007; Duflo, Gale, Liebman, Orszag, and Seaz, 2006).
- Workplace accounts are especially effective when the best decisions and behaviors are the default options.
- Workplace accounts allow people to overcome one of the largest barriers to savings for retirement by starting off in the first place.

"Set up access points where none exists now. Frame it with education and behavioral nudges. Auto-enrollment, auto-escalation. People will pre-commit to increasing it in the future. Default investment settings like Oregon does."

- Financial Expert

Barrier 7 (Systemic) - No Workplace Retirement Program

- Households that have access to workplace retirement programs have significantly higher amounts of savings than those that do not.
- Either the head of the household or their spouse having an account-based plan through their employer has a **massive effect** on level of savings. The difference between those who do and do not have these plans is more than one hundred times larger than the effect of having a college degree.
- The size of this effect needs to be understood in context. In many ways, having a workplace account is one in the same as saving for retirement. Access to these accounts is strongly correlated with retirement savings because these accounts always yield retirement savings in the data (The Federal Reserve only reports a household having this account if it contains a balance greater than 0). Nonetheless, households that have these accounts preform much better than households with other types of retirement accounts.

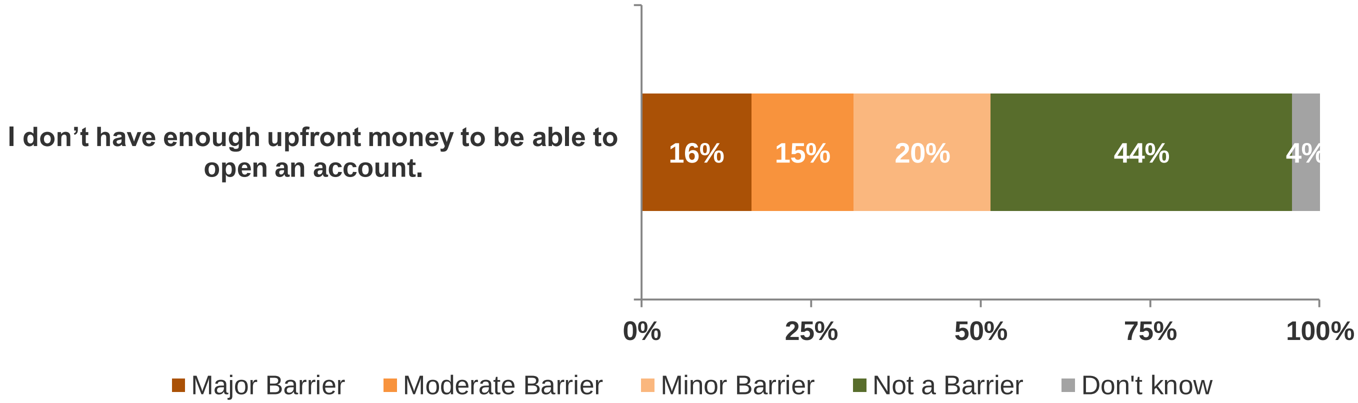
Barrier 8 (Systemic) - Minimum Account Barriers (Startup, Investment, Perceptional)

- **Prevalence of barrier Colorado estimate: 31%.** Percentage of segments saying that not having enough upfront money to open an account is a moderate or major barrier to saving for retirement.

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	53%	55%	54%
Middle 1/3	32%	27%	23%
Highest 1/3	36%	20%	10%

- **No national data available on this barrier.**

Barrier 8 (Systemic) - Minimum Account Barriers (Startup, Investment, Perceptional)



- About half of survey respondents reported that not having enough upfront money to be able to open an account was a barrier that prevented them from saving for retirement.
- Younger respondents, those with smaller household incomes, those with lower education levels, and those who scored worse on a measure of financial literacy were more likely to report that this was a barrier.

Barrier 8 (Systemic) - Minimum Account Barriers (Startup, Investment, Perceptional)

- **While Coloradans may want to improving their saving behaviors, many see structural barriers as preventing them from doing so.**
  - Lower income or otherwise financially-obligated Coloradans see minimum inputs for retirement accounts as well as high fees of financial planners as limiting their ability to start saving and investing well.

“I'm fine talking about it, but I don't want to go and pay for a service, to have someone try to sell me something, and tell me that I don't make very much money. I know all these things.”

- In-Person Discussion Participant

Barrier 8 (Systemic) - Minimum Account Barriers (Startup, Investment, Perceptional)

- **Experts say that while minimum account balances and high entry fees for investments are becoming less common or even rare, many still perceive this as a barrier.**
  - Many brokers will waive fees in order to get a client to start investing.
  - There are financial services tailored to younger people that help mitigate start-up costs.
  - Employers can leverage bringing many clients to a financial institution as a way to lower minimum account balances and start-up fees.

"There's a huge perception that you have to have money to work with a financial planner. It's not the case anymore, but the public doesn't know it yet."

- Financial Expert

Barrier 9 (Resources) - Inability To Leverage Technology

- **Prevalence of barrier Colorado estimate: 57%.** Percentage of segments saying they have not used online searching to learn about saving for retirement.

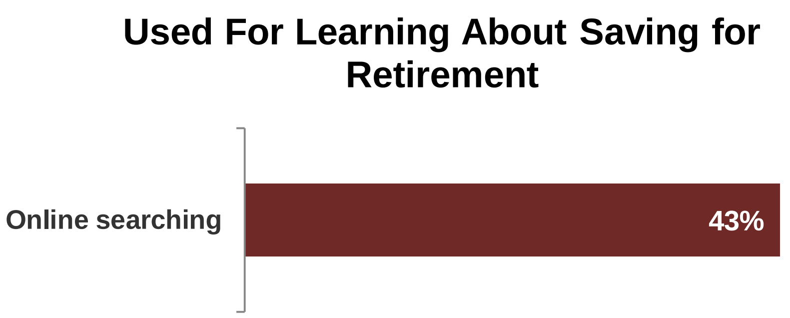
Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	65%	72%	66%
Middle 1/3	44%	56%	63%
Highest 1/3	43%	63%	53%

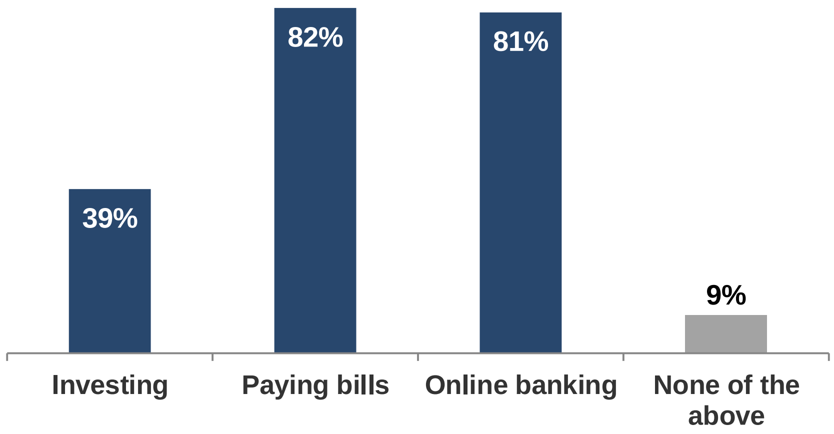
- **Prevalence of barrier National estimate (SCF): 53%.** Percentage of segments that do not use the internet for investing decisions.

Income Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	53%	61%	76%
Middle 1/3	45%	49%	60%
Highest 1/3	35%	39%	51%

Barrier 9 (Resources) - Inability To Leverage Technology

- More than 40 percent of survey respondents reported that they had used online searching to learn about saving for retirement. Younger respondents, those with larger household incomes, and those with higher levels of education with more likely to use the online searching. Additionally, those with a retirement savings goal, those currently saving for retirement, and those with access to a retirement savings plan at work were more likely to use online searching.
- While large proportions of survey respondents use the internet for online banking and paying bills, less than half use it for investing. Younger respondents, those with larger household incomes, men, and those with higher education levels were more likely to use the internet for investing. Additionally, those with a retirement savings goal, those currently saving for retirement, and those with access to a retirement savings plan at work were more likely to use the internet for investing.





Barrier 9 (Resources) - Inability To Leverage Technology

- **Coloradans are willing to use technology to get information but prefer individualized advice comes from someone with whom they have a prior relationship and trust.**
  - Face to face communications about finances is more desirable than a strictly online or automated investment savings vehicle. Usability of online investment platforms is important to residents and integrated educational components could instill a sense of confidence in decisions.
  - Younger generations are particularly interested in automated processes and informative apps that help hold them committed to saving behaviors

"I've noticed my husband just got a new 401k thing. And when you go to that website it's really user friendly."

- In-Person Discussion Participant

Barrier 9 (Resources) - Inability To Leverage Technology

- **Experts say that leveraging technology provides cheap and easy tailored financial advice with the potential to automate savings.**
  - Online tools can quickly provide people with the costs and benefits of making different savings decisions based on their current situation.
  - Using technology allows investors to put saving out of sight and out of mind. This is usually an effective strategy but can be problematic if one becomes derailed. Online investing lacks the social pressure to get back on track.
  - Longitudinal studies show that the use of financial software to calculate retirement needs is strong predicter of retirement savings and provides an effective compliment to financial literacy (Bi, Finke, and Huston, 2017).

"I try to give people the big picture. You need an interface that will give people simple rules of thumb when they're applying for an account. Putting away 5 percent at an annual rate of return will give you $X."

- Financial Expert

Barrier 9 (Resources) - Inability To Leverage Technology

- Households that do not use the internet to research or manage investments do not have statistically significant different amounts in retirement savings than those that do.
- In certain models and specifications, use of the internet to research and manage investments has a small, but often negligible, effect on retirement savings. However, our measures simply account for the use of the internet at large. It is likely that specific tools and programs would yield better results (Bi, Finke, and Huston, 2017).

Barrier 10 (Resources) - Not Enough Income To Save

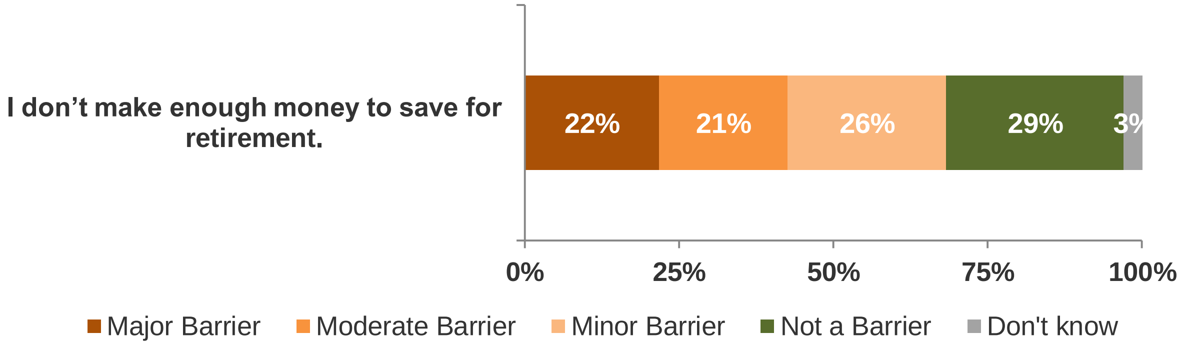
- **Prevalence of barrier Colorado estimate: 21%.** Percentage of segments that hope to retire some day, but do not think they will be able to do so.

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	36%	53%	29%
Middle 1/3	25%	30%	20%
Highest 1/3	19%	3%	8%

- **Prevalence of barrier national estimate (SCF): 44%** Percentage of segments that said expenses exceeded income over the past 12 months (note that this measure holds two dimensions and that expenses may not reflect need).

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	58%	64%	67%
Middle 1/3	34%	48%	42%
Highest 1/3	26%	27%	25%

Barrier 10 (Resources) - Not Enough Income To Save



- More than two thirds of survey respondents reported that not making enough money was a barrier to saving for retirement, with a little over a fifth reporting that it was a major barrier.
- Younger respondents, those with smaller household incomes, women, and those with lower education levels were more likely to report that this was a barrier.

Barrier 10 (Resources) - Not Enough Income To Save

- **Many people have limited disposable income and feel it is still important to use some of their disposable income on "luxuries" such as dining out, new clothes, and vacations.**
  - Residents who do not have much disposable income are more likely to relate to messages or strategies that encourage small sacrifices now for big payouts later, as opposed to completely changing their lifestyle. Younger people also expressed a desire for systemic changes in the economic system that places more values on individuals.

"It's pushed to us that, 'Oh, you want to save money, you want to invest, maybe you don't buy that $3 coffee everyday that you want.' But I don't feel that I should have to sacrifice something like that because it's a little joy to have that coffee. Something more drastic outside of just a $3 coffee needs to change."

- In-Person Discussion Participant

Barrier 10 (Resources) - Not Enough Income To Save

- **Experts say a significant proportion of Coloradans need help reaching a basic standard of living before they can save.**
  - The Colorado Center on Law and Policy estimates that 27% of working-age households in the state live below the Self-Sufficiency Standard (Pearce, 2018).
  - Poverty drastically lowers a person's financial time horizon. Without enough income to cover expenses, saving for the future is a non-starter.
  - Matching programs can be a way to help low-income households save. Inspiring hope for the future and support for immediate need is important.
  - There is a limited market for retirement related accounts for low-income families as the financial industry does not offer a wide range of products to poorer households (Collins and Gjertson, 2013).

It's tough. My personal belief is that you need more policy interventions in terms of minimum wage, social safety net, childcare, housing assistance, etc. The reason I stopped working with low-income people is that financial planning isn't what [they] need. I was irrelevant to what they needed - Financial Expert

Barrier 10 (Resources) - Not Enough Income To Save

- Nationally, only 11% of the bottom 5th of the income distribution reports having any savings in a retirement account.
- Households who say they their expenses exceeded their income over the past 12 months have less saved for retirement than those who say their income exceeded their expenses. Note that this may be related to debt burden and spending as well as income and saving.
- Having extra income over the last 12 months has **a moderate effect** on savings level. The difference between those who do and do not say their income exceeded their expenses over the last year is about that of 10 years of age for the head of the household.
- Ratios of debt to income and debt to assets each had a statistically significant, but substantively small, effect on retirement savings level.

Barrier 11 (Persistence) - Derailment by Withdrawals Or Lapses In Contributions

- **Prevalence of barrier Colorado estimate: 33%.** Of those who have retirement accounts, percentage of segments that have ever withdrawn money.

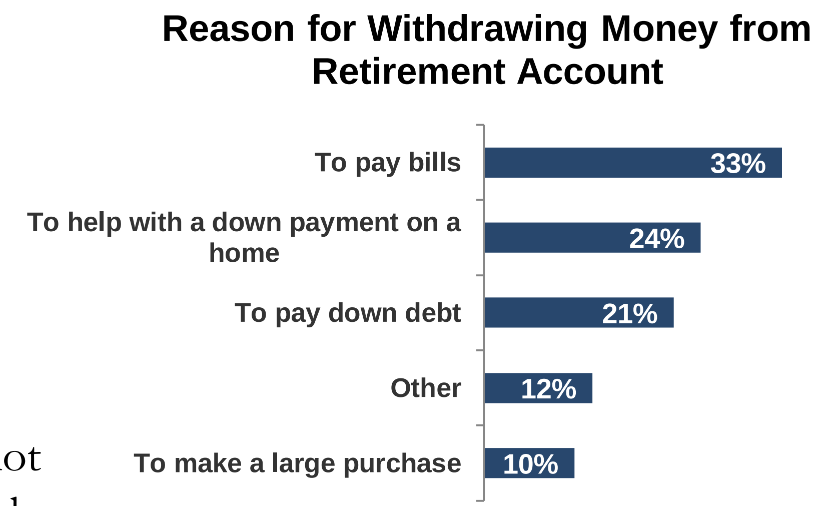
Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	21%	38%	39%
Middle 1/3	22%	34%	43%
Highest 1/3	47%	29%	30%

- **Prevalence of barrier national estimate (NFWBS): 46%.** Percentage of segments that experienced a significant shock (health emergency, divorce, etc.) over the past year.

Income / Age	Youngest 1/3	Middle 1/3	Oldest 1/3
Lowest 1/3	58%	64%	67%
Middle 1/3	34%	48%	42%
Highest 1/3	26%	27%	25%

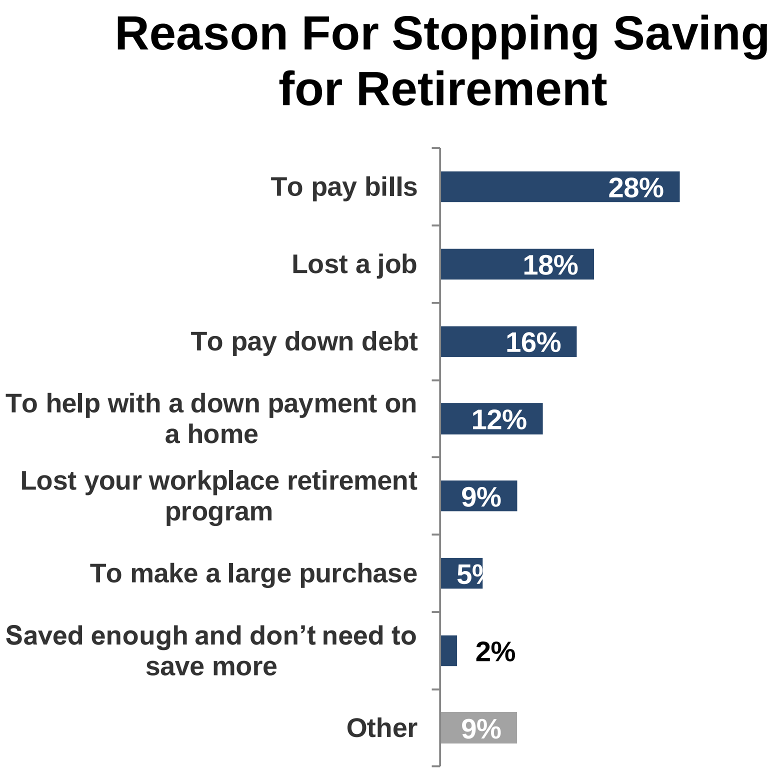
Barrier 11 (Persistence) - Derailment by Withdrawals Or Lapses In Contributions

- One third of survey respondents who had some type of retirement account reported that they had withdrawn money from it some point. Respondents who scored lower on a measure of financial literacy were more likely to have done so.
- The most common reason for withdrawing money from a retirement account was to pay bills. Those with lower education levels were likely to report doing so to pay bills. Those without a retirement savings goal and those not currently saving for retirement were more likely to have withdrawn money to pay for bills.
- Younger respondents were more likely to have done so to help with a down payment on a home.



Barrier 11 (Persistence) - Derailment by Withdrawals Or Lapses In Contributions

- Forty percent of survey respondents who had some type of retirement account reported that they had stopped saving at some point after opening the account. Younger respondents and those with smaller household incomes were more likely to have done so.
- The most common reason for stopping saving for retirement again was to pay bills. Those without a retirement savings goal and those not currently saving for retirement were more likely to stopped saving for retirement to pay for bills.



Barrier 11 (Persistence) - Derailment by Withdrawals Or Lapses In Contributions

- **Burdensome medical expenses are the most often cited derailment experienced by Colorado residents.**
  - Periods of unemployment, or other catastrophic financial situations, may also lead people to withdraw from current savings, or continue to contribute to their retirement savings. For those who must withdraw, many are also unaware of the long-term effects of withdrawing from retirement accounts and the associated taxes and fees.

"It's a medical bill. It's, I lost my job and you'd pay the house payment. I don't think people are taking it out to buy the pizza or the coffee. I don't think people are taking out of their retirement account to go on vacation. I think people are taking out of their retirement account to pay for health insurance or to take care of their mom."

- In-Person Discussion Participant

Barrier 11 (Persistence) - Derailment by Withdrawals Or Lapses In Contributions

- **Experts say that withdrawing funds from retirement accounts should be difficult but recognize the need in certain situations.**
  - The public often considers retirement accounts as an emergency resource.
  - Experts noted the legitimacy and frequency of health emergencies causing derailment. The key is getting back on track in a timely manner.
  - Experts advocating having emergency funds to prevent the temptation to withdraw from retirement funds in an unplanned situation.
  - Financial derailment from external life events not only has immediate consequences for savings levels but can lead to poorer psychological states and financial decision making that affect retirement savings in the long-term (Bertrand, Mullainathan, and Shafir, 2006; Hoffman and McNair, 2019).

"People always get derailed. There'll always be something they didn't account for. They have to have a process for working through it. You need an easy way to track where your money is going."

- Financial Expert

Barrier 11 (Persistence) - Derailment by Withdrawals Or Lapses In Contributions

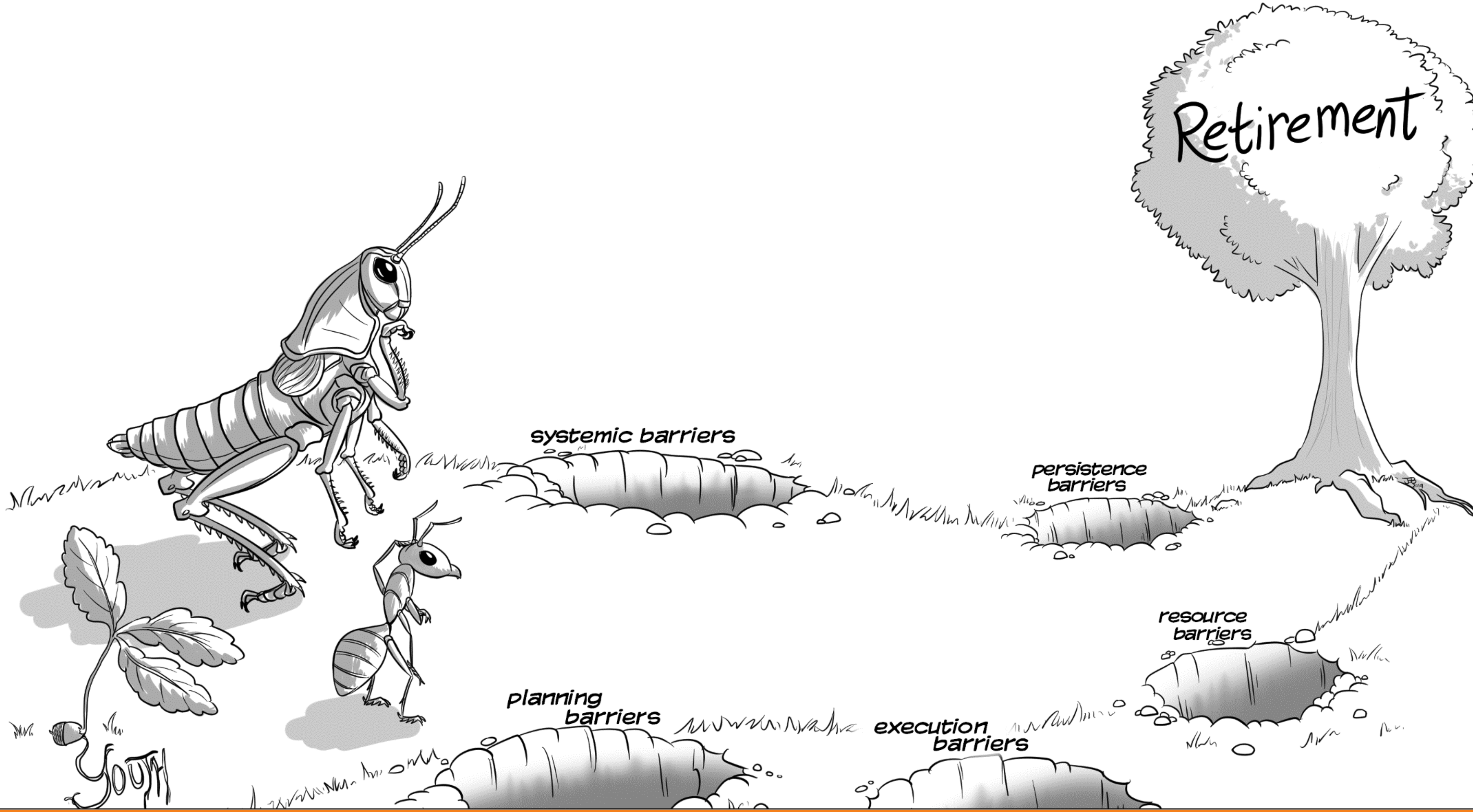
- Messages that imbue shame or guilt in people who have withdrawn or lapsed in their retirement contributions have an overwhelming negative effect.
- Instead, focus on messages that educating residents on "rainy day funds" versus "retirement savings"

"Another book I read is just, try to build that rainy day fund, so in the event that something terribly happens, you have enough to cover that. But then yeah, the rest of your money, you should invest."

- In-Person Discussion Participant

Barrier 11 (Persistence) - Derailment by Withdrawals Or Lapses In Contributions

- Individuals who say they experienced a significant shock (health crisis, divorce, major home/car repair, etc.) in the last year have less in savings than those who have not recently experienced these shocks.
- Experiencing a shock in the last year has **a moderate effect** on savings level. The difference between those who do and do not say they have experienced a shock in the last 12 months is a bit more than the effect of 10 years of age on savings.



Potential Actions to Help Residents

Collaboration Opportunities

Government Roles

- The State has an opportunity to lower barriers through legislation and policy for retirement accounts
- Participants suggested several opportunities for the State Treasurer to actively educate Coloradans about savings strategies and the importance of retirement savings.
  - Start financial literacy education in K-12
  - Social media
  - Billboards
  - Radio and television advertisements
  - Community spaces such as libraries, community centers, etc. can serve as host sites for financial literacy forums and courses
- Importantly, residents outside of the Front Range tend to be more skeptical of the government than Front Range residents. As such, these populations may need additional outreach to build trust between themselves and their local and state governments.

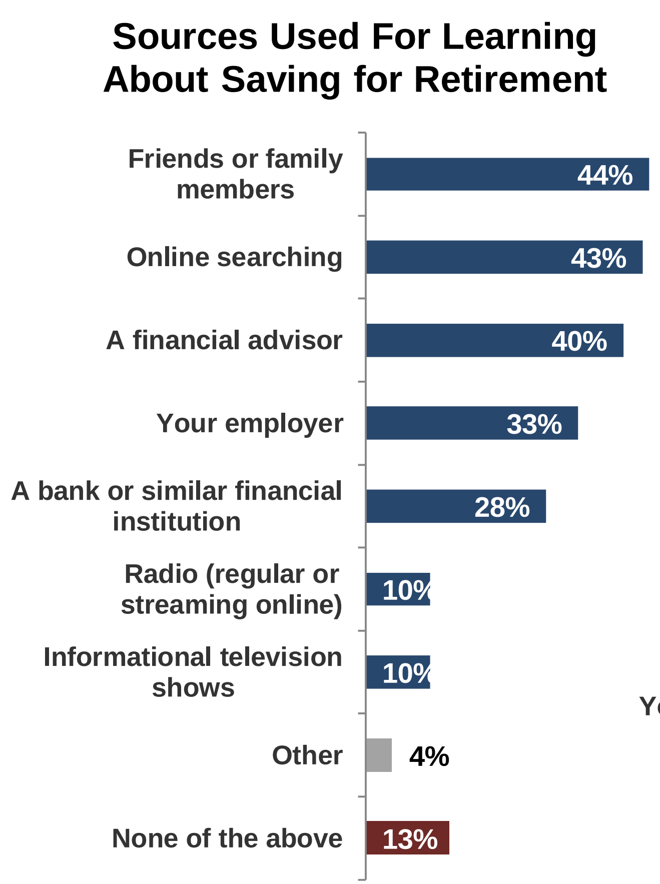
Government Roles

- As it stands now, there is not a central place for people to obtain financial literacy information. People tend to think of their finances on an individualized basis and may be hesitant to take general financial advice if it does not align well their current situation. The State Treasurer thus has the opportunity to situate itself as a trusted source that can speak to the unique needs of all peoples in Colorado, regardless of age or other socioeconomic statuses.

"The hard part is making the information available and it being anti-corruptible. Because if we're talking about a private company that's going to need to be paid for their services, or whether we're talking about a government entity that may have its own corruptible problems, how do we make it a non-corruptible source of information? I don't know the answer to that. I mean, we can't even have a media source that is non-corruptible in our life right now."

- In-Person Discussion Participant

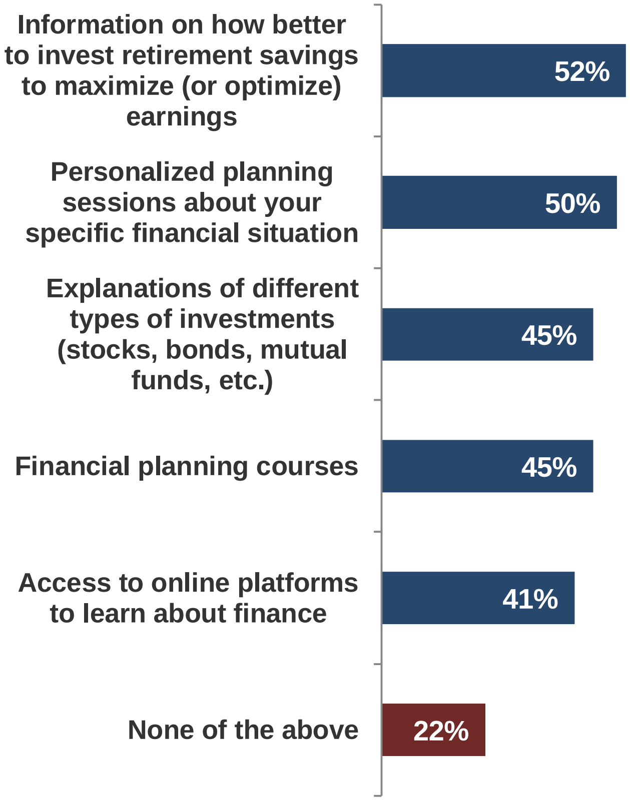
Employer Roles



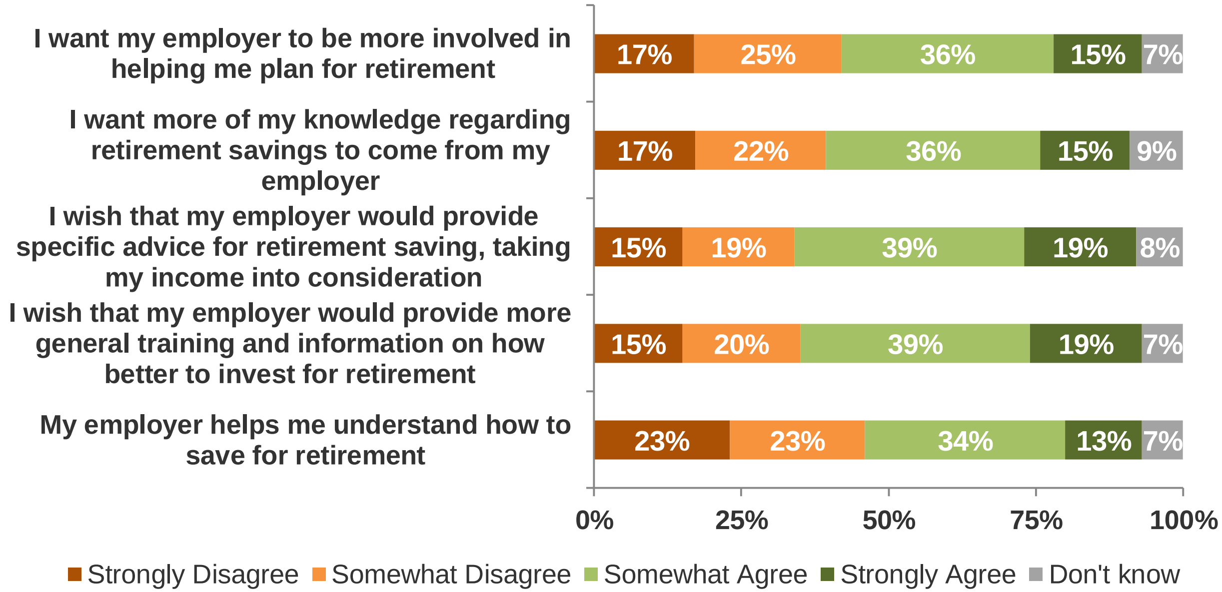
- Out of all survey respondents, a third had consulted with their employer to learn more about saving for retirement. Of those employed for wages, almost 40 percent had consulted with their employer. Forty five percent of employees who had access to a retirement savings plan at work consulted with their employer.
- However, respondents were less likely to believe that they would seek financial advice from an employer, compared to other sources.

Employer Roles

Interest in the Following if Offered by an Employer



- About half of survey respondents reported that they would be interested in financial education, if offered by an employer. They were especially interested in information on how to invest and personalized planning sessions. Respondents who were currently saving, who had savings goals, and who had access to a workplace retirement account were more interested in taking some type of financial education from an employer.
- Employees generally seemed somewhat interested in getting more guidance and information from an employer about saving for retirement. Employees who do not have access to a retirement plan at work were more uncertain about whether they wanted guidance and information from their employer.



Employer Roles

- In-person discussion participants emphasized the view that something is lacking in the employee-employer relationship today. There is an expressed desire to be well taken care of by their employer. Here, people are interested in financial planners coming to their place of work, newsletters, quarterly sessions that encourage saving accountability, and knowing to whom they can direct questions.
  - Some data suggests that younger residents are more trusting of employers and are looking for them to be more actively involved in their retirement savings, financial literacy, and overall well-being.
- Employers may be able to play a unique role in guiding employees to make retirement saving a priority by not only offering retirement plans but also educating them on how to use them.
  - While many people want their employer to provide further education on how to better use their retirement plan, they don't expect their employer to be an expert and would rather them act as a liaison to retirement planning advice.

Employer Roles

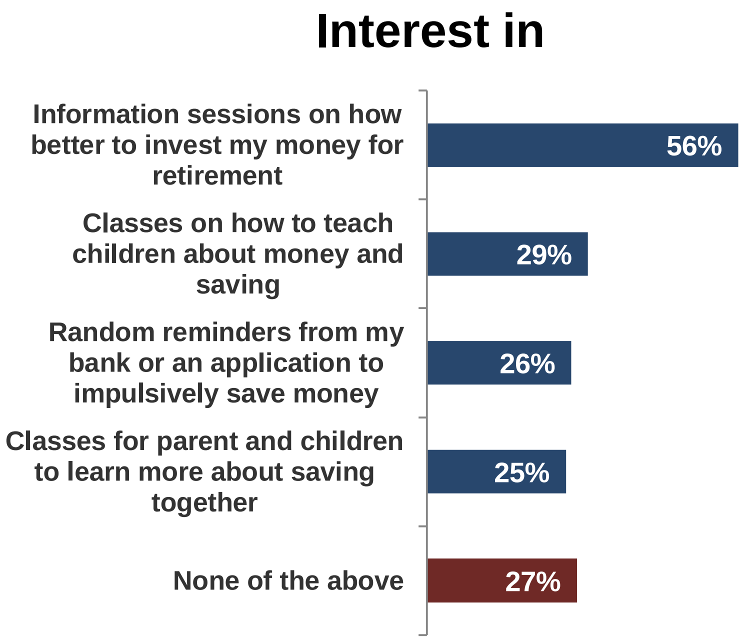
"My role is to make sure I am taking care of myself first, monetarily. I also need to be able to reach out and ask questions when I don't understand something or just need direction, without feeling like a failure for needing to ask.

- Online Discussion Participant

"Employers that want to retain their valuable workforce need to have some system for supporting them as they think ahead to retirement. Pensions or 401Ks that are an equal partnership are good vehicles for that."

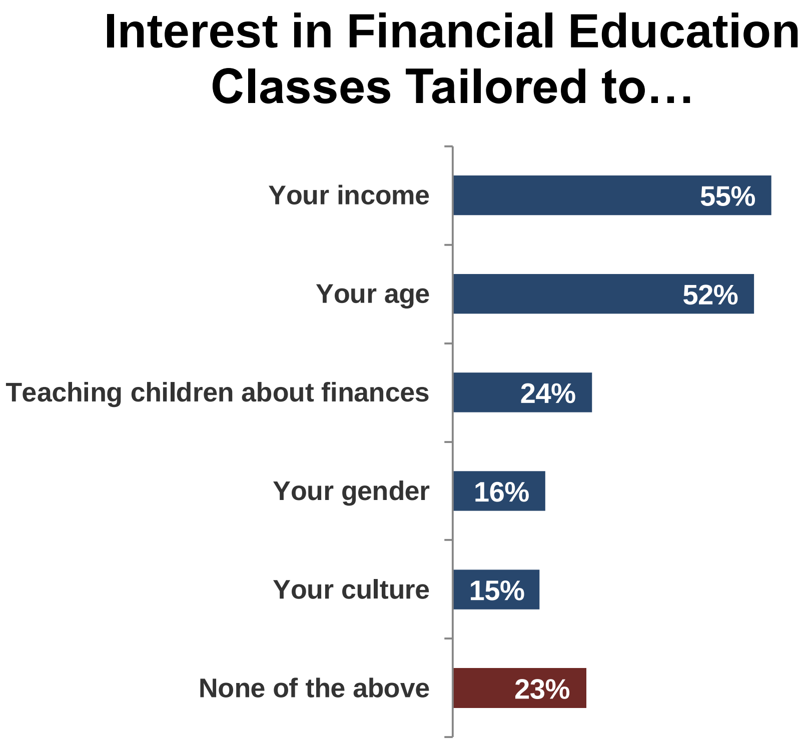
- In-Person Discussion Participant

Interest in New Approaches to Saving



- More than half of survey respondents were interested in information sessions about how better to invest their money for retirement. Younger respondents were more interested in all the tested items.
- About 40 percent of respondents with children younger than 26 years old were interested in classes on how to teach children about money and saving.
- Respondents who were currently saving for retirement, those who had a retirement savings goal, and those who had access to a retirement savings plan at work were more interested in the tested items.
- Respondents who scored worse on a measure of financial literacy and those who had less financial socialization were also more interested in the tested items. This suggests that those who could benefit most are aware that they need more information and education.

Interest in New Approaches to Saving



- More than half of survey respondents were interested in financial education classes tailored to their income and their age. Younger respondents were more interested in tailored classes overall.
- Respondents who were currently saving for retirement, those who had a retirement savings goal, and those who had access to a retirement savings plan at work were more interested in the tailored classes.
- Respondents who scored worse on a measure of financial literacy and those who had less financial socialization were also more interested in the tailored classes.

Opportunities in Education

An Education Approach

- Universally among discussion participants, people expressed that they could benefit from more education on retirement saving. Many, in reflecting on the difference between challenges that were and were not in their control, also reflected on how their level of knowledge was the thing limiting their control. Therefore, people could benefit from more access to educational resources that help build confidence and good saving behaviors
- In this education setting, people want to learn about how to budget, how to tackle debt, what compounding interest is, effective ways to build credit, and disciplined practices for how to meet their goals. While people prefer to receive generalized information while they are learning about planning and don't mind a group setting, they want more individualized help as they learn more and start to experiment with their own retirement planning. Moving from general to specific education, however, requires a trusted individual.
- Among Coloradans, there seems to be a lack of understanding of how prioritizing investment in retirement may have a larger long-term impact than paying off today's debts so you can focus on saving in the future. Lessons in the benefits of prioritization could work alongside a messaging approach that argues how you don't have to give up your coffee today to retire well, but you do have to make your money work for you by investing it.

An Education Approach

- As evidenced by discussions with Colorado residents, starting efforts to save are the hardest. Therefore, education efforts should help build feasible saving habits, no matter how small. In helping to build good saving habits, automation and approaches that set good goals and then are "out-of-sight, out of mind" may be successful in helping to instill such saving habits. Once habits are formed, saving more and doing so more efficiently come easier.

"Every [challenge] I have is in [my] control because if I were making it a priority and being more educated about it, then I would have control over these things or at least more control and feel more secure about my retirement in the future."

- In-Person Discussion Participant

Considering Age

- In developing education content and approaches, however, it is important to consider a person's age. Older people have less time to save for retirement and the wrong targeted messages could leave them feeling hopeless.
  - This population may benefit most from educational tools that show them ways to contribute more to savings and how to invest money so it has the best chance to grow.
- Conversely, younger people may benefit from hearing that preparing for retirement will be easier if they start sooner than later. While this group may be hesitant to begin investing, being able to experiment with simulations or small dollar amounts may give them the confidence to invest more in the future while still building good saving habits.
  - Automated savings such as target-date funds that are managed externally are particularly appealing to younger residents. Importantly though, the name "target-date fund" may not be in the common vernacular. Thus, there is an opportunity to increase financial literacy so people can feel empowered and knowledgeable about their savings strategies.

Financial Education for Women

- **Increases in financial literacy translates into higher wealth acquisition for women than men (Bannier & Schwarz, 2018).**
  - Tailored financial education allows women to increase their annual income, which also has positive outcomes on health (White, et al, 2018). This education should teach financial self-efficacy and investment strategies (Farrell, Fry, & Risse, 2016) within the context of why women struggle with financial literacy and the gendered wage gap (Women & Financial Literacy: Facts, Resources & Tips, n.d.).
  - A gendered approach towards youth financial education may also help combat stereotypes of how girls, from a young age, receive less financial education than boys and thus have less financial capability later in life (Driva, Lührmann, & Winter, 2016; Agnew & Cameron-Agnew, 2015).

2Gen: Parent-Child Model of Financial Education

- **Kids begin developing spending habits around the age of seven and parents today are trying to discuss money even if this is a departure from how they were raised (Kobliner, 2018).**
  - While 90% of parents feel that they must be the ones to teach their children sound financial habits, 49% also admitted that they don't know how to talk to their kids about money (Parents Want Help Teaching Their Kids Good Financial Habits, Edelman Financial Engines Survey Finds, 2019).
  - In teaching their kids good behaviors, millennial parents want to pass on knowledge of how to save and the value of hard work (LeBaron, Rosa-Holyoak, Bryce, Hill, & Marks, 2018). However, to proactively build financial capability of children, parents must themselves be actively engaged in the financial education program (Van Campenhout, 2015).

Young Adults and Financial Socialization

- **Financial education of young adults can best be achieved through interactive lessons and involved adult role-models.**
  - Emerging adults or young adults in teens to early twenties benefit from financial education that delivers lessons in real-life scenarios (Danes, Deenanath, & Yang, 2016), builds off of experience gained part-time work (Shim, Barber, Card, Xiao, & Serido, 2010), and integrates supportive adult networks who demonstrate responsible financial behaviors (Jorgensen, Rappleyea, Schweichler, Fang, & Moran, 2017; Shim, Barber, Card, Xiao, & Serido, 2010; & Jorgensen, 2007).

Message Theme Testing

Focus Group Message Testing

- During the focus groups, a number of potential messages were tested with participants. The goal was not to evaluate actual ads, but rather to examine reactions to various message themes and styles. Selected key findings are presented in the following pages.

Use of Imperatives

- People dislike the imperative tense in messaging approaches. They do not like to be told what to do. Rather, they are more drawn to positive, encouraging, and educational ads over those that tell them what they could do or what they could be doing better regarding their retirement savings. If people must be educated on what they shouldn't do, messaging approaches must also include logical explanations of what the ramifications are if they do.

"Because if you're just hearing, "Don't touch it," well, why can't I touch it? How is it going to hurt me in the future?"

- In-Person Discussion Participant

Taking The Process One Step At A Time

- Coloradans were responsive to messaging about why retirement planning was necessary and shouldn't just be an afterthought and wanted tools for how to build their own roadmap to retirement.

"I liked what [a potential ad] said, "Building a house requires a plan and so does building retirement." Like, oh, yeah it does, doesn't it? And maybe I should put a little question in your head to, if you understand your goals, you know how much to save. I think that just is simple but says what it needs to say."

- In-Person Discussion Participant

Use of Visuals

- Messages that give people tangible action steps and use logic appeals with numbers, graphs, and charts are positively received.

I liked what [a potential ad] said, "Building a house requires a plan and so does building retirement." Like, oh, yeah it does, doesn't it? And maybe I should put a little question in your head to, if you understand your goals, you know how much to save. I think that just is simple but says what it needs to say.

- In-Person Discussion Participant

Forward Looking and Realistic

- Language that instills a sense of urgency in starting sooner than later seems to create sentiments of panic and inaction rather than pushing someone to change their behaviors. Rather, an approach that breaks the daunting big picture into feasible, small steps through tangible calls-to-action are more likely to move Coloradans to change their saving behaviors. People are willing to make small sacrifices here and there more than large lifestyle changes.

"Well, for me, I'm finding that things that won't change for me are things from the past. For instance, I didn't start saving early enough, but I think that most, even though they're challenging, are things that might change. Some are harder than others, but anything can happen. Anything can change. There's just what we can't do is go back in time."

- In-Person Discussion Participant

Calm and Optimistic

- Language that instills a sense of urgency in starting sooner than later seems to create sentiments of panic and inaction rather than pushing someone to change their behaviors. Rather, an approach that breaks the daunting big picture into feasible, small steps through tangible calls-to-action are more likely to move Coloradans to change their saving behaviors. People are willing to make small sacrifices here and there more than large lifestyle changes.
- Messaging that may be positive for younger residents ("save early") could dissuade older residents whose timeline has already passed for that solution. Messaging should be worded to not damage older residents if targeted toward younger ones.

"I know the clock is ticking. You don't have to tell me that.[A potential ad] says, "Starting early," and I'm like, well that ship has already sailed. We've already passed up the starting early portion of, so the top we were good with and the starting early we're like, "Forget about it."

- In-Person Discussion Participant

Creating a Community

- Participants acknowledge that they have a long way to go when it comes to improving their knowledge of and behaviors around retirement saving. However, they seem to be open to messaging that acknowledges that we could all stand to learn more, that preparing for retirement is a common struggle, and that we could learn together and not have to figure it all out on our own. Coloradans seem open to group learning to build basic knowledge. After developing confidence and proficiencies, respondents indicated they would be more willing to talk with a financial planner about their own savings as well as take more of an active role in preparing for retirement.

"Just the whole, you don't have to figure it out alone. It makes you feel less isolated about your financial situation ."

- In-Person Discussion Participant

Creating a Community (With Children)

- Parents liked the idea of teaching their kids about finances at a younger age and that a parents don't have to know everything in order to learn alongside their child. However, learning together and demystifying financial planning doesn't have to just be between parent and child. Overall, participants seemed open to the idea of talking more about money with friends, family, and colleagues in an effort to make the subject less taboo and easier to ask for help with planning.

"We like that [message about teaching your child]. I like that message a lot because I felt like it was not accusing the parent of being unable to teach the children about money, but just saying, "Hey, let's just do it all together."

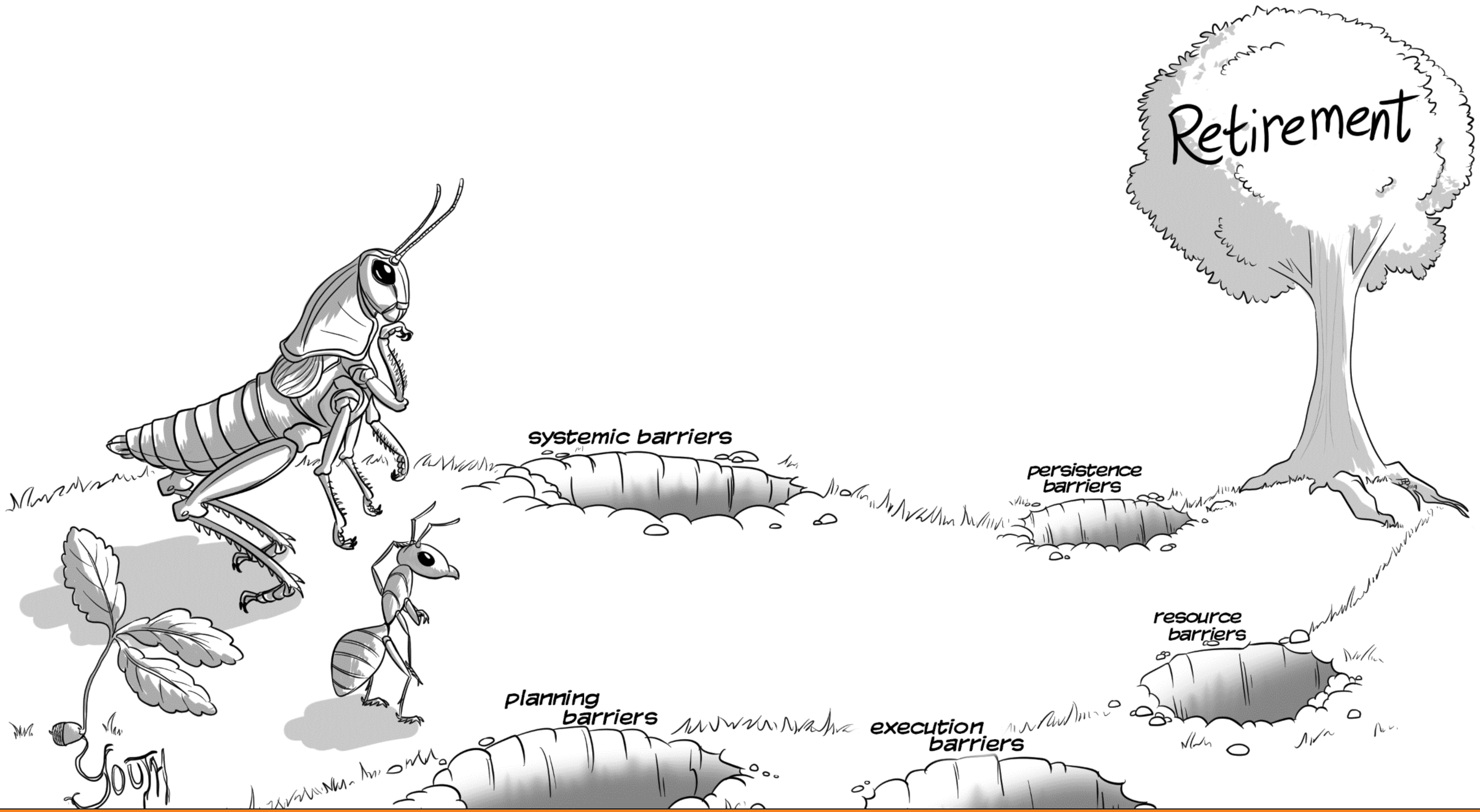
- In-Person Discussion Participant

Long-Term Payoffs

- Conversations about retirement as being an investment must acknowledge the public's perception of risk, particularly that of Millennials. As people understand that retirement savings are investments that grow and are subject to market fluctuations, they may be less included to participate due to a distrust of the system and having experienced the 2009 recession. Therefore, messages that say to take a risk and invest in your own retirement should exist alongside acknowledgements that this is a scary process but that investing has a larger long-term value than simply keeping your money in a savings account due to the inflating value of the dollar.

"Don't be afraid to take a chance on you." (Message theme proposed in focus group.) I like that. Challenge me, myself to take a risk. That I'm worth taking a chance on.

- In-Person Discussion Participant



CORONA INSIGHTS

Appendix

Appendix: Online Discussion Methodology

Recruiting. All virtual discussion participants were recruited by a professional recruiting firm using a qualifying screener that was constructed in collaboration between Corona Insights and representatives from the Colorado State Treasurer's Office.

Guide Design. The online discussion guide was collaboratively constructed by both Corona Insights and representatives from the Colorado State Treasurer's Office. Both Front-Range and Non-Front Range participants were asked the same questions.

Execution. This research engagement was conducted using an online discussion board platform. The online discussion took place from November 5-7, 2019. Each day participants were asked to log in and respond to a set of questions, requiring approximately 30 minutes a day of active participation. Participants who **fully** participated were given $125 in exchange for their time.

Analysis. Transcripts were obtained from the online discussion and analyzed using a combination of specialized qualitative data software and question summaries generated by the online discussion platform. Front Range and Non-Front Range responses were cross-analyzed to uncover any distinct differences based on geographic location.

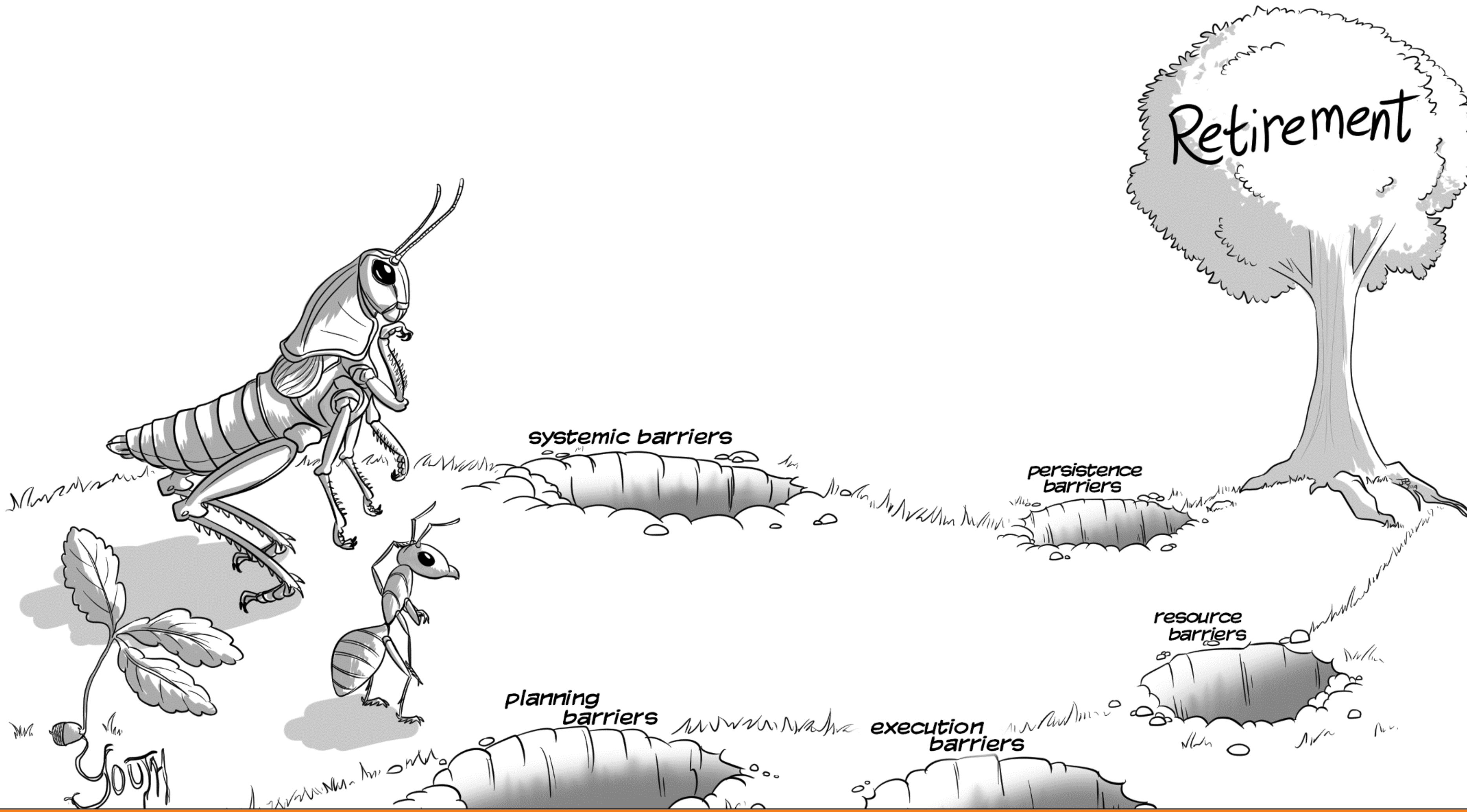
Appendix: In-Person Discussion Methodology

Recruiting. In-person discussions that took place in Denver and Colorado Springs recruited participants using a professional recruiting firm using a qualifying screener that was constructed in collaboration between Corona Insights and representatives from the Colorado State Treasurer's Office. The Fort Morgan in-person focus group recruited participants using a variety of advertisement strategies such as radio and newspaper ad. Interested persons then used the same qualified screener as Denver and Colorado Springs groups to verify participant eligibility.

Guide Design. The in-person discussion guide was collaboratively constructed by both Corona Insights and representatives from the Colorado State Treasurer's Office. Both Front-Range and Non-Front Range participants were asked the same questions.

Execution. This research engagement was conducted using a free-flowing conversation format led by a moderator who guided participants through various discussion questions, individual reflections, and group activities. The in-person discussions took place on December 10th, 11th, and 12th, 2019 and each lasted two hours. Participants who **fully** engaged for the duration of the discussion were given $150 in exchange for their time.

Analysis. Transcripts were obtained from the discussion and analyzed using a combination of specialized qualitative data software and visualization of individual reflections. Front Range and Non-Front Range responses were cross-analyzed to uncover any distinct differences based on geographic location.



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Appendix: Expert Interviewees

Experts Interviewed For This Research

- The experts listed on the following pages provided input to this report by participating in one-hour interviews to discuss various elements of retirement saving. Experts were selected and invited for interviews based on their specific areas of expertise and/or their experience working with particular target markets (which included different age cohorts, income cohorts, rural/urban cohorts, women, youth, and others).

Whitney Grimm
CEO Summit Wealth Management
Ameriprise Financial
Greenwood Village, CO

Steve Allender
President
Aspen Creek Investments, LLC
Greenwood Village, CO

Experts Interviewed For This Research

Rachel Roth
Director, Grants & Programs
Foundation for Financial Planning
Washington, DC

Lundon Jackson
Vice President of Content & Editorial
EVERFI
Washington, DC 02001

Lena Fishman
Financial Literacy Coordinator
Co Attorney General at Co Dept of Law
Denver, CO

Kristen Euretig
Founder and CEO
Brooklyn Plans
Brooklyn, NY

Jon Dauphine
CEO
Foundation for Financial Planning
Washington, DC

Jennifer Lane
Owner
Compass Planning Associates
Boston, MA

Experts Interviewed For This Research

Jarett Hughes
Project Coordinator, Strategic Action Planning Group on Aging & Adjunct Faculty, Gerontology Colorado Mesa University
Denver, CO
(Provided written input without a full interview)

Jamie Hopkins
Director of Retirement Research
Carson Group
Omaha, NE

Hyungsoo Kim
Associate Professor Department of Family Sciences and Graduate Center for Gerontology
University of Kentucky
Lexington, KY

Garret Prom
Founder
Prominent Financial Planning
Austin, TX

Garrett Harper
President
Harper Financial Strategies, LLC
Lawrence, KS

Experts Interviewed For This Research

Elizabeth Foster
Financial Advisor and Coach
Fiwell, LLC
Calhan, CO

Debbie Pierce
President and CEO
Economic Literacy Colorado
Denver, CO

Dave Surofchek
Senior Vice President, Wealth Management
Morgan Stanley
Colorado Springs, CO 80906

Brent Neiser
Senior Director of Strategic Partnerships and Alliances
National Endowment for Financial Education
Denver, CO

Ashley Dixon
Associate Planner
Gen Y Planning
Colorado Springs, CO

Alyssa Wooten
Personal Financial Literacy Education Content Specialist
Colorado Department of Education
Denver, CO

Appendix: Online Panel Survey Methodology

- Research mode & sampling
  - Online panel survey of Coloradans 18 and older.
  - Respondents were screened to those who were not currently retired. Quotas were used to ensure adequate representation of age, household income, and geographic region.
- Survey instrument
  - The survey was designed by Corona Insights.
  - The survey was approximately 15 minutes in length.
- Execution
  - Surveys were completed between December 10^{th} and December 18^{th}, 2019.
  - 1,115 completed surveys were included in the analysis after cleaning the data.
- Weighting
  - It is important to note that online panel samples are not probability samples. However, we did weight the data to make it somewhat more representative of the state. Specifically, we weighted by gender, age (<35, 35 to 49, and 50+), and household income (<$50,000, $50,000 to $99,999, and $100,000+).
  - While weighting the data is intended to make the panel more representative of Coloradans, it is important to note that panel respondents may differ from non panel respondents. Previous research has indicated that panel respondents are often earlier adopters of technology, compared to non panel respondents. Thus, it is likely that estimates from questions about technology may be inflated. Overall, panel data is generally useful for understanding general patterns, but more caution should be used when generating population estimates from panel data.

Appendix: Online Panel Survey Files

In addition to this report, we have included:

- A copy of the survey instrument
- An Excel file with data tables and all open-ends. Data tables were segmented by:
  - Age (<35, 35 to 49, 50+)
  - Household income (<$50,000, $50,000 to $99,999, and $100,000+)
  - Region [Denver metro area (Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, Gilpin, Jefferson), Front Range (El Paso, Larimer, Pueblo, Teller, Weld), Rest of Colorado]
  - Gender
  - Education (HS or less, Some college/Associate's, Bachelor's/Graduate/Professional)
  - Children younger than 26
  - Own or Rent Home
  - Has Retirement Savings Goal
  - Currently Saving for Retirement
  - Employer offers Retirement Savings Plan
  - Financial Literacy (based on Q35 measure of financial literacy)
  - Financial Socialization (based on Q26)

Data Source for Analysis - Survey of Consumer Finances – The Federal Reserve

- "The Survey of Consumer Finances (SCF) is normally a triennial cross-sectional survey of U.S. families. The survey data include information on families' balance sheets, pensions, income, and demographic characteristics. Information is also included from related surveys of pension providers and the earlier such surveys conducted by the Federal Reserve Board. No other study for the country collects comparable information. Data from the SCF are widely used, from analysis at the Federal Reserve and other branches of government to scholarly work at the major economic research centers."
- Data from the most recent wave of the SCF were collected in 2016 from interviews with over 6,000 families. Analysis weights responses to be representative of the US population.
- The Federal Reserve determines if a family/household is saving by the following process:
  - Because saving out of current income is an important determinant of family net worth, the Survey of Consumer Finances (SCF) asks respondents whether, over the preceding year, the family's spending was less than, more than, or about equal to its income. Though only qualitative, the answers are a useful indicator of whether families are saving.

Data Source for Analysis - National Financial Well-Being Survey – Consumer Financial Protection Bureau

- *An essential part of the Consumer Financial Protection Bureau's (CFPB or Bureau) mission is educating and empowering consumers to take control over their financial lives. In addition to a safe, transparent marketplace, consumers need to navigate that marketplace effectively. Numerous provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) charge the Bureau with working to improve the financial literacy of consumers in America.*

  [As part of this process] the CFPB fielded the National Financial Well-Being Survey (NFWBS). The survey uses CFPB's validated financial well-being scale to measure the financial well-being of a national sample of adults selected to reflect the U.S. population. The survey also includes measures of individual and household characteristics, income and employment, savings and safety nets, financial experiences, and behaviors, skills and attitudes that have been hypothesized to influence adults' levels of financial well-being.

- Data from the NFWBS were collected in 2016 through web-based surveys of over 6,000 individuals. Analysis weights responses to be representative of the US population.

Appendix: Data Mining and Econometric Methodology

- National data came from two sources. The 2016 wave of the Federal Reserve's Survey of Consumer Finances (SCF) and the Consumer Financial Protection Bureau's National Financial Well-Being Survey (NFWBS), produced in 2017.
- All segment estimates and regression analysis employ each institutions recommended weights and adjustments for sub-populations.
- The SCF data were analyzed using the University of California, Berkeley's Survey Documentation and Analysis tool found here and Stata/SE.
- The NFWBS data were analyzed using Stata/SE.
- Corona Insights limited the SCF sample to cases where the head of household was between 18-64 years of age and the NFWBS sample to respondents 18-69 years of age who where not retired.
- SCF analysis employed log-linear models to correct for the non-normal distribution of retirement savings. Coefficients need to be exponentiated to be interpreted correctly.
- Models control for available demographic, attitudinal, and behavioral traits.
- We report a base model from each dataset, but discussed findings were robust to various modeling techniques and specifications.

Appendix: Approximate Comparative Effect Sizes from Econometric Models

Variable	Data	Effect Size on Savings	Compared to Advancing 10 years of Age*	Compared to Completing a College Degree*
10 years of Age	SCF & NFWBS	~80% Increase	~1	~.25
College Degree	SCF & NFWBS	~350% Increase	~4	~1
Increasing Financial Literacy by 1/3rd	SCF	~35% Increase	~.5	~.1
Retirement is #1 Savings Goal	SCF	~90% Increase	~1	~.25
Not Willing to Take Financial Risk	SCF	~60% Decrease	~1	~.25
Consulting a Financial Planner	SCF	~150% Increase	~1.5	~.4
Moving from the Minimum to Median of Financial Socialization	NFWBS	†	~2	~.5
Taking a long (>5 Years) Financial Time Horizon	NFWBS	†	~2	~.5
Avoiding an External Shock to Finances over the Last Year	NFWBS	†	~1	~.25

- *Ratios of effect sizes are within 95% confidence intervals.
- † NFWBS models are linear and thus cannot be interpreted as percentage change.

Appendix: Base Log-Linear Regression Model of SCF Data

Dependent Variable: Natural log of household retirement savings is real 2016 values (Federal Survey of Consumer Finances).	Coefficient	Standard Error	P Value	Percentage change in retirement savings from a one-unit increase of X
Respondent Age (continuous, 17-64)	0.06	0.00	0.00	6%
Female head of HH (0, 1)	0.22	0.14	0.13	
HH head holds a college degree (0, 1)	1.51	0.11	0.00	353%
HH does not own home (0, 1)	-1.17	0.11	0.00	-69%
HH has no children (0, 1)	0.02	0.10	0.83	
HH head is single (not married/living with partner) (0, 1)	-0.62	0.13	0.00	-46%
Respondent identifies as black / African American (0, 1)	-0.87	0.13	0.00	-58%
Respondent identifies as Hispanic (0, 1)	-0.85	0.14	0.00	-57%
Respondent identifies as non-black, Hispanic, or white (0, 1)	0.05	0.20	0.81	
HH income in thousands (continuous)	0.00036	0.00013	0.00	0.04%
HH net worth in thousands (continuous)	0.00002	0.00001	0.11	
Respondent's financial literacy (0-3 questions correct)	0.30	0.06	0.00	35%
Retirement is respondent's most important reason for saving (0,1)	0.63	0.11	0.00	88%
Respondent is not willing to take any financial risk (0,1)	-0.97	0.11	0.00	-62%
Respondent shops among options when investing (0,1)	-0.12	0.12	0.31	
Respondent uses the internet for investing decisions (0,1)	0.05	0.10	0.57	
Respondent's self-described financial knowledge (ordinal, -1-10)	0.05	0.02	0.04	5%
HH uses a financial advisor, accountant, or lawyer for investing decisions (0,1)	0.91	0.10	0.00	148%
Either HH head or spouse/partner has any type of retirement account-based plan on a current job (0,1)	6.67	0.11	0.00	78974%
HH head is self-employed (0,1)	0.16	0.15	0.29	
HH head is retired/disabled + (student/homemaker/misc.) (0,1)	-0.55	0.17	0.00	-42%
HH head is out of the labor force for other reason (0,1)	-0.08	0.19	0.66	
Constant	1.33	0.38	0.00	

R-Squared =.69, N= 23,550 (N is number of valid cases included in the model, the total of the Federal Reserve's 5 implicates). P values are calculated by multiplying the standard error by the square root of 5 to adjust for the Federal Reserve's imputation and implicates. Sample is limited to individuals under 65

Appendix: Base Regression Model of NFWBS Data

Dependent Variable: How much do you have in savings today? (Ordinal 1-7 from the Consumer Financial Protection Bureau's National Financial Well-Being Survey).	Coefficient	Standard Error	P Value
Respondent age (ordinal, 1-8)	0.12	0.02	0.00
Lives in a metropolitan area (0, 1)	0.16	0.07	0.03
Respondent is married (0, 1)	0.14	0.06	0.03
Respondent is male (0, 1)	0.06	0.05	0.27
Respondent has a college degree (0, 1)	0.32	0.06	0.00
Respondent works full time (0, 1)	-0.08	0.06	0.14
Respondent has dependent children (0, 1)	0.28	0.05	0.00
Respondent owns home (0,1)	0.34	0.07	0.00
Household income (ordinal, 1-9)	0.19	0.01	0.00
Respondent's financial literacy (Koll and Houts) (Index, score -2.1-1.3)	0.20	0.04	0.00
Respondent has a retirement account (0, 1)	0.71	0.07	0.00
Respondent identifies as black (0, 1)	-0.26	0.09	0.00
Respondent identifies as Hispanic (0, 1)	0.24	0.07	0.00
Respondent identifies as non-black, Hispanic, or white (0, 1)	0.37	0.11	0.00
Respondent does not set financial goals (0, 1)	-0.35	0.05	0.00
Respondent struggles to understand finance (0,1)	0.02	0.05	0.71
Respondent has a financial time horizon of less than five years (0,1)	-0.32	0.05	0.00
Respondent has experienced a shock to their finances in the last year (0,1)	-0.17	0.05	0.00
Financial Socialization (ordinal score of 0-7)	0.08	0.01	0.00
Constant	1.70	0.14	0.00
R-Squared =.49, N= 4,080, Sample limited to non-retired individuals			

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