

PUBLIC

ALASKA
RETIREMENT
MANAGEMENT
BOARD

MARCH
15, 2023

DEFINED CONTRIBUTION
PLAN COMMITTEE

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
DEFINED CONTRIBUTION PLAN COMMITTEE MEETING
March 15, 2023 – 10:00 a.m.
(Or immediately following the Audit Committee Meeting)

Location: State Office Building Department of Administration Large Conference Room, 10 th Floor 333 Willoughby Ave., Juneau, AK	Teleconference: Call-In #: 1-907-202-7104 Code: 739 534 743#
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- I. Call to Order**
- II. Roll Call**
- III. Public Meeting Notice**
- IV. A. Approval of Agenda**
B. Approval of Minutes – November 30, 2022
- V. Public / Member Participation, Communications and Appearances**
*(Three Minute Limit. Callers may need to press *6 to unmute.)*
- VI. Division of Retirement and Benefits Update**
 - A. Chief Pension Officer Report**
 - 1. Recordkeeping Fee Reduction Update**
Mindy Voigt, Pension Manager, Division of Retirement and Benefits
 - B. Metcalfe Conversion Update**
Larry Davis, Appeals and Risk Mitigation Manager
 - C. Empower Update**
 - 1. Follow Up on Returns for Managed Accounts**
Liz Davidsen, State Director, Empower
Marybeth Daubenspeck, Vice President, Government Markets, Empower
 - D. FY2024 Health Reimbursement Arrangement (HRA) Amount**
Kevin Worley, Chief Financial Officer, Division of Retirement and Benefits
 - E. PERS / TRS / Social Security Discussion**
Kevin Worley, Chief Financial Officer, Division of Retirement and Benefits
- VII. Managed Account Discussion**
Bob Williams, Chair
Action: Managed Account Analysis
- VIII. DC Plans' Investment Structure Analysis**
Patrick Wisdom, Assistant Vice President, Callan
Steve Center, Senior Vice President, Callan
Ivan Cliff, Executive Vice President and Director of Research

- IX. Treasury DC Update**
Zachary Hanna, Chief Investment Officer
Stephanie Pham, Public Equity & Defined Contribution Investment Officer

- X. Future Meetings**
 - A. Calendar Review**
 - B. Agenda Items**
 - C. Requests/ Follow Ups**

- XI. Other Matters to Properly Come Before the Committee**
- XII. Public / Member Comments**
- XIII. Adjournment**

**ALASKA RETIREMENT MANAGEMENT BOARD
DEFINED CONTRIBUTION PLAN COMMITTEE MEETING
HYBRID/TEAMS**

**November 30, 2022
10:00 a.m.**

**Originating at:
Atwood Conference Center
550 West 7th Avenue, 1st Floor
Anchorage, Alaska 99501**

Committee Members Present:

Bob Williams, Chair
Allen Hippler
Dennis Moen

Donald Krohn
Michael Williams

Committee Members Absent:

Sandra Ryan

Other Trustees Present:

Commissioner Adam Crum

Department of Revenue Staff Present:

Zach Hanna, Chief Investment Officer
Scott Jones, Head of Investment Operations,
Performance & Analytics
Hunter Romberg, Senior Compliance Officer
Chris Madsen, Administrative Operations Manager
Grant Ficek, Business Analyst

Pamela Leary, Director, Treasury Division
Ryan Kauzlarich, Assistant Comptroller
Stephanie Pham, State Investment Officer
Cahal Morehouse, State Investment Officer
Leighan Gonzales, Executive Assistant
Alysia Jones, Board Liaison

Department of Law Staff Present:

Ben Hofmeister, Assistant Attorney General

Department of Administration, Division of Retirement & Benefits Present:

Ajay Desai, Director
Jim Puckett, Chief Pension Officer
Roberto Aceveda, Counseling & Education Manager

Kevin Worley, Chief Financial Officer
Traci Walther, Accountant 5

Empower:

Marybeth Daubenspeck, Vice President

Liz Davidsen, State Director

Buck:

David Kershner, Principal, Consulting Actuary

Callan:

Greg Ungerman, DC Practice Leader

Paul Erlendson, Senior Vice President

Steve Center, Senior Vice President

Investment Advisory Council Present:

Ruth Ryerson

Dr. William Jennings

Public Present:

Randall Burns, RPEA President

PROCEEDINGS

CALL TO ORDER

CHAIR BOB WILLIAMS called the Defined Contribution Plan Committee meeting to order and asked for a roll call. He officially welcomed Commissioner Crum to the Defined Contribution Plan Committee meeting.

MS. JONES called the roll.

PUBLIC METING NOTICE

CHAIR BOB WILLIAMS asked to confirm that the public meeting notice was met.

MS. JONES replied, yes, it had.

APPROVE THE AGENDA

CHAIR BOB WILLIAMS asked for a motion to approve the agenda.

MOTION: A motion to approve the agenda was made by TRUSTEE MIKE WILLIAMS; seconded by TRUSTEE KROHN.

There being no objection, the MOTION was APPROVED.

APPROVAL OF MINUTES

CHAIR BOB WILLIAMS moved to the minutes from September 14, 2022 and asked for a motion.

MOTION: A motion to accept the minutes of September 14, 2022, was made by TRUSTEE KROHN; seconded by TRUSTEE MOEN.

There being no objection, the MOTION was APPROVED.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

CHAIR BOB WILLIAMS moved to the portion of the meeting for public member participation and asked if there was anyone in the room or online that would like to speak. Seeing and hearing none, he moved forward.

DC PLAN'S INVESTMENT STRUCTURE BEST PRACTICES

CHAIR BOB WILLIAMS asked CIO Hanna to do the introductions for the DC Plan's investment structure best practices presentation.

CIO HANNA stated that Callan is in the process of doing the defined contribution investment structure analysis for the ARM Board which will be presented in March. This is a prelude to that conversation. He introduced Greg Ungerman, who leads Callan's defined contribution group, to discuss best practices for DC and some of the results from Callan's annual DC survey, conducted earlier in the year.

MR. UNGERMAN said his presentation as an educational one based on industry best practices for investment structures. He stated that the key function as a DC plan fiduciary was selecting investment categories and options to offer on behalf of the participants. He continued that the decisions are made on behalf of the participants, but it was ultimately up to participants to take that plan and implement it on their own behalf. There is no optimal investment menu; the key is what is taken from industry best practices.

MR. HANNA asked about the prevalence of white-labeling active managers. MR. UNGERMAN responded that 20 to 35 percent of mega plans offer a white-label option.

MR. UNGERMAN continued through his presentation and touched on brokerage windows.

MR. HOFMEISTER stated that the creation of more funds and more menu options was something that the Northwestern case, the United States Supreme Court case, would implicate because the ARM Board has a fiduciary duty to monitor those funds so that they do not negatively impact beneficiaries. The second part is about allowing beneficiaries to enter into the Tier III-type funds or options. There was another state law component which was the diminishment clause issues. One of the concerns was about the self-directive brokerages. He explained that the way the Empower documents were structured; they retain no liability. They are not under the same fiduciary responsibilities as the ARM Board.

CHAIR BOB WILLIAMS shared excitement about the white paper and thanked Mr. Ungerman for his presentation. He moved on to the Division of Retirement and Benefits update and recognized Chief Pension Officer Puckett.

DIVISION OF RETIREMENT & BENEFITS UPDATE

CHIEF PENSION OFFICER REPORT

MR. PUCKETT stated that this was the time of the year to examine one of the main missions at DRB, the end of peak season for retirement application processing. He continued that for FY22, the Division processed 1,500 retirement applications. For FY23, as of October 31, 777 retirement applications had been processed. He stated that the survivors' benefit for those beneficiaries of members who passed away was entering a peak season and that was the most sensitive benefit they handle. He reported in FY21, a record of 2,091 survivors' benefits were processed. He added that 2,039 survivor benefits were processed for FY22 and as of October 31, 513 survivor benefits had been processed for the current fiscal year.

RECORDKEEPING CONTRACT EXTENSION

CHAIR BOB WILLIAMS recognized Director Desai.

MR. DESAI reminded the Committee that he had provided updates regarding the recordkeeping contract extension at the Board's May and June meetings. He explained Empower had reached out to the Division after learning of the intention to delay the RFP one-year and provided a proposal with a rate reduction in fees if a contract extension beyond one year was considered. He explained the Division's decision to extend Empower's contract by two years, citing multiple challenges and timing factors, including a multiple change request under the BEARS (**BE**nefits **ANd** **RE**tirement **S**ystem) project that shifted the rollout date from December 2023 to the end of March 2024; impact of the Metcalfe case on workload, 20+ vacancies within the Division, and initiation of an audit fee process. He added that they will continue working with Empower to make sure their services do not decline.

CHAIR BOB WILLIAMS reiterated his disappointment in the two-year extension and asked for clarification on a letter of concern that was received from NEA Alaska about some of their experiences. He noted that Empower responded to those, and their response had been shared with the trustees. He stated that he would not describe the concerns raised as minor; there were some significant things in there. He asked about the intention, when the two-year extension completed, of having an RFP and not extending the contract further.

MR. DESAI replied that was accurate and indicated planning for that RFP had already started. He explained that Procurement will not allow extending the contract beyond this extension. He stated that the board recommended considering having a consultant help the Division through the process, and he agreed, stating they would utilize that help and expertise to choose the right vendor for the next contract.

EDUCATIONAL OUTREACH

MR. ACEVEDA reported on educational outreach for 2022. He explained outreach is done in addition to the counseling team's regular workload. Each month, a counselor runs 30 to 60 appointments, and fields approximately 200 to 300 calls, and 300 to 400 e-mails. He noted that the team also developed pre-recorded web-based trainings for employers and members, which are available on demand via a YouTube channel on the Alaska Division of Retirement and Benefits website. He stated that there were 36 scheduled live events that engaged with a total of 2,024 members throughout '22. The team also sent over 1,800 letters to members who were eligible to convert from DC to DB, per the Metcalfe case. Of those 1,800, there were 530 first-time meetings with members. He explained the process in more detail and concluded his report.

CHAIR BOB WILLIAMS asked MR. ACEVEDA to provide a written version of his report going forward for inclusion in the packet to be reviewed beforehand. He moved to the Empower update with State Director Davidsen and Vice President Daubenspeck.

EMPOWER UPDATE

MS. DAUBENSPECK clarified that they had three items on the agenda: the fee transparency; the NEA concerns; and managed accounts. She added that they also provided a separate slide deck with information that piggybacked off of Mr. Aceveda's discussion of engagement. She began with the update on fee transparency and stated that all but one update was put in place. The outstanding item related to additional clarity on the fee schedule for services. She explained that the entire structure was rebuilt on the new website on how to get into managed accounts and online advice.

CHAIR BOB WILLIAMS stated his concerns about the need to be able to see the price at the very beginning of making selections.

MS. DAUBENSPECK replied that all the changes were made based on this committee's feedback. The entire process was reworked so that upfront it says that this was a professionally managed account, and it shows all of the fees. She asked for feedback on the NEA concerns.

CHAIR BOB WILLIAMS replied that information was e-mailed to the trustees, so they were aware of it. He stated that when that letter was received, a lot of trustees had concerns and addressing those concerns was important.

MS. DAUBENSPECK walked through the six concerns, explaining each issue, and clarifying how the technology worked. The first concern was caused by an incorrect marital status and resulted in a system override. The second item where an individual logged in to the Empower website and identified that the entire platform had message changes, dead links, and an unnamed, extra retirement account that would change their retirement projection. She explained that there was a big change in the platform and that a big strategy was put together to make sure participants were aware that this could happen. She explained that impacted participants were e-mailed and asked to log in to the website to review their information. She went into more detail and added that webinars were held specifically for the State of Alaska to explain to participants what the new website was, and it gave them an opportunity to ask questions and go through it.

CHAIR BOB WILLIAMS commented that there seemed to be the need for clearer communication.

MS. DAUBENSPECK stated that the next concern came from a meeting with an Empower representative. She noted that associate was no longer with Empower. She added that everyone was given an extensive training program on appropriate communication. She explained that there were also very specific trainings for the State of Alaska associates in July 2022. She continued that this feedback was very concerning, and that they did refresher training with staff to make sure there was a good understanding of how to use the tools before going out to the participants again. She explained the different solutions to some of the complications. She then went through some information on who was in managed accounts, what the participation rate is, and the returns.

DR. JENNINGS asked for more data on the 4 percent value-added. He added that it did not seem plausible.

CHAIR BOB WILLIAMS asked Dr. Jennings to put together his questions and send them to Ms. Jones, to relay to Ms. Daubenspeck. He moved on to the PERS and Social Security discussion with CFO Worley.

PERS & SOCIAL SECURITY DISCUSSION

MR. WORLEY stated that there is a listing of the PERS employers and a checkmark of those employers in Social Security. He continued that it was not complete but gave an idea of who within PERS was also participating in Social Security. He clarified that when a school district

was listed, they have both TRS and PERS, because the administrative staff are considered PERS. He then moved to a flowchart showing an example payroll for fiscal year '23 which looked at how a defined benefit employee compared to a defined contribution member. He explained that changes to the statutory language allowed the State of Alaska, as an employer, to pay the full actuarial rate adopted by the ARM Board, instead of being capped at 22 for PERS. The adopted rate for '23 was 24.79 percent. He then walked through flowcharts for a non-State employer and a defined contribution member and showed how the payroll was split out.

TRUSTEE HIPPLER thanked Mr. Worley for going over this. He stated that this was important because looking at Monte Carlo simulations sometimes show how effective the defined contribution plan is at preparing people for retirement, and then we wonder why ideal results are not gotten.

TRUSTEE MIKE WILLIAMS disagreed with Trustee Hippler's characterization. He clarified that this was employer money, not employee money, going towards the unfunded liability. That was set by statute. That was a requirement of setting up the whole defined contribution plan. He added that it was never meant to be money eligible for DC employee contributions. It was a funding mechanism to pay down the pension liability.

MR. DESAI agreed. The only reason the excess right now goes to the DB fund is because of the unfunded liability on the DB side and cost-share rules in place. He stated that this calculation will significantly change once there is 100 percent funding and no unfunded liability.

TREASURY DC UPDATE

CHAIR BOB WILLIAMS introduced CIO Hanna with the Treasury DC Update.

MR. HANNA stated that the big project underway was Callan's DC structure investment analysis, which will be on the March agenda. He reintroduced Stephanie Pham to the committee. He continued that in addition to her duties as a senior equity portfolio manager, she assumed responsibility for the DC plans following Michelle Prebula's retirement. There will be an opportunity to meet with her in person in Juneau in March. He asked her to provide an update on the target balance fund restructuring.

MS. PHAM stated that the majority of the transition of the target balance fund was completed in September. It was on schedule with the continued transition of the Alaska Bond Trust which would be completed over several tranches. She noted that everything had been moving along very smoothly.

PERIODIC SELF-ASSESSMENT

CHAIR BOB WILLIAMS stated that the periodic self-assessment was in the packet to assess how the committee was doing. He stated appreciation for the robust and thoughtful conversation today.

REVIEW COMMITTEE CHARTER

CHAIR BOB WILLIAMS said that the committee charter was in the packet, and it explains who they are, why they do what they do, and by what authority. He asked if there were any questions or comments. There being none, he moved to future meetings.

FUTURE MEETINGS

CHAIR BOB WILLIAMS directed the committee to the calendar and future agenda items. He stated that there would be an update on TRS members regarding Social Security data and the final report for the investment structure analysis at the next meeting in March. He asked for any requests or follow-ups. There being none, he asked for any other matters to come before the committee, and then for any public member comments. There being none, he asked for a motion for adjournment.

MOTION: A motion was made to adjourn the meeting by TRUSTEE MIKE WILLIAMS; seconded by TRUSTEE KROHN.

There being no objection, the MOTION was APPROVED.

(Defined Contribution Plan Committee meeting adjourned at 12:12 p.m.)

Empower Update

- State of Alaska - Managed Accounts Response
- State of Alaska EAG Review as of 9.30.22 Update
- Empower Advisory Service Update

State of Alaska - Managed Accounts Response

- *I am deeply concerned that the information provided to the ARM Board was not correct and that the errors were not discovered in Empower's review processes before being submitted to the Board. Instead, the errors were found by an astute question by Dr. Jennings during the Defined Contribution November 30th meeting. It is unacceptable for the ARM Board to be a beta tester for the accuracy of Empower's reports.*

I understand your concerns and extend my apologies to the members the ARM Board for providing incorrect data. The request for the reporting was received by my team just prior to the week of Thanksgiving. I asked the team to create a new custom report to fulfill the request. I was aware that our reporting team was short staffed during the holiday week and that the normal turn around time for a custom report of this nature was significantly longer than I was allowing for the creation of this report. In hindsight, I should have communicated that we would not be able to provide the report for the November 30th meeting and that we would have it available for the next quarterly meeting.

I agree that it is unacceptable for the ARM Board to be a beta tester for the accuracy of our reports and have put procedures in place to prevent this from happening in the future.

- *I would like a clear explanation (included in the DC packet) as to how this happened and why it will not happen in the future. This rises to the level of concern to also be explained to the entire Board. I have added to the Board agenda a time in the morning of the first day for Empower to answer trustee questions about his matter.*

As mentioned in the previous response, the turnaround time for the requested report was abbreviated. In our focus on fast delivery, we lost sight of a quality check that should have been completed. The data in the report was reviewed and was accurate. However, the format of the report was not appropriate for external use. The data was then manually entered into a presentation ready format. We should have been more careful to ensure that the data was moved without mistake. We take full responsibility for the inaccurate data and have put additional layers of review in place for future reports.

- *The Managed Account performance in the first version was the performance of All Investment Strategies. How do you define All Investment Strategies? Is this simply the member in each plan that is the median and reporting their portfolio performance? If so, this is nothing like the task of reporting the performance of managed accounts.*

All Investment Strategies includes individual investors utilizing a Target Date Fund (TDF), Managed Account (MTR) or Do-It-Yourself (DIY) approach to allocating their assets across the entirety of the 1-, 3- and 5-year time periods, respectively. We determine a TDF, MTR and DIY user by applying rules to categorize each participant into one of these groups. As an example, an individual with only 5% of their allocation in TDFs would be

categorized as a DIYer. Similarly, an individual utilizing MTR for only half of the time period would also be categorized as DIY. This approach allows returns to have more reasonable comparisons across the groups. Rate of return is calculated based on all account activity between the first and last day of the period. It is calculated based on a formula which estimates the equivalent rate of return during the statement period, based on the opening balance, transaction activity and closing balance. The formula was reviewed by Empower Advisory Group, LLC, a registered investment adviser. This process calculates full period rates of return in 3 month, 1, 3-, 5-, 7- and 10-year intervals consistent with the procedures called by the participant website.

- *Please provide the portfolio construction that goes with each performance measure. I believe you are finding a member at the 25th, 50th, and 75th percentiles in each plan and are reporting their performance. Please provide their respective asset allocations that match with the each reported performance.*

We are actively working to create the details in a format that can be easily consumed outside of the system and provides a robust data set for each of the 25th, median and 75th percentile returns used for the 9/30/2022 report. The detail will provide you with the respective participant(s) age band, investor type, investment, asset class and fund balance/allocation. In the event that the percentile was shared between two or more participants (e.g., a median for an even number of observations), the participant records immediately above and below the statistic are provided. This will give you a sense for the portfolio holdings for the demographic cohort, investor type and the median percentiles.

- *I have attached Callan reviewed ARM Board performance through September 30th, 2022, from our December 2022 Board meeting. Please confirm that you are comparing the same time periods in your revised report.*

Confirmed. The Empower report is as of 9.30.2022, which is the date Callan utilized in the returns document provided.

- *I have attached Callan's 2016 Managed Account Review. Can you share an updated percentage on the number of managed account members that were defaulted into managed accounts? The 2016 estimation was 75%.*

We have included default data in the attached presentation, *Empower Advisory Services Updates*, on pages 2-4.

- Please provide updates to the tables on slides 13 and 14 of the Callan 2016 Review.

For slide 13, below is an update to the portfolio construction as of 9.30.2022.

3Q 2022

PLAN FUND UTILIZATION – BY PLAN PORTFOLIOS

The table below shows the utilization of each fund within each of the representative risk-based portfolios in your plan.

Please note that due to the data-compilation method, the funds shown below may be more recent than the funds utilized as of the date shown on the front of this Report Card.

Fund	Representative Risk-based Portfolios*						
	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
Alaska Balanced Trust	5%	8%	9%	8%	6%	2%	0%
Alaska Long Term Balanced Trust	5%	9%	11%	9%	6%	3%	0%
International Equity Fund	0%	2%	3%	8%	14%	20%	24%
Passive U.S. Bond Index Fund	35%	24%	15%	10%	8%	5%	3%
Environmental Social and Governance Fd	3%	7%	9%	9%	9%	9%	8%
S & P 500 Stock Index Fund	0%	3%	5%	6%	6%	6%	6%
Russell 3000 Index	0%	0%	0%	5%	10%	15%	17%
World Equity Ex-US Index	3%	7%	10%	12%	13%	17%	21%
US Small Cap Trust	0%	5%	9%	13%	16%	19%	21%
Stable Value Fund	40%	33%	28%	20%	13%	5%	0%
State Street Inst Treasury Money Market	9%	5%	1%	0%	0%	0%	0%

Empower did not originally prepare slide 14. The performance comparison was created as part of Callan’s managed account review that they were commissioned to execute. We spoke with Callan, and they will recreate the slide if the ARMB decides to conduct another managed account review.

- I am interested in seeing managed account performance net fees that can be included in the ARM Board’s quarterly performance reviews.

Confirmed. The attached presentation includes account performance net of fees.



Empower Advisory Services Overview

As of 09/30/2022

State of Alaska Deferred Compensation Plan

98214-01



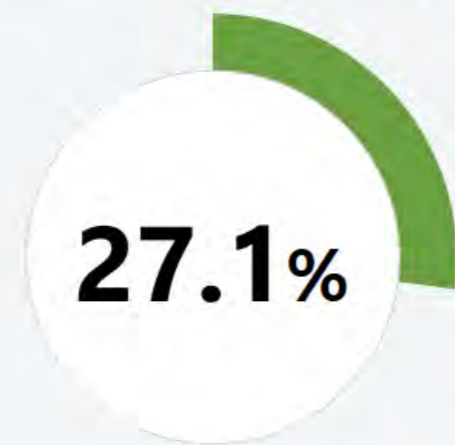


Advisory services

As of 9/30/2022

Advisory services compares participants using and not using the advisory service. The illustration includes participants actively employed and separated from service with a balance.

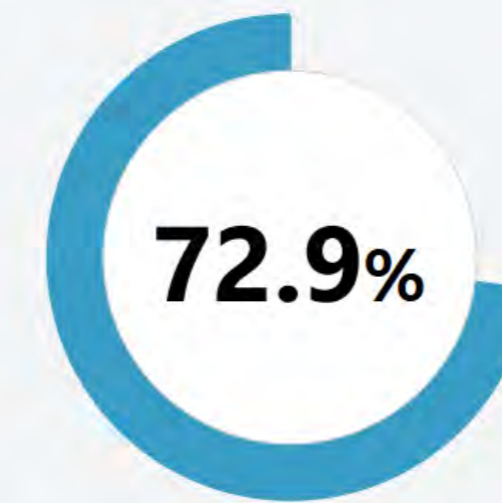
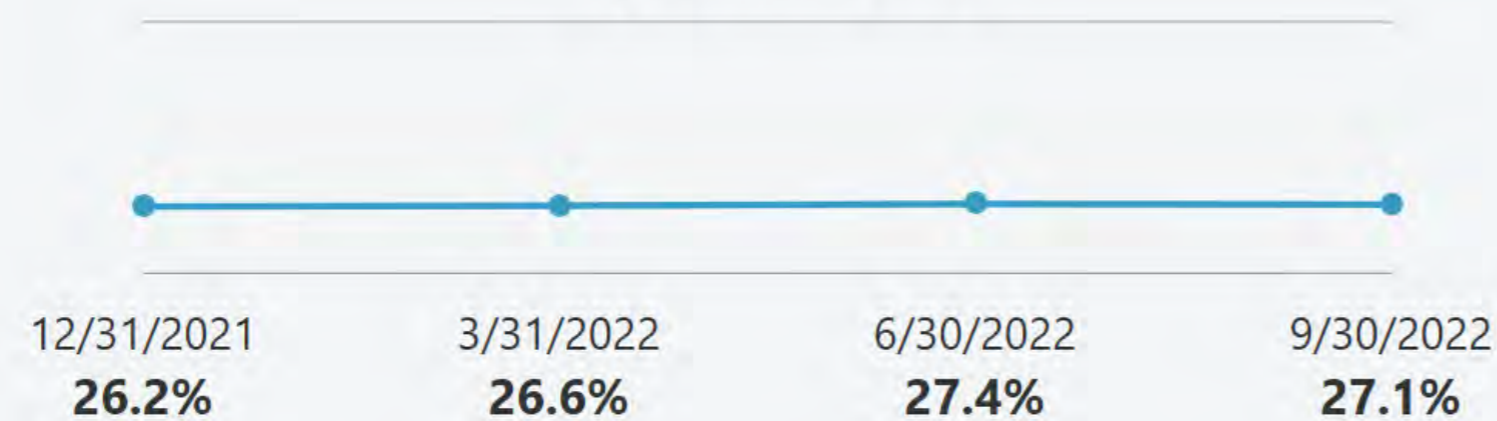
Population of participants using and not using My Total Retirement



of participants are using **My Total Retirement**

This amounts to **3,434** participants

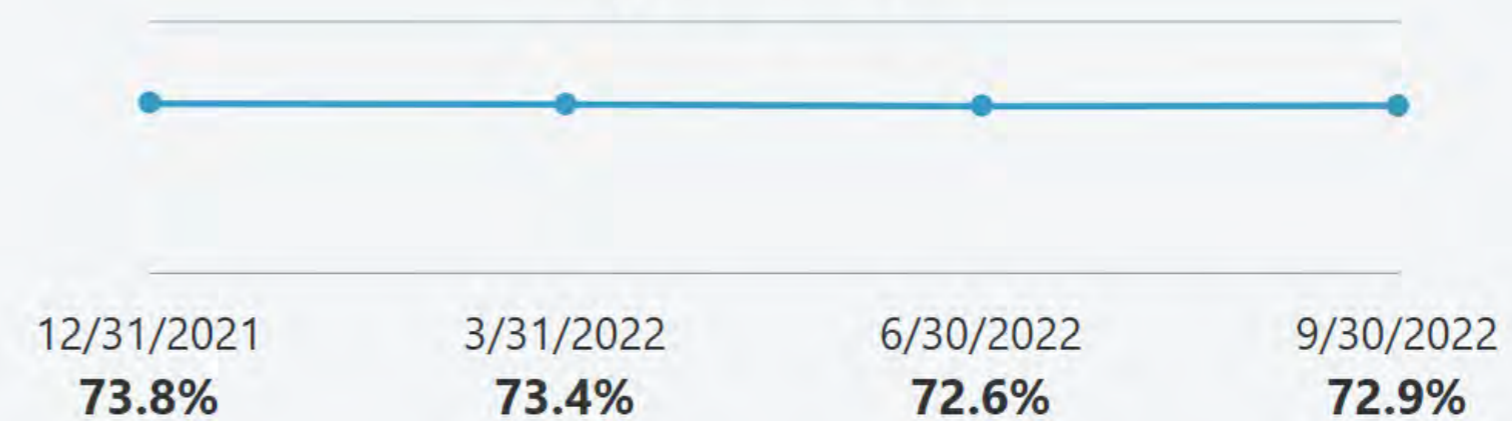
Population over time



of participants are using other investment strategies

This amounts to **9,231** participants

Population over time



F1.2a Empower Retirement Advisory Services Powered by Morningstar. Online Advice and My Total Retirement are part of the Empower Retirement Advisory Services suite of services offered by Empower Advisory Group, LLC, a registered investment adviser. Median Lifetime Income Score and average contribution rate will show as not available when the data required for those calculations has not been provided



Advisory services

As of 9/30/2022

Advisory services compares participants using and not using the advisory service. The illustration includes participants actively employed and separated from service with a balance.

Insights into participants using and not using My Total Retirement

		Under 30 yrs	30-39 yrs	40-49 yrs	50-59 yrs	60-67 yrs	Over 67 yrs
My Total Retirement users	% of participants	43%	35%	28%	28%	23%	12%
	# of participants	278	833	750	864	525	184
	Average balance	\$4,170	\$12,619	\$25,526	\$60,752	\$87,529	\$97,199
	Average equity percent	53.7%	50.5%	47.3%	42.7%	37.1%	37.4%
		↓	↓	↓	↓	↓	↓
Other investment strategy users	% of participants	57%	65%	72%	72%	77%	88%
	# of participants	371	1,543	1,973	2,189	1,783	1,371
	Average balance	\$7,090	\$18,006	\$48,749	\$93,989	\$147,926	\$188,691
	Average equity percent	54.2%	53.1%	51.5%	47.4%	40.5%	33.4%

Median Lifetime Income Score and average contribution rate will show as not available when the data required for those calculations has not been provided
98214-01 State of Alaska Deferred Compensation Plan

Personalization – Deferred Comp Plan as of 9/30/22

Ga Id
98214-01

Added Outside Accounts



Added Spousal Information



Added Pension Accounts

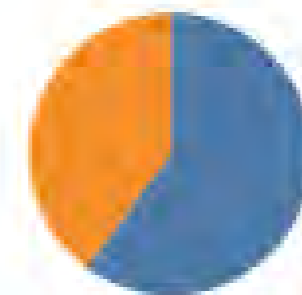


Adjusted Life Expectancy



N
Y

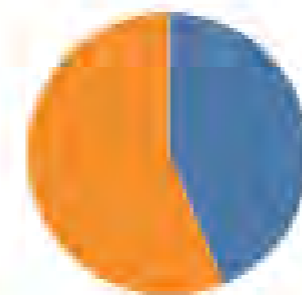
Adjusted Retirement Age



Adjusted Retirement Need



Total Adjustments Made



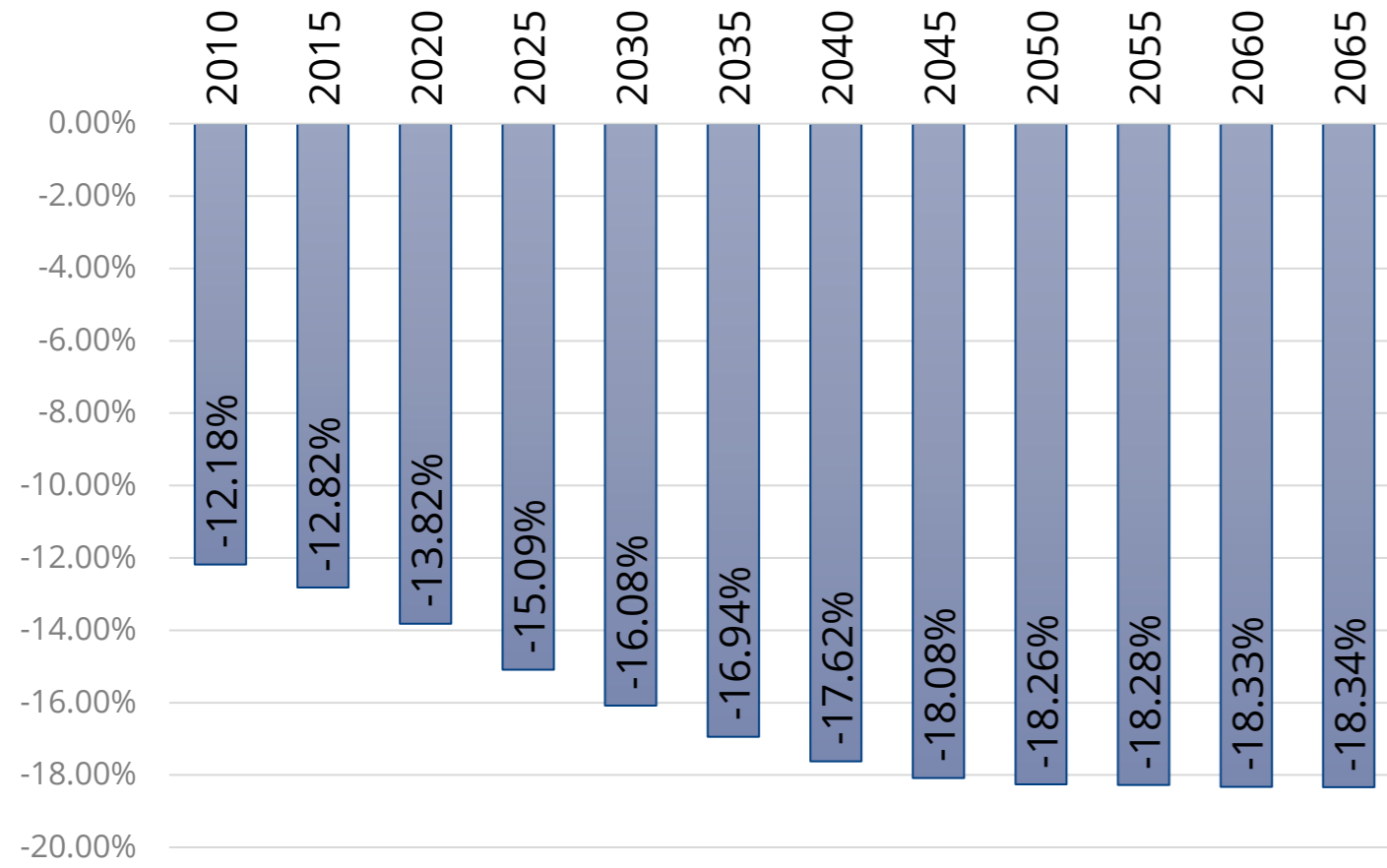
	Participant Accounts	% of Total in MA
Added Outside Accounts ¹	597	15.75%
Added Spousal Information ²	374	9.87%
Added Pension Accounts ¹	1,330	35.09%
Adjusted Life Expectancy ³	185	4.88%
Adjusted Retirement Age ⁴	1,507	39.76%
Adjusted Retirement Need ⁵	709	18.71%
Total That Made Adjustments	2,138	56.41%
Total Enrolled	3,790	100.00%

- 1 The Advisory Service process allows for the inclusion of outside financial and pension information to allow for more personalized retirement readiness recommendations
- 2 The inclusion of spousal/partner information allows for a holistic, household retirement income projection
- 3 Participants may adjust their life expectancy to help receive recommendations appropriate to their retirement income needs
- 4 Adjusting retirement age helps provide recommendations appropriate to the participant's savings horizon, and determined by a comparison of the retirement age in Advisory Services against the plan's default retirement age in the recordkeeping system
- 5 This column represents whether participants have adjusted their retirement income need to something other than 100%, post-tax replacement retirement income NOTAPPROVEDFORUSEWITHPLANPARTICIPANTS

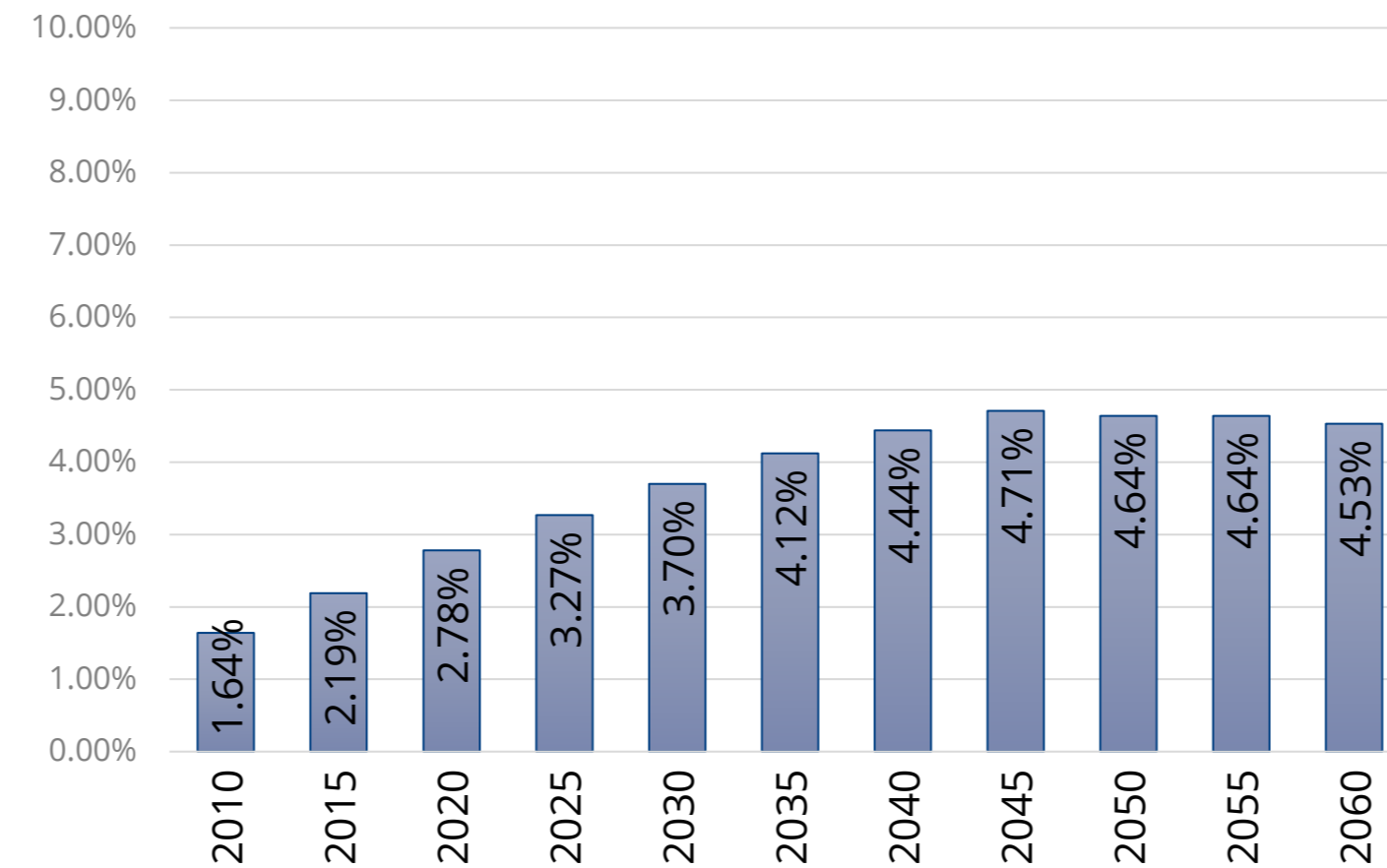
Annual Rate of Return Summary

As of 9/30/2022

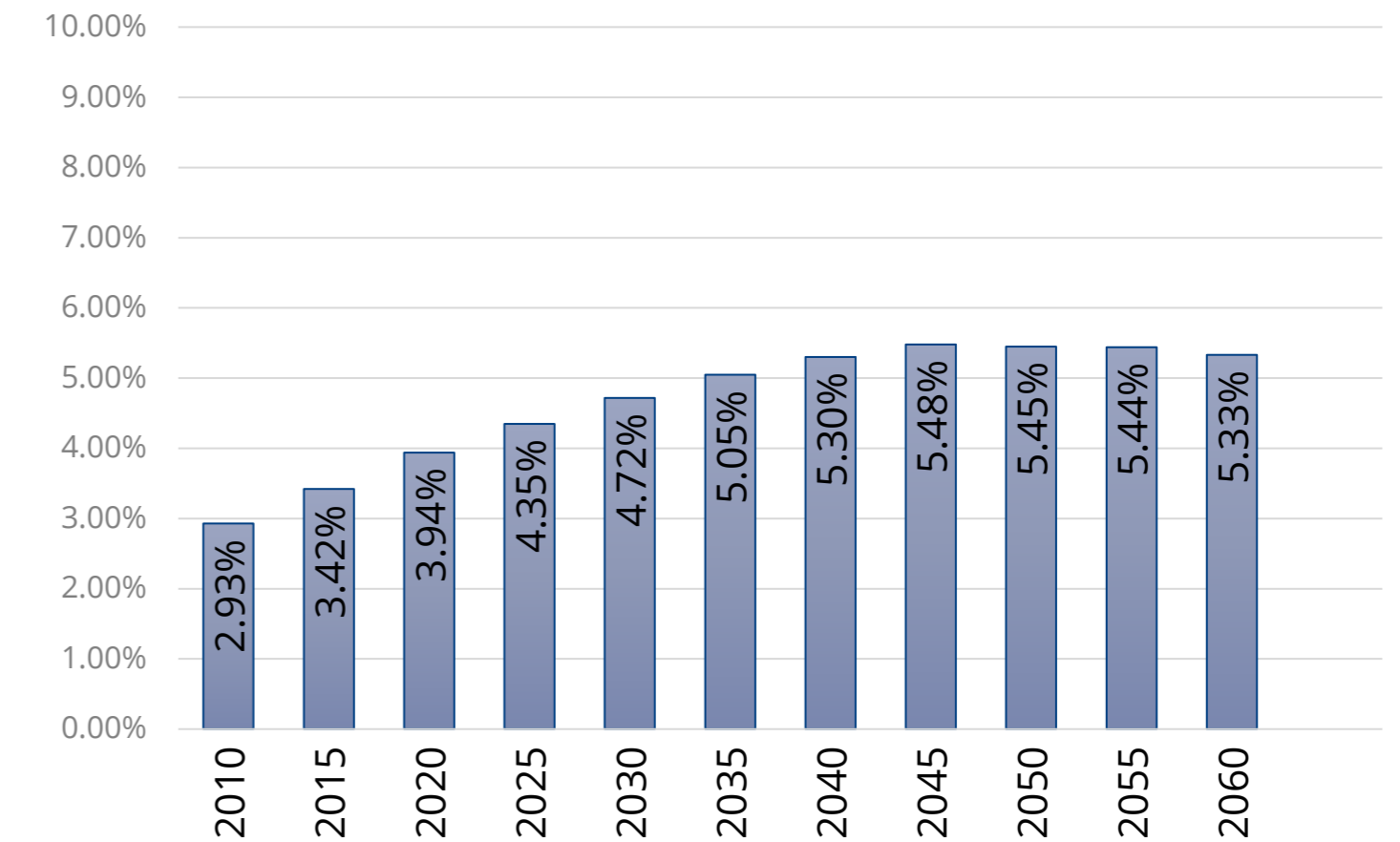
Alaska Target Date Fund - 1 Year



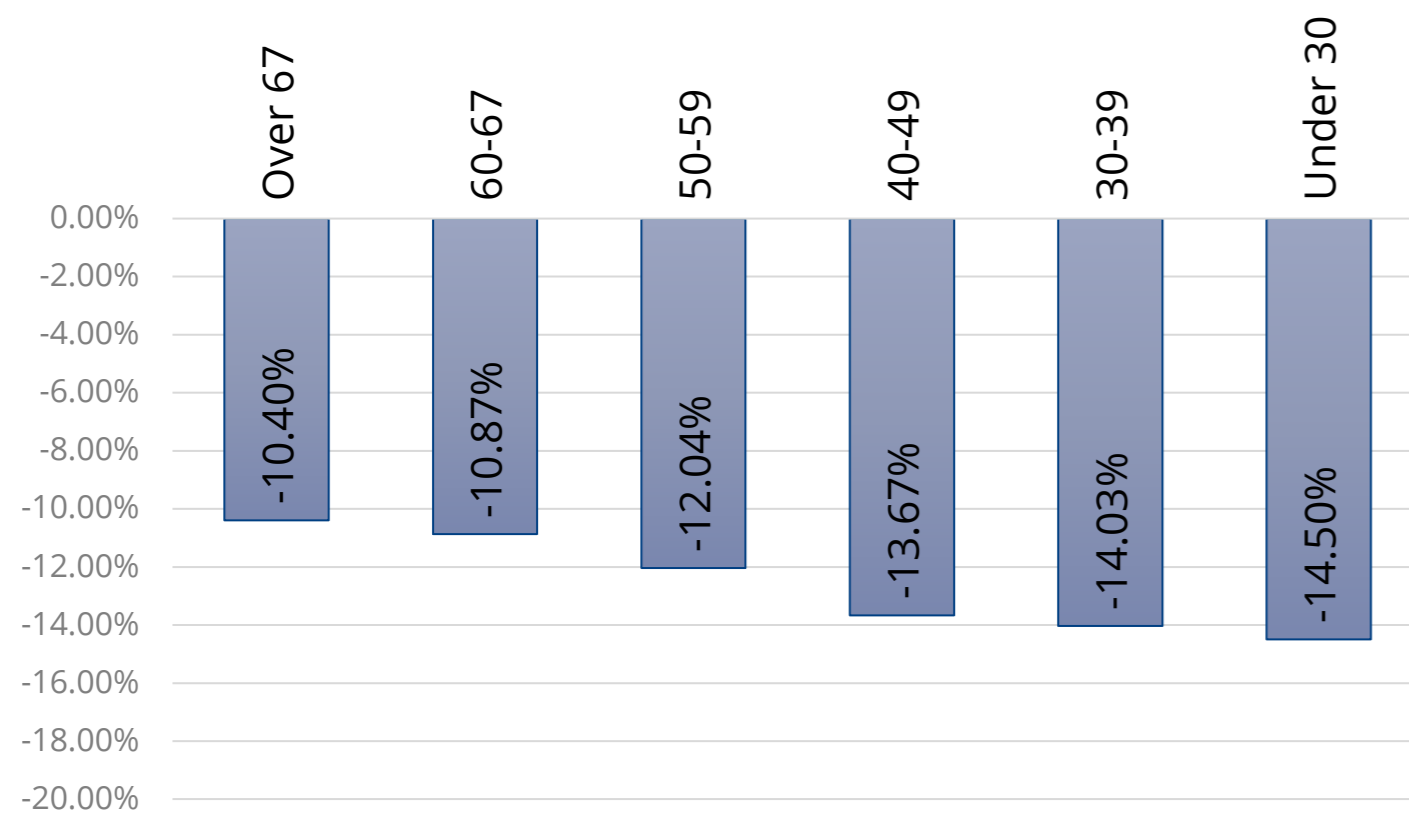
Alaska Target Date Fund - 3 Year



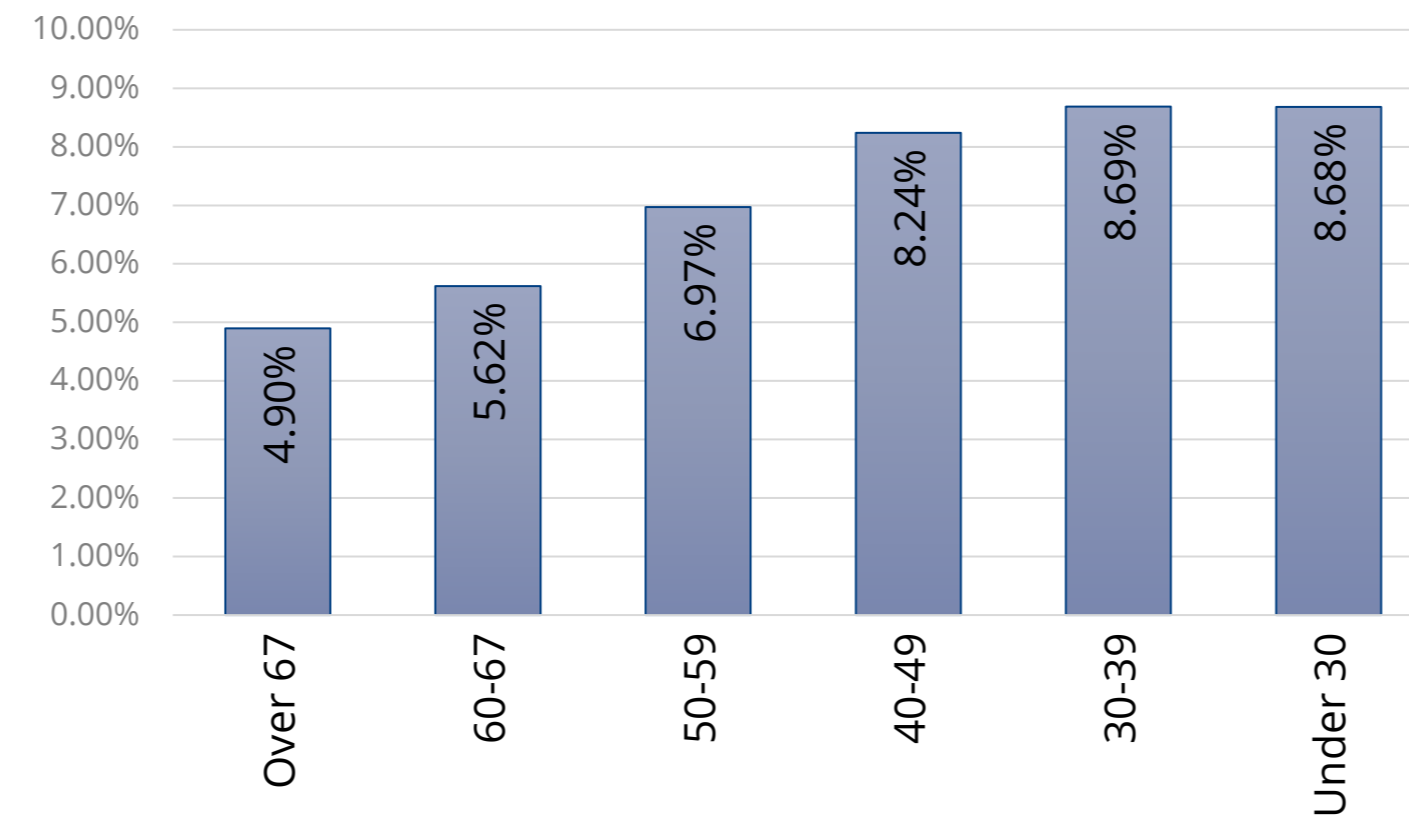
Alaska Target Date Fund - 5 Year



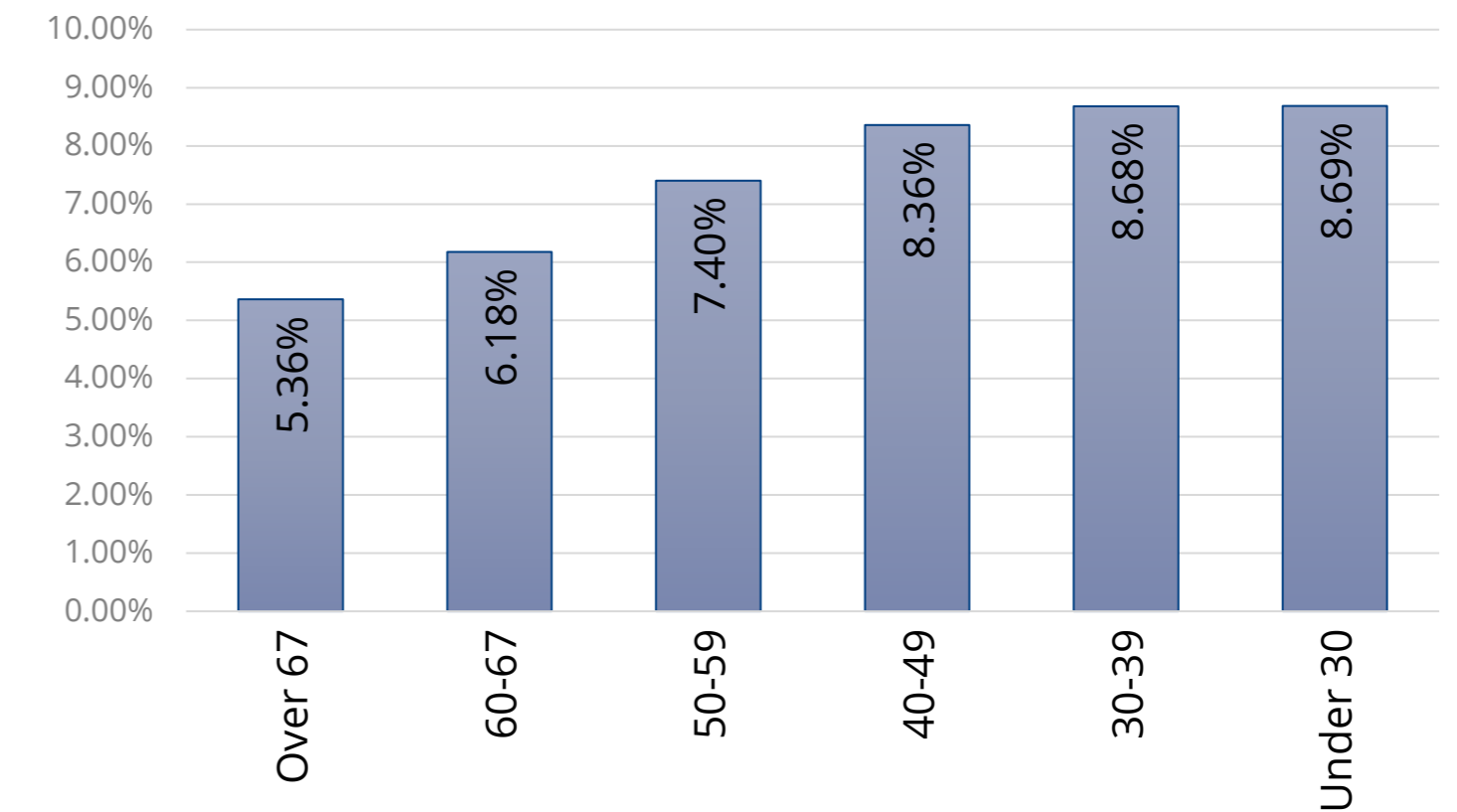
All Investment Strategies - Median 1 Year by Age Band



All Investment Strategies - Median 3 Year by Age Band



All Investment Strategies - Median 5 Year by Age Band

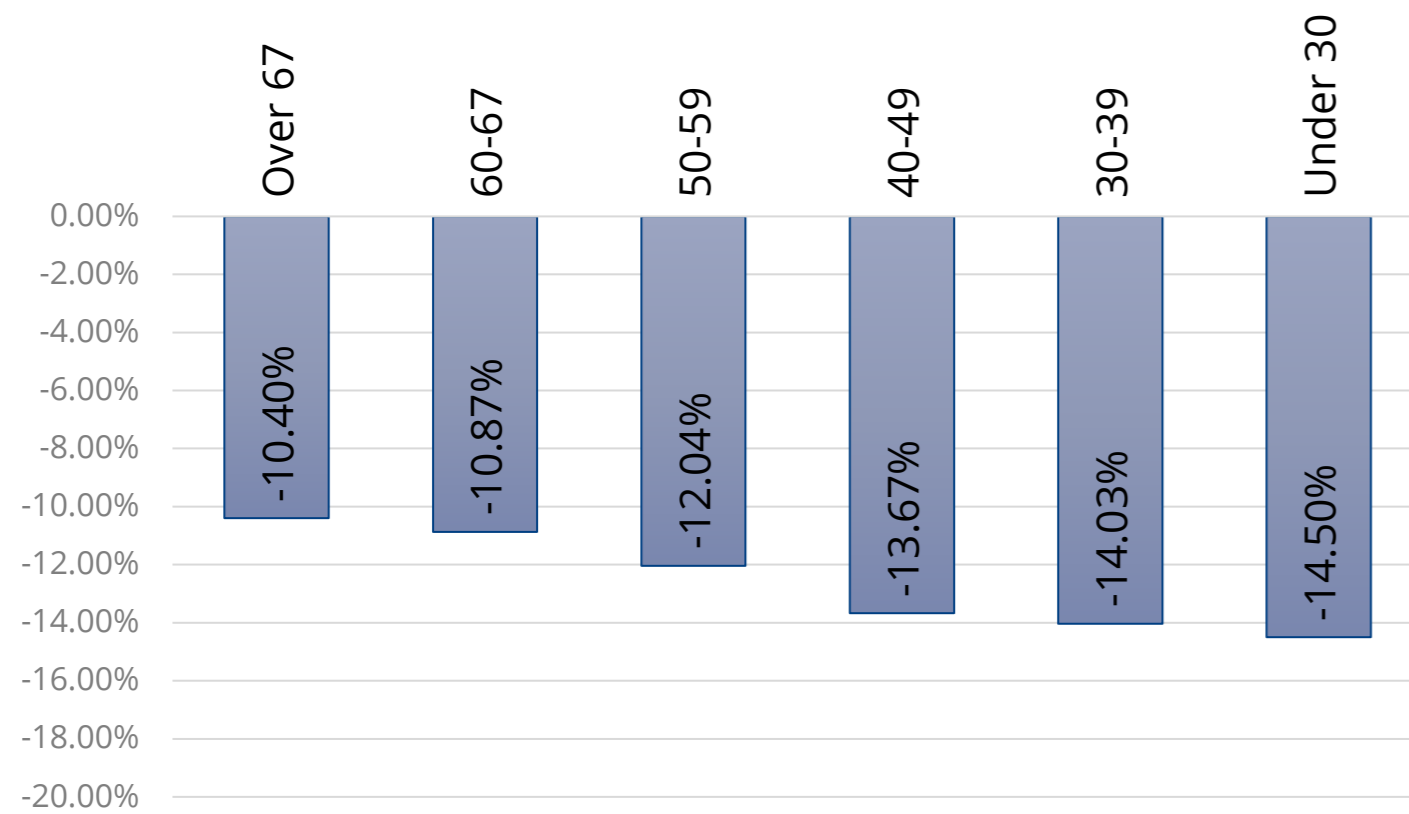


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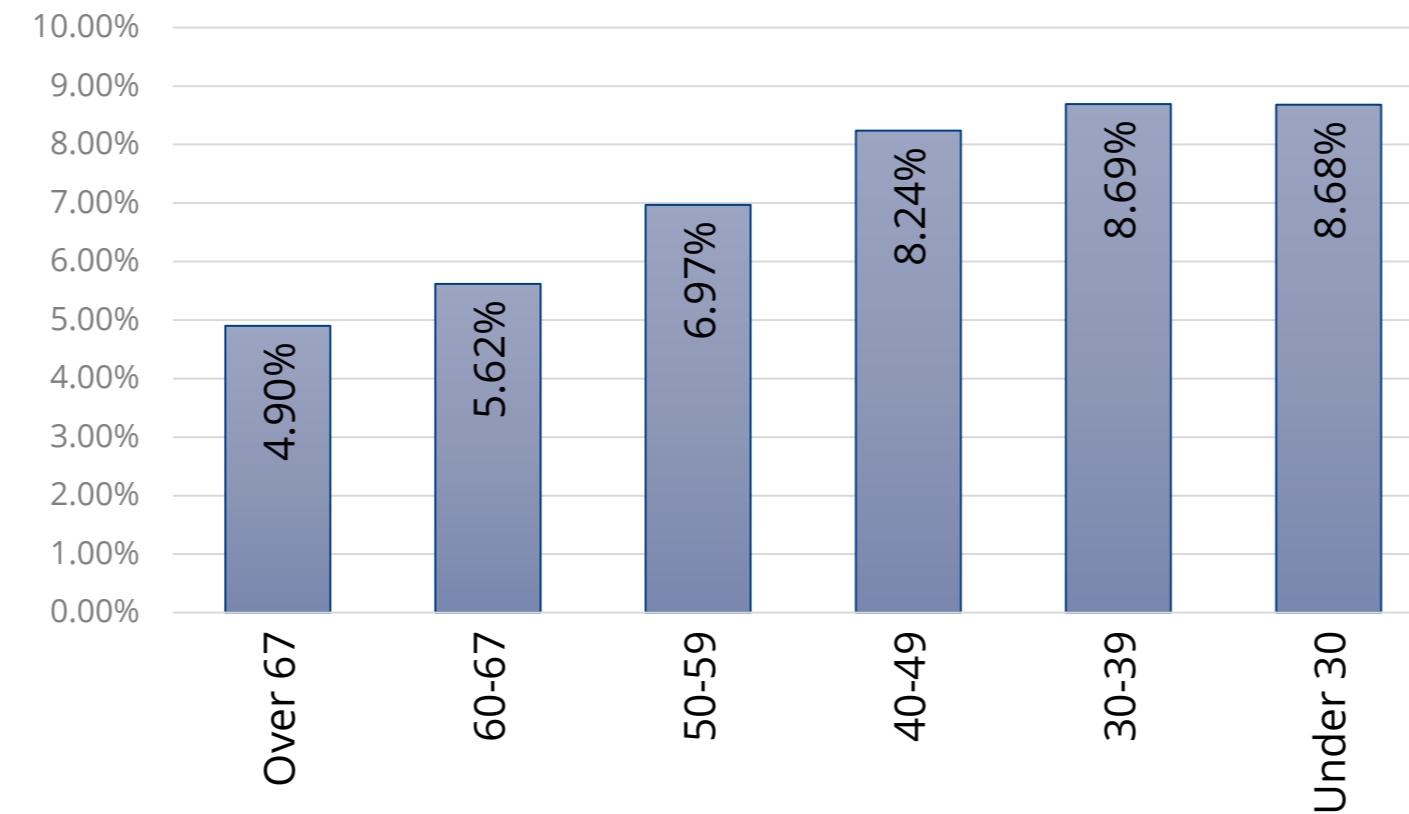
Annual Rate of Return Summary

As of 9/30/2022

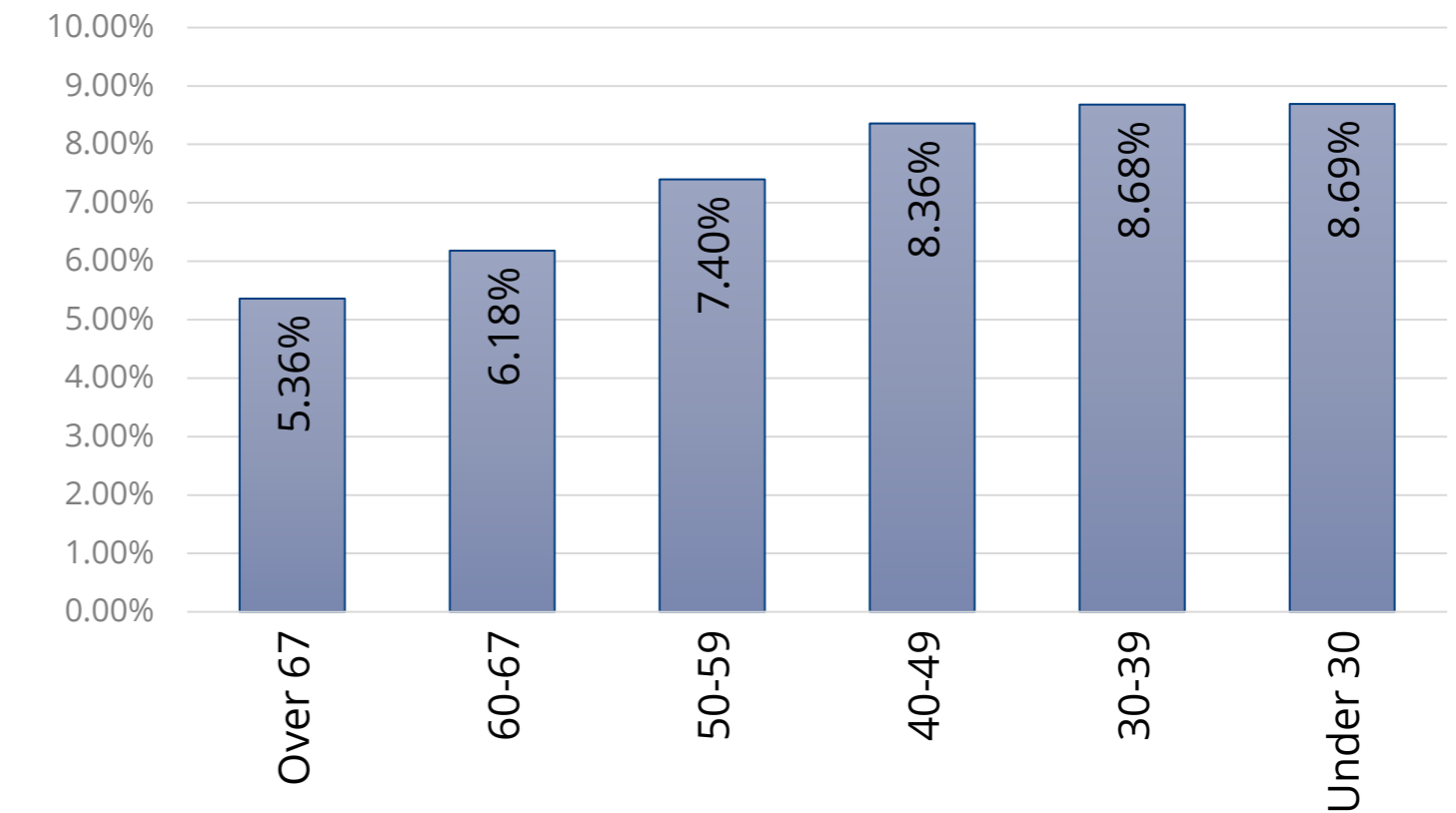
**All Investment Strategies -
Median 1 Year by Age Band**



**All Investment Strategies -
Median 3 Year by Age Band**



**All Investment Strategies -
Median 5 Year by Age Band**

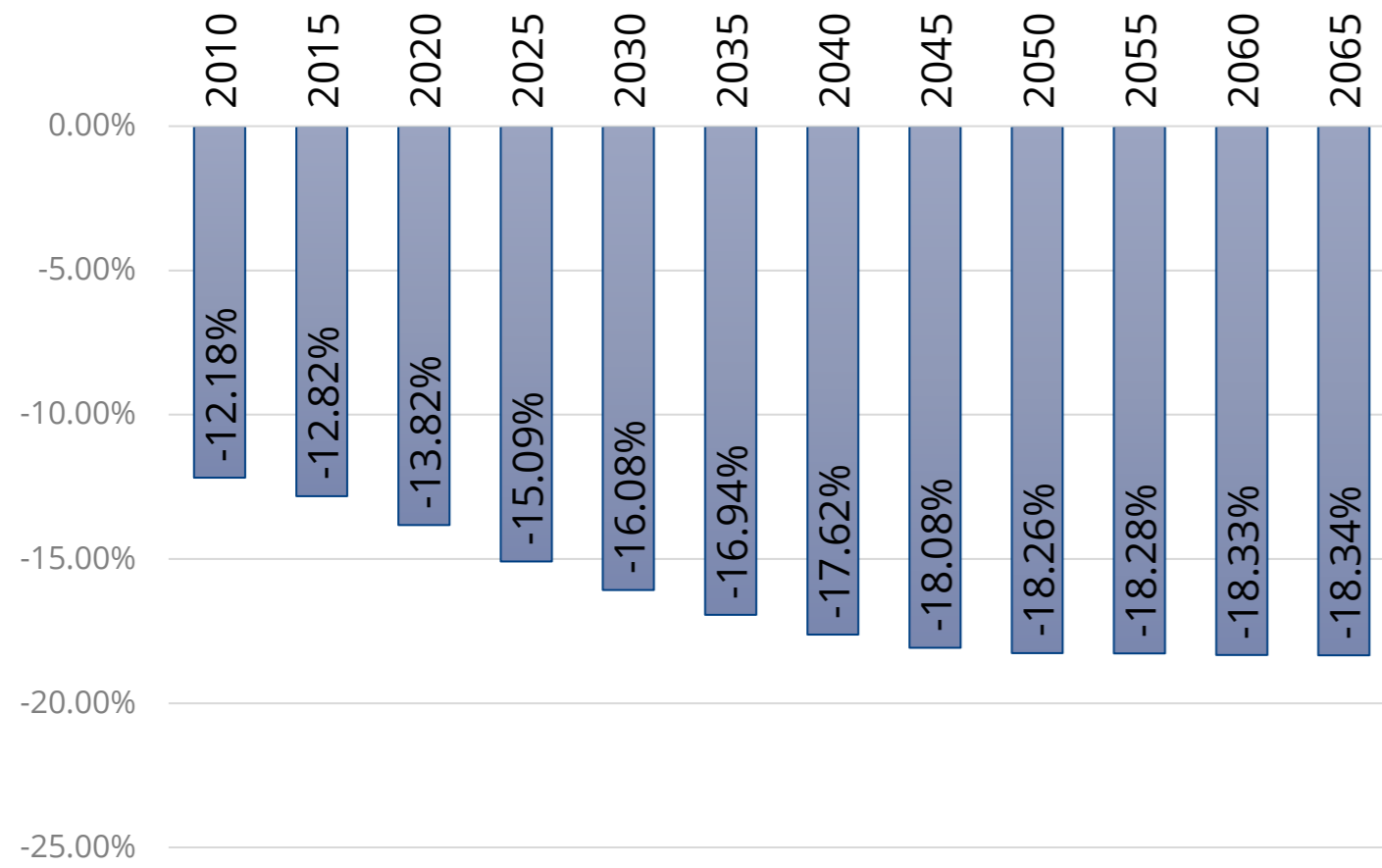


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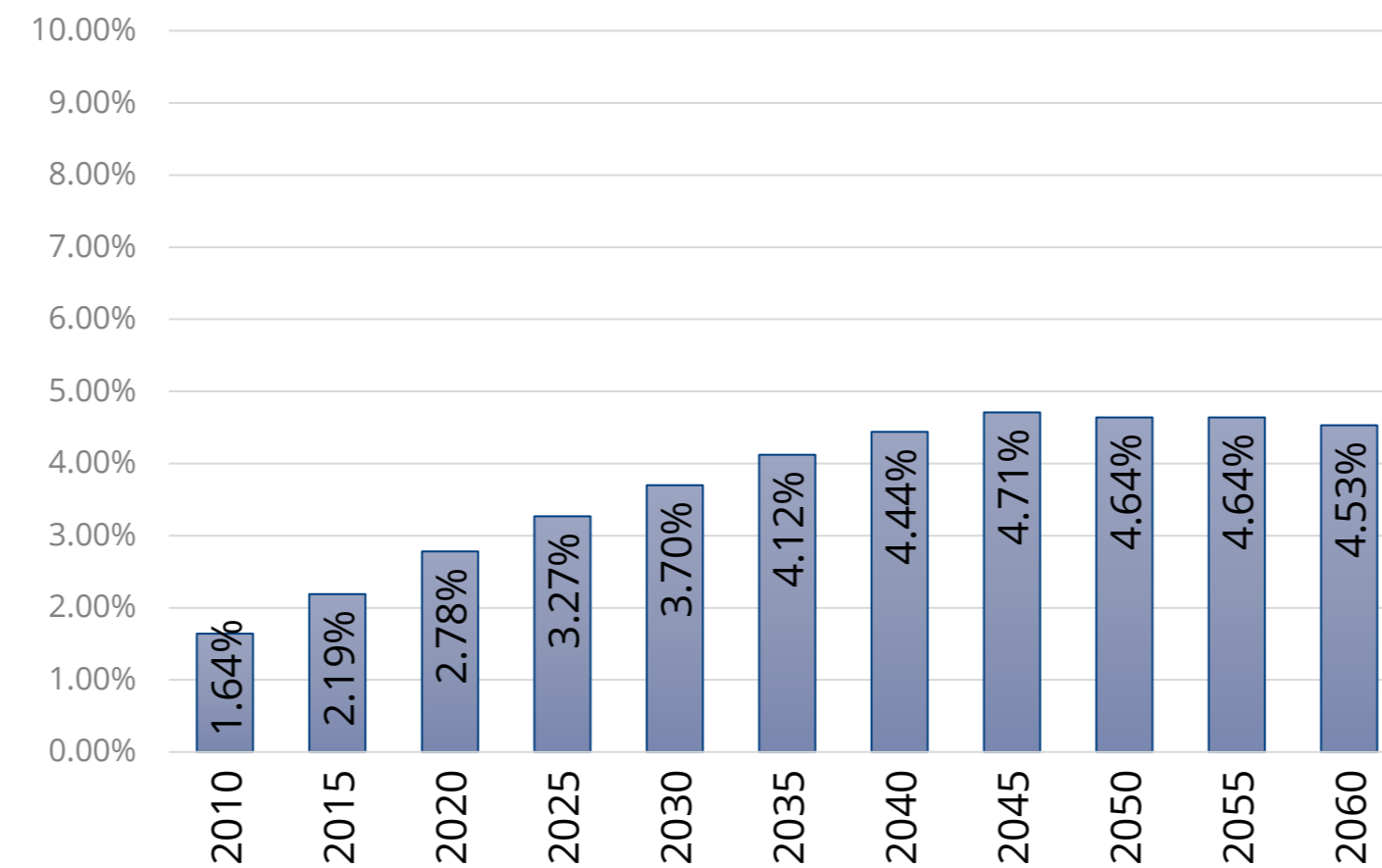
Annual Rate of Return Summary – 75th percentile

As of 9/30/2022

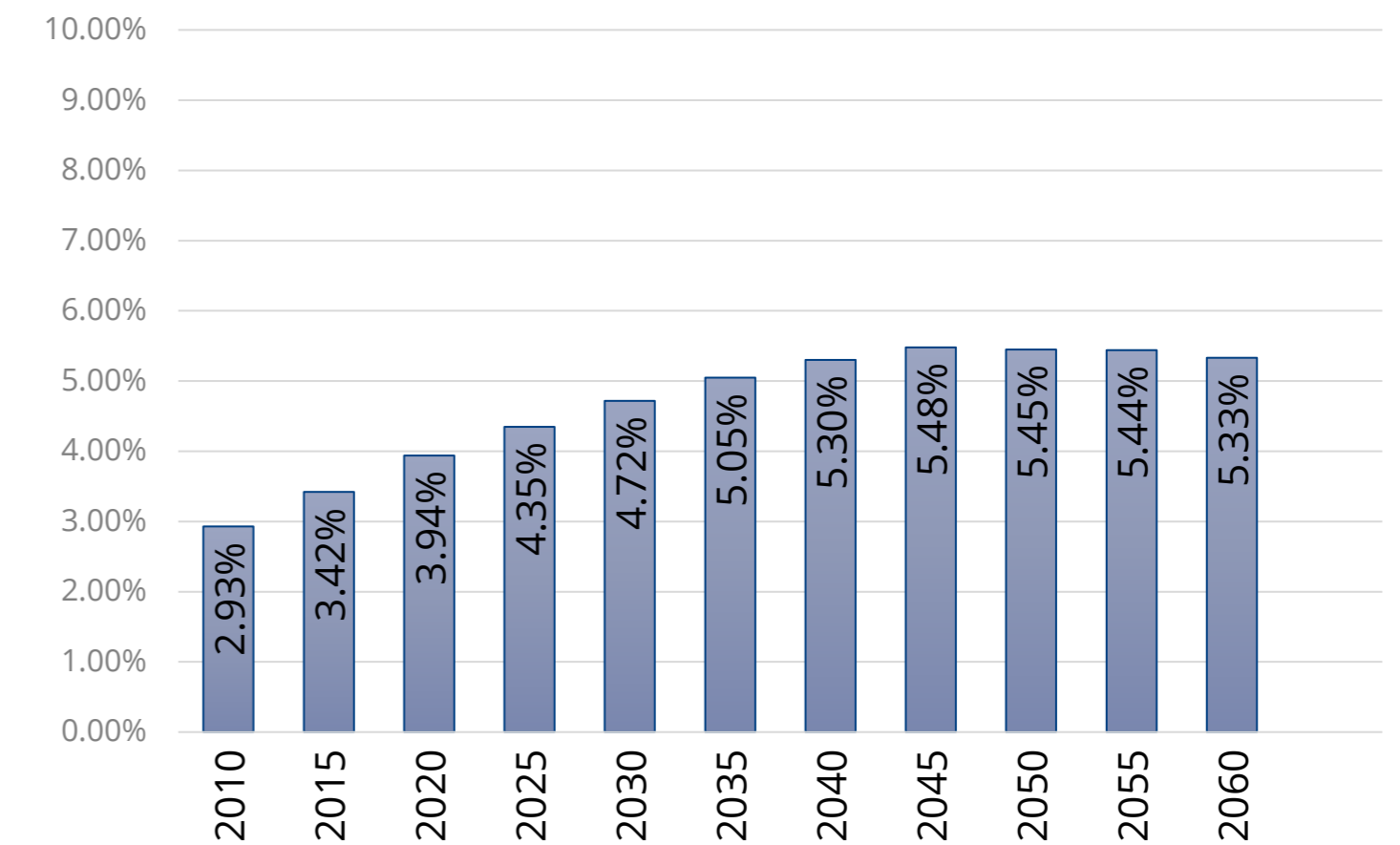
Alaska Target Date Fund - 1 Year



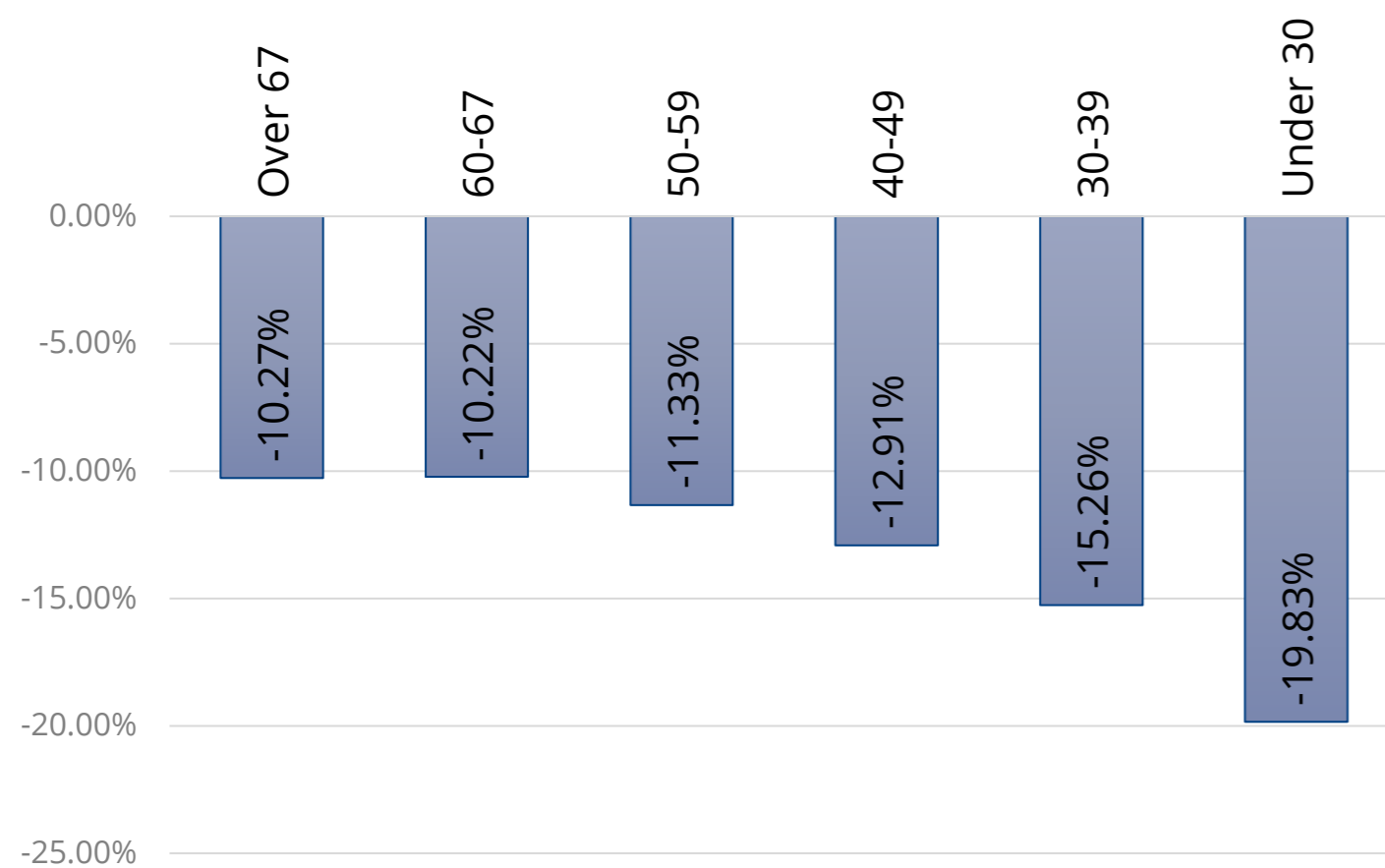
Alaska Target Date Fund - 3 Year



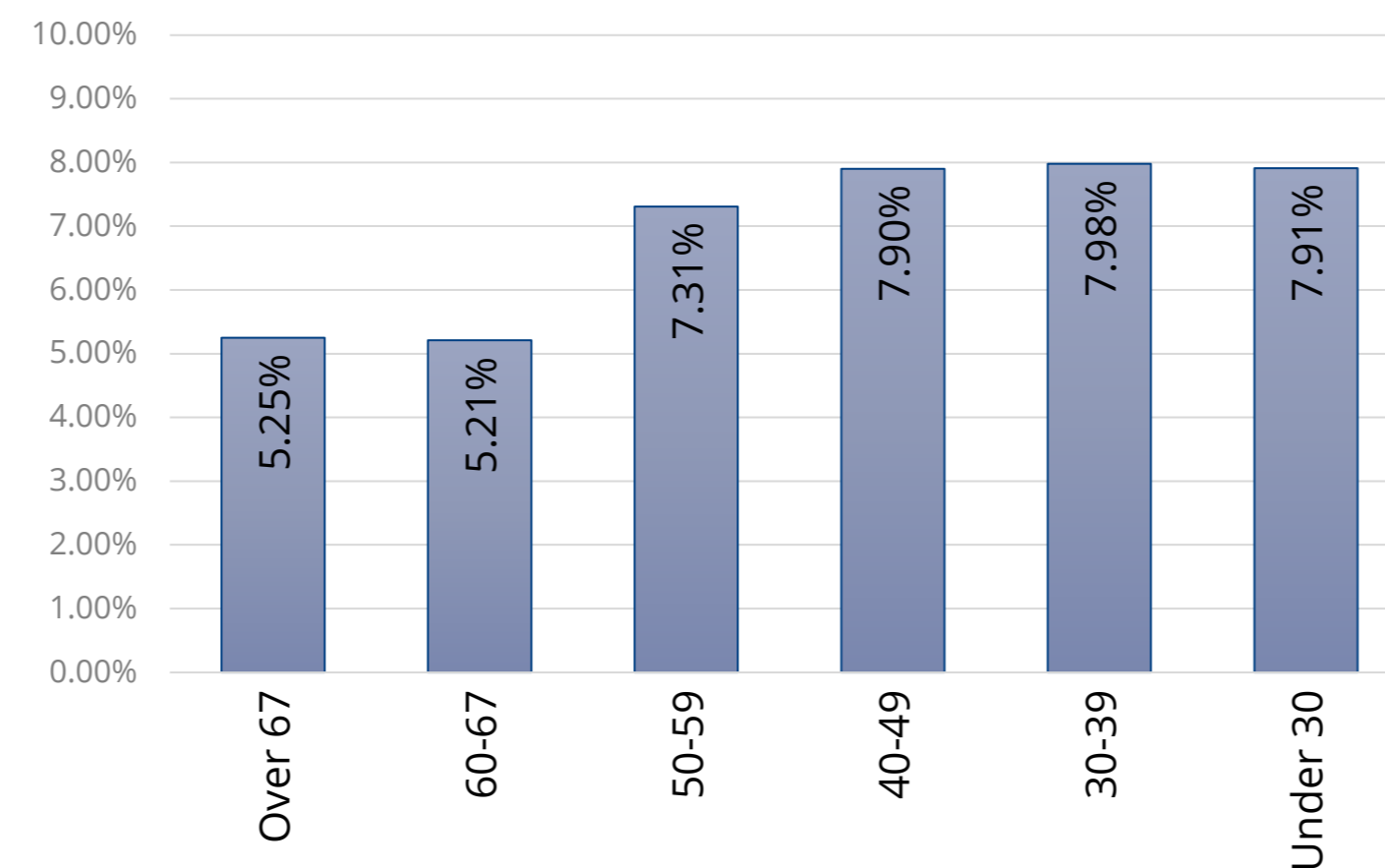
Alaska Target Date Fund - 5 Year



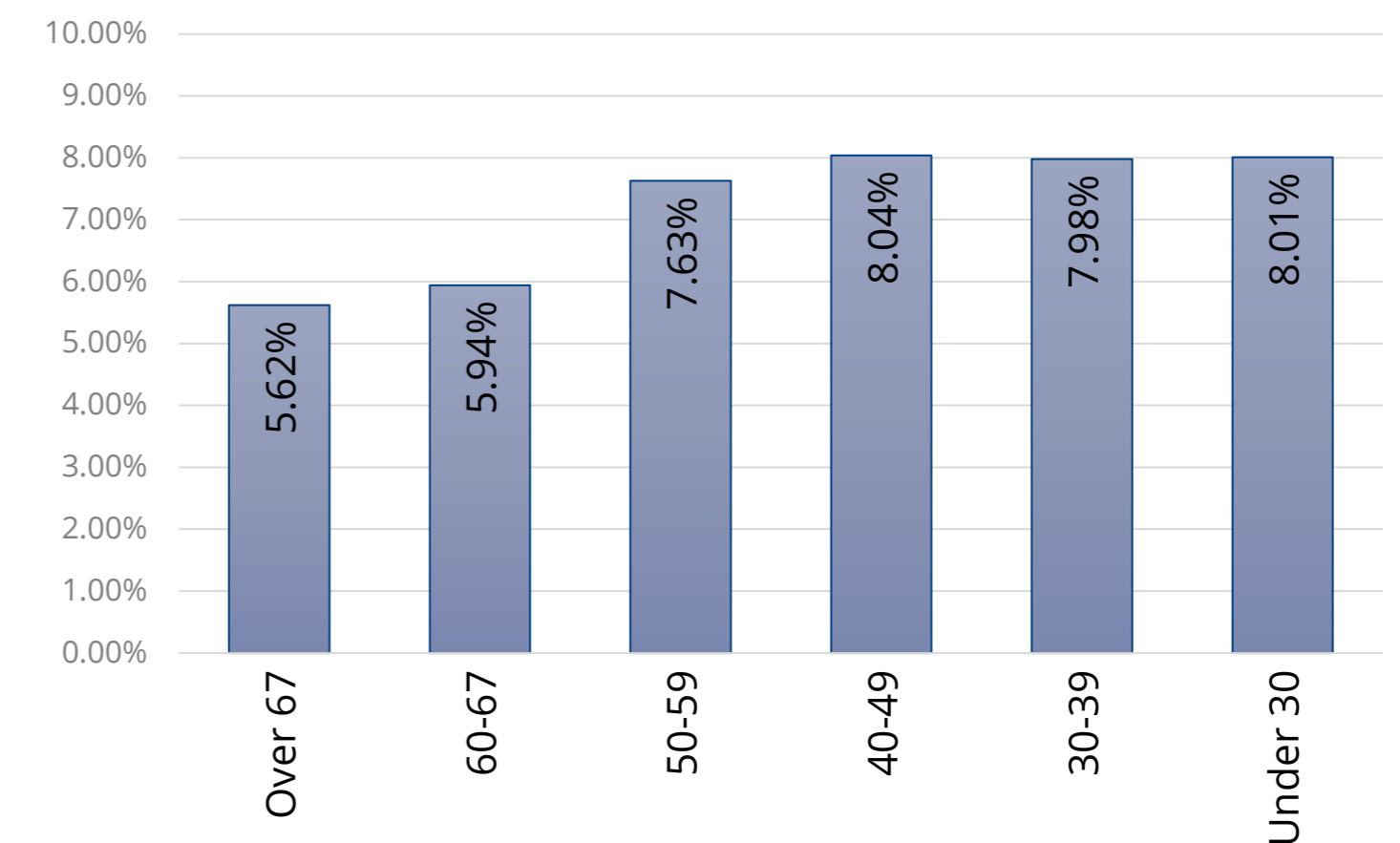
MTR – 75th Percentile 1 Year by Age Band



MTR – 75th Percentile 3 Year by Age Band



MTR – 75th Percentile 5 Year by Age Band

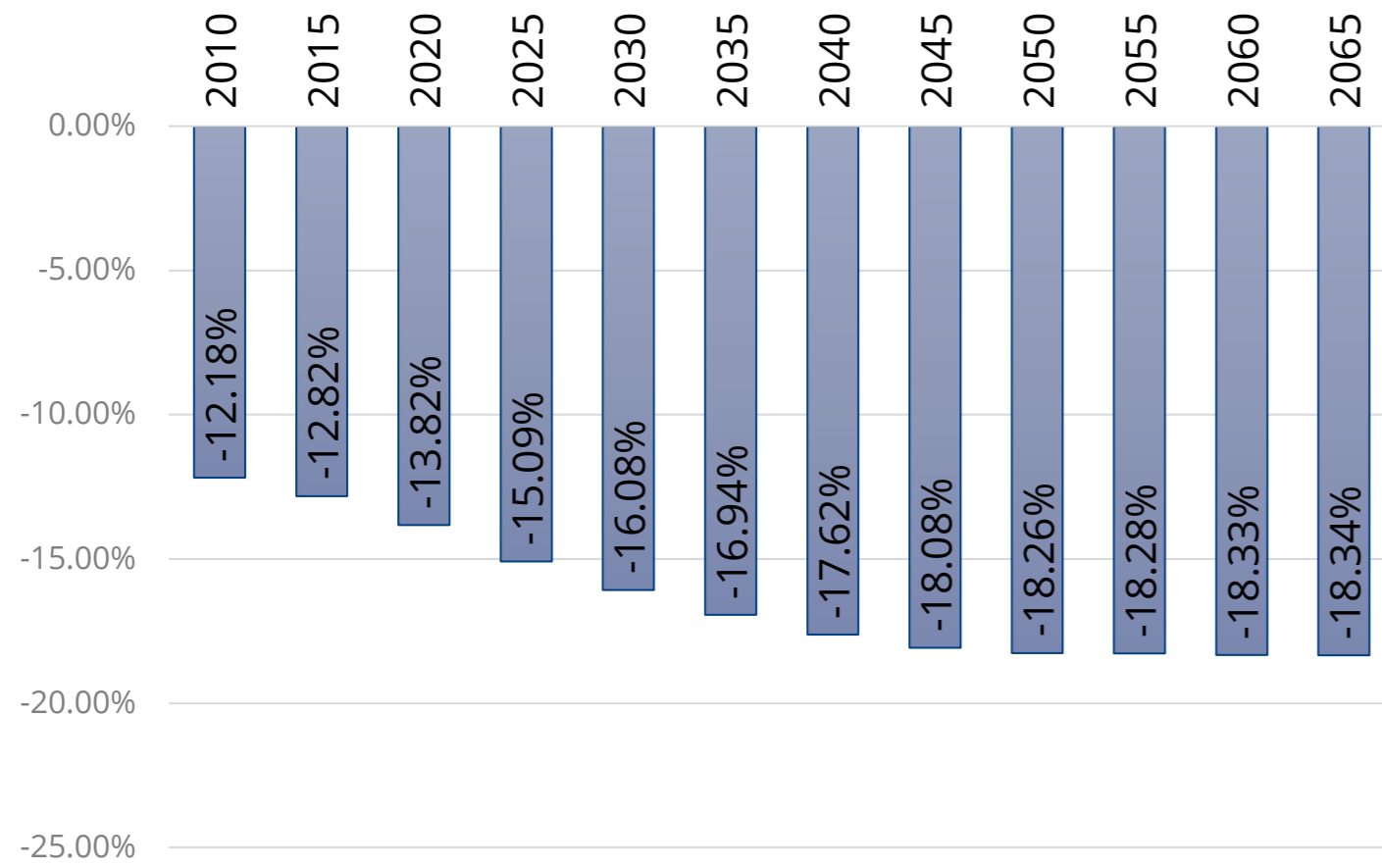


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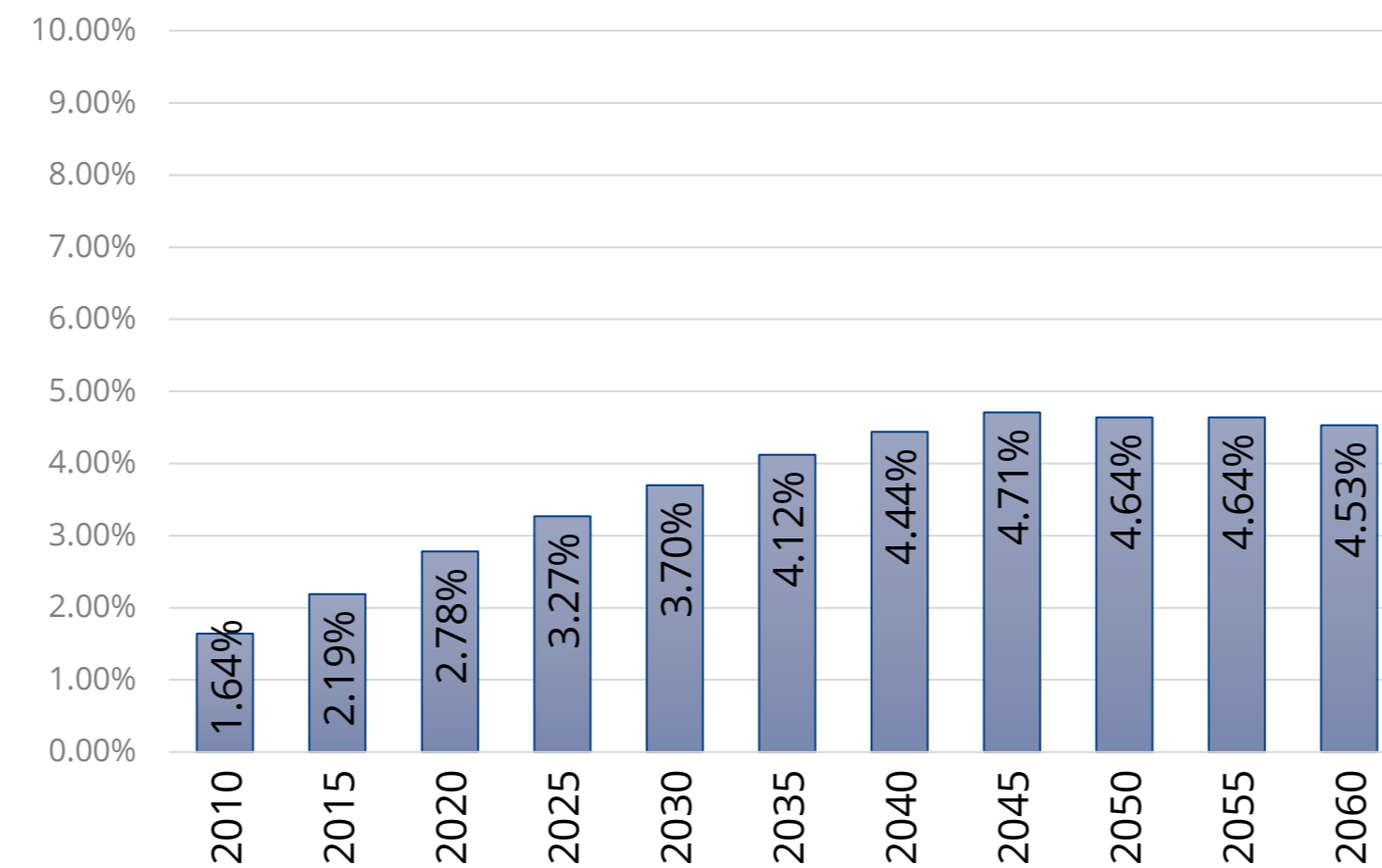
Annual Rate of Return Summary – Median

As of 9/30/2022

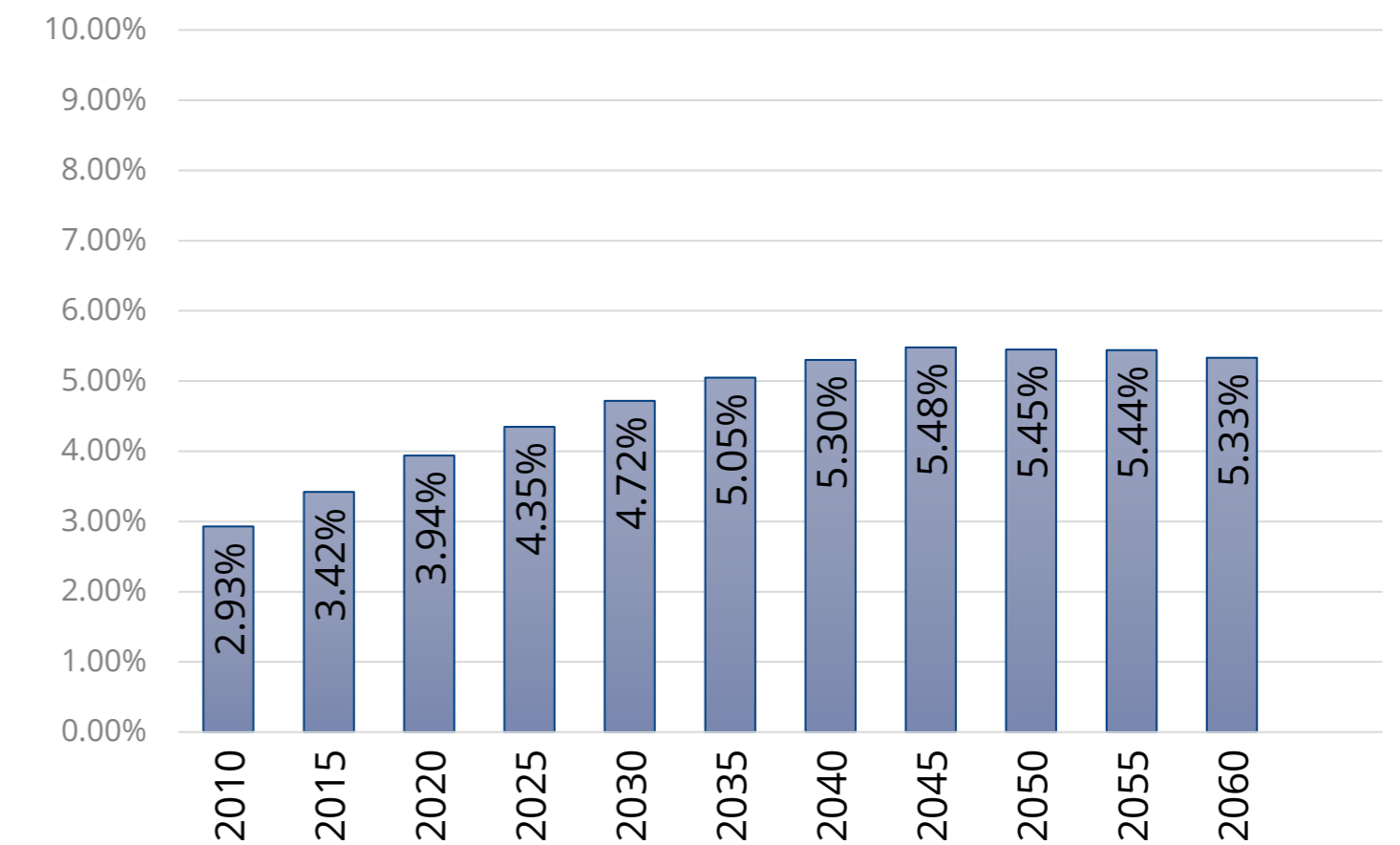
Alaska Target Date Fund - 1 Year



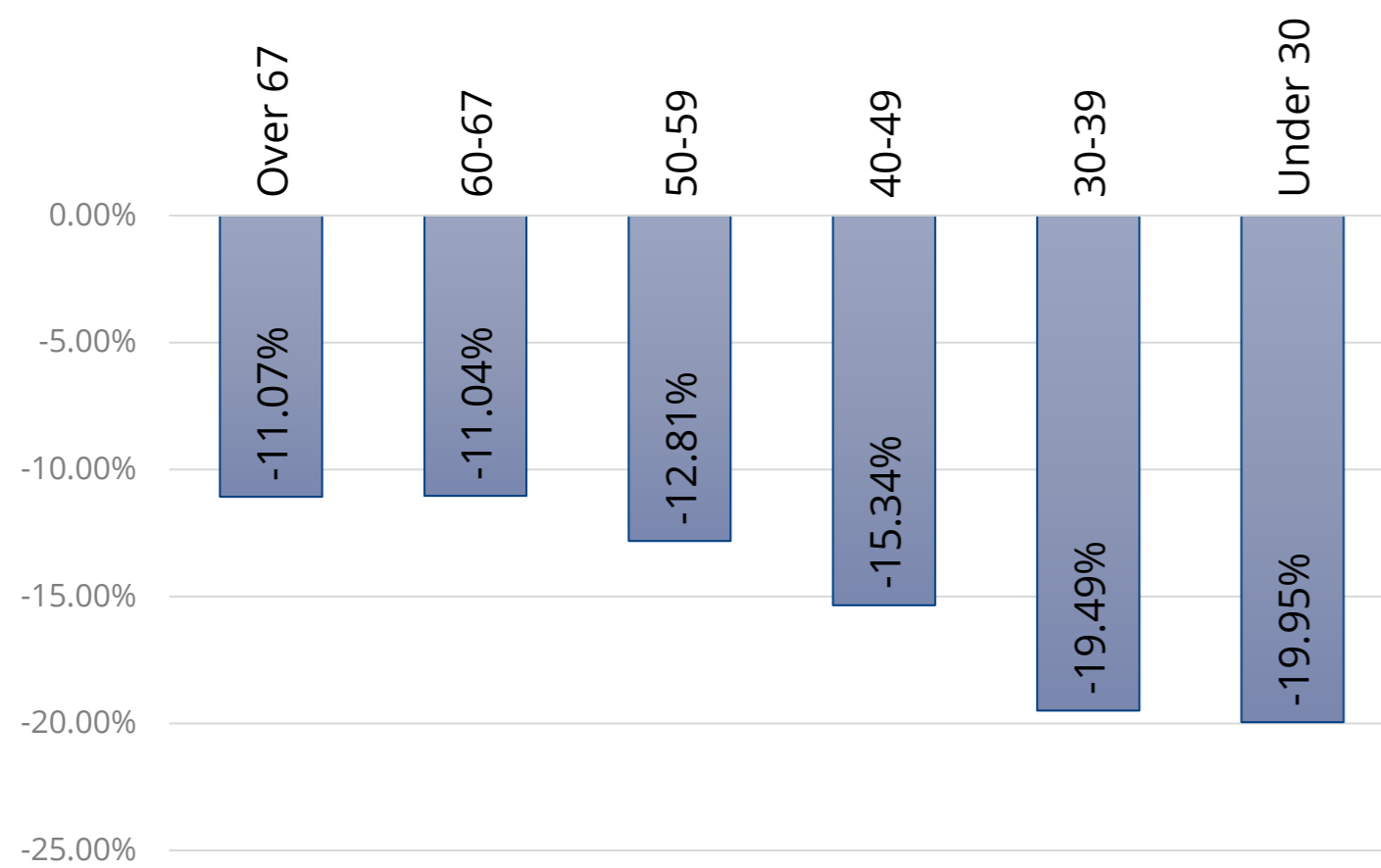
Alaska Target Date Fund - 3 Year



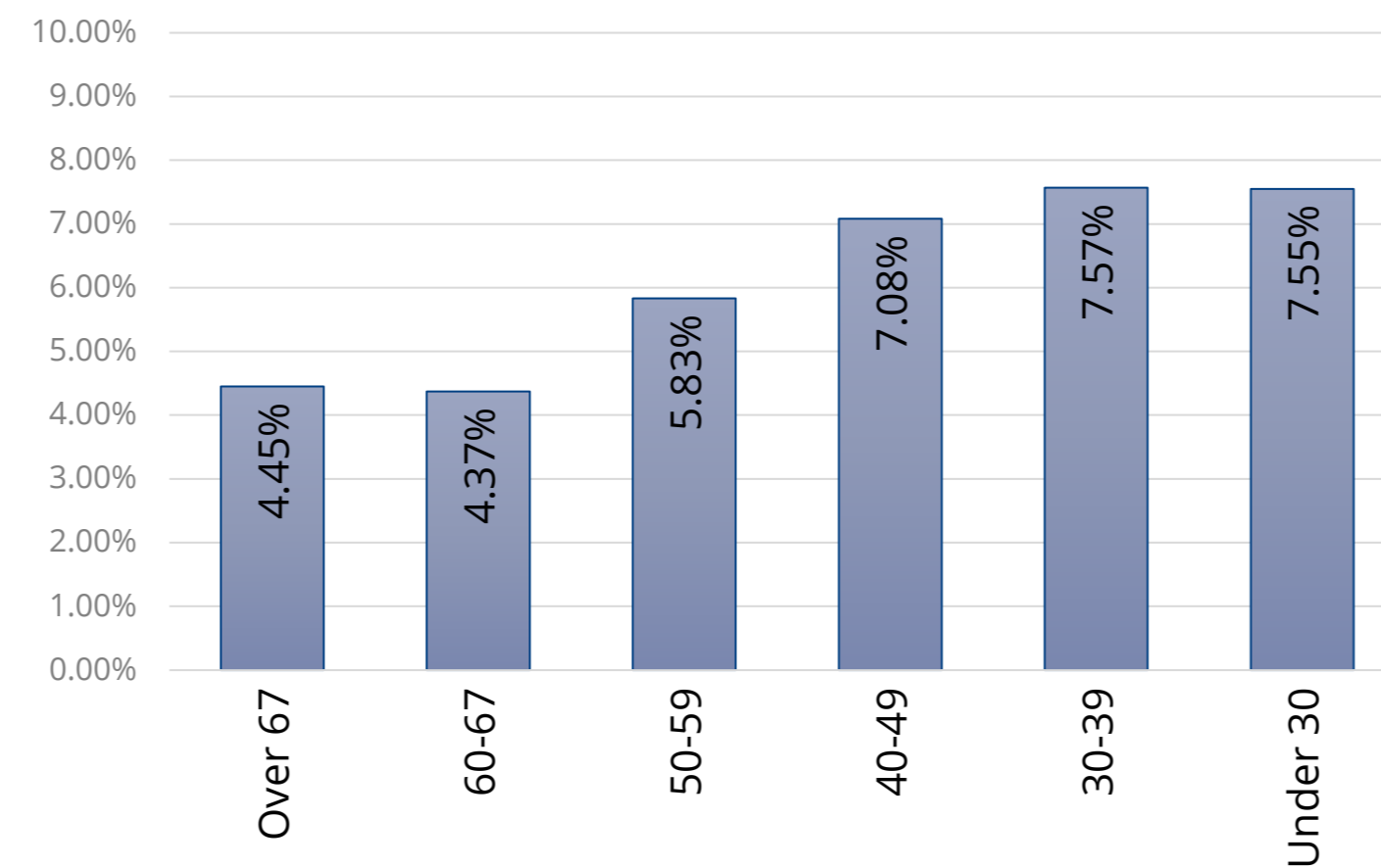
Alaska Target Date Fund - 5 Year



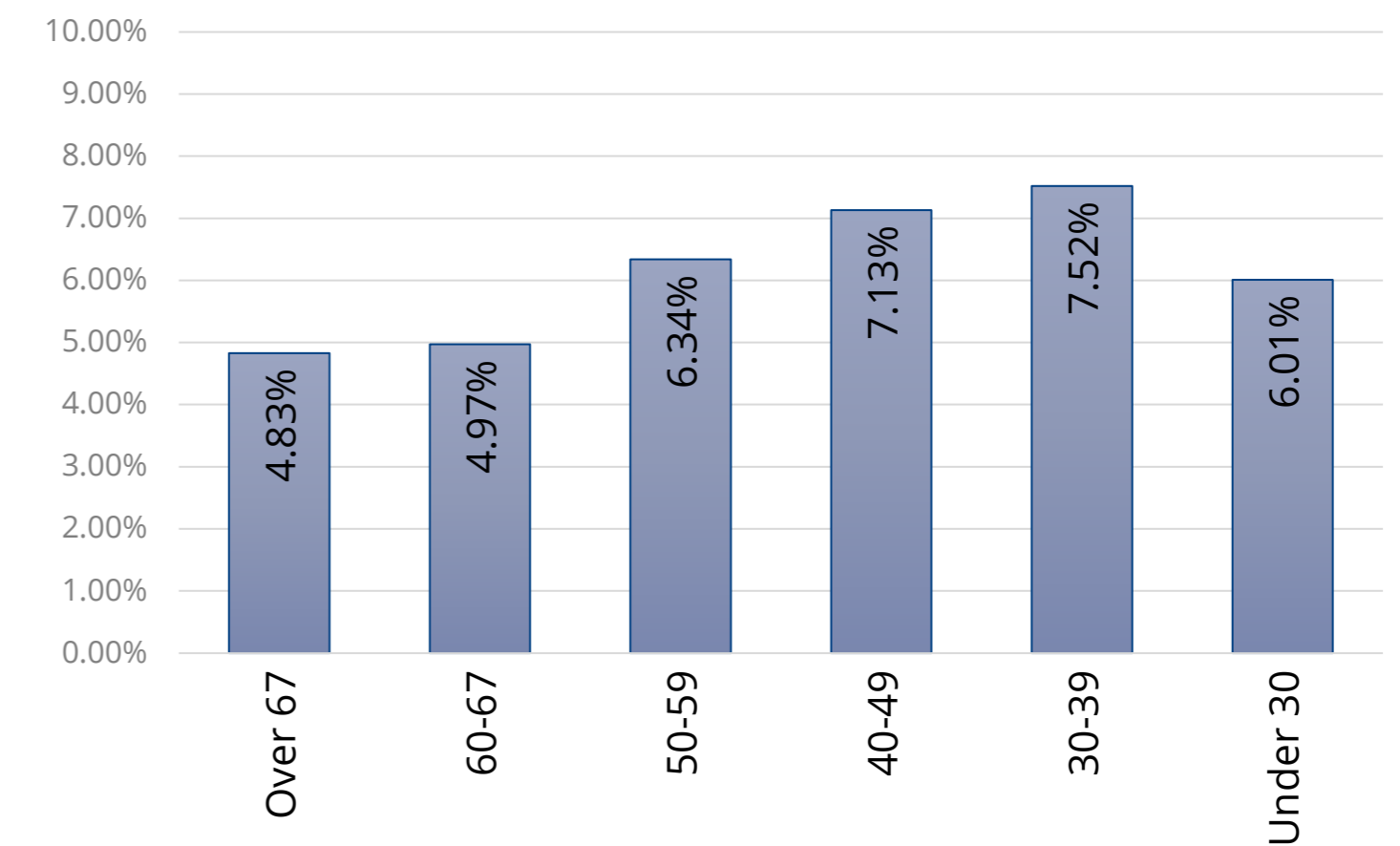
MTR – Median 1 Year by Age Band



MTR – Median 3 Year by Age Band



MTR – Median 5 Year by Age Band

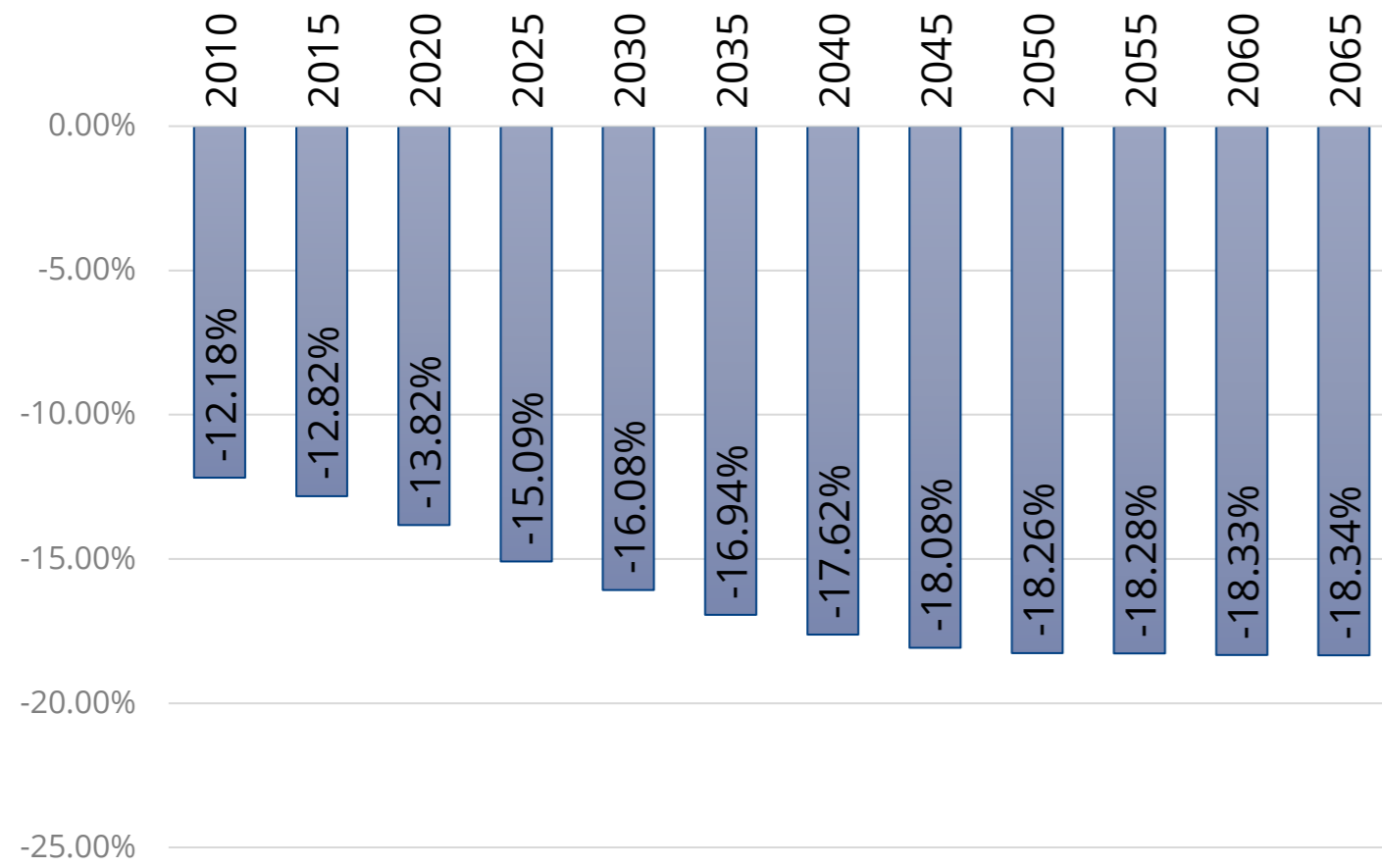


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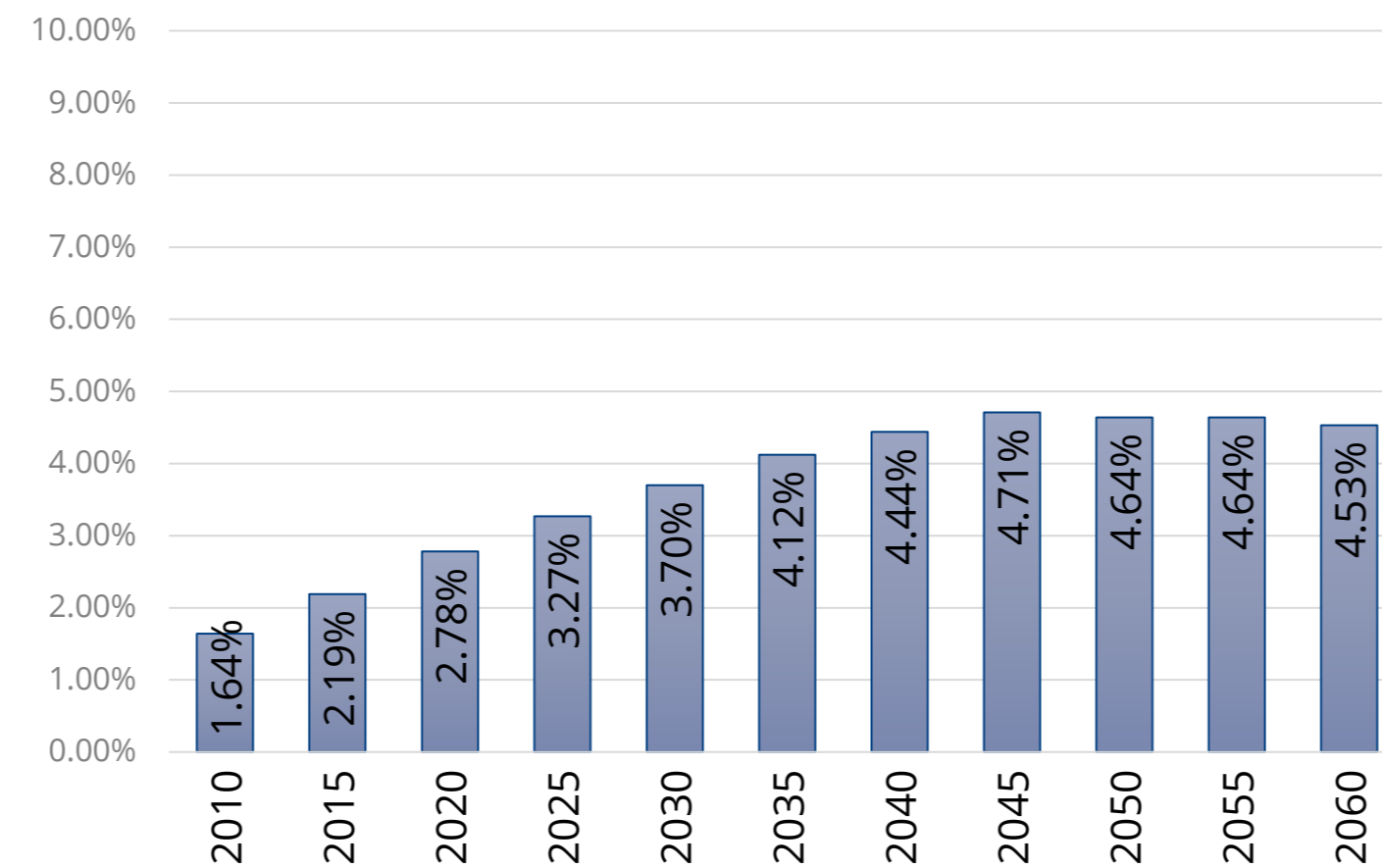
Annual Rate of Return Summary – 25th percentile

As of 9/30/2022

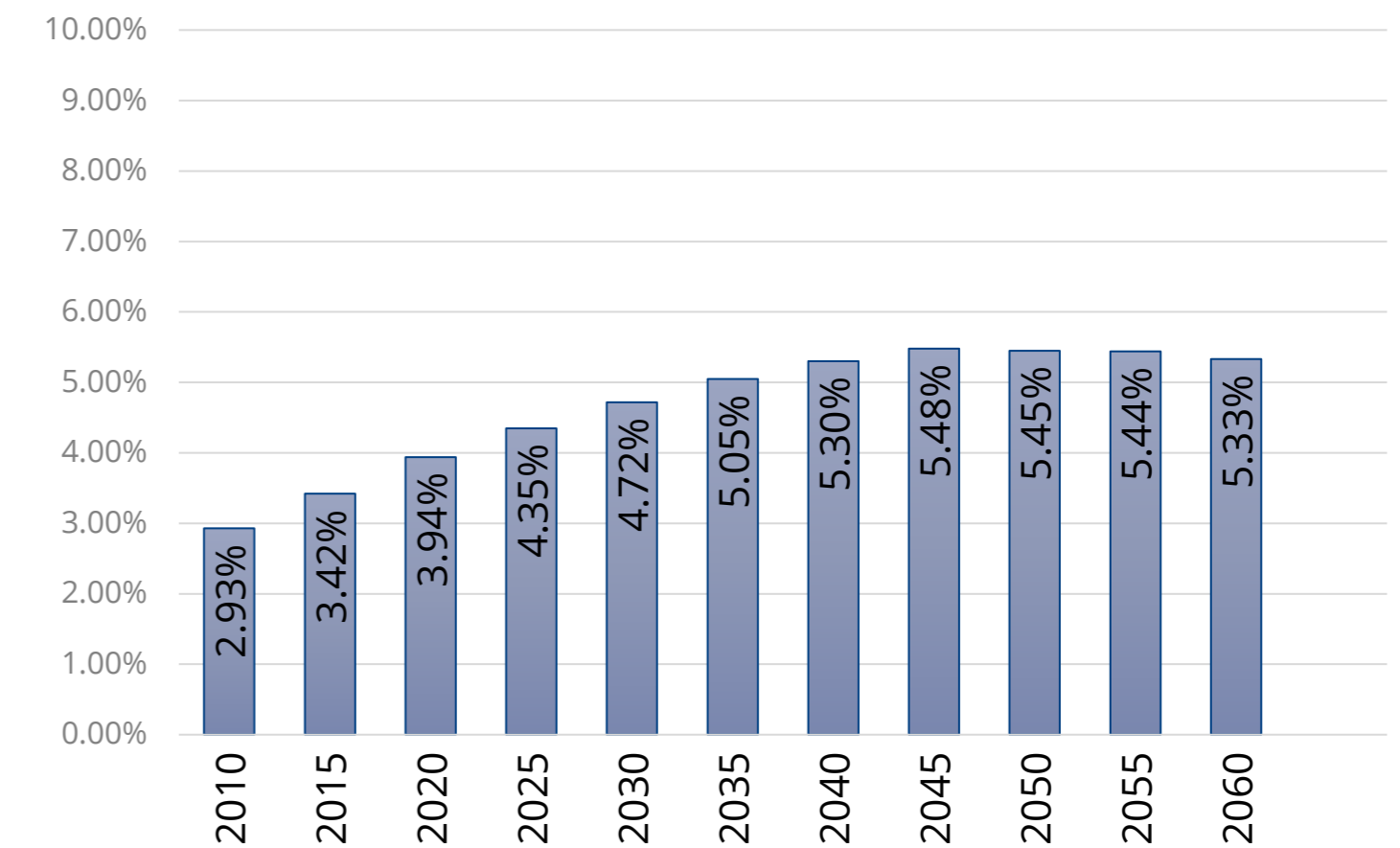
Alaska Target Date Fund - 1 Year



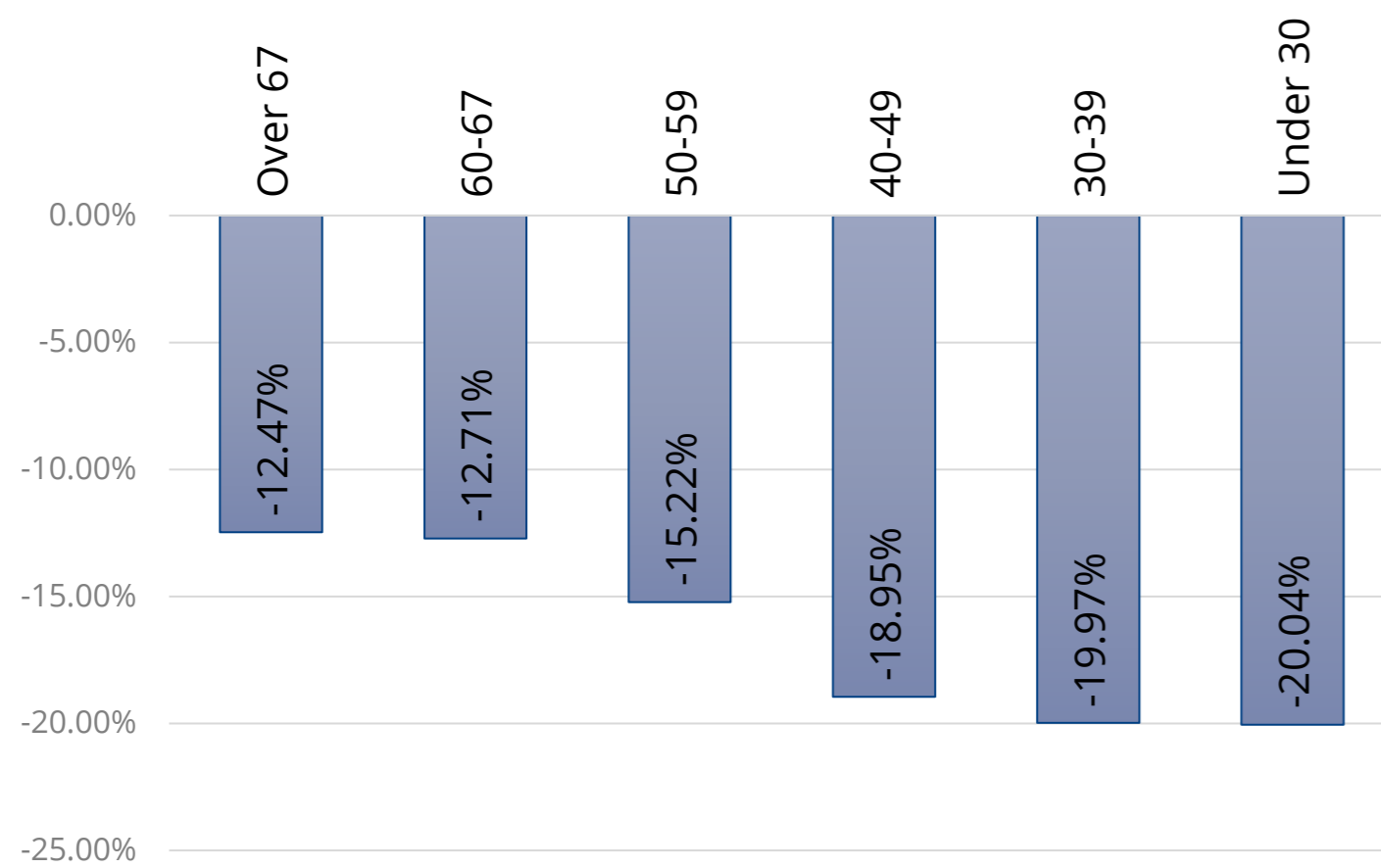
Alaska Target Date Fund - 3 Year



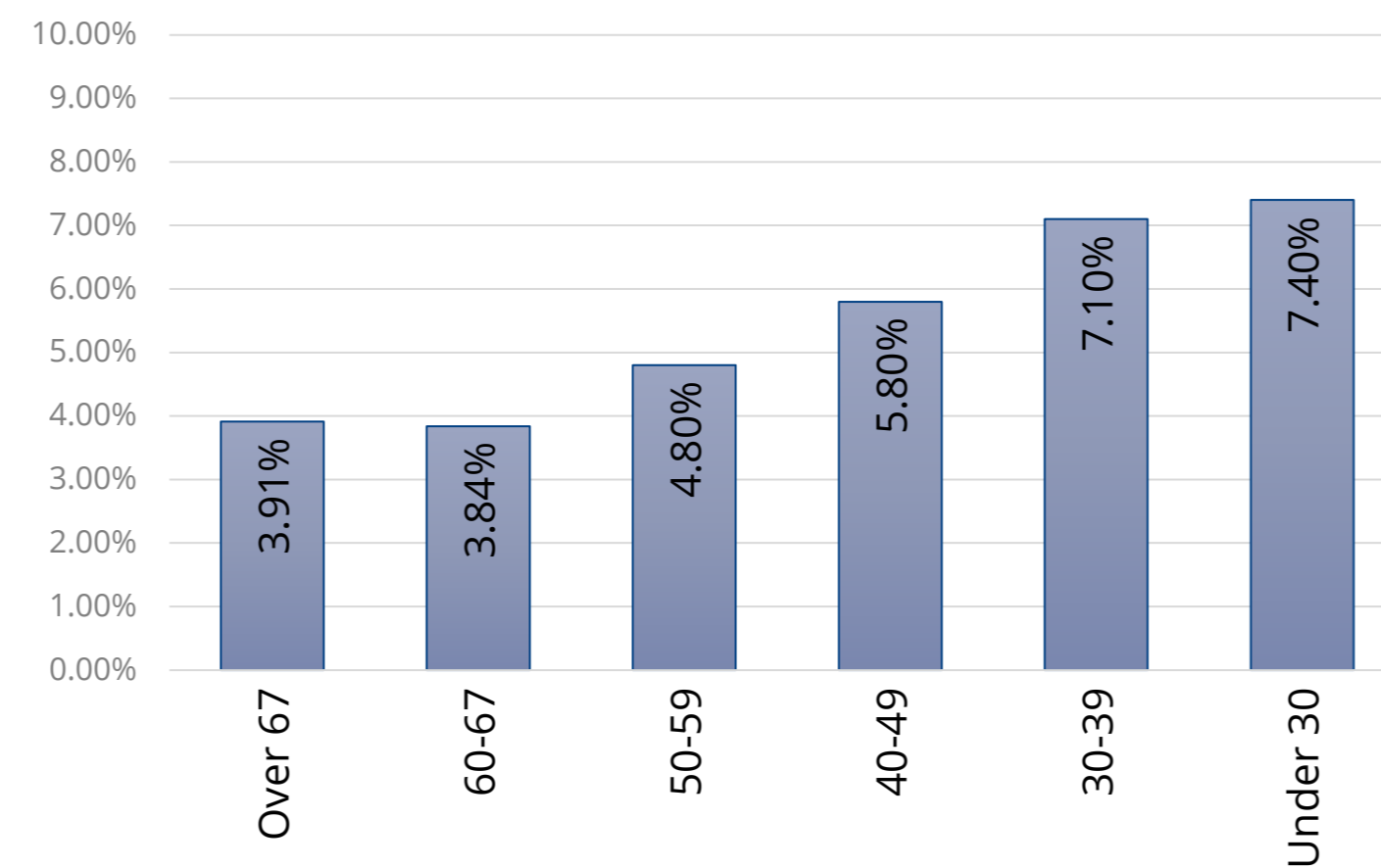
Alaska Target Date Fund - 5 Year



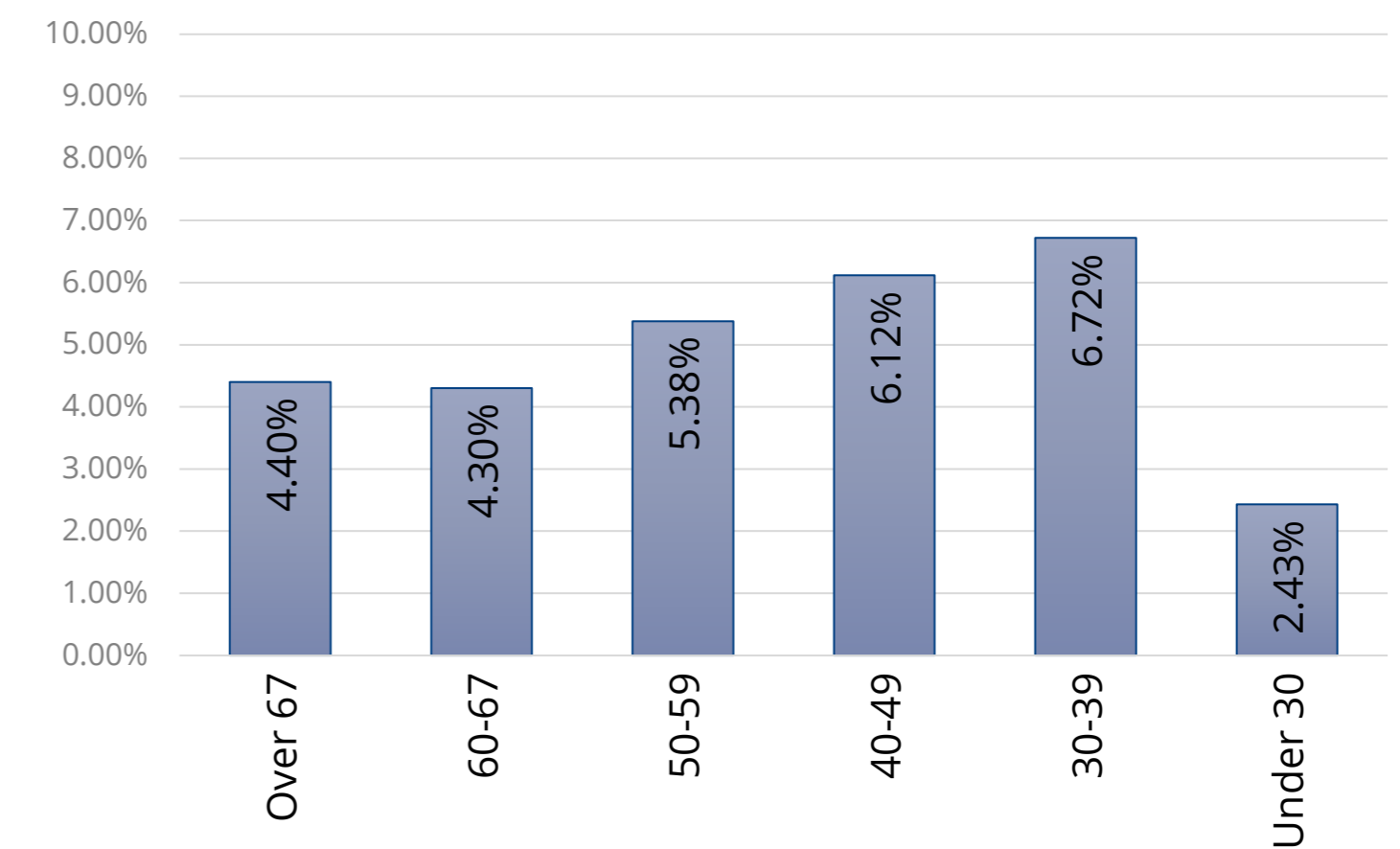
MTR – 25th Percentile 1 Year by Age Band



MTR – 25th Percentile 3 Year by Age Band



MTR – 25th Percentile 5 Year by Age Band



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Rate of Return Definitions & Methodology

Rate of Return:

Rate of return is calculated based on all account activity between the first and last day of the period. It is calculated based on a formula which estimates the equivalent rate of return during the statement period, based on the opening balance, transaction activity and closing balance. The formula was reviewed by Empower Advisory Group, LLC, a registered investment adviser.

There are two processes that calculate and store this data by plan participant: one is a process for My Total Retirement clients that receive a Morningstar report card and the second is a monthly rate of return process.

My Total Retirement Process Rate of Return: this process calculates full period rates of return in 3 month, 1, 3, 5, 7, and 10 year intervals consistent with the procedures called by the participant website. Given the nature of how this is calculated, annual rate of return results do not need to be aggregated for 1 year returns, and 3, 5, 7 and 10 year intervals just need to divide the period return by the number of years to create an average annual rate of return.

Monthly Process Rate of Return: this process calculates full period rates of return in 1 month intervals consistent with the procedures called by the participant website. Given the nature of how this is calculated, annual rate of return results do need to be aggregated for annual returns. Determining an annual rate of return using the monthly rates of return is achieved using an aggregation of an individual participant's monthly rates of return for that period. Only participants with a result across all months in the period are included in summary statistics presented. The math applied to achieve this assumes the following approach:

$(1 + [\text{January Rate of Return}]) * \dots (1 + [\text{December Rate of Return}])$

Investor Type:

Reviewing participant rates of return effectively requires consideration on the approach that each individual has taken to allocate their balance. To simplify this review, we identify participants by the approach they consistently employed over the period the returns were realized. As a result, an individual that employed a joint strategy or switched strategies during the period will be considered a "Do-It-Yourself" type. Of note: Empower continues to enrich this source, and detail available for 1 year returns may not be available for 3 and 5 year turns.

*Annual Rates of return represent the plan weighted results of 1, 3 and 5 year average rates of return within the plan result compared to the median %tiles in the benchmark totals. A plan must have a minimum of 5 observations to be included in the data. To be included in the results for the 25th/75th and 10th/90th, the plan must have a minimum of 9 and 25 observations, respectively. The benchmark is limited to a relevant subset of Empower's total book of business, and includes only a portion of business recordkept by Empower.

*Median annual rates of return represent the participant weighted result of 1, 3 and 5 year average rate of returns within the specific plan result and Empower totals. All participant outcomes are included within the plans represented by the selected plan and benchmark. The benchmark is limited to a relevant subset of Empower's total book of business, and includes only a portion of 403b and 401k business recordkept by Empower.

State of Alaska Supplemental Annuity Plan

98214-03



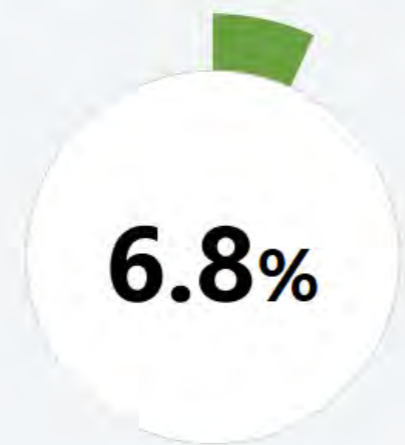


Advisory services

As of 9/30/2022

Advisory services compares participants using and not using the advisory service. The illustration includes participants actively employed and separated from service with a balance.

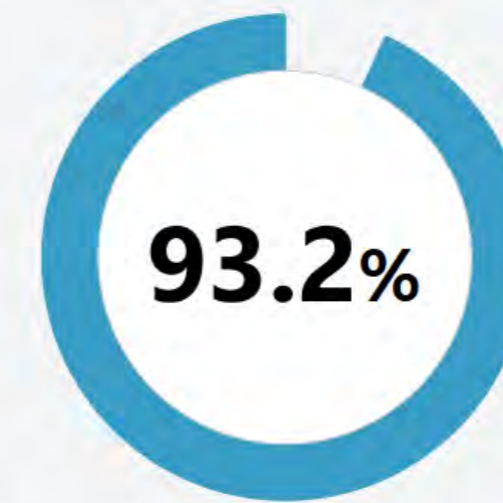
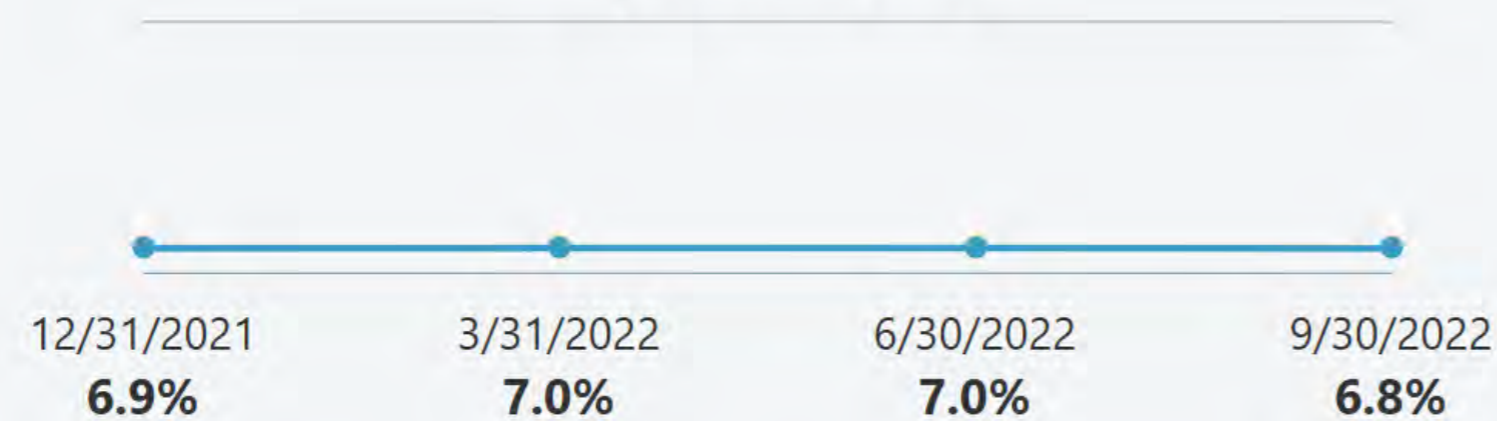
Population of participants using and not using My Total Retirement



of participants are using **My Total Retirement**

This amounts to **3,455** participants

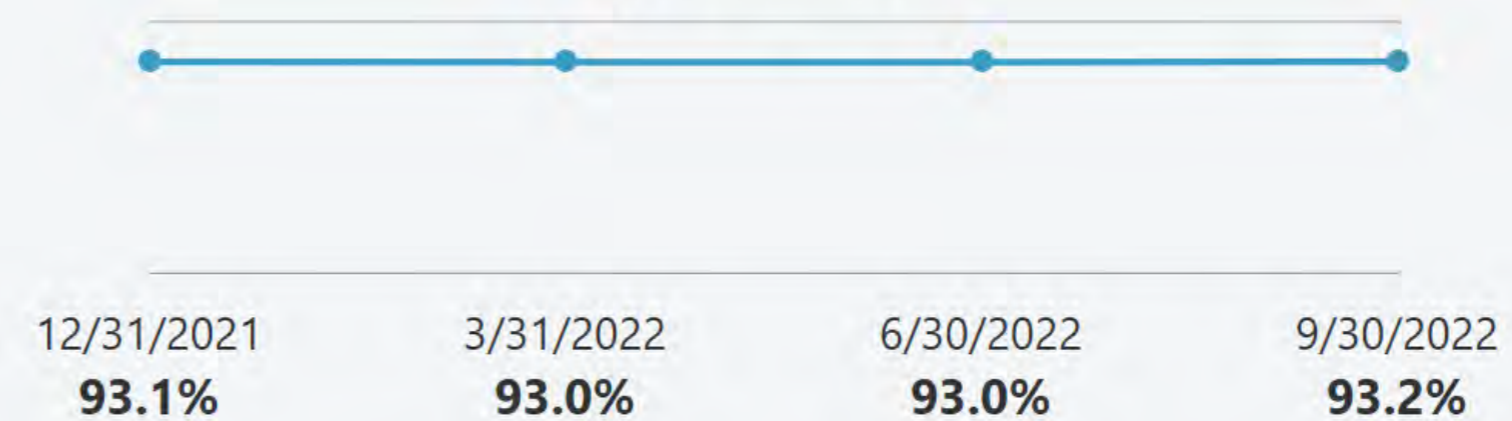
Population over time



of participants are using other investment strategies

This amounts to **47,352** participants

Population over time





Advisory services

As of 9/30/2022

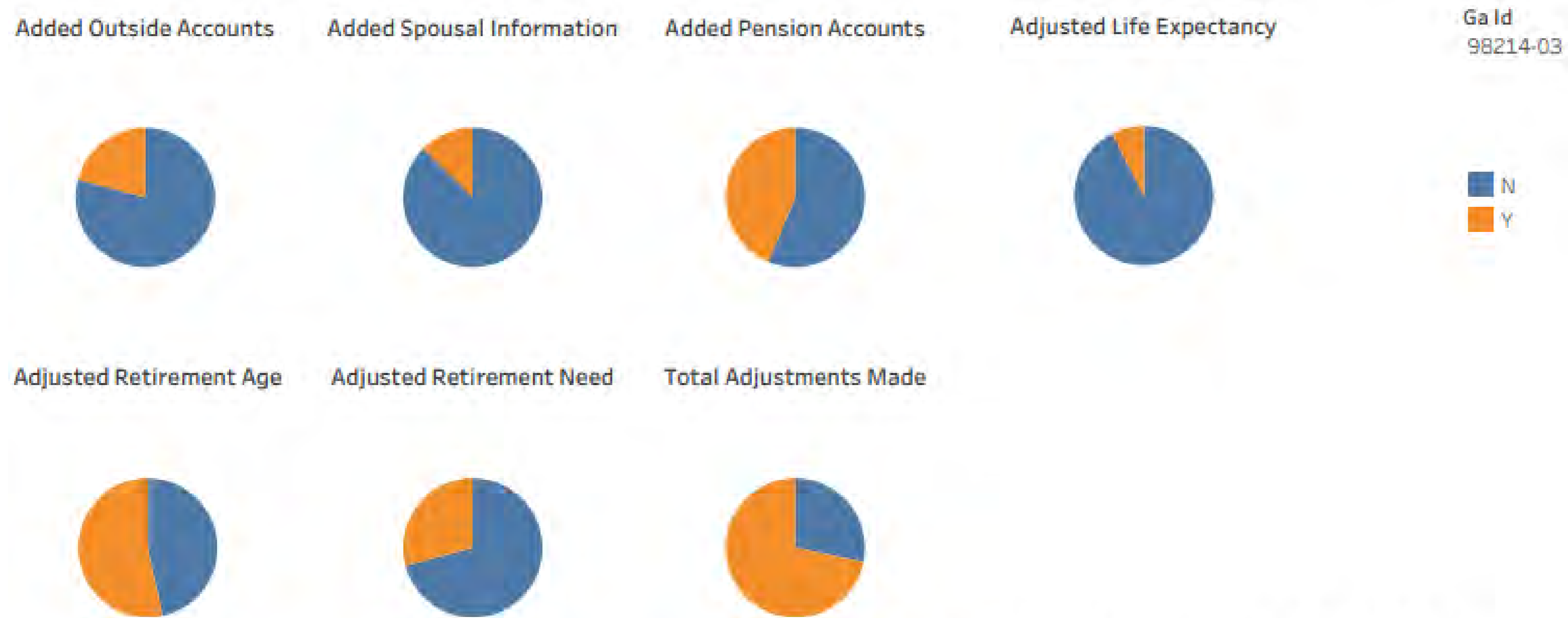
Advisory services compares participants using and not using the advisory service. The illustration includes participants actively employed and separated from service with a balance.

Insights into participants using and not using My Total Retirement

		Under 30 yrs	30-39 yrs	40-49 yrs	50-59 yrs	60-67 yrs	Over 67 yrs
My Total Retirement users	% of participants	2%	6%	7%	10%	10%	6%
	# of participants	176	687	705	898	713	276
	Average balance	\$19,719	\$60,271	\$129,670	\$201,128	\$221,641	\$240,081
	Average equity percent	62.1%	59.6%	52.8%	44.1%	38.2%	37.4%
		↓	↓	↓	↓	↓	↓
Other investment strategy users	% of participants	98%	94%	93%	90%	90%	94%
	# of participants	7,020	11,107	9,500	8,473	6,456	4,721
	Average balance	\$6,587	\$27,142	\$63,051	\$106,597	\$152,418	\$173,685
	Average equity percent	50.3%	50.4%	50.1%	49.2%	45.6%	43.3%

Median Lifetime Income Score and average contribution rate will show as not available when the data required for those calculations has not been provided
98214-03 State of Alaska Supplemental Annuity Plan

Personalization – Supplemental Annuity Plan as of 9/30/22



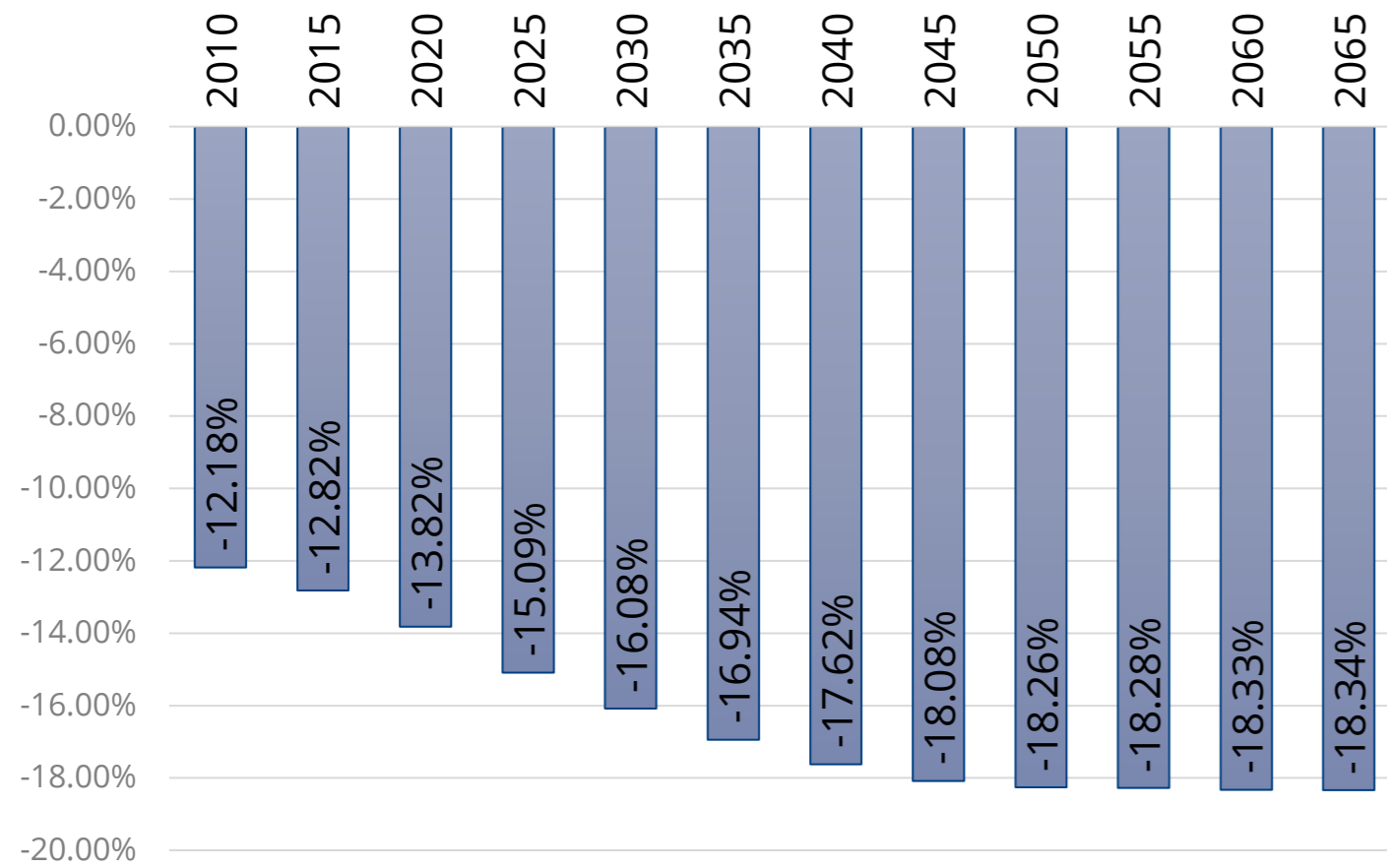
	Participant Accounts	% of Total in MA
Added Outside Accounts ¹	693	20.87%
Added Spousal Information ²	419	12.62%
Added Pension Accounts ¹	1,451	43.69%
Adjusted Life Expectancy ³	250	7.53%
Adjusted Retirement Age ⁴	1,773	53.39%
Adjusted Retirement Need ⁵	966	29.09%
Total That Made Adjustments	2,384	71.79%
Total Enrolled	3,321	100.00%

- 1 The Advisory Service process allows for the inclusion of outside financial and pension information to allow for more personalized retirement readiness recommendations
- 2 The inclusion of spousal/partner information allows for a holistic, household retirement income projection
- 3 Participants may adjust their life expectancy to help receive recommendations appropriate to their retirement income needs
- 4 Adjusting retirement age helps provide recommendations appropriate to the participant's savings horizon, and determined by a comparison of the retirement age in Advisory Services against the plan's default retirement age in the recordkeeping system
- 5 This column represents whether participants have adjusted their retirement income need to something other than 100%, post-tax replacement retirement income NOTAPPROVEDFORUSEWITHPLANPARTICIPANTS

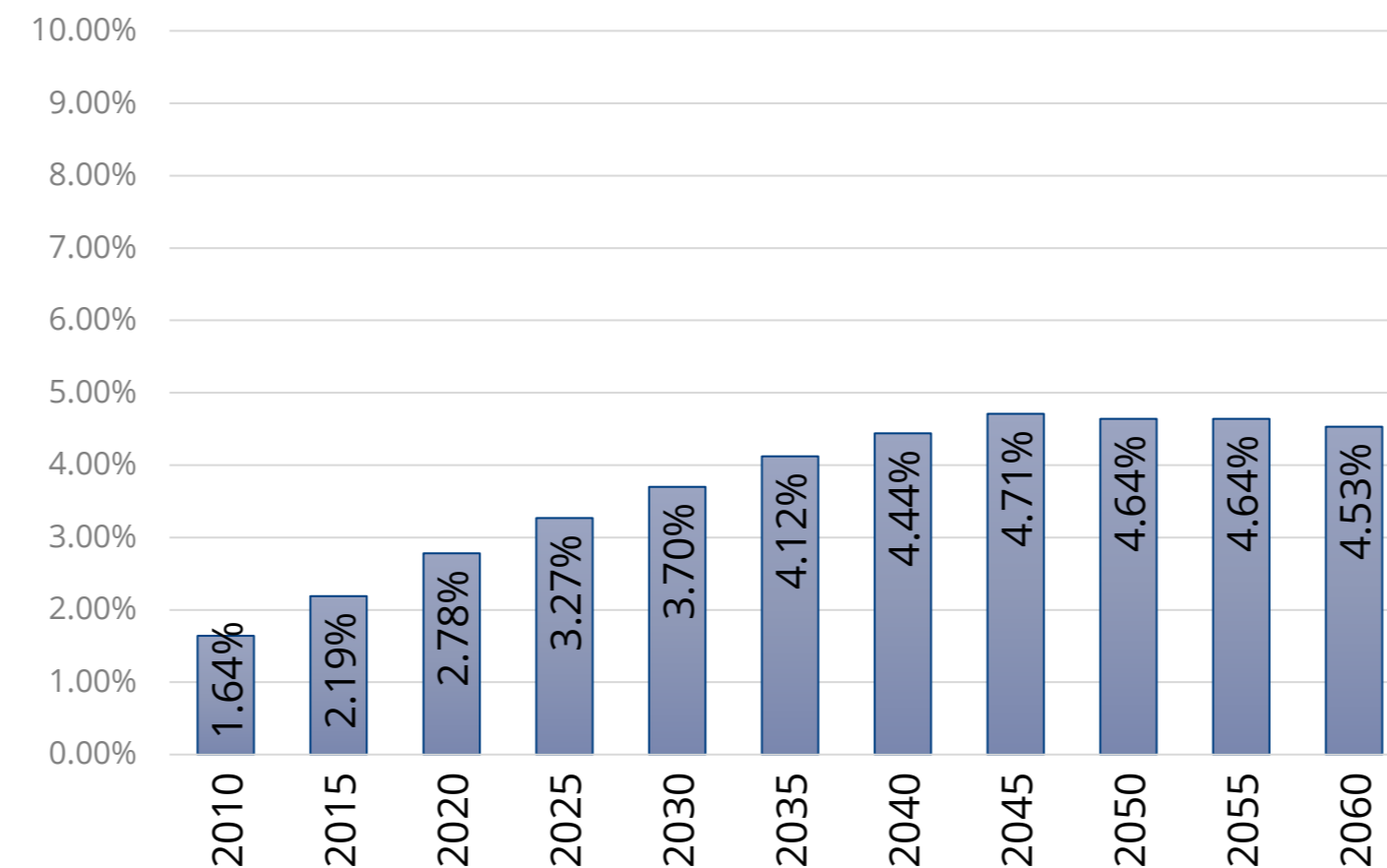
Annual Rate of Return Summary

As of 9/30/2022

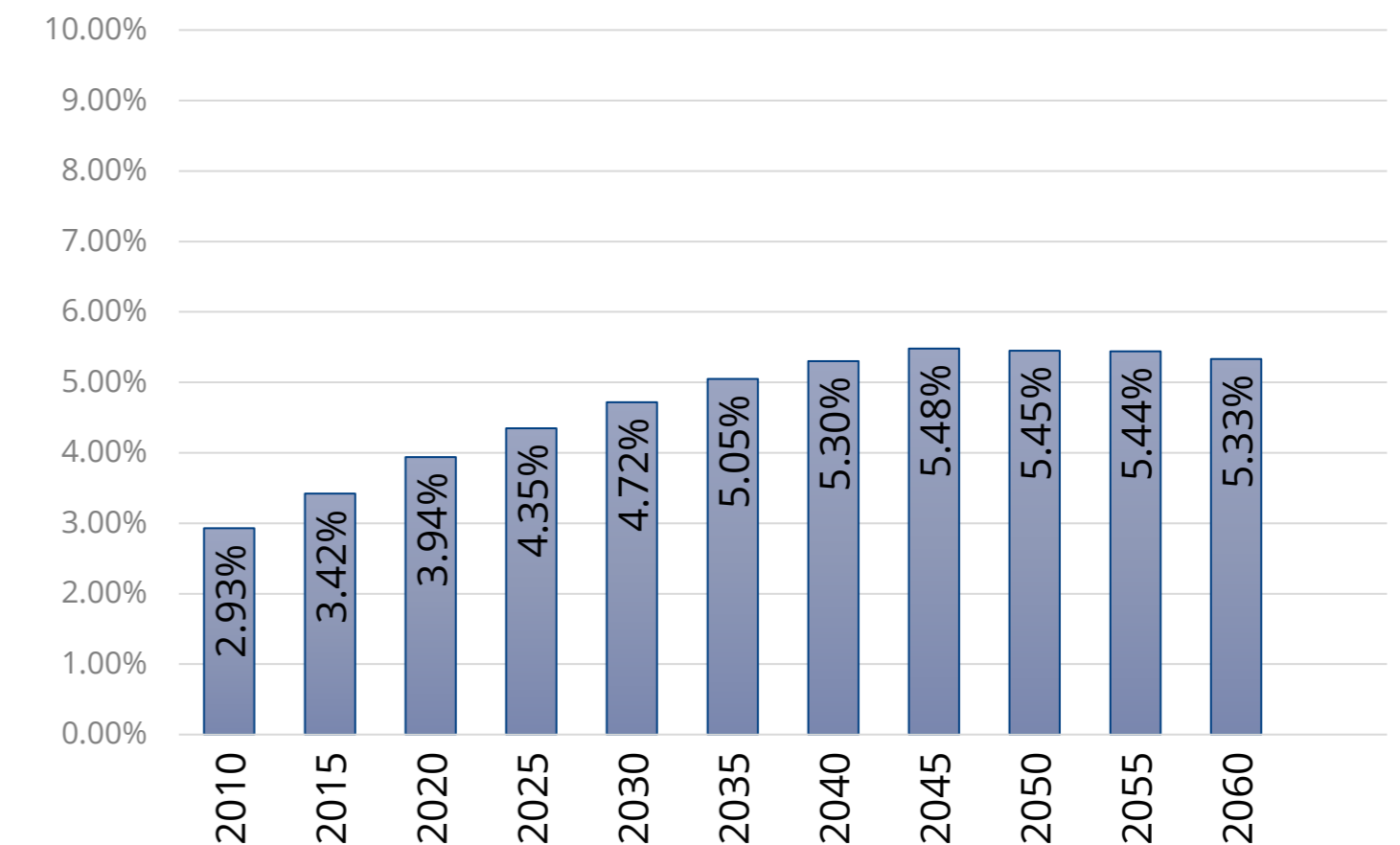
Alaska Target Date Fund - 1 Year



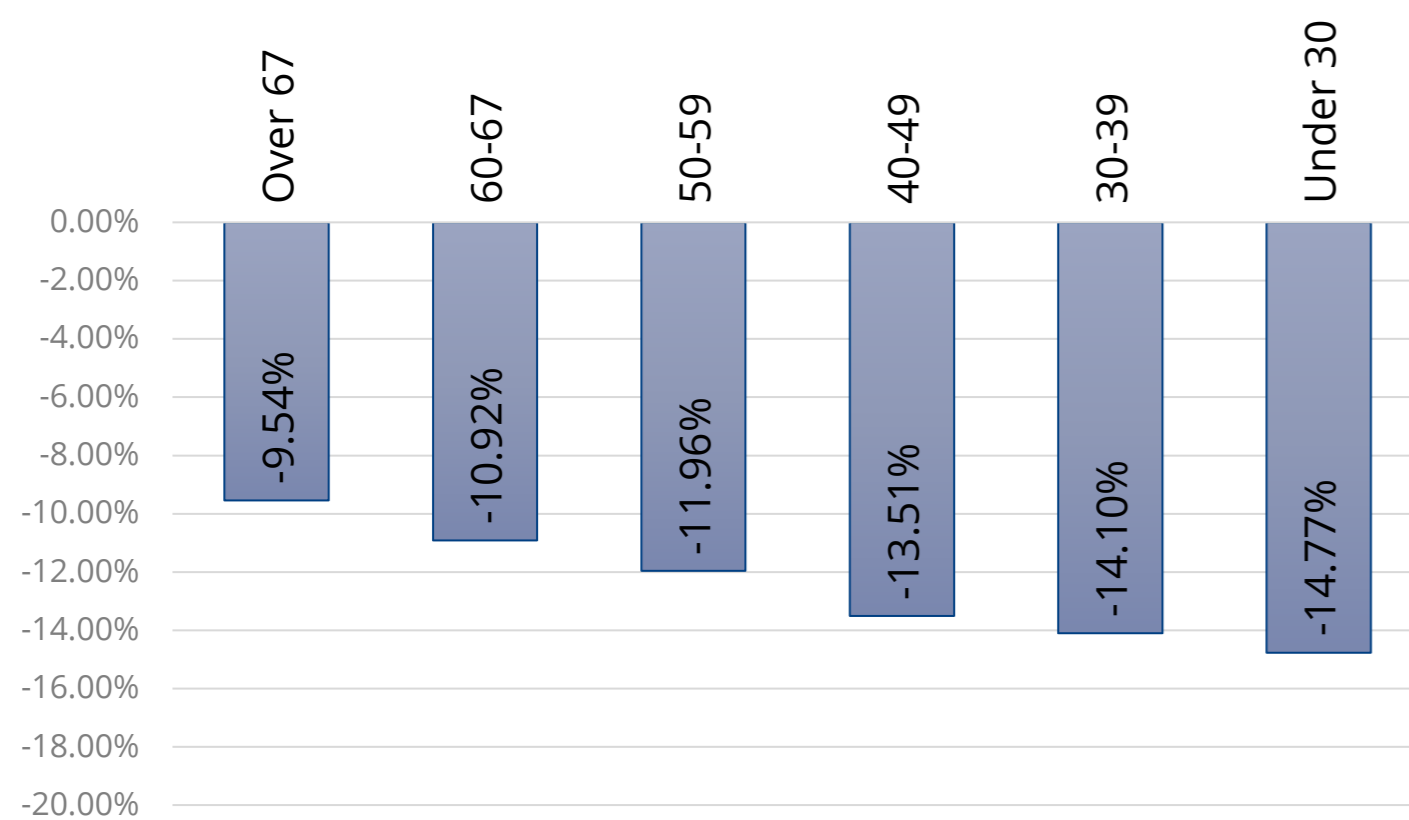
Alaska Target Date Fund - 3 Year



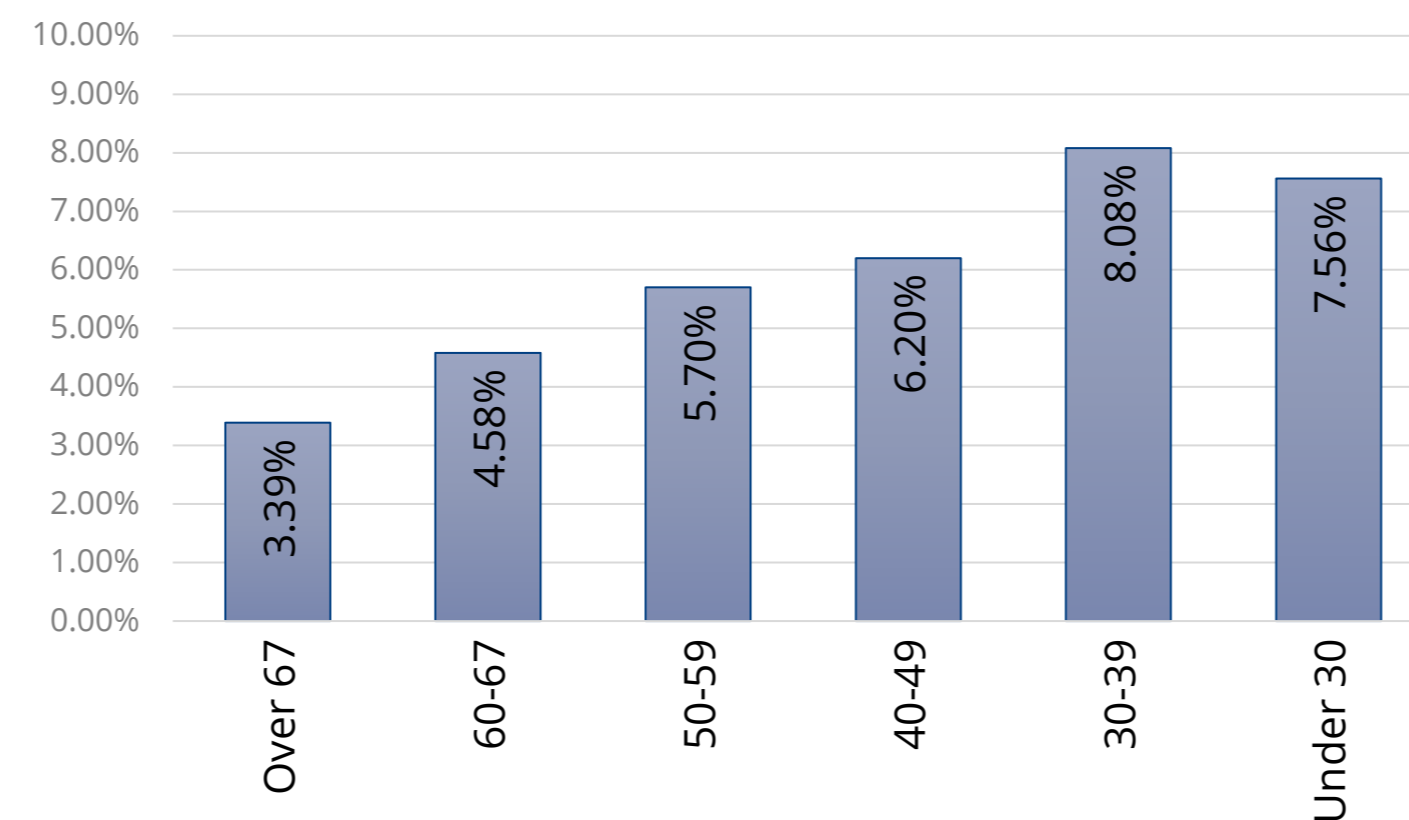
Alaska Target Date Fund - 5 Year



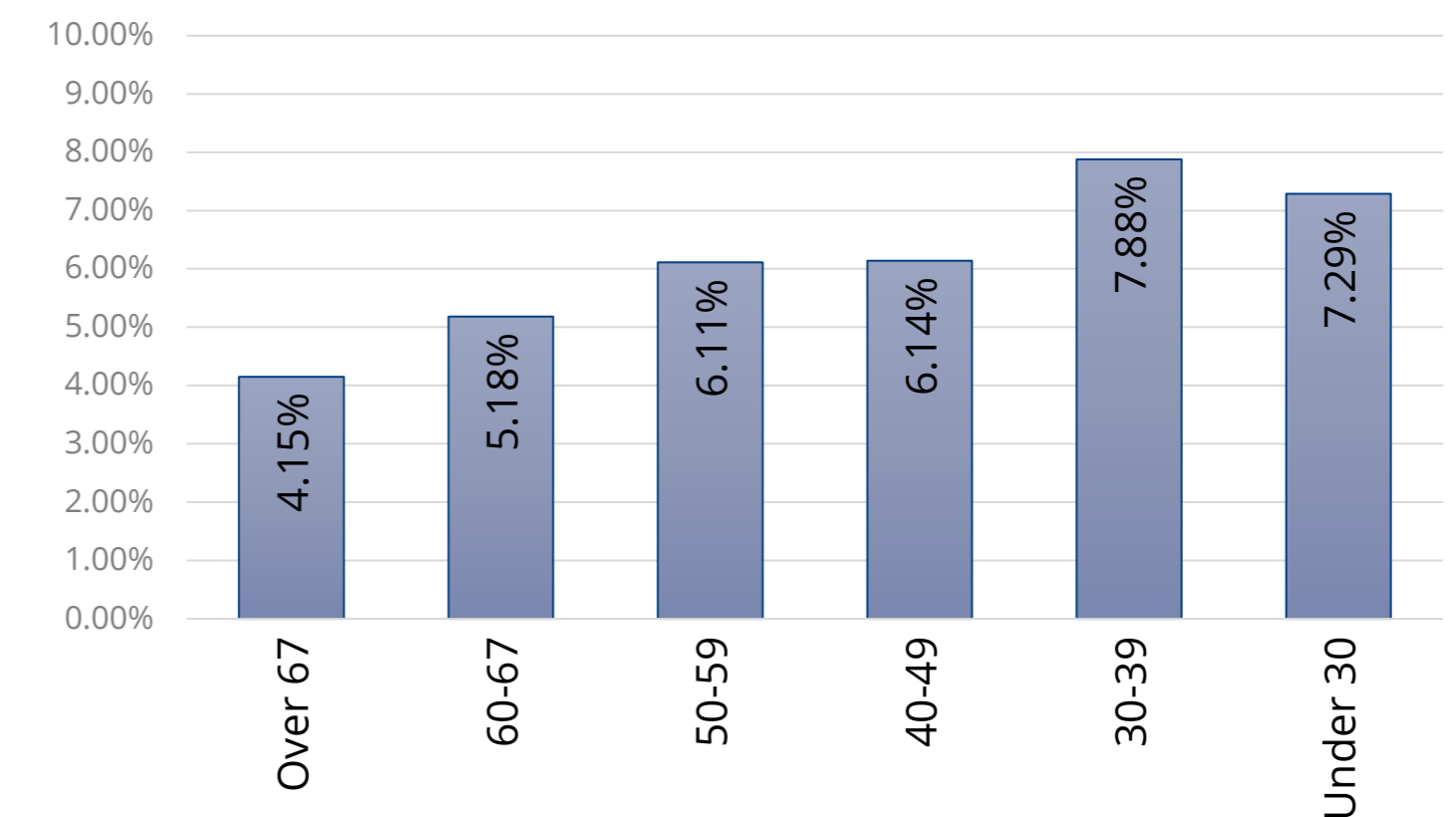
All Investment Strategies - Median 1 Year by Age Band



All Investment Strategies - Median 3 Year by Age Band



All Investment Strategies - Median 5 Year by Age Band

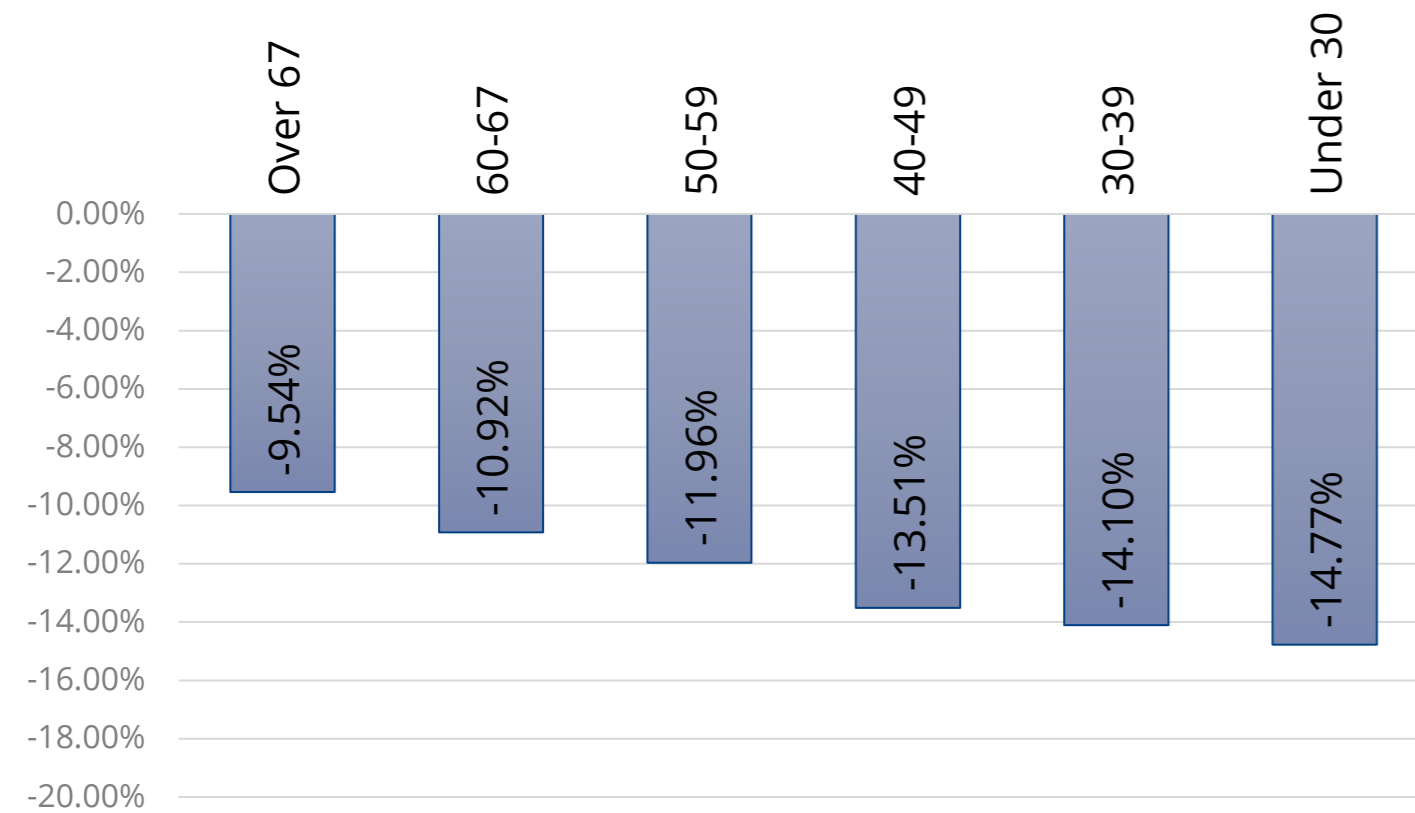


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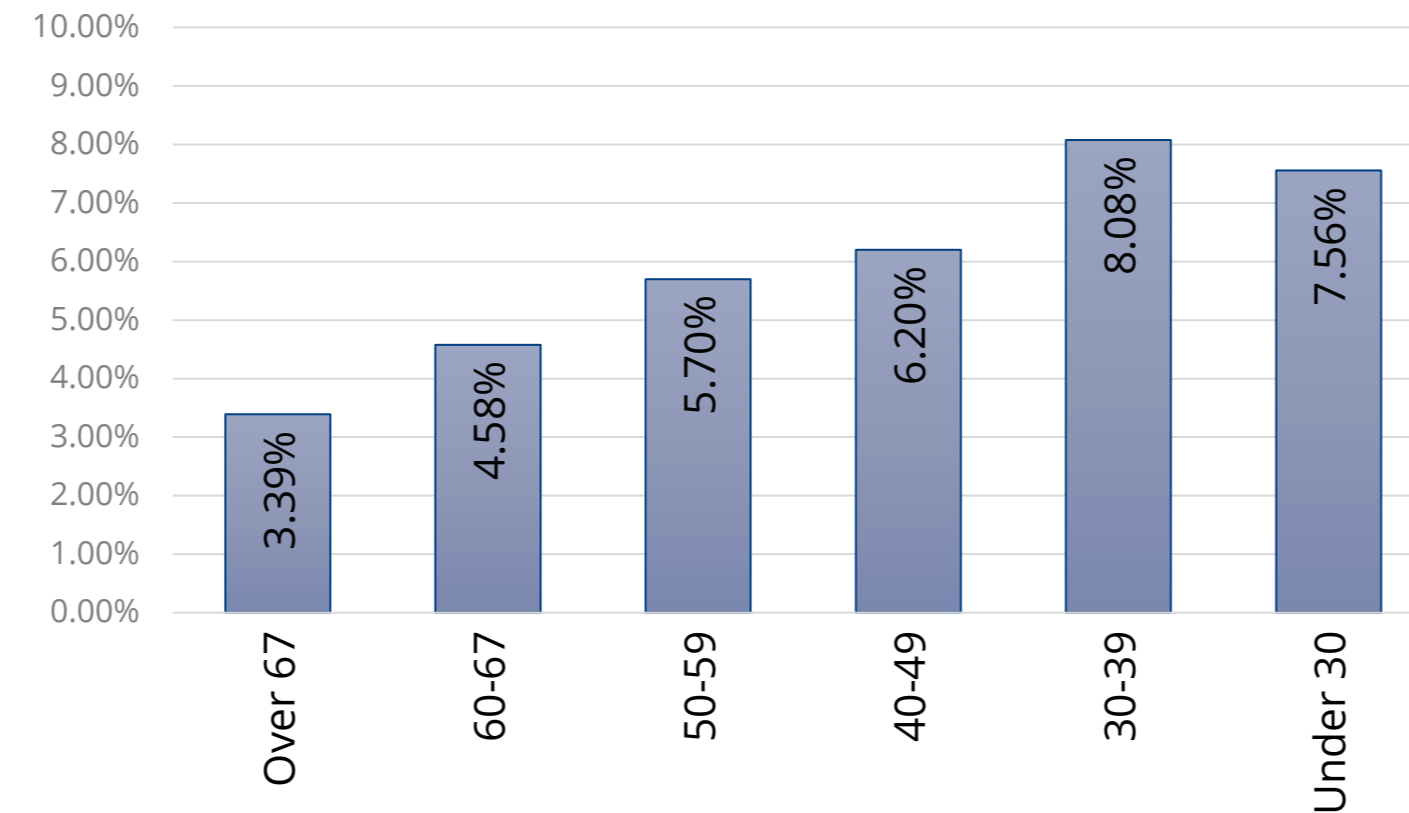
Annual Rate of Return Summary

As of 9/30/2022

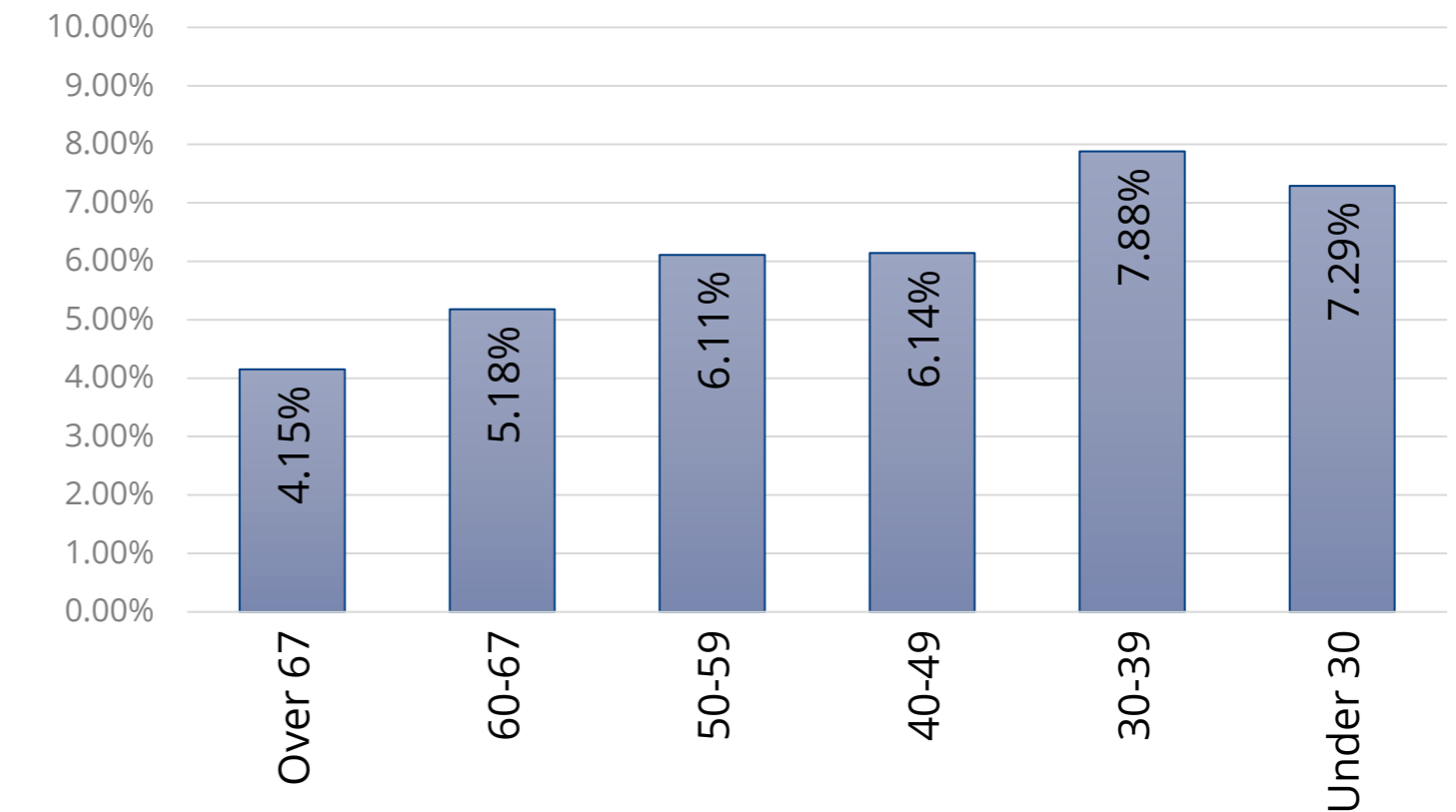
**All Investment Strategies -
Median 1 Year by Age Band**



**All Investment Strategies -
Median 3 Year by Age Band**



**All Investment Strategies -
Median 5 Year by Age Band**

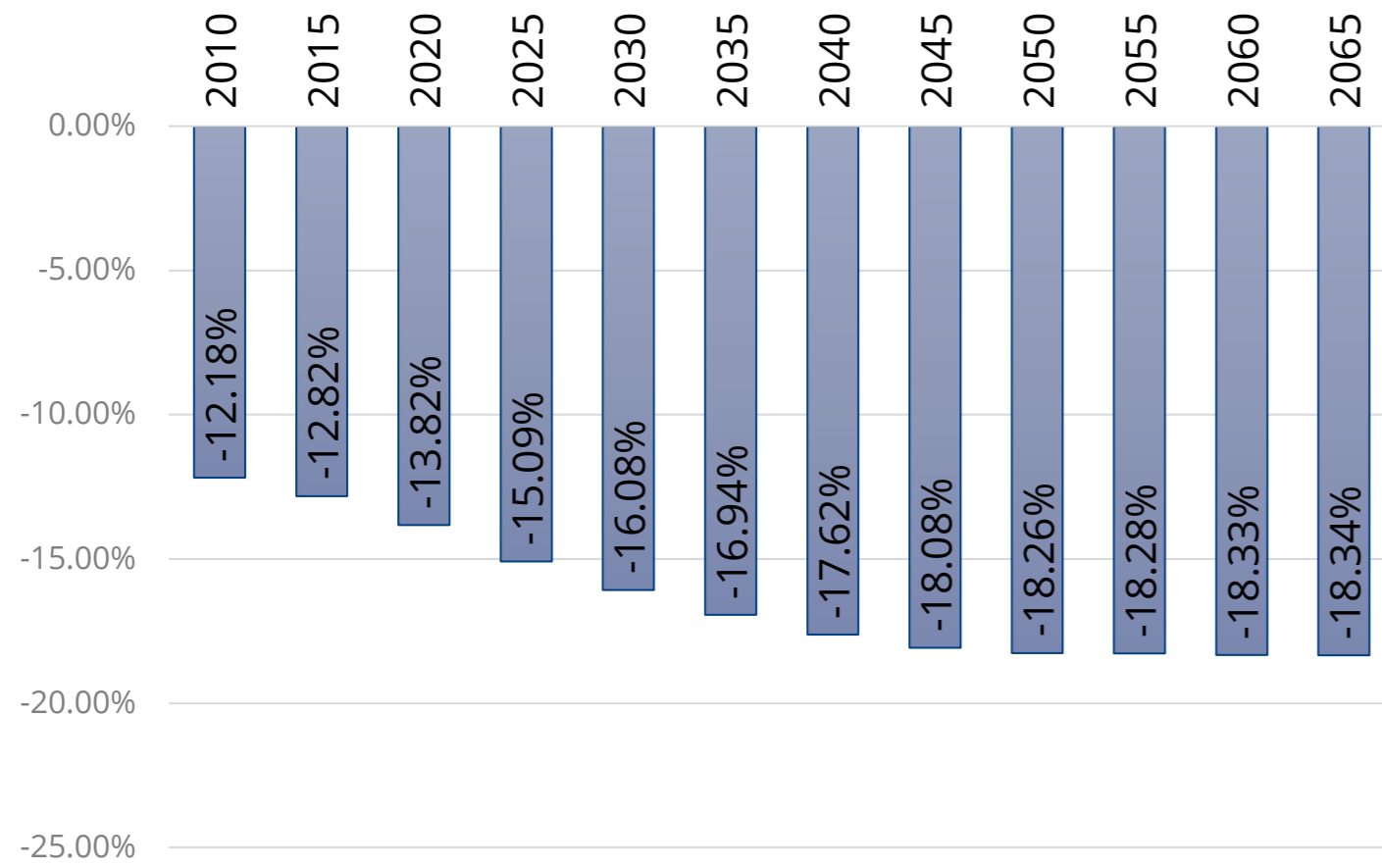


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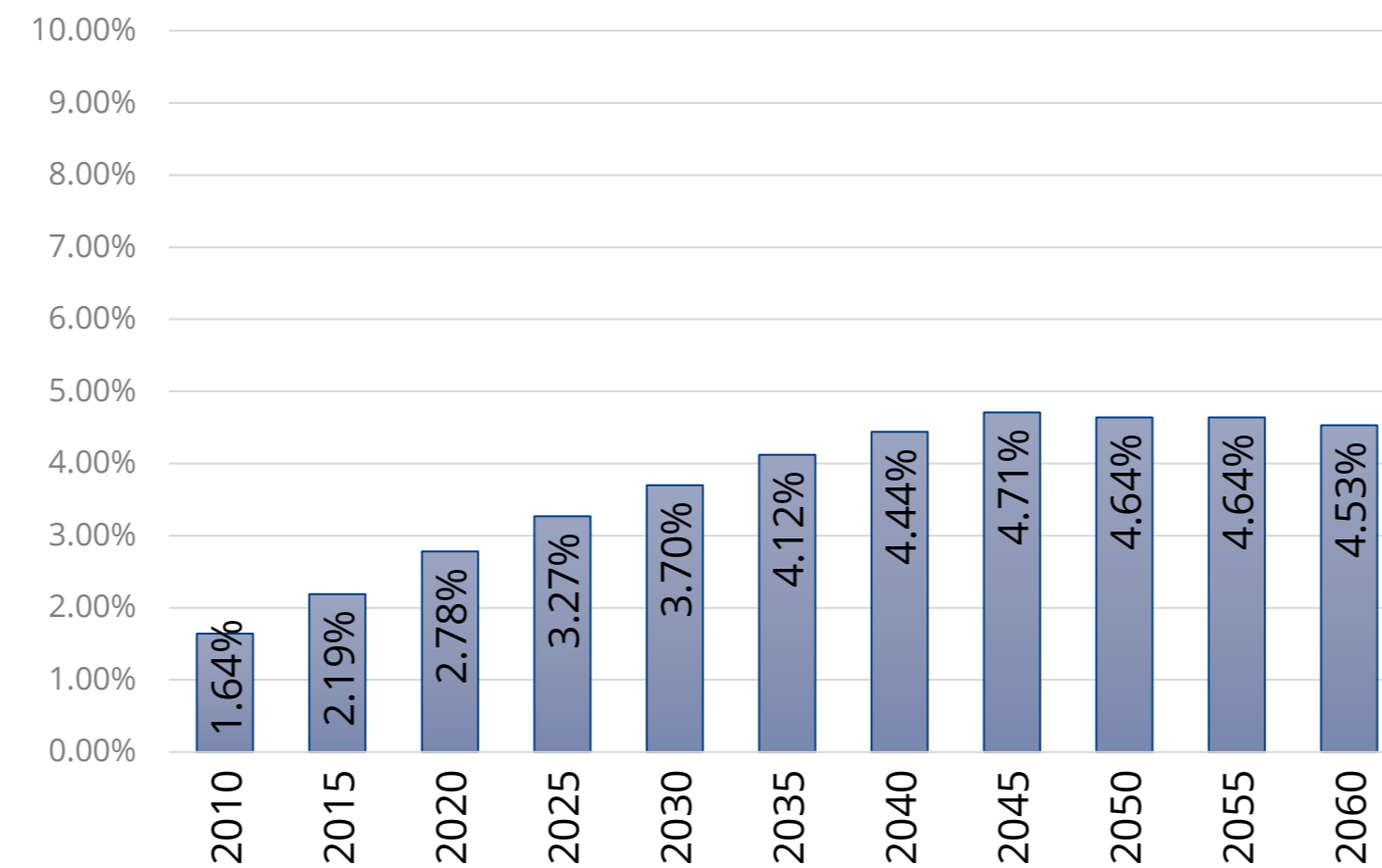
Annual Rate of Return Summary – 75th percentile

As of 9/30/2022

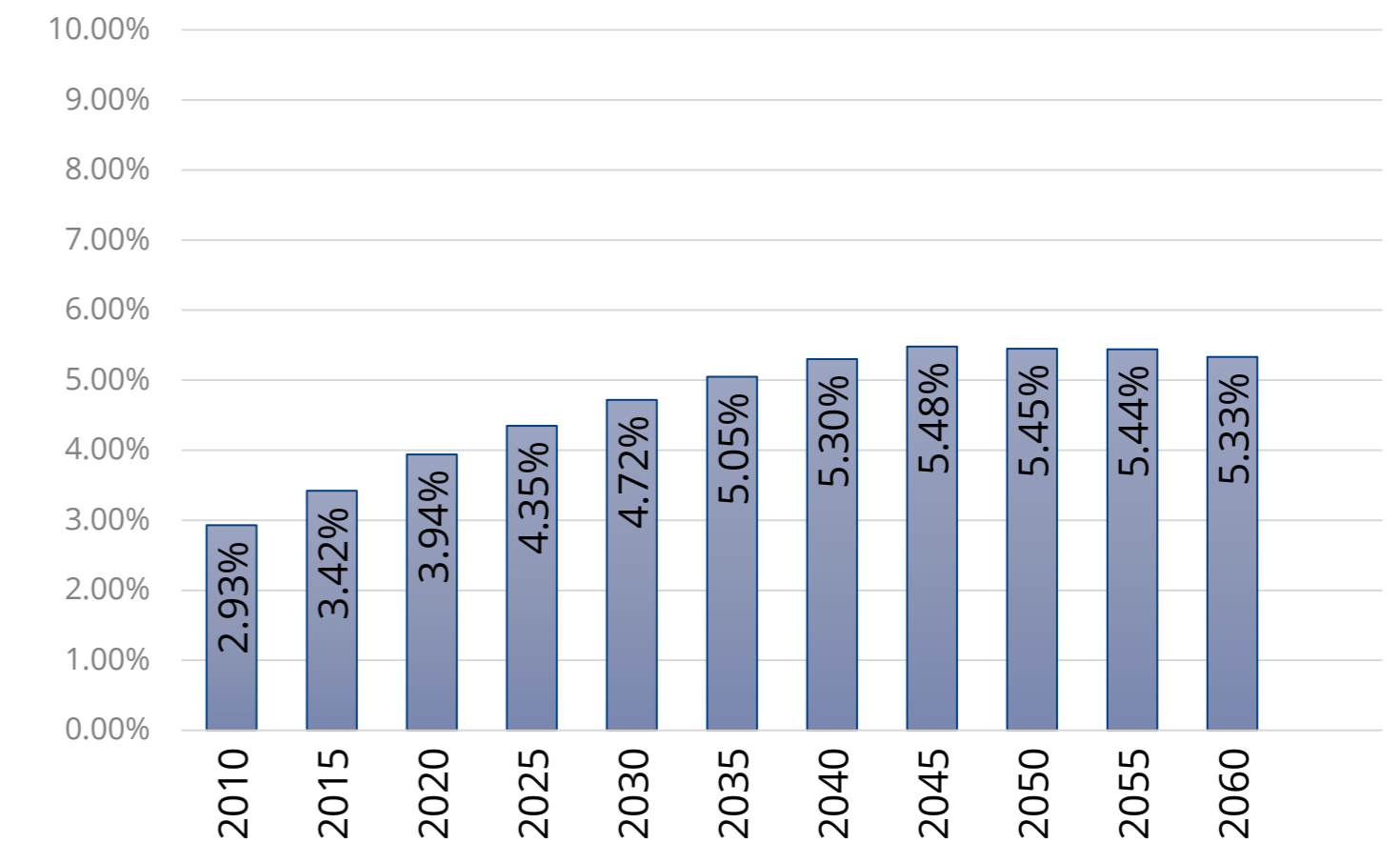
Alaska Target Date Fund - 1 Year



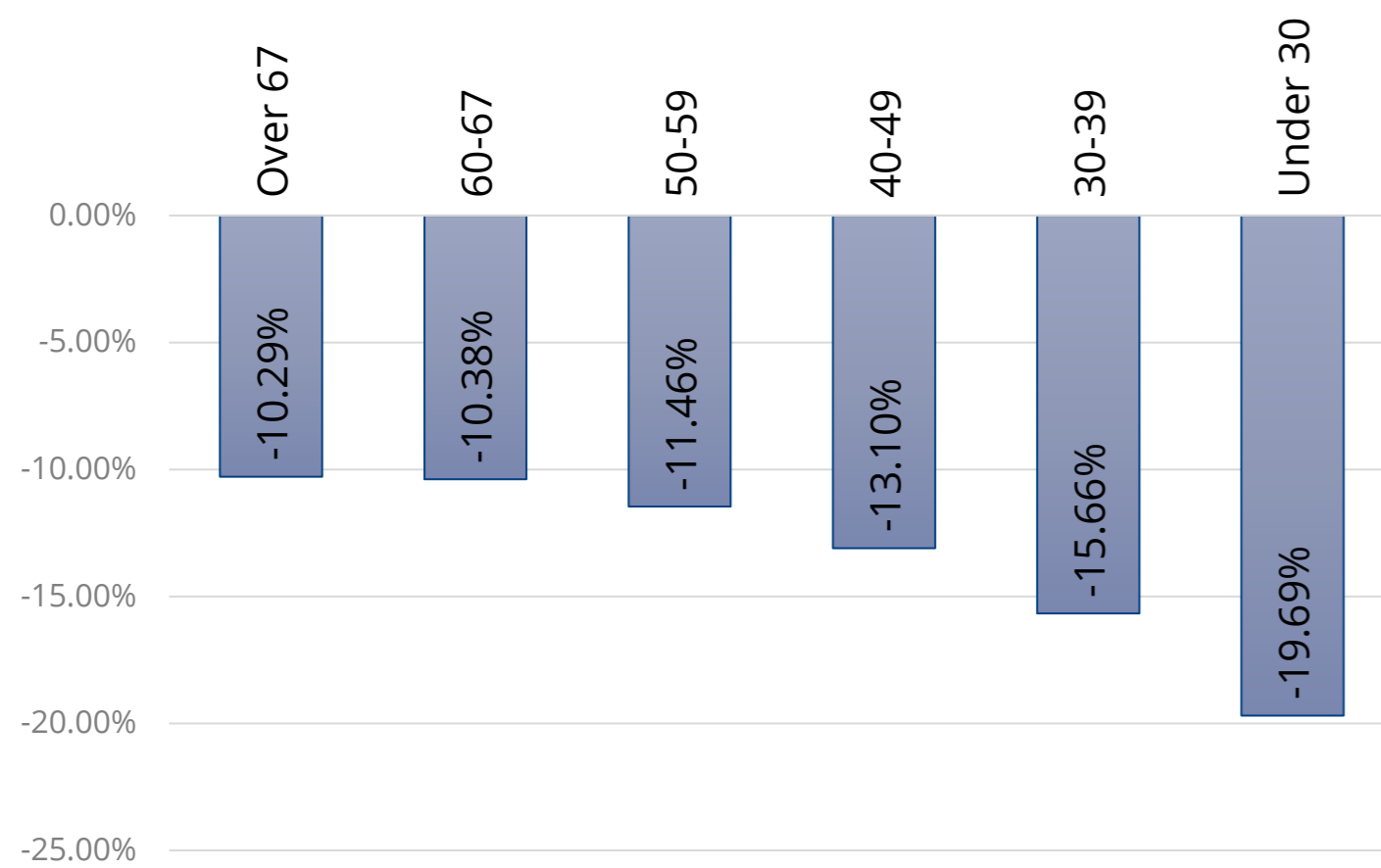
Alaska Target Date Fund - 3 Year



Alaska Target Date Fund - 5 Year



MTR – 75th Percentile 1 Year by Age Band



MTR – 75th Percentile 3 Year by Age Band



MTR – 75th Percentile 5 Year by Age Band



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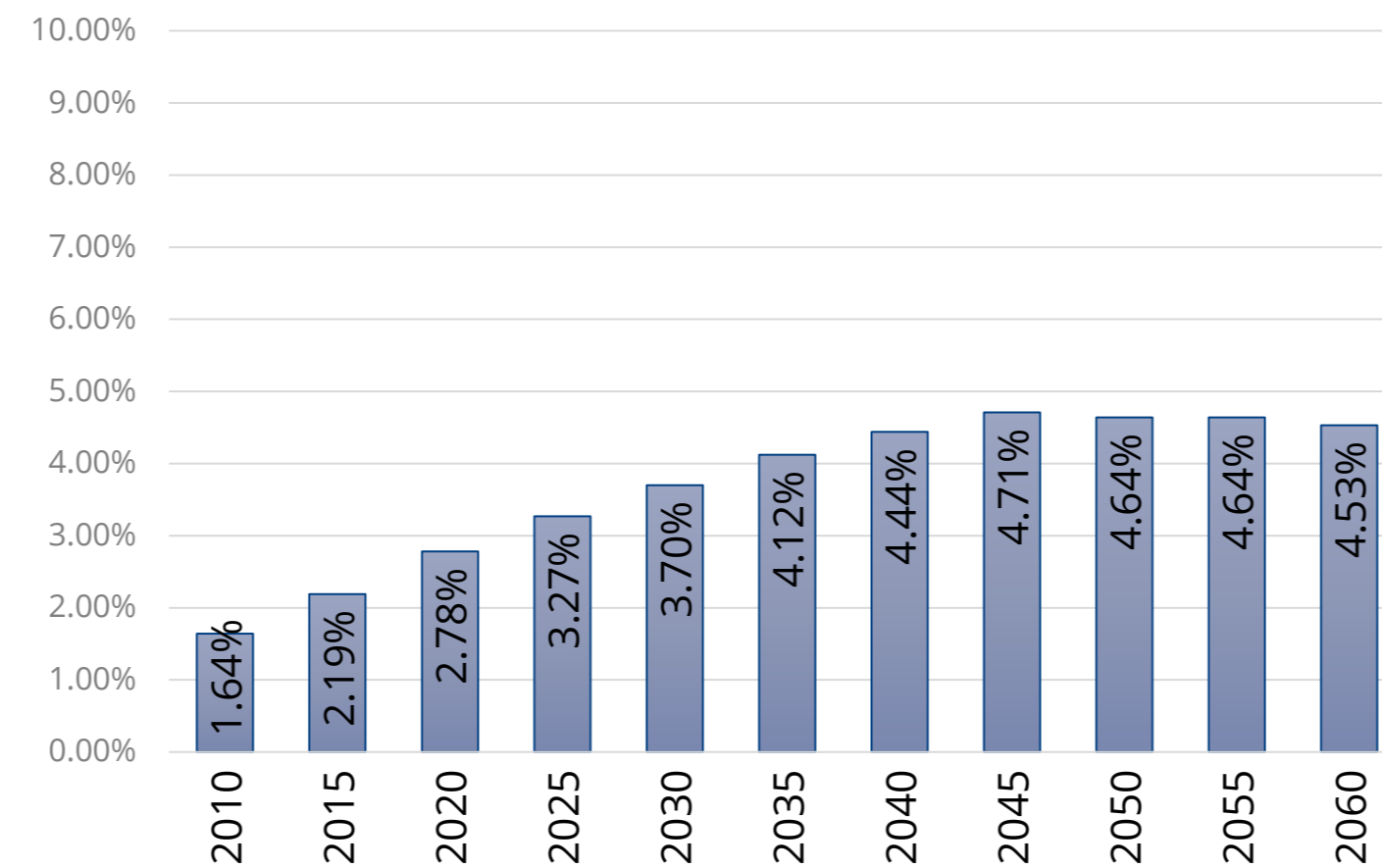
Annual Rate of Return Summary - Median

As of 9/30/2022

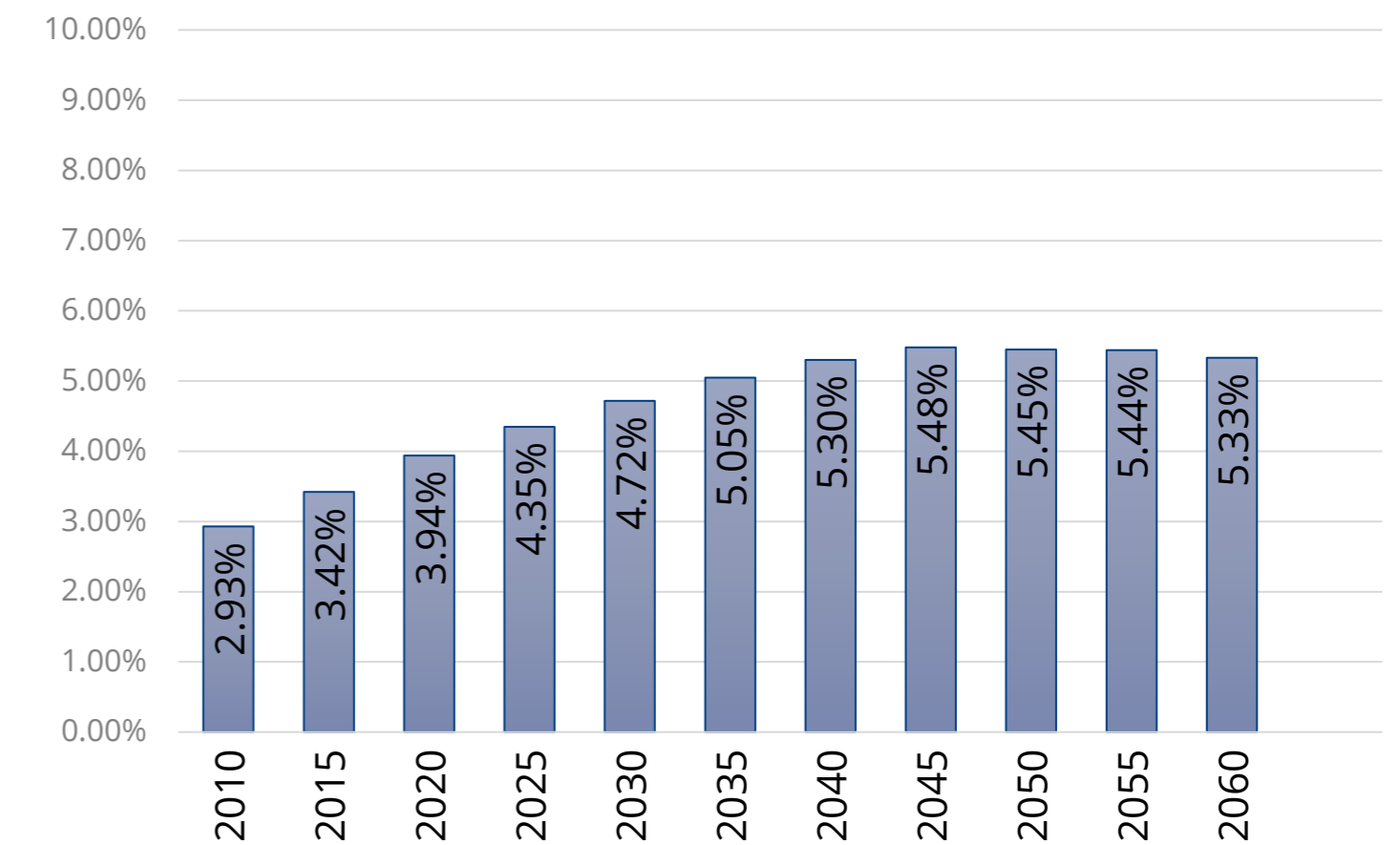
Alaska Target Date Fund - 1 Year



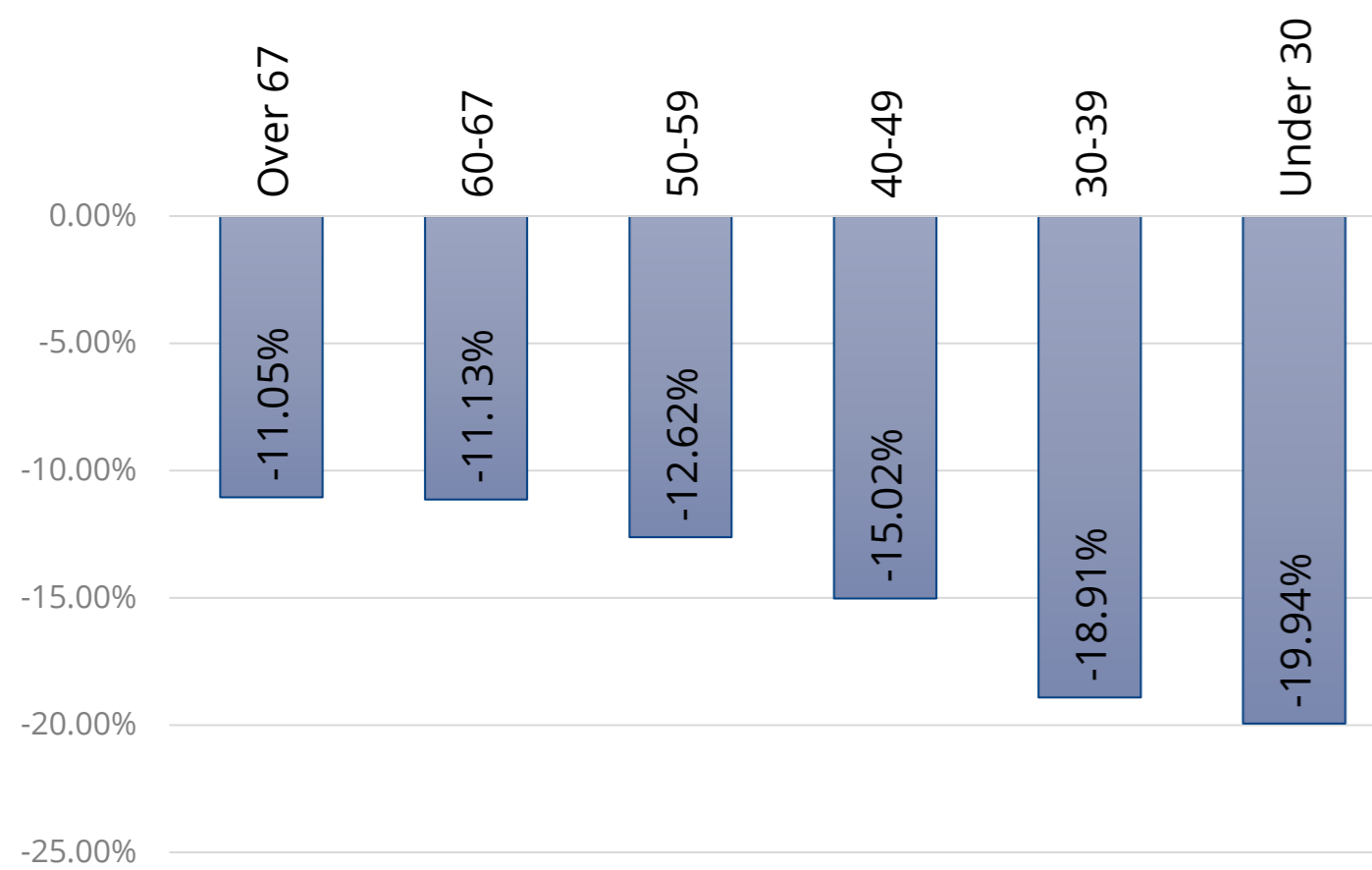
Alaska Target Date Fund - 3 Year



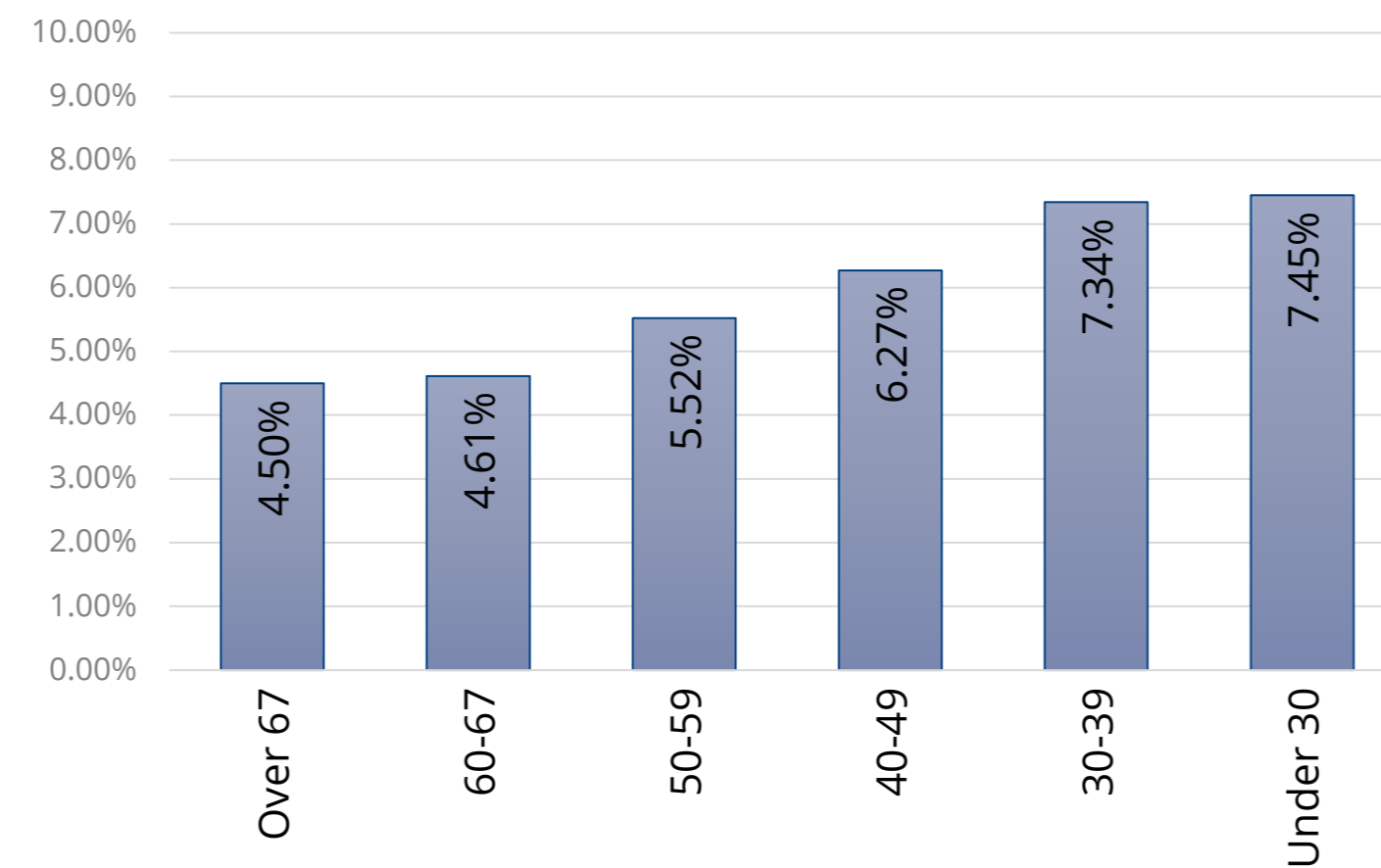
Alaska Target Date Fund - 5 Year



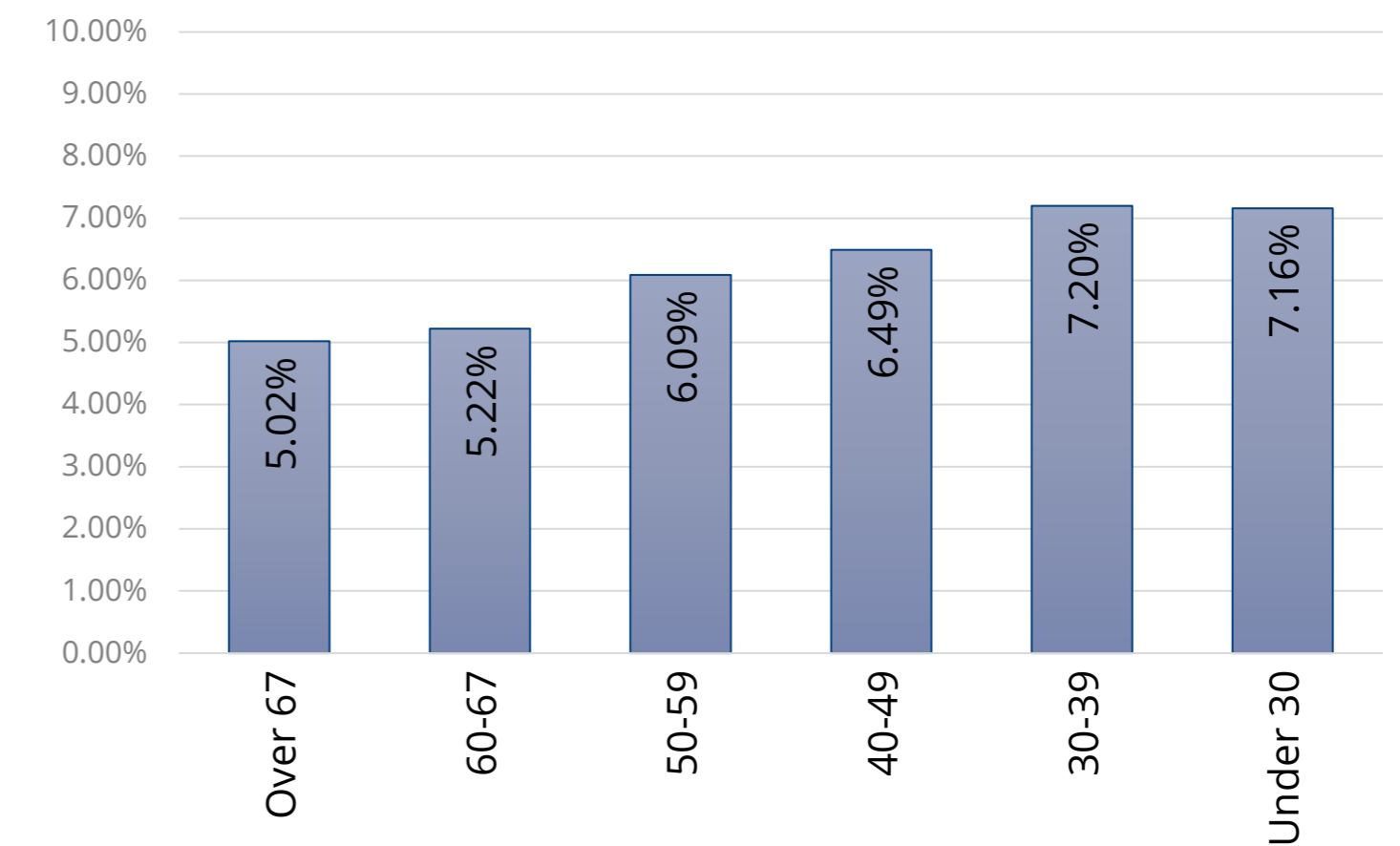
MTR - Median 1 Year by Age Band



MTR - Median 3 Year by Age Band



MTR - Median 5 Year by Age Band

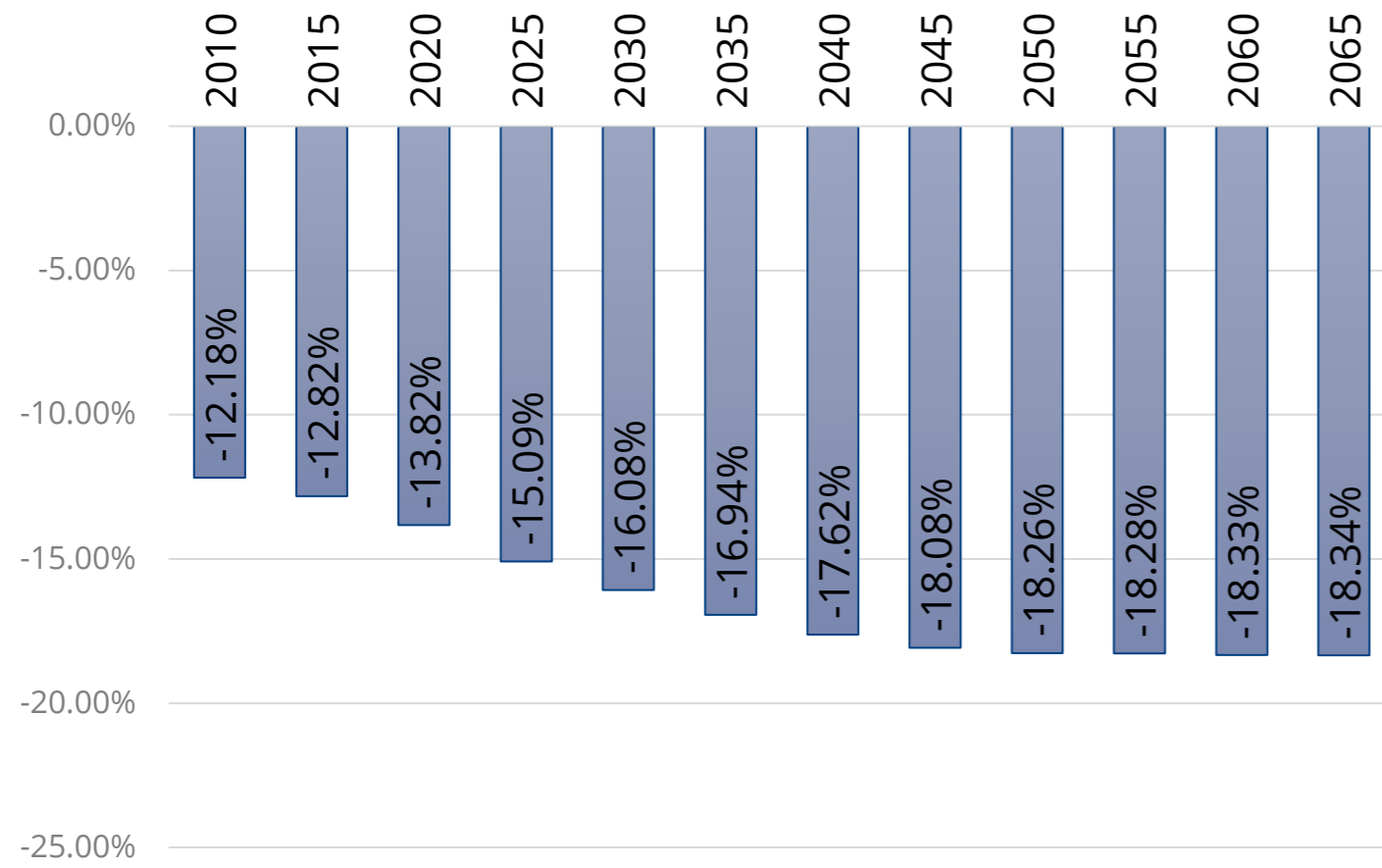


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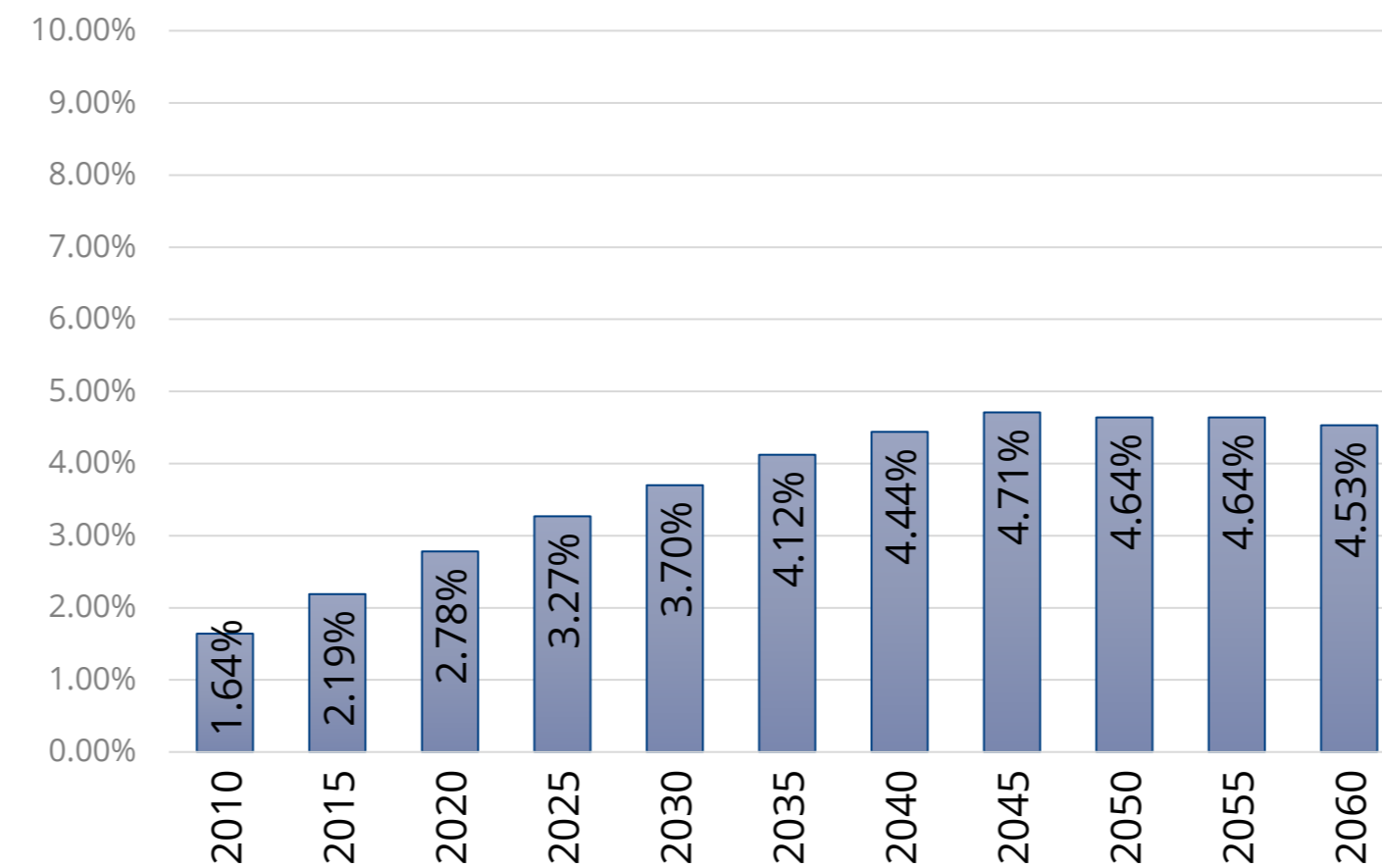
Annual Rate of Return Summary – 25th percentile

As of 9/30/2022

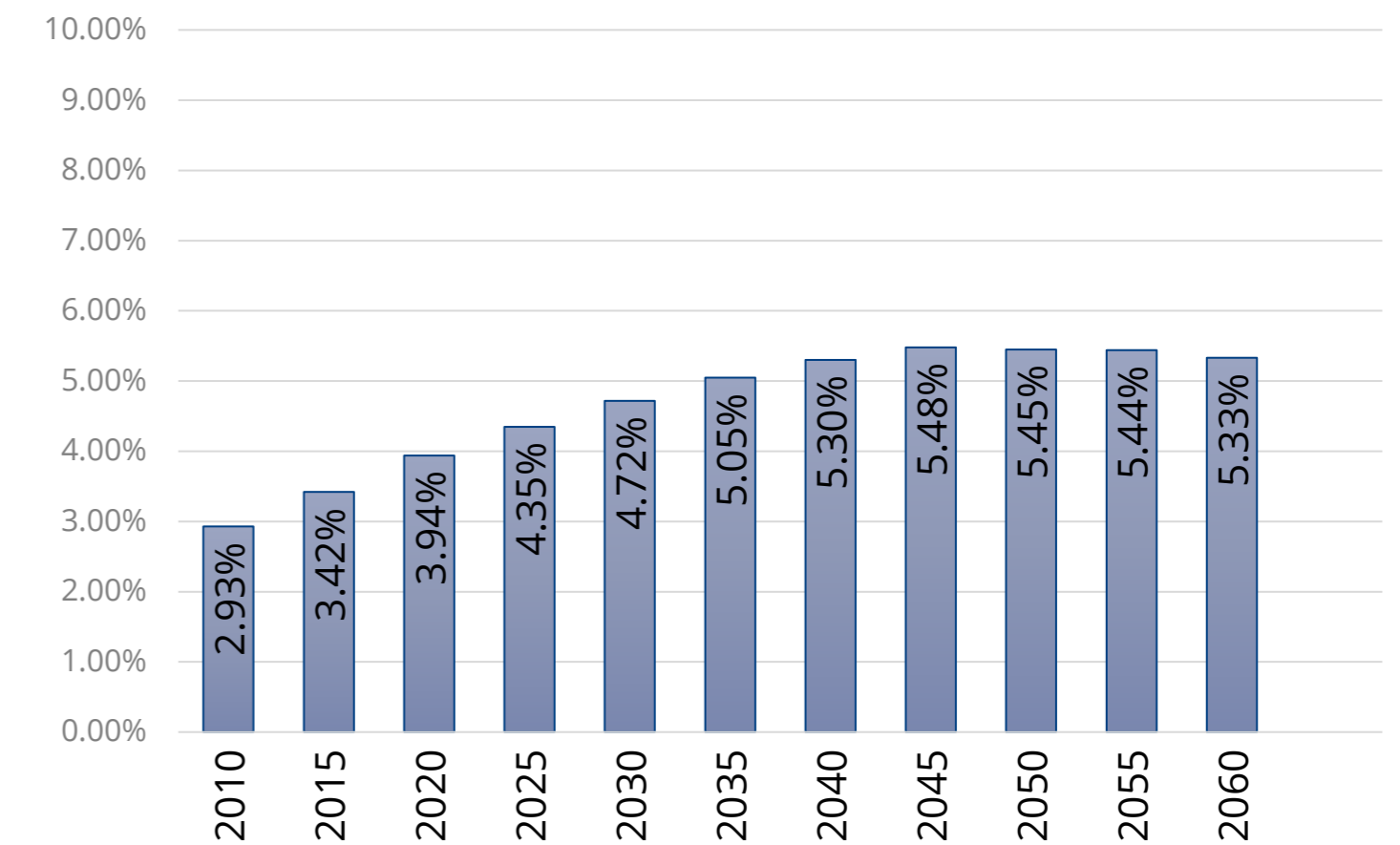
Alaska Target Date Fund - 1 Year



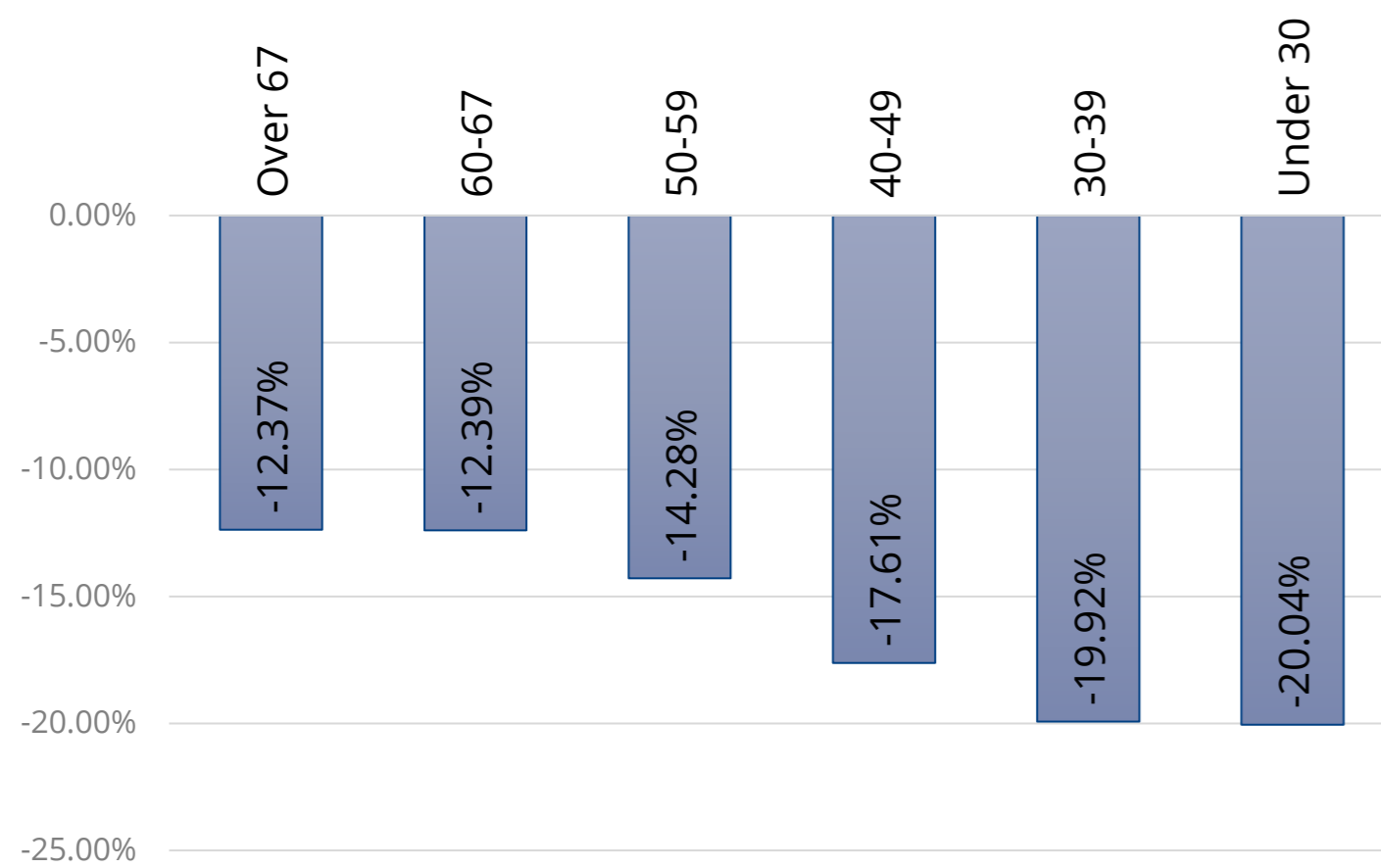
Alaska Target Date Fund - 3 Year



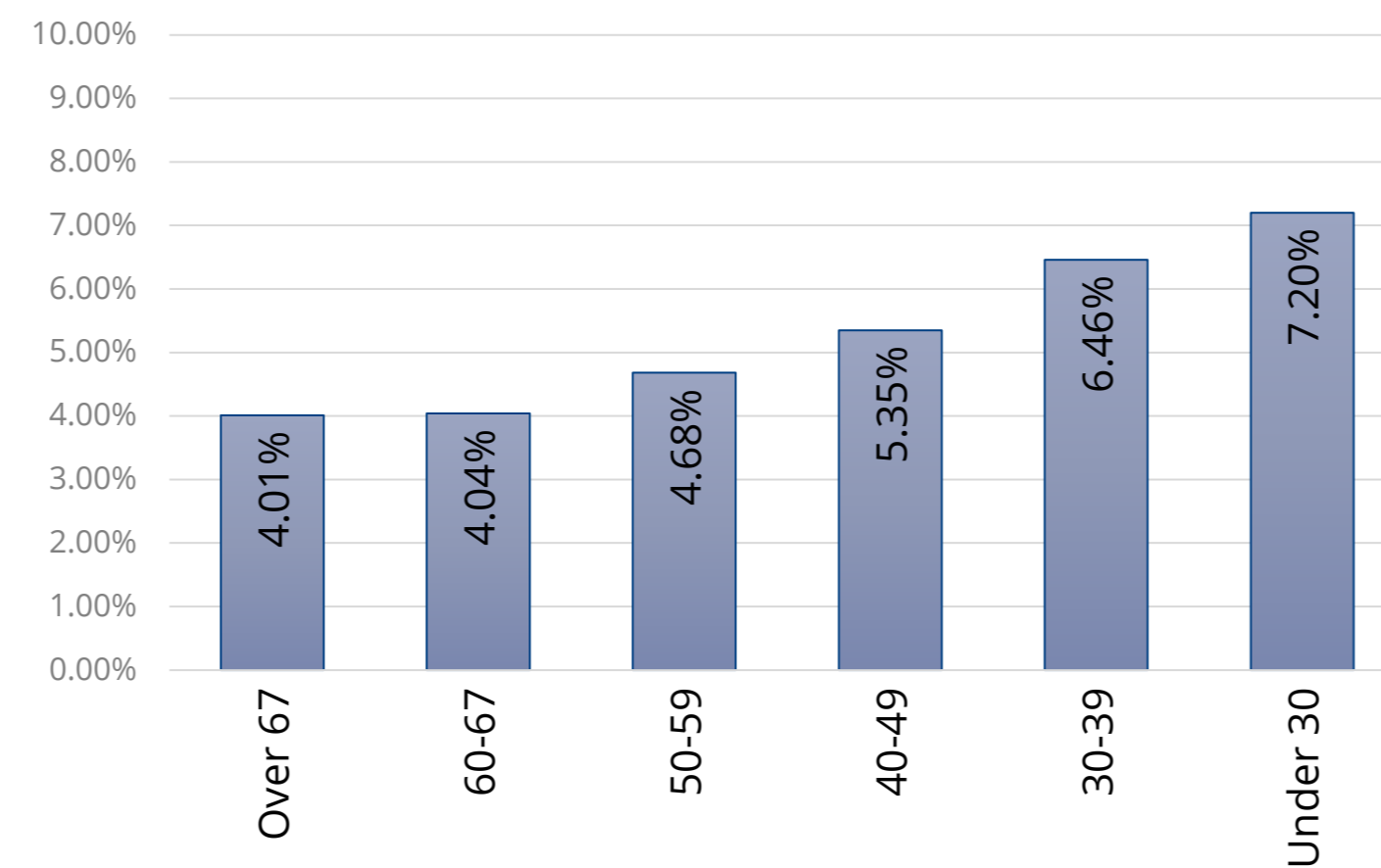
Alaska Target Date Fund - 5 Year



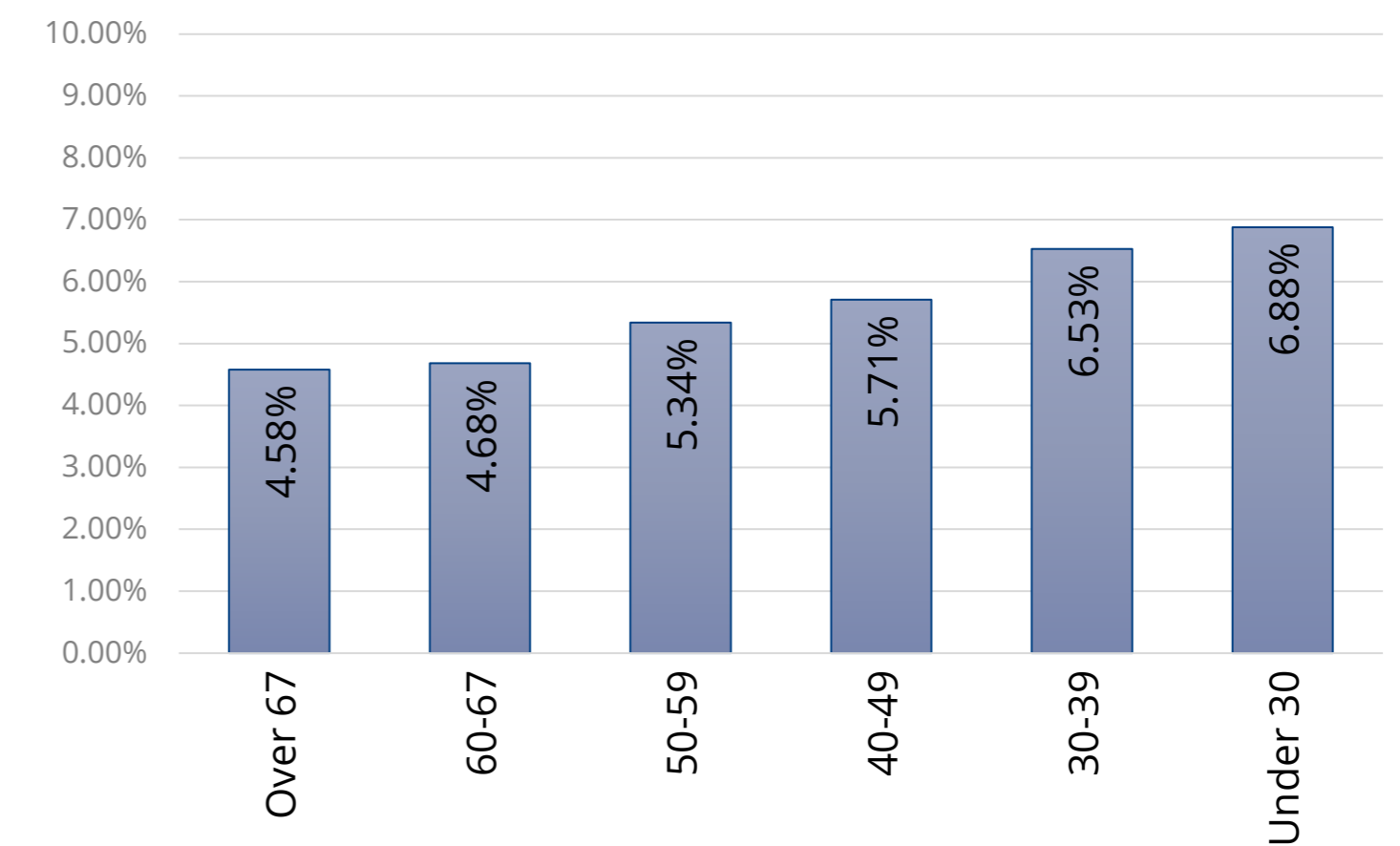
MTR – 25th Percentile 1 Year by Age Band



MTR – 25th Percentile 3 Year by Age Band



MTR – 25th Percentile 5 Year by Age Band



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Rate of Return Definitions & Methodology

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Monthly Process Rate of Return: this process calculates full period rates of return in 1 month intervals consistent with the procedures called by the participant website. Given the nature of how this is calculated, annual rate of return results do need to be aggregated for annual returns. Determining an annual rate of return using the monthly rates of return is achieved using an aggregation of an individual participant's monthly rates of return for that period. Only participants with a result across all months in the period are included in summary statistics presented. The math applied to achieve this assumes the following approach:

$(1 + [\text{January Rate of Return}]) * \dots (1 + [\text{December Rate of Return}])$

Investor Type:

Reviewing participant rates of return effectively requires consideration on the approach that each individual has taken to allocate their balance. To simplify this review, we identify participants by the approach they consistently employed over the period the returns were realized. As a result, an individual that employed a joint strategy or switched strategies during the period will be considered a "Do-It-Yourself" type. Of note: Empower continues to enrich this source, and detail available for 1 year returns may not be available for 3 and 5 year turns.

*Annual Rates of return represent the plan weighted results of 1, 3 and 5 year average rates of return within the plan result compared to the median %tiles in the benchmark totals. A plan must have a minimum of 5 observations to be included in the data. To be included in the results for the 25th/75th and 10th/90th, the plan must have a minimum of 9 and 25 observations, respectively. The benchmark is limited to a relevant subset of Empower's total book of business, and includes only a portion of business recordkept by Empower.

*Median annual rates of return represent the participant weighted result of 1, 3 and 5 year average rate of returns within the specific plan result and Empower totals. All participant outcomes are included within the plans represented by the selected plan and benchmark. The benchmark is limited to a relevant subset of Empower's total book of business, and includes only a portion of 403b and 401k business recordkept by Empower.

State of Alaska Public Employees' Tier IV Defined Contribution Retirement Plan

98214-04





Advisory services

As of 9/30/2022

Advisory services compares participants using and not using the advisory service. The illustration includes participants actively employed and separated from service with a balance.

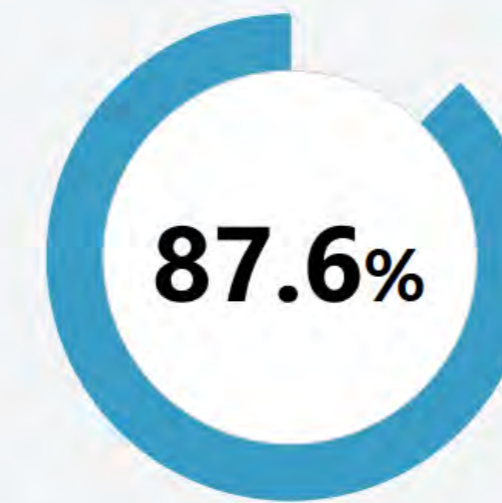
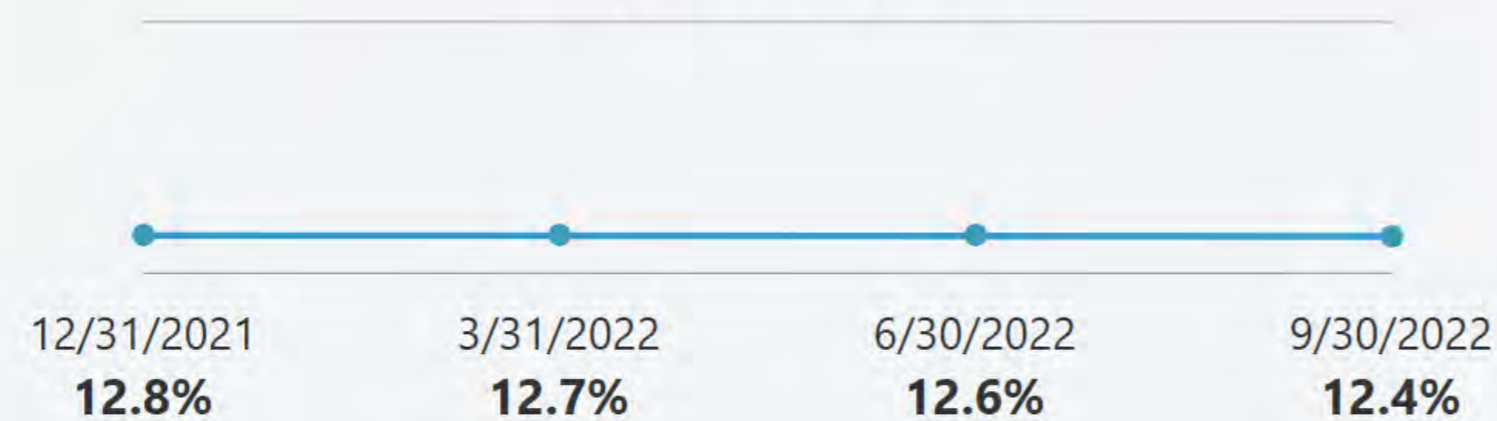
Population of participants using and not using My Total Retirement



of participants are using **My Total Retirement**

This amounts to **5,741** participants

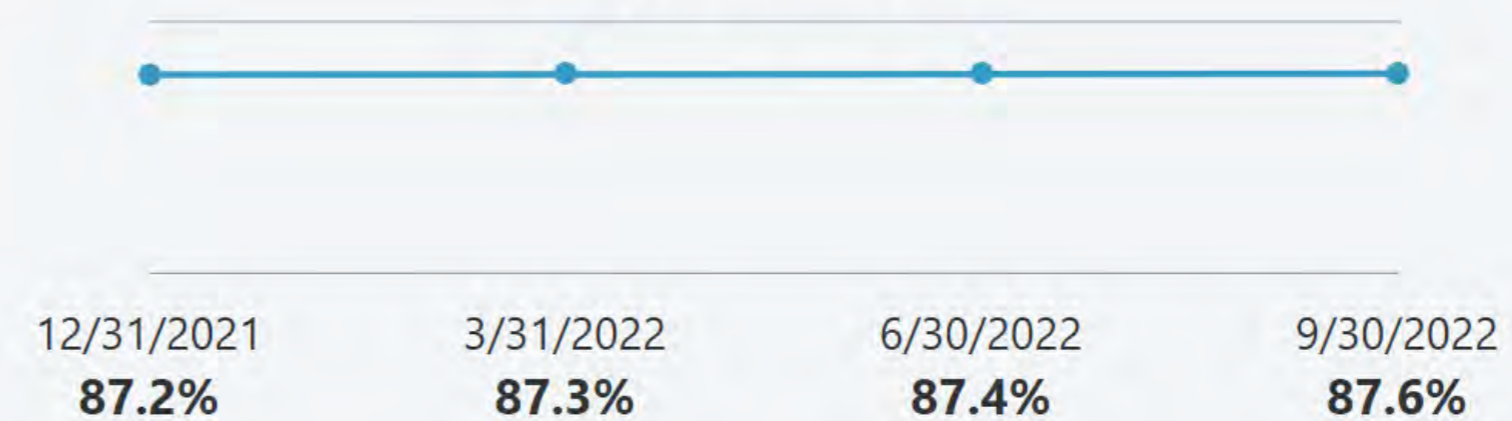
Population over time



of participants are using other investment strategies

This amounts to **40,725** participants

Population over time





Advisory services

As of 9/30/2022

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Insights into participants using and not using My Total Retirement

		Under 30 yrs	30-39 yrs	40-49 yrs	50-59 yrs	60-67 yrs	Over 67 yrs
My Total Retirement users	% of participants	3%	10%	16%	18%	19%	23%
	# of participants	219	1,620	1,681	1,298	689	234
	Average balance	\$23,788	\$65,770	\$87,904	\$87,884	\$87,997	\$66,668
	Average equity percent	63.3%	55.4	48.7%	40.4%	34.5%	33.2%
		↓	↓	↓	↓	↓	↓
Other investment strategy users	% of participants	97%	90%	84%	82%	81%	77%
	# of participants	7,892	14,079	9,057	6,040	2,884	773
	Average balance	\$10,491	\$30,418	\$40,241	\$40,016	\$41,909	\$40,963
	Average equity percent	50.3%	50.6%	50.3%	50.0%	48.8%	49.2%

Median Lifetime Income Score and average contribution rate will show as not available when the data required for those calculations has not been provided
 98214-04 State of Alaska Public Employees' Tier IV Defined Contribution Retirement Plan

Personalization – Public Employees' Tier IV Plan as of 9/30/22

Ga Id
98214-04

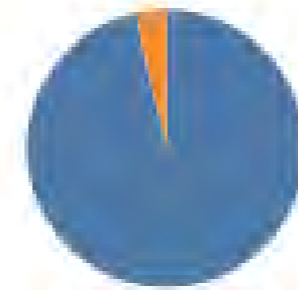
Added Outside Accounts



Added Spousal Information



Added Pension Accounts

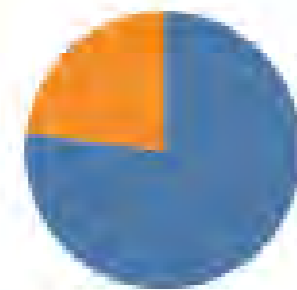


Adjusted Life Expectancy

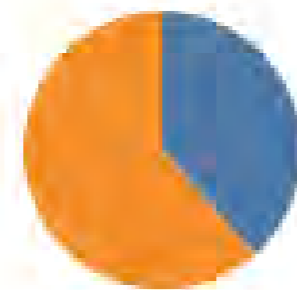


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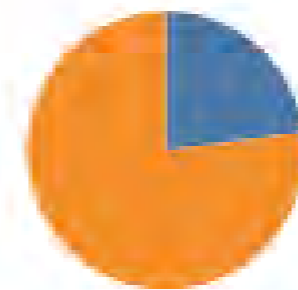
Adjusted Retirement Age



Adjusted Retirement Need



Total Adjustments Made



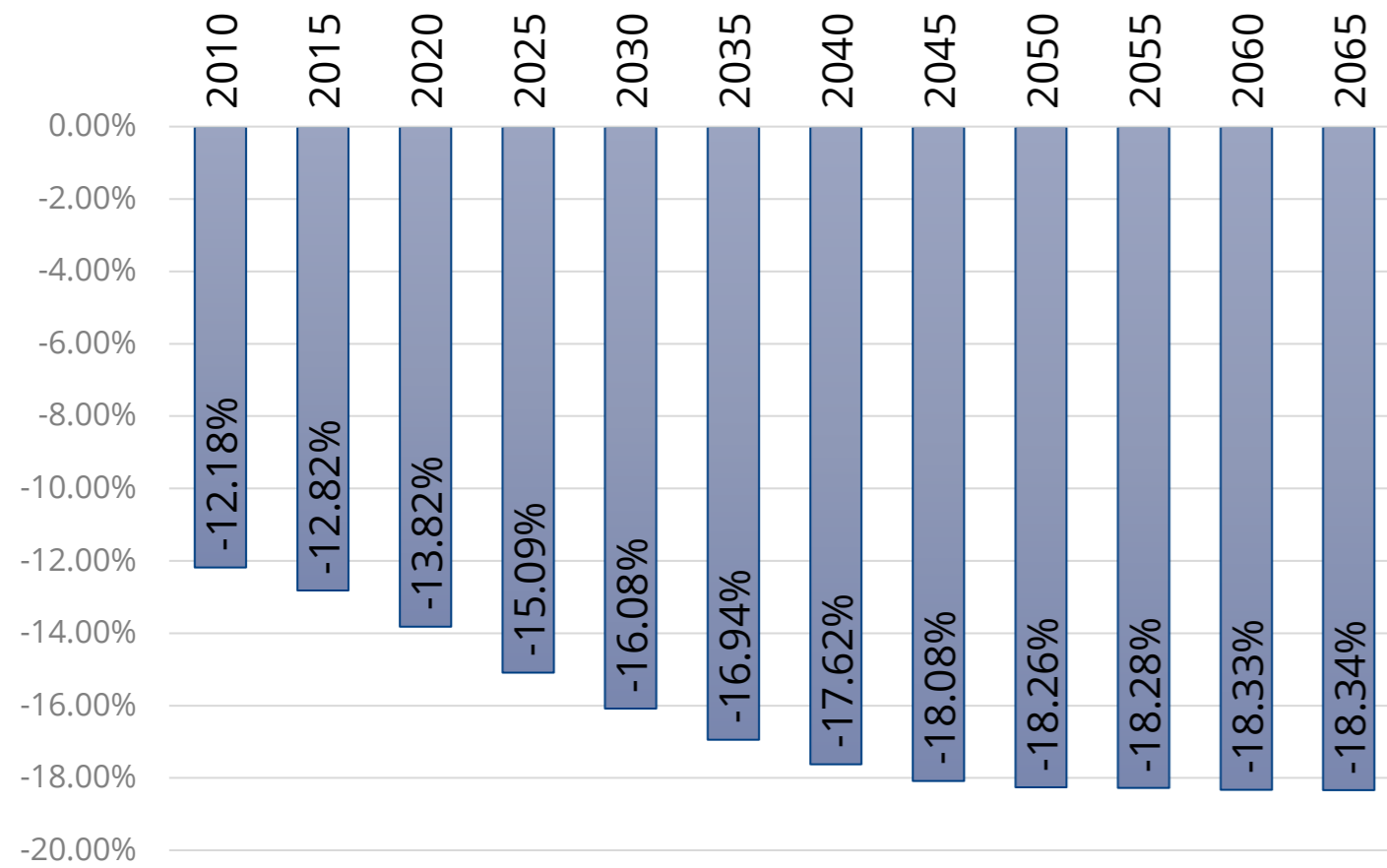
	Participant Accounts	% of Total in MA
Added Outside Accounts ¹	442	7.60%
Added Spousal Information ²	290	4.99%
Added Pension Accounts ¹	205	3.53%
Adjusted Life Expectancy ³	93	1.60%
Adjusted Retirement Age ⁴	1,336	22.98%
Adjusted Retirement Need ⁵	3,580	61.58%
Total That Made Adjustments	4,482	77.09%
Total Enrolled	5,814	100.00%

- 1 The Advisory Service process allows for the inclusion of outside financial and pension information to allow for more personalized retirement readiness recommendations
- 2 The inclusion of spousal/partner information allows for a holistic, household retirement income projection
- 3 Participants may adjust their life expectancy to help receive recommendations appropriate to their retirement income needs
- 4 Adjusting retirement age helps provide recommendations appropriate to the participant's savings horizon, and determined by a comparison of the retirement age in Advisory Services against the plan's default retirement age in the recordkeeping system
- 5 This column represents whether participants have adjusted their retirement income need to something other than 100%, post-tax replacement retirement income NOTAPPROVEDFORUSEWITHPLANPARTICIPANTS

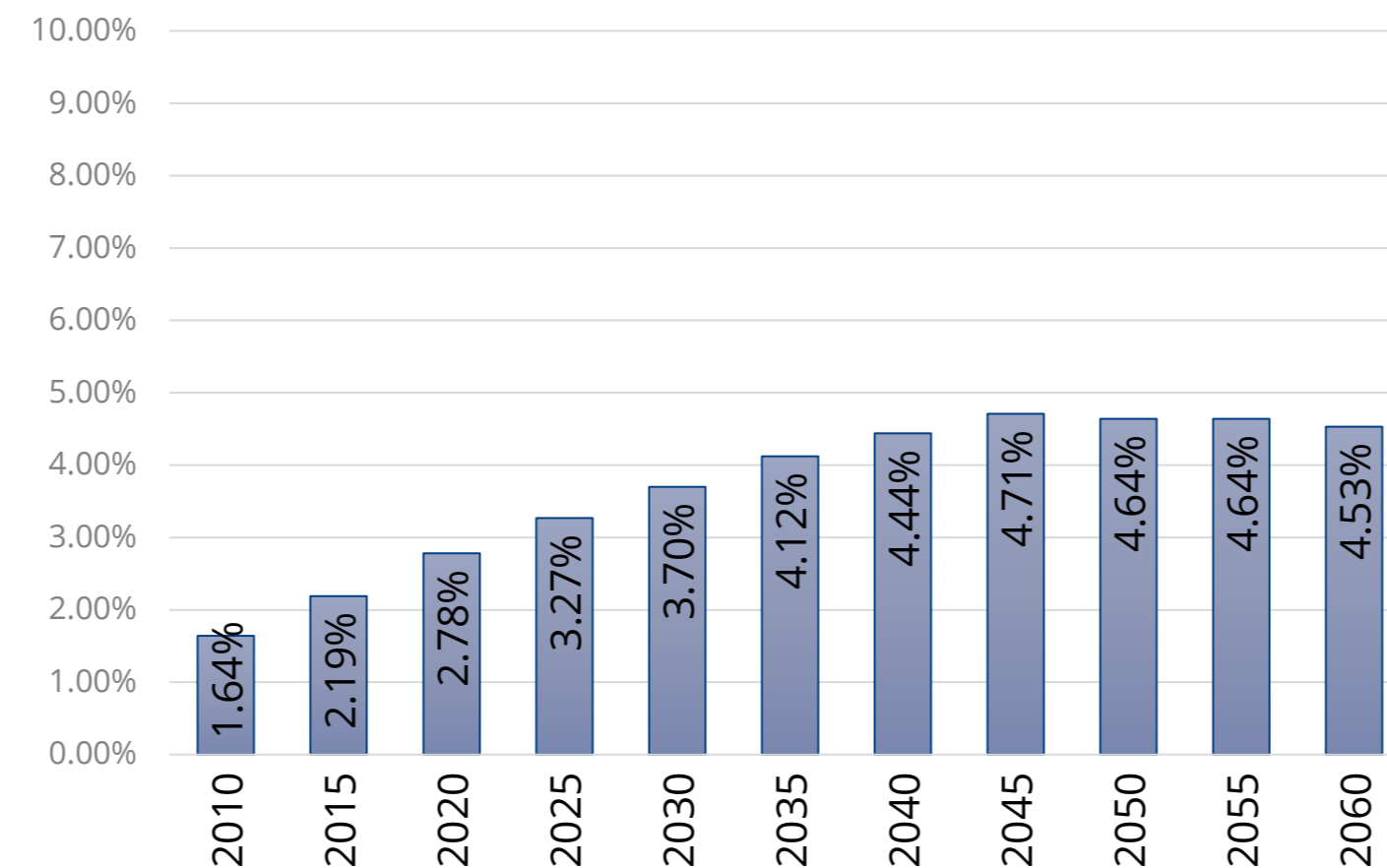
Annual Rate of Return Summary

As of 9/30/2022

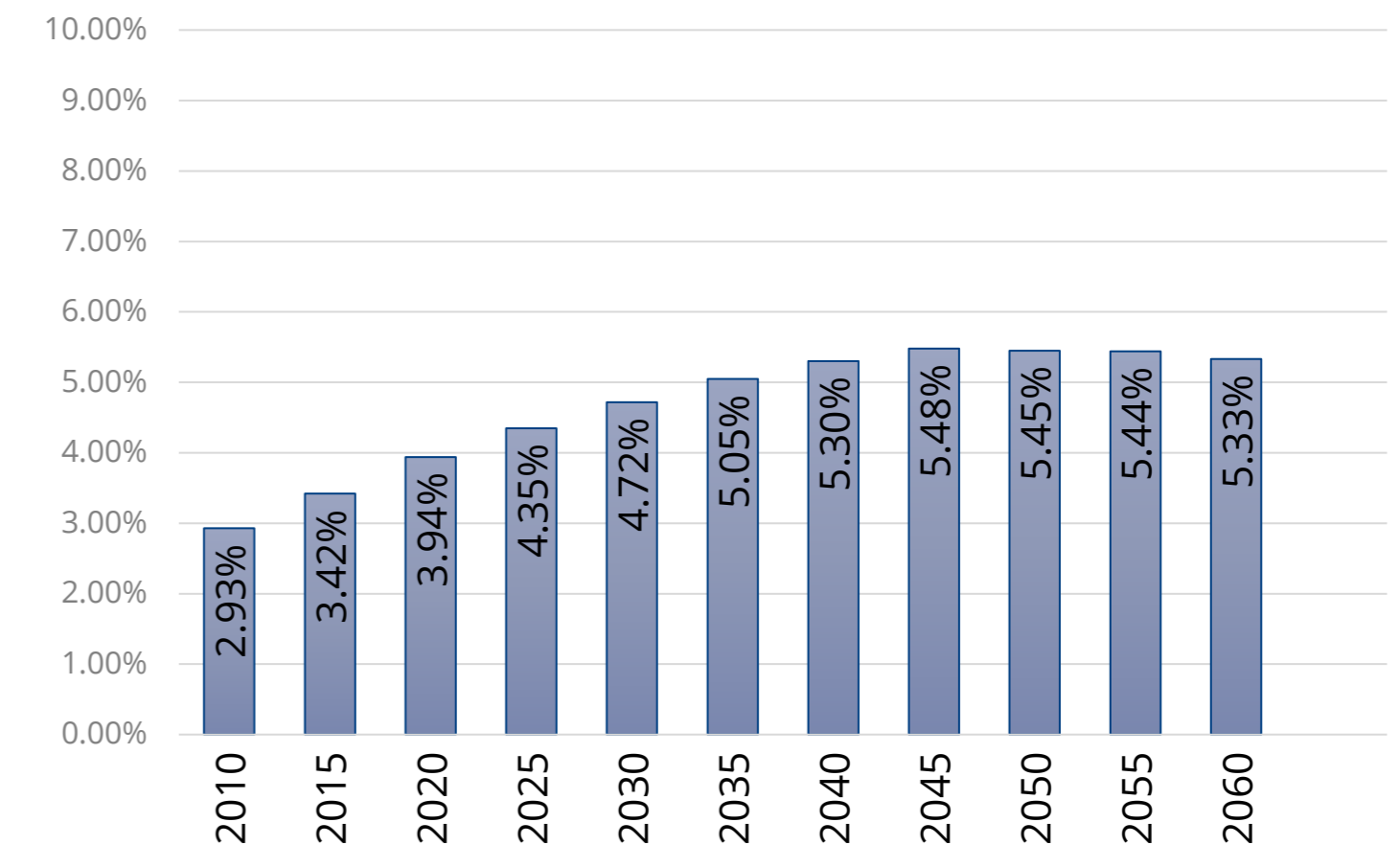
Alaska Target Date Fund - 1 Year



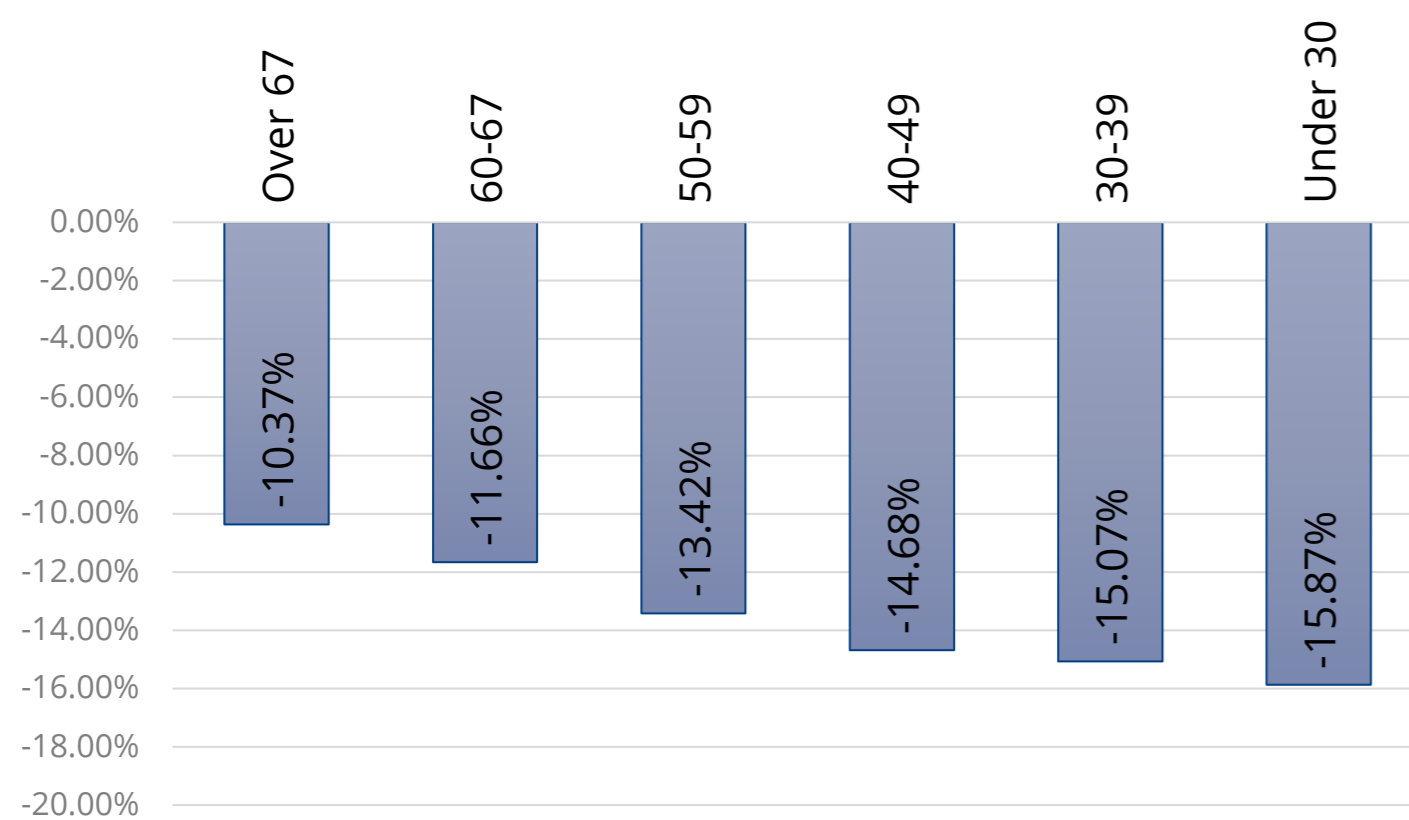
Alaska Target Date Fund - 3 Year



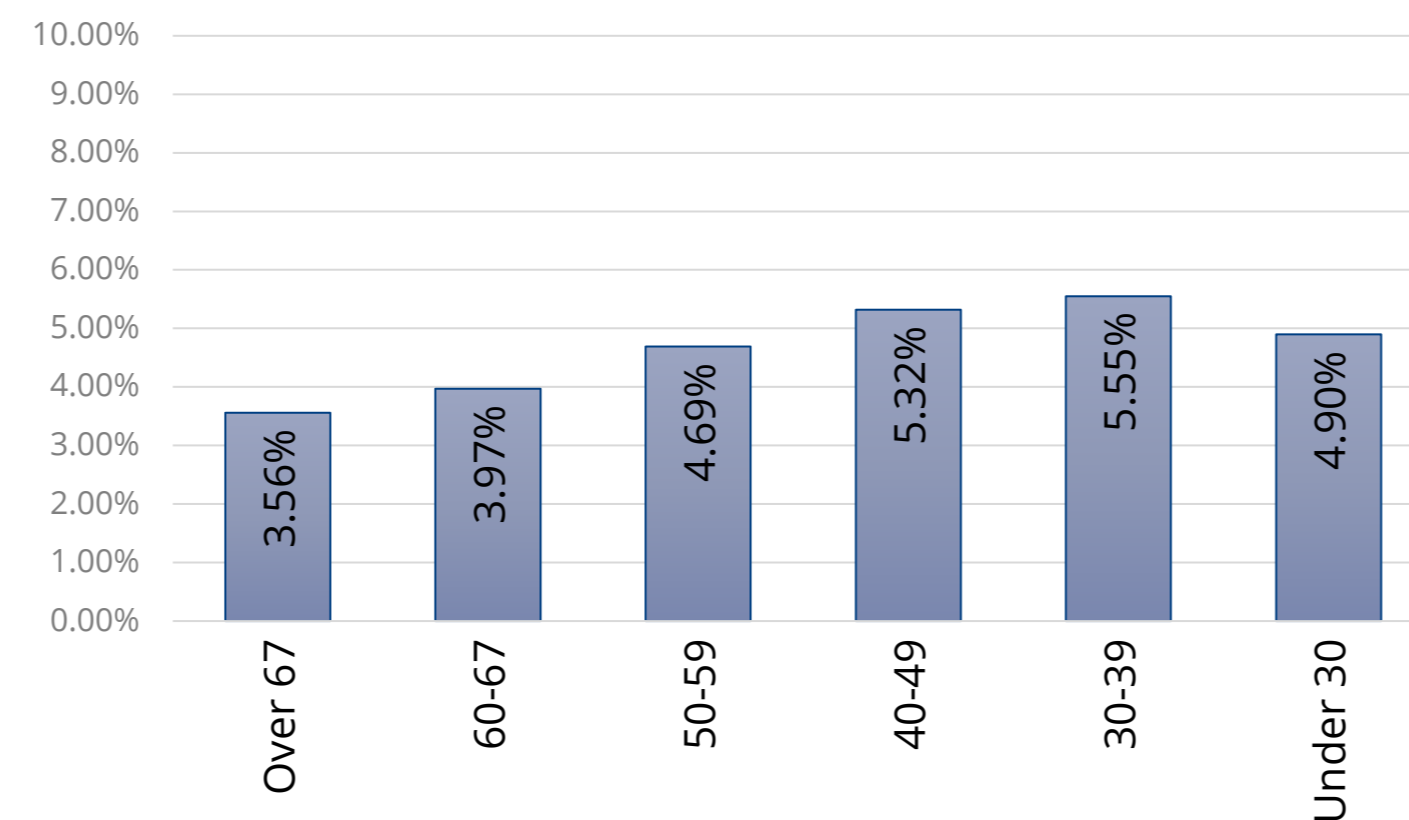
Alaska Target Date Fund - 5 Year



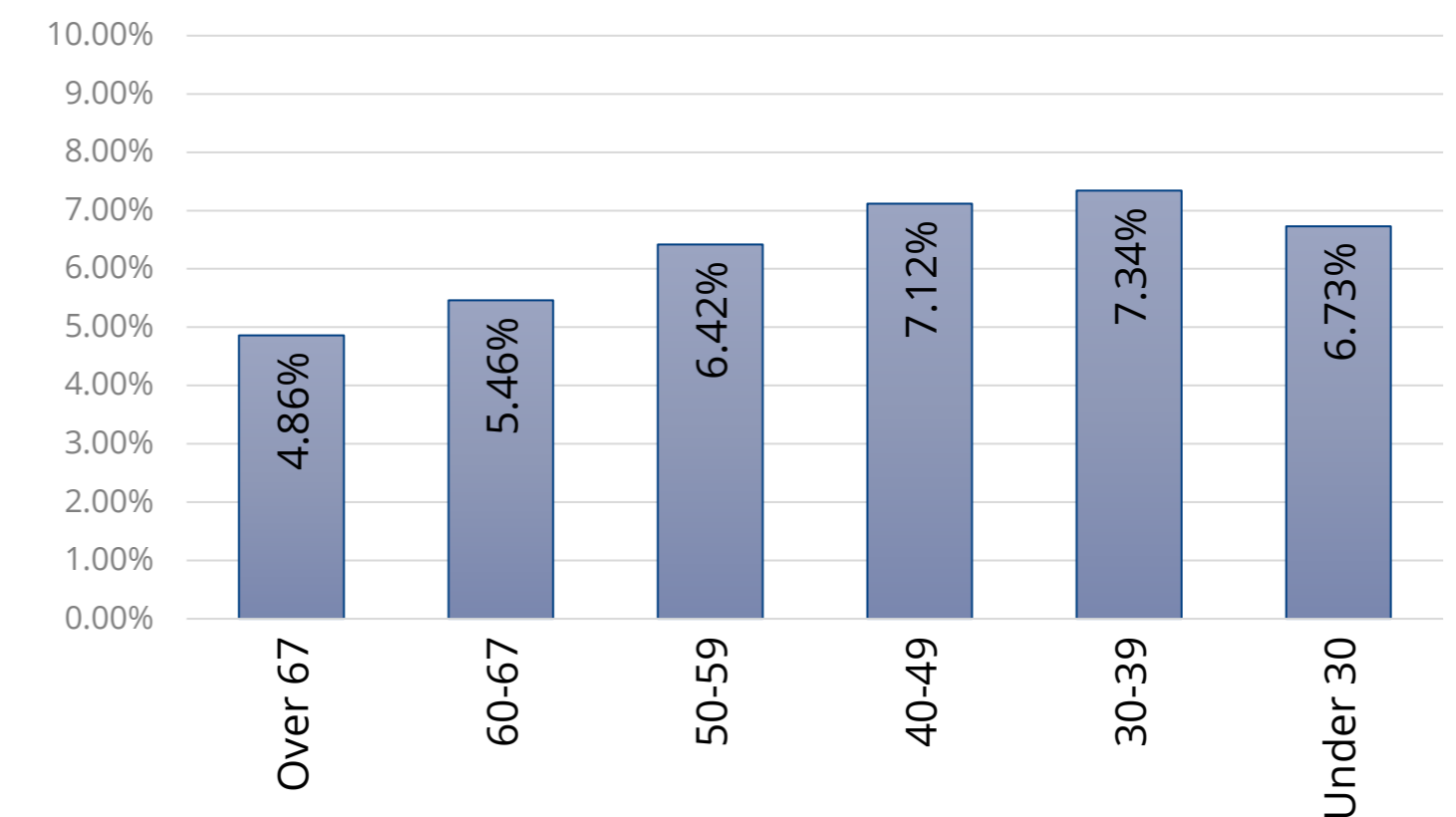
All Investment Strategies - Median 1 Year by Age Band



All Investment Strategies - Median 3 Year by Age Band



All Investment Strategies - Median 5 Year by Age Band

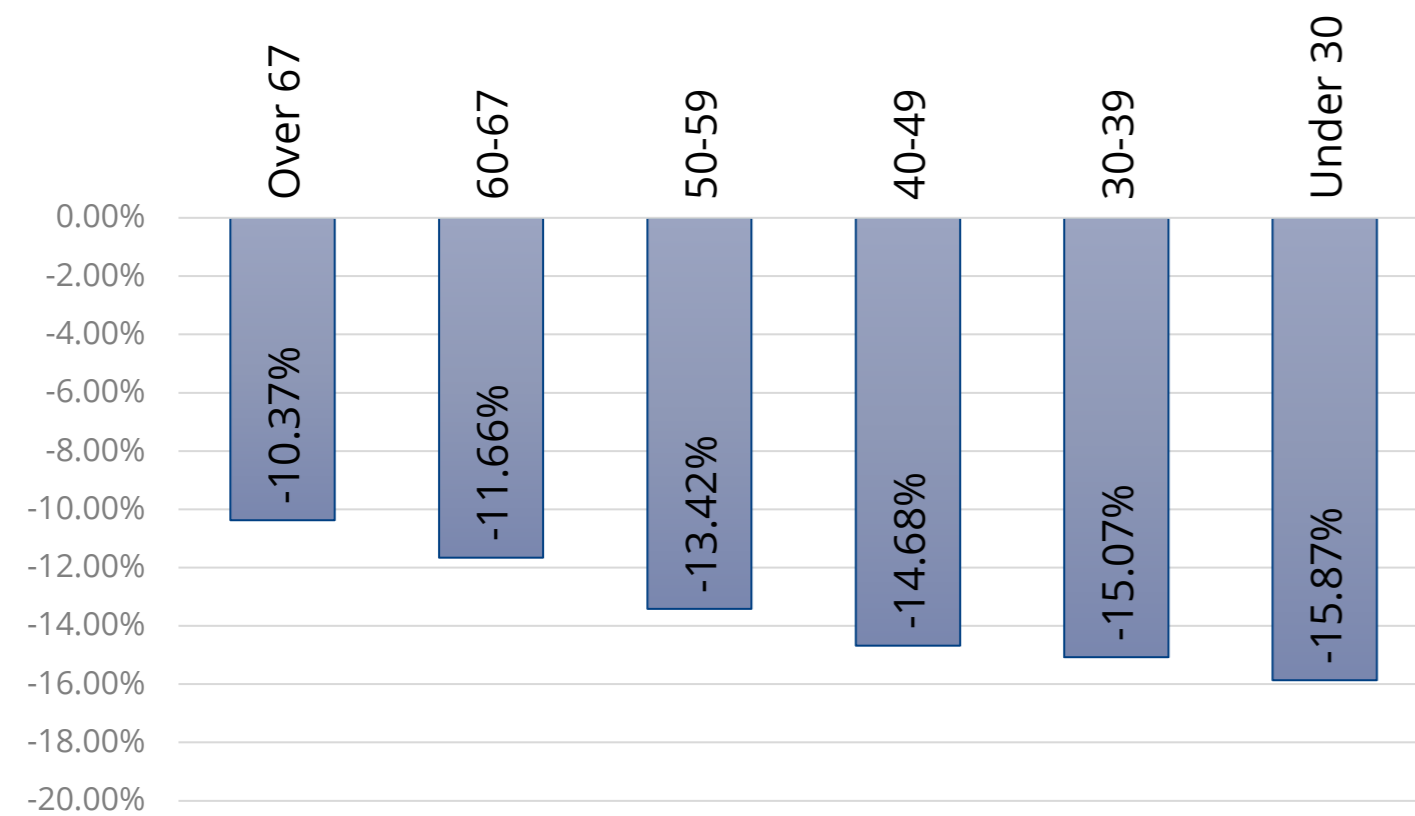


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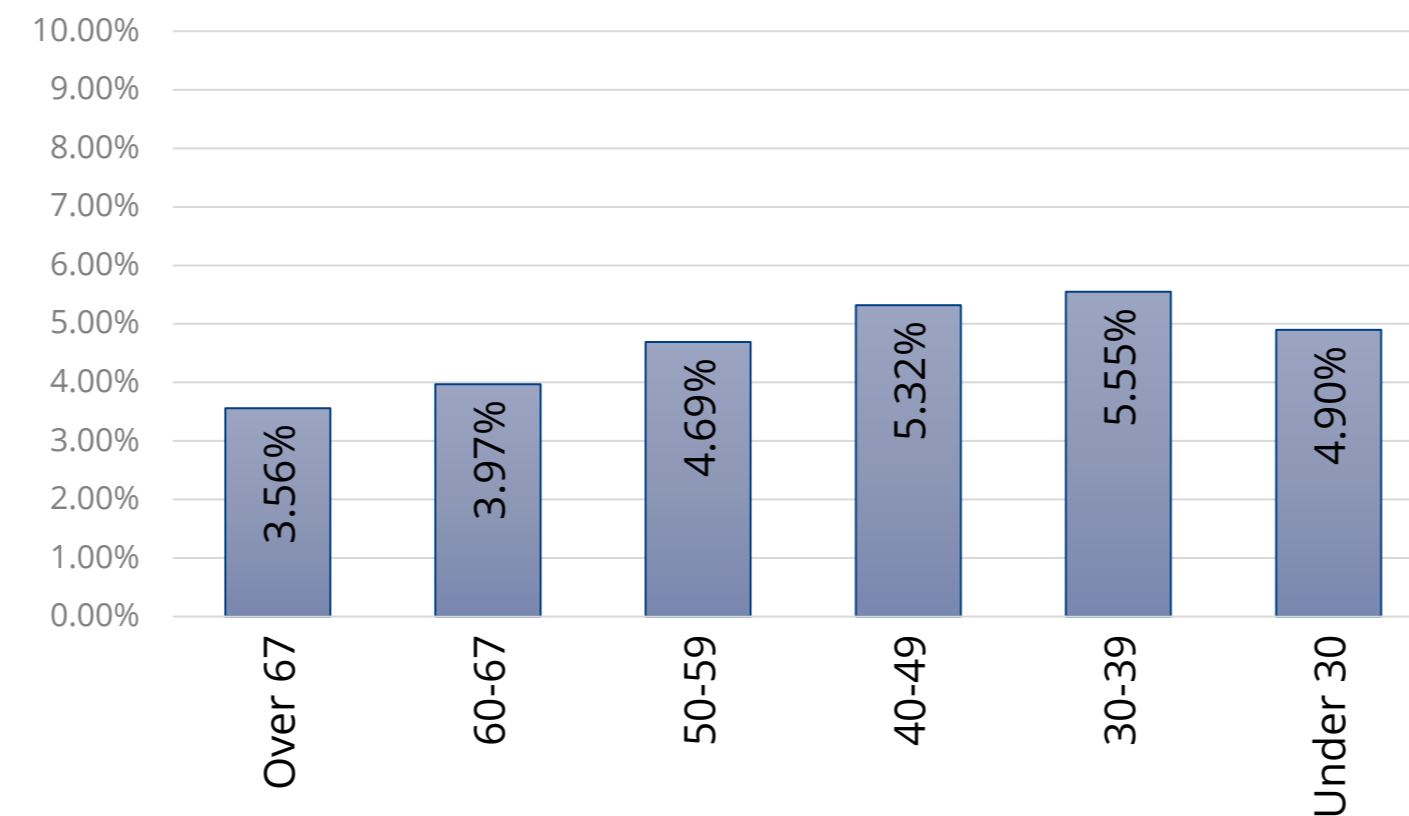
Annual Rate of Return Summary

As of 9/30/2022

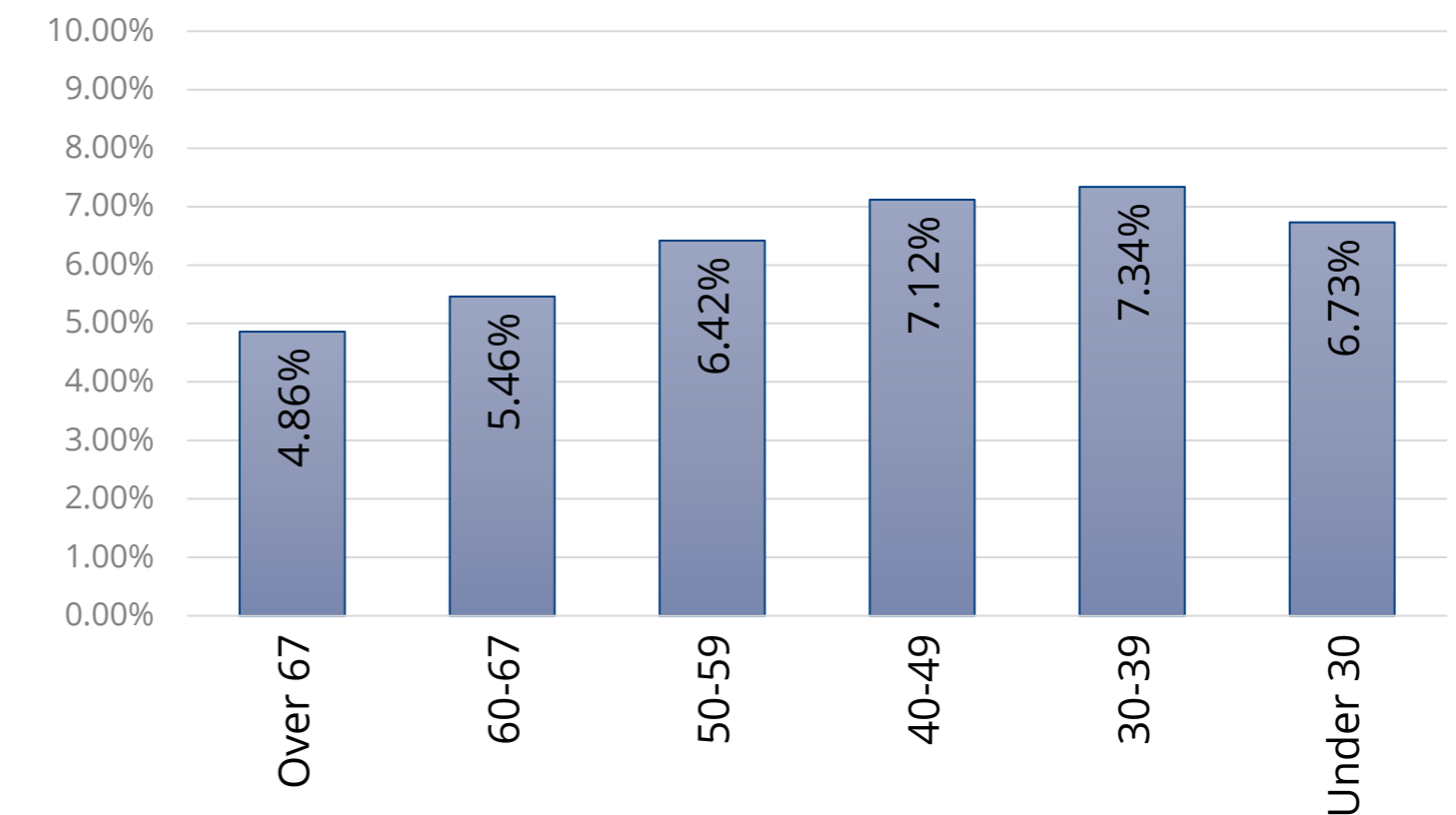
**All Investment Strategies -
Median 1 Year by Age Band**



**All Investment Strategies -
Median 3 Year by Age Band**



**All Investment Strategies -
Median 5 Year by Age Band**

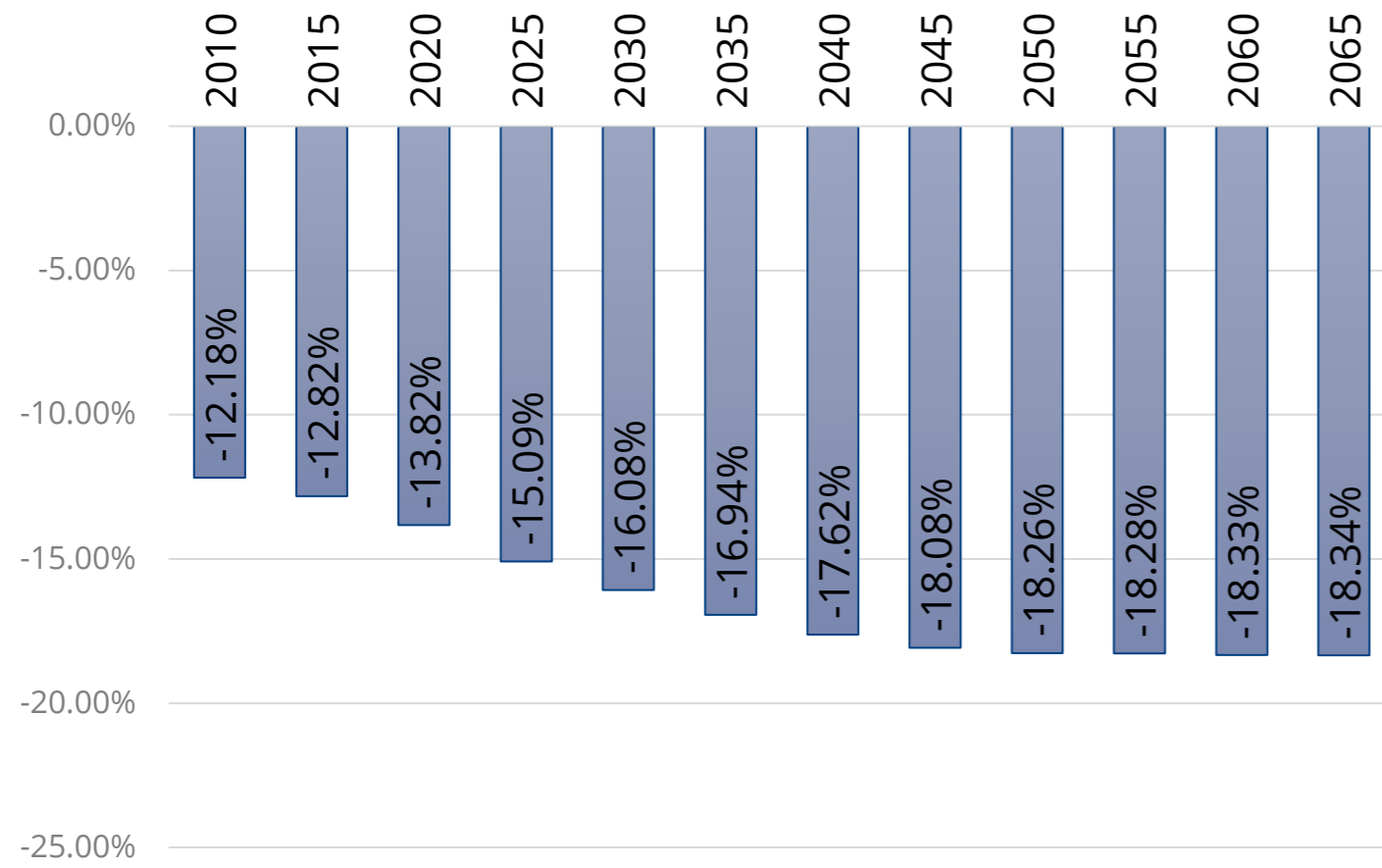


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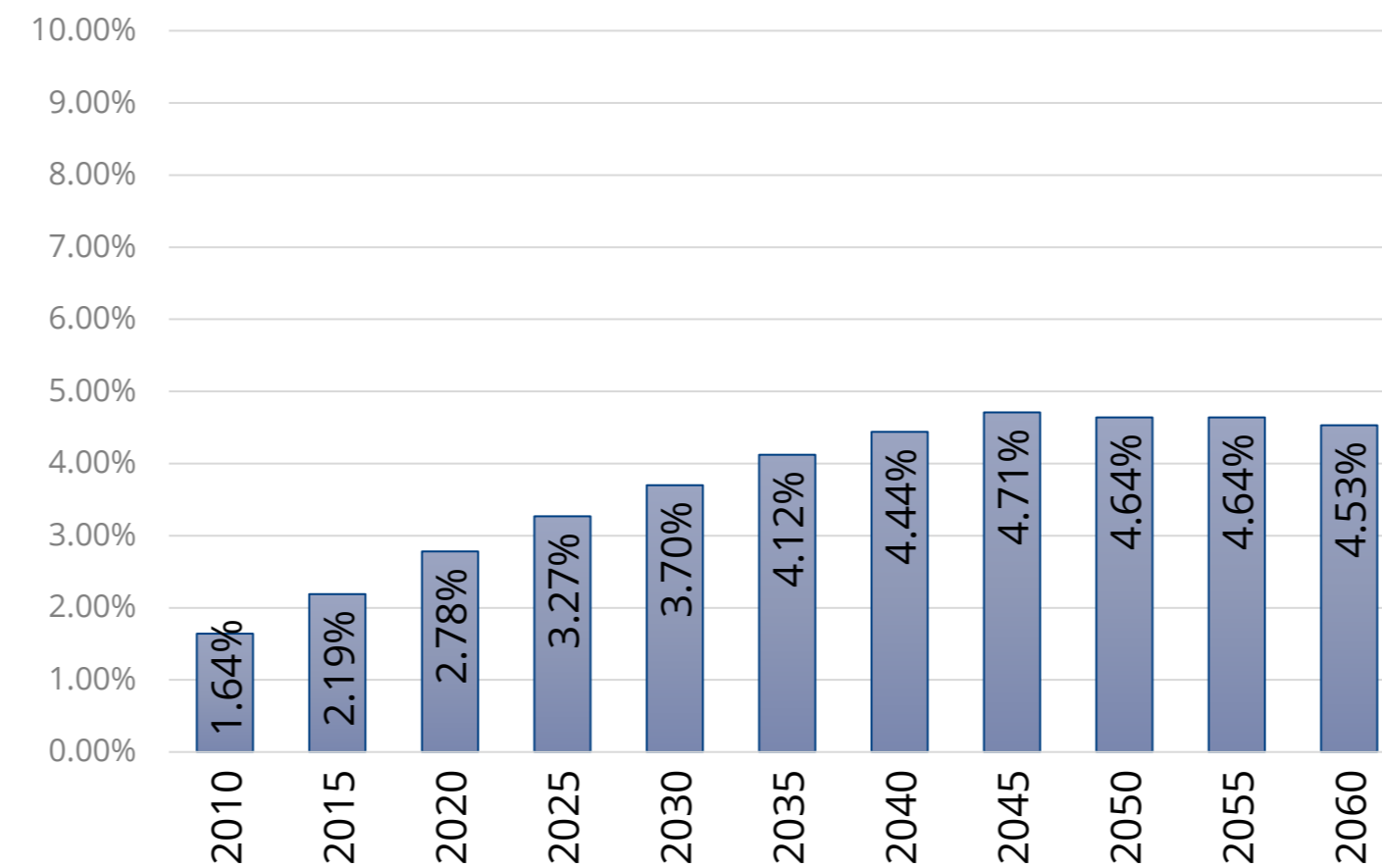
Annual Rate of Return Summary – 75th Percentile

As of 9/30/2022

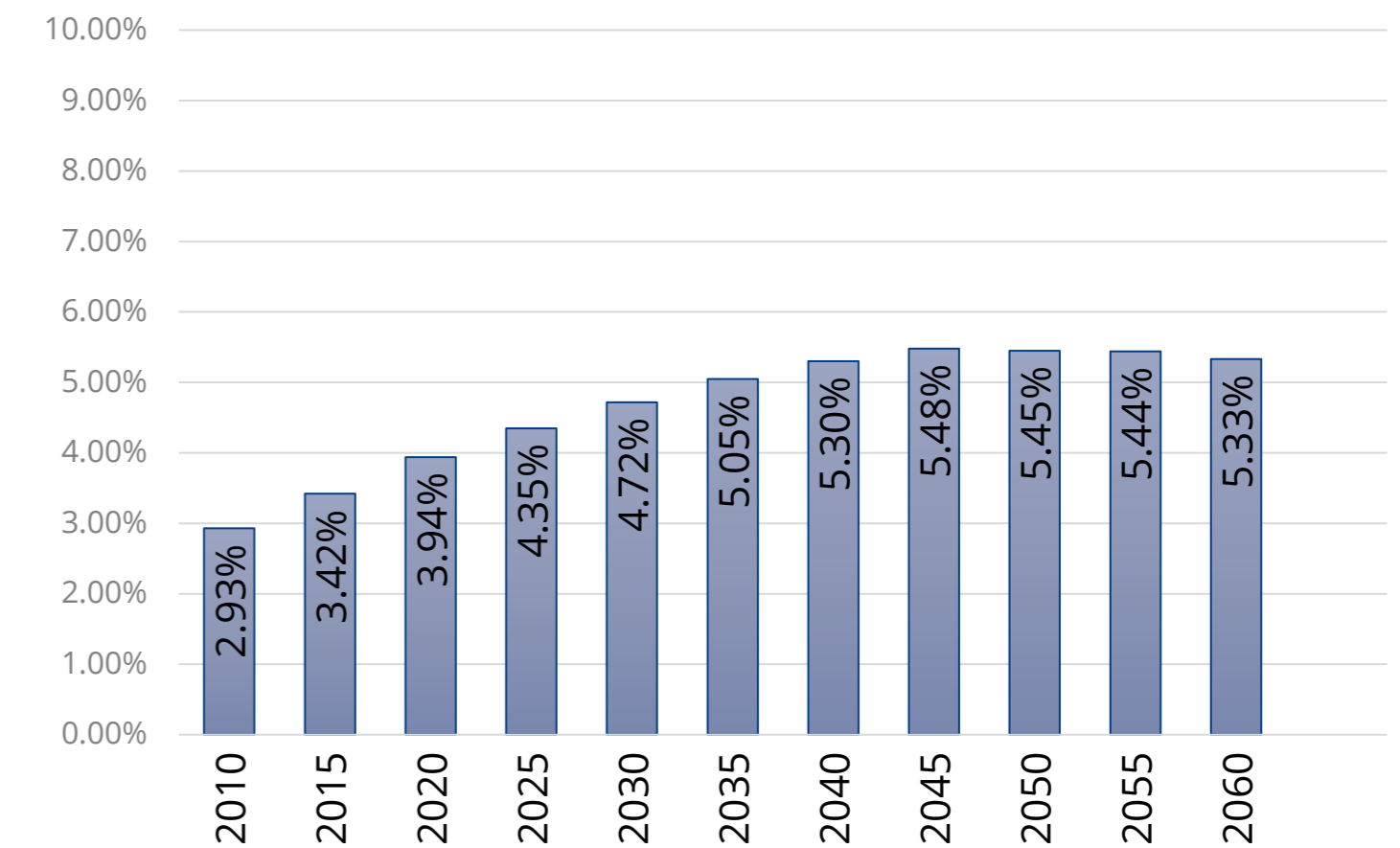
Alaska Target Date Fund - 1 Year



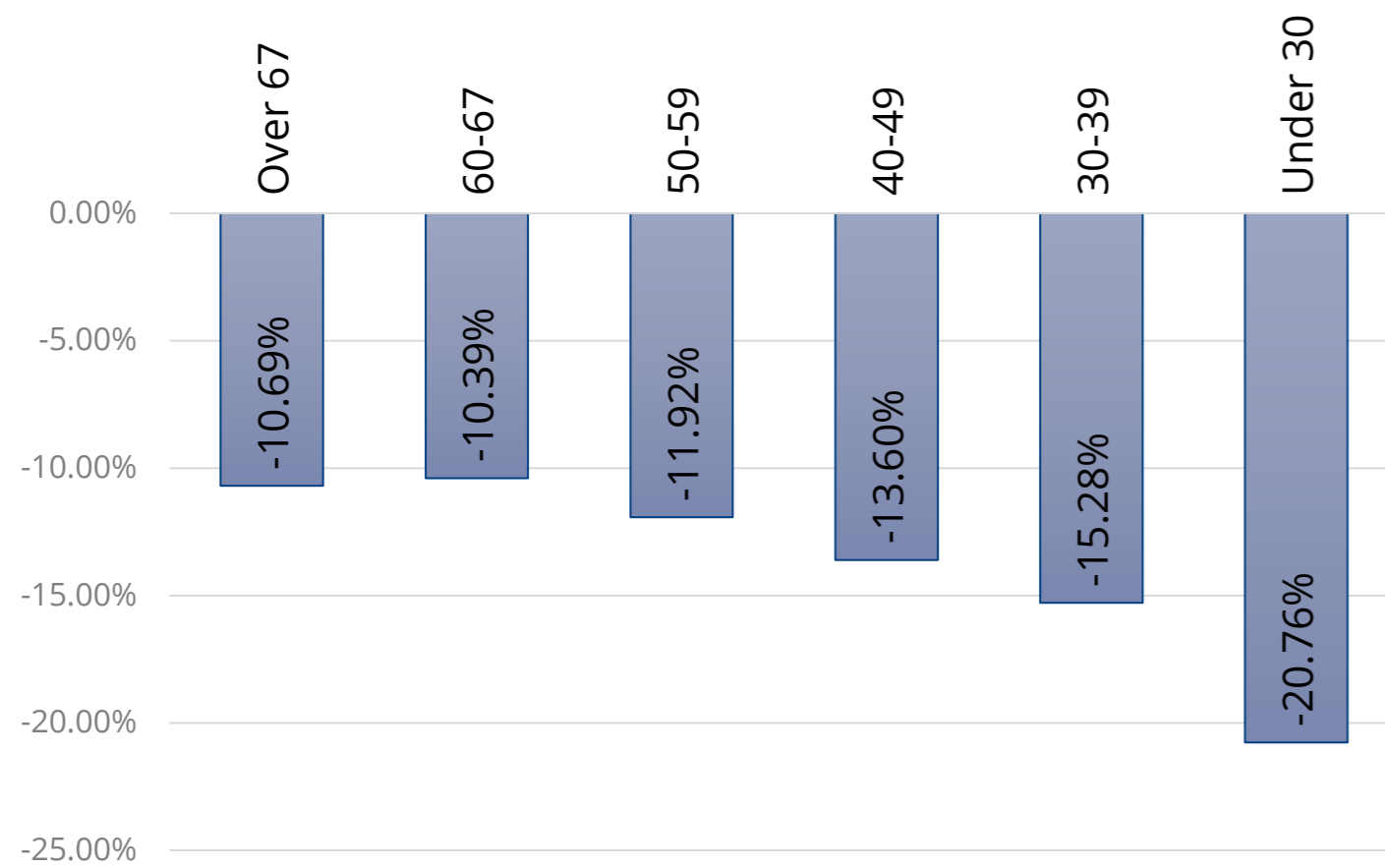
Alaska Target Date Fund - 3 Year



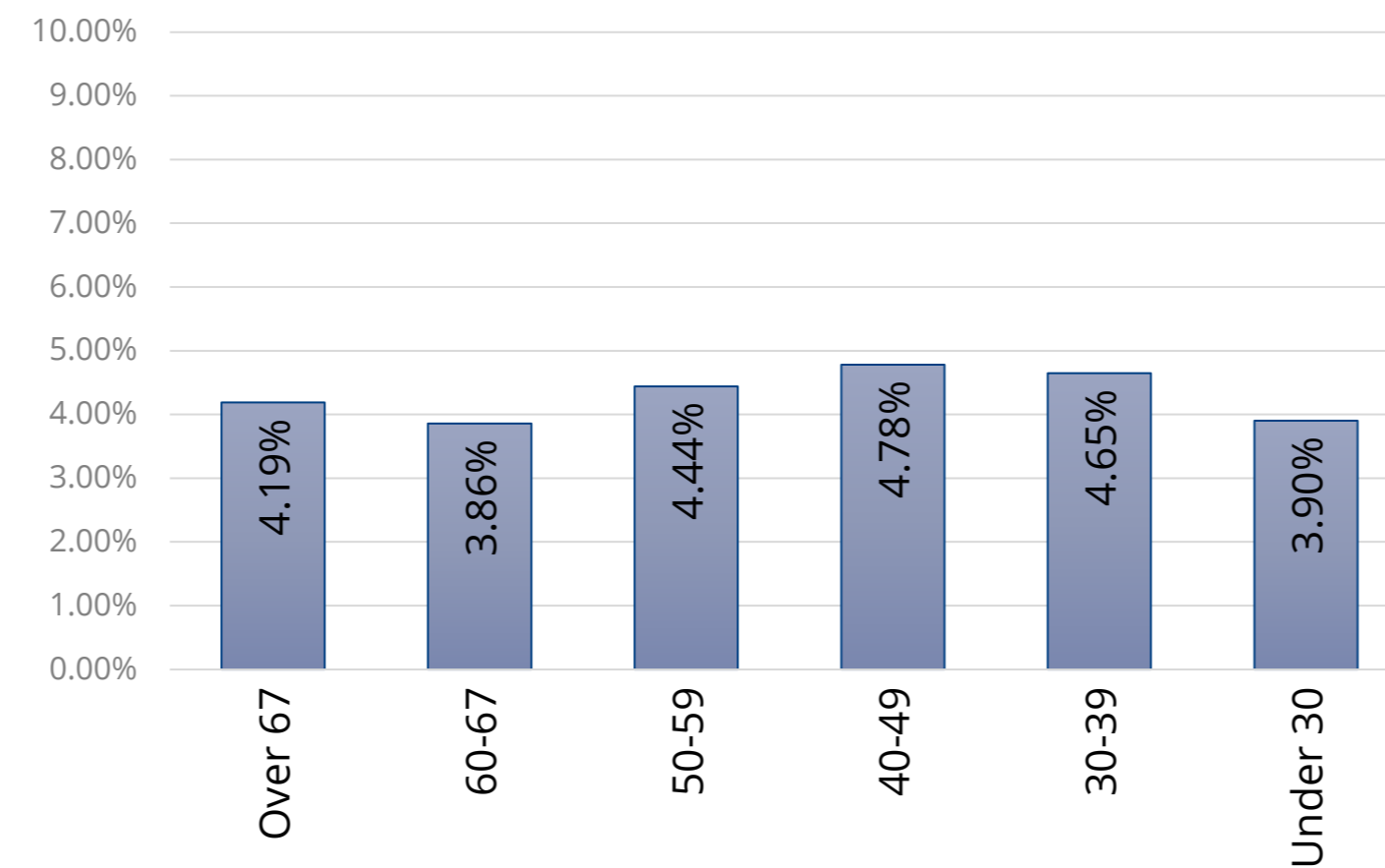
Alaska Target Date Fund - 5 Year



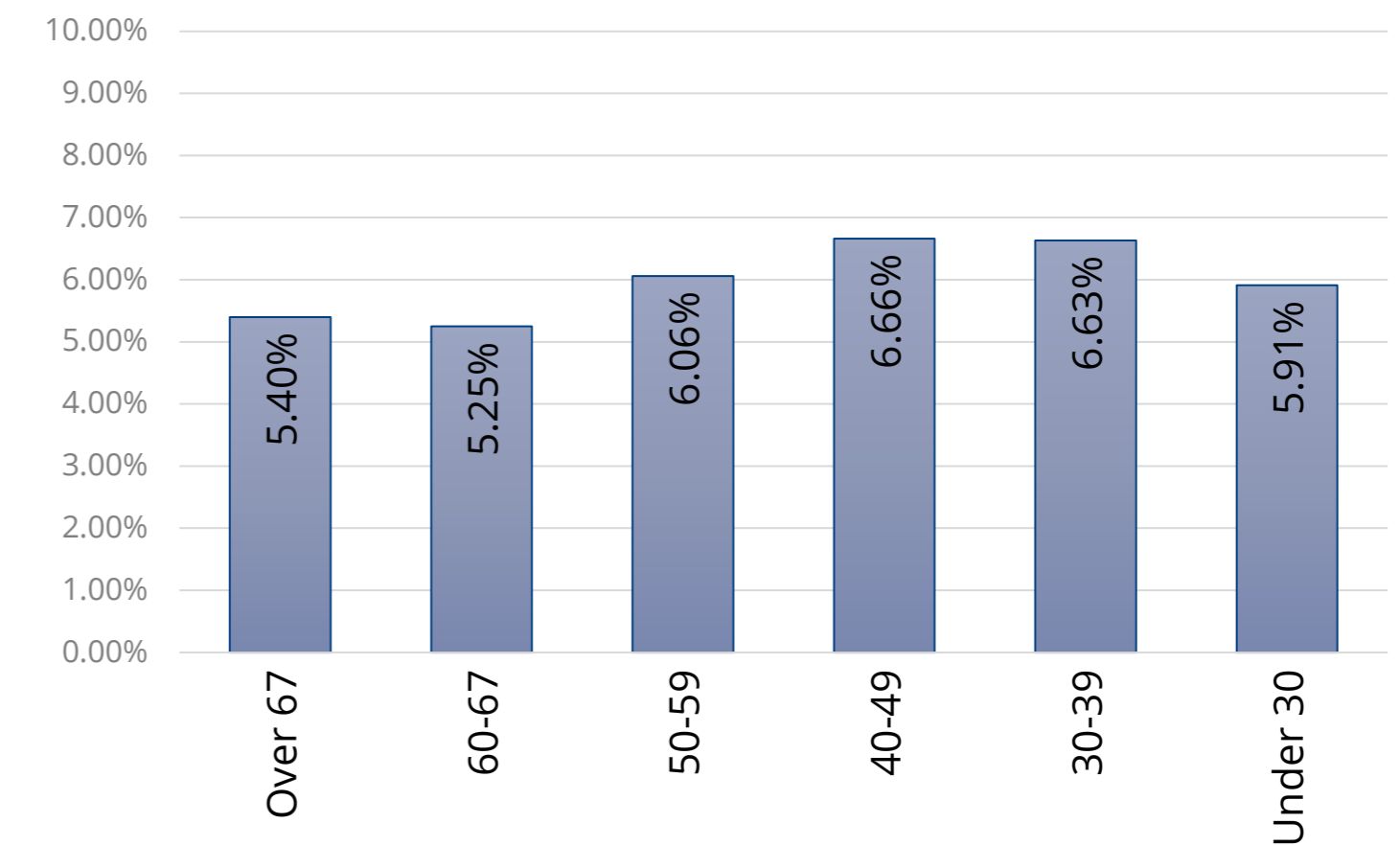
MTR – 75th Percentile 1 Year by Age Band



MTR – 75th Percentile 3 Year by Age Band



MTR – 75th Percentile 5 Year by Age Band

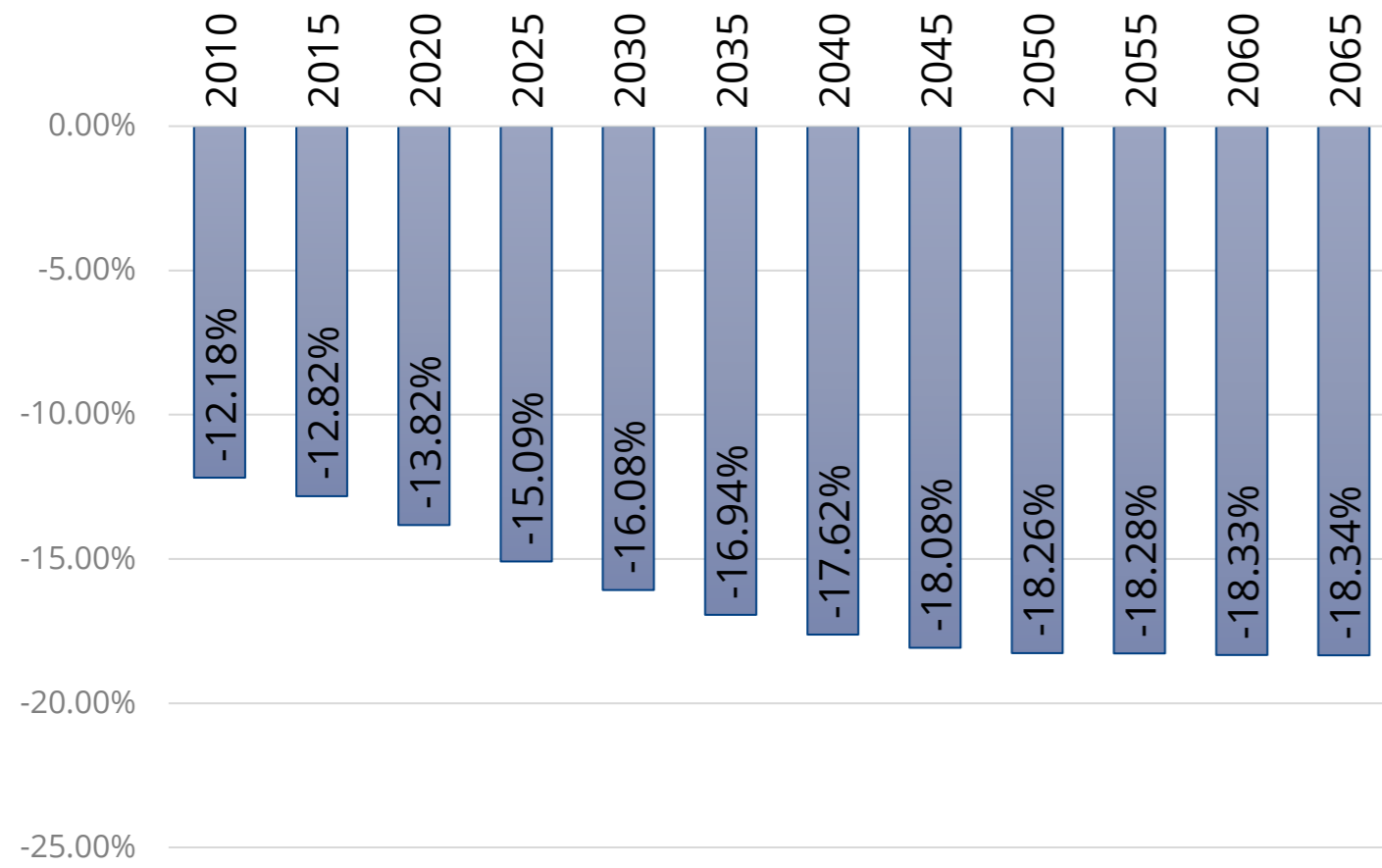


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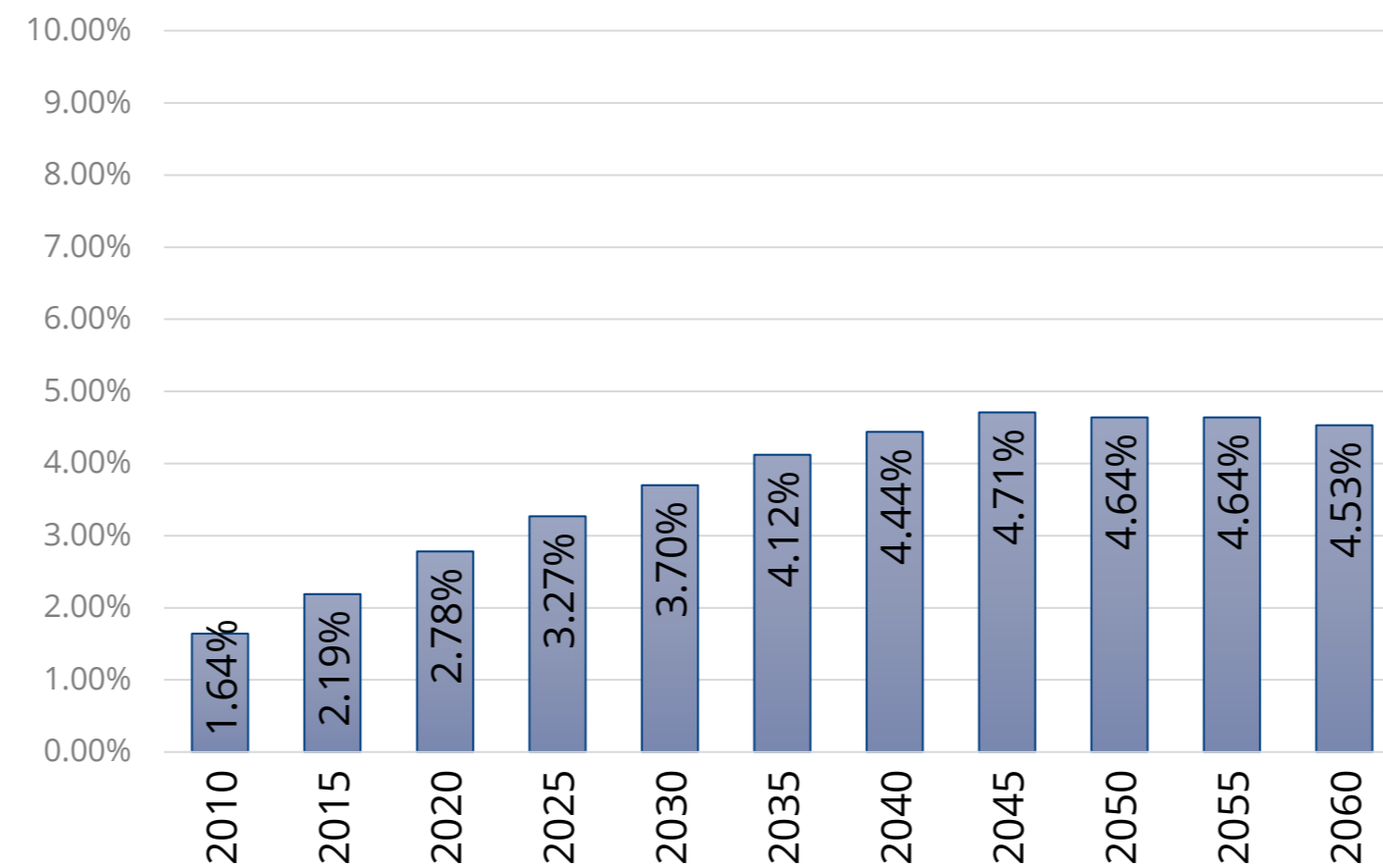
Annual Rate of Return Summary - Median

As of 9/30/2022

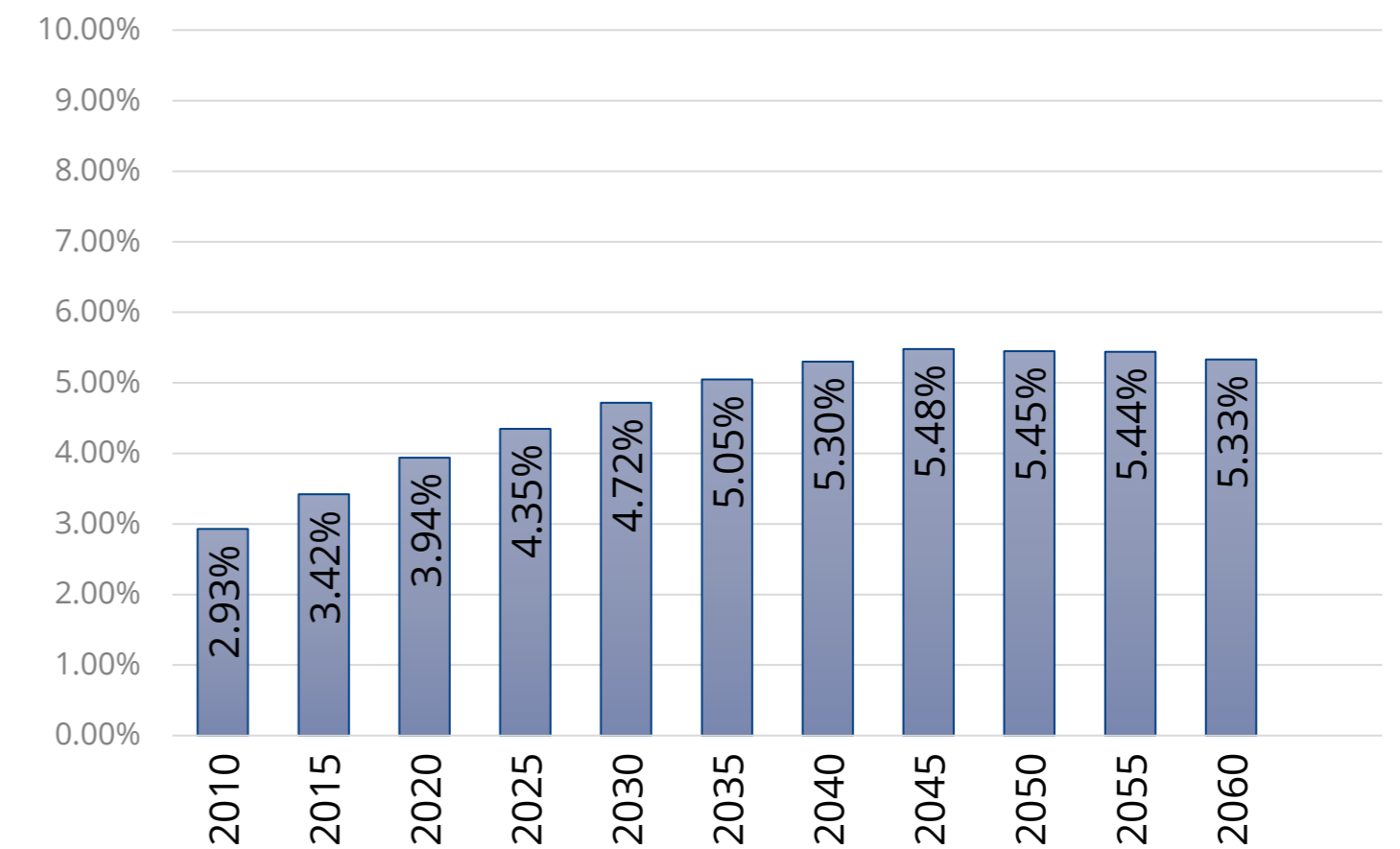
Alaska Target Date Fund - 1 Year



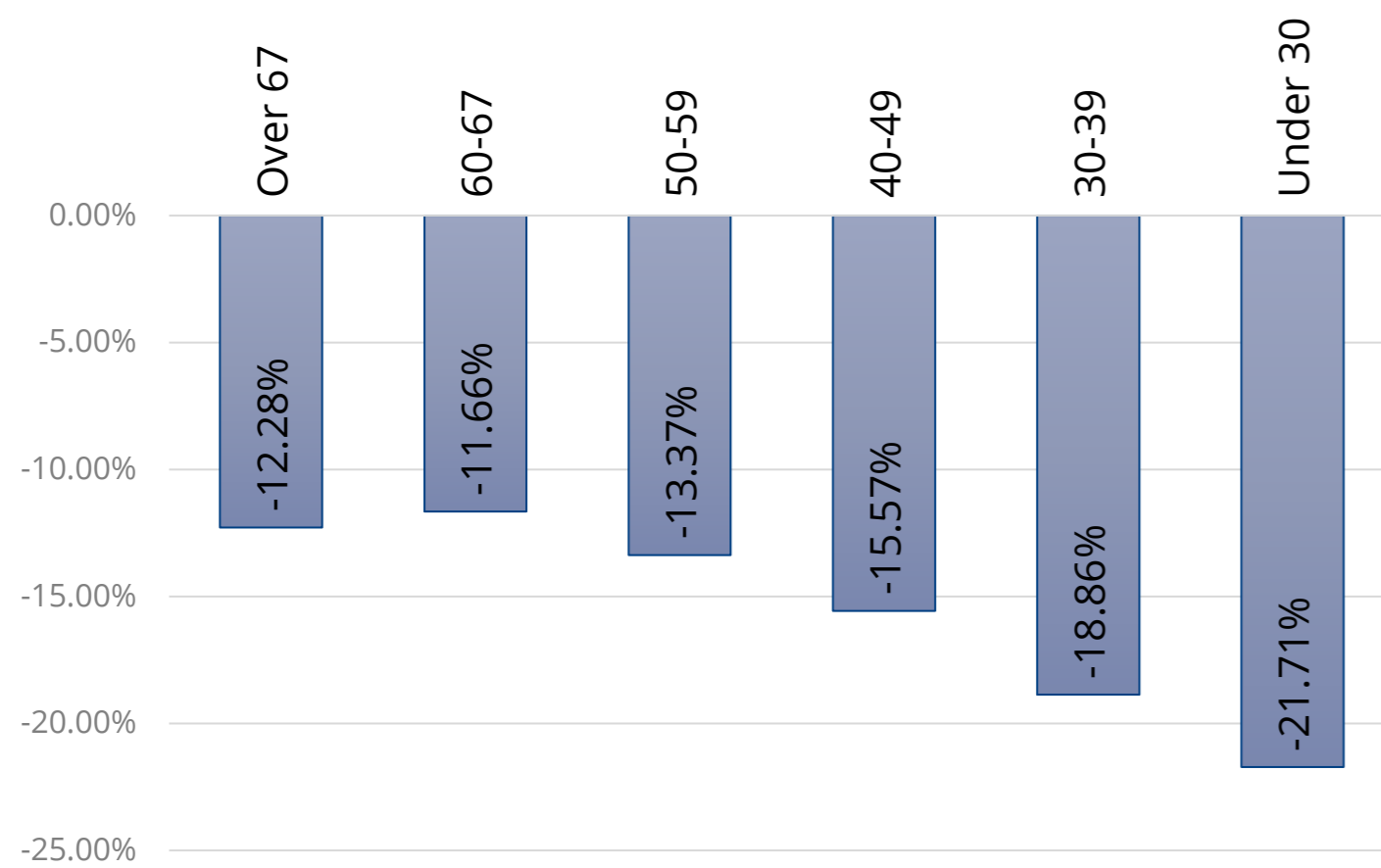
Alaska Target Date Fund - 3 Year



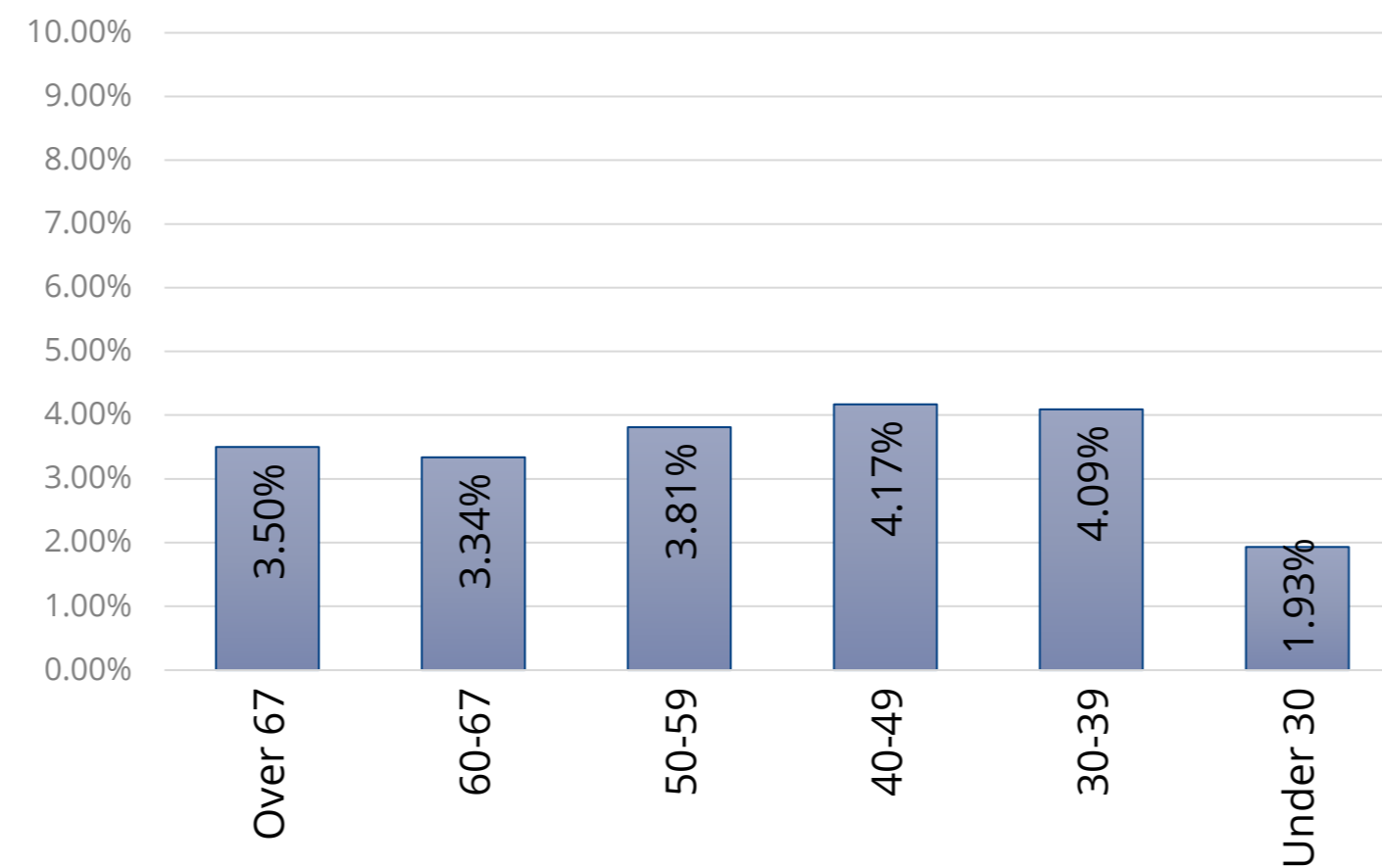
Alaska Target Date Fund - 5 Year



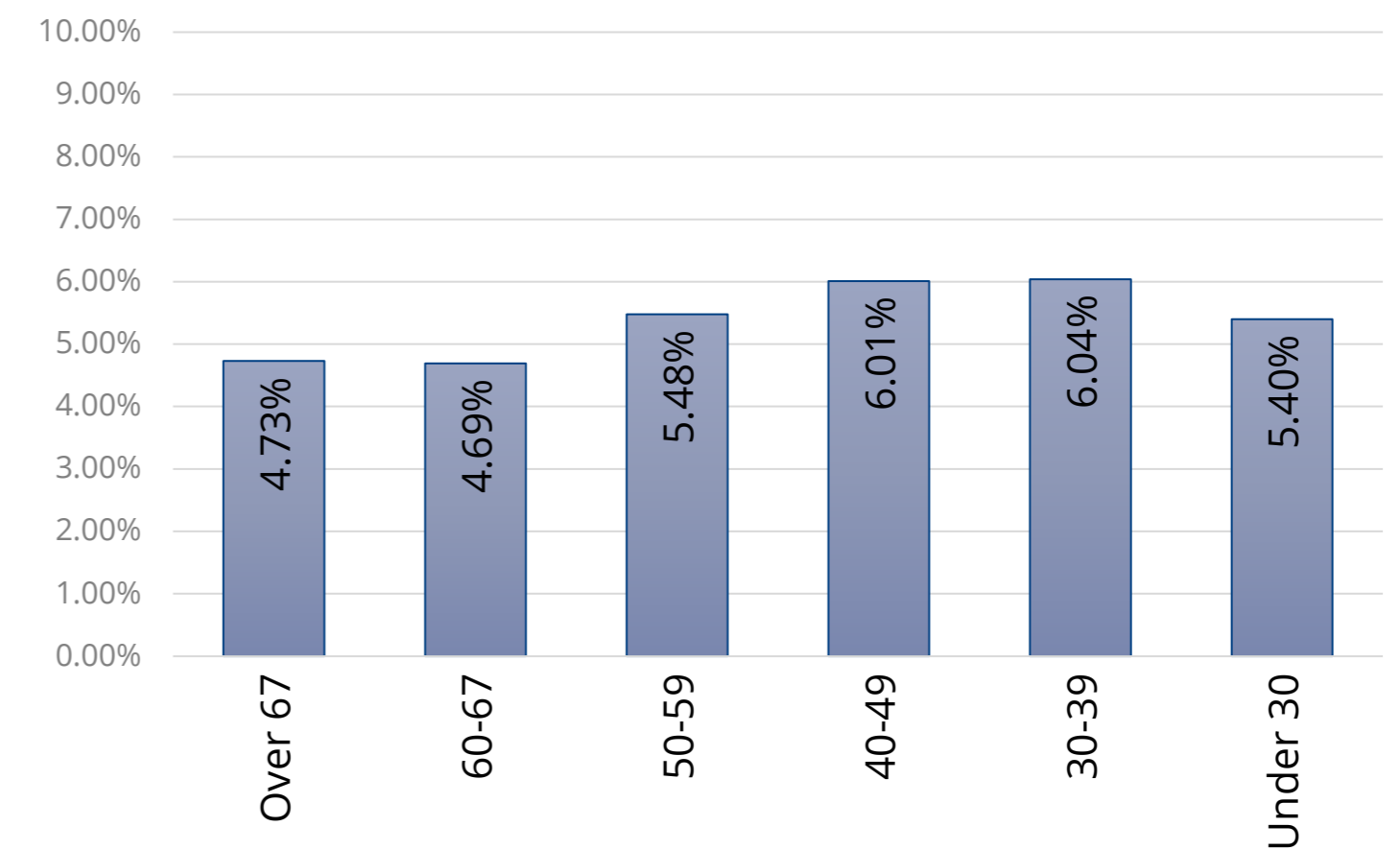
MTR - Median 1 Year by Age Band



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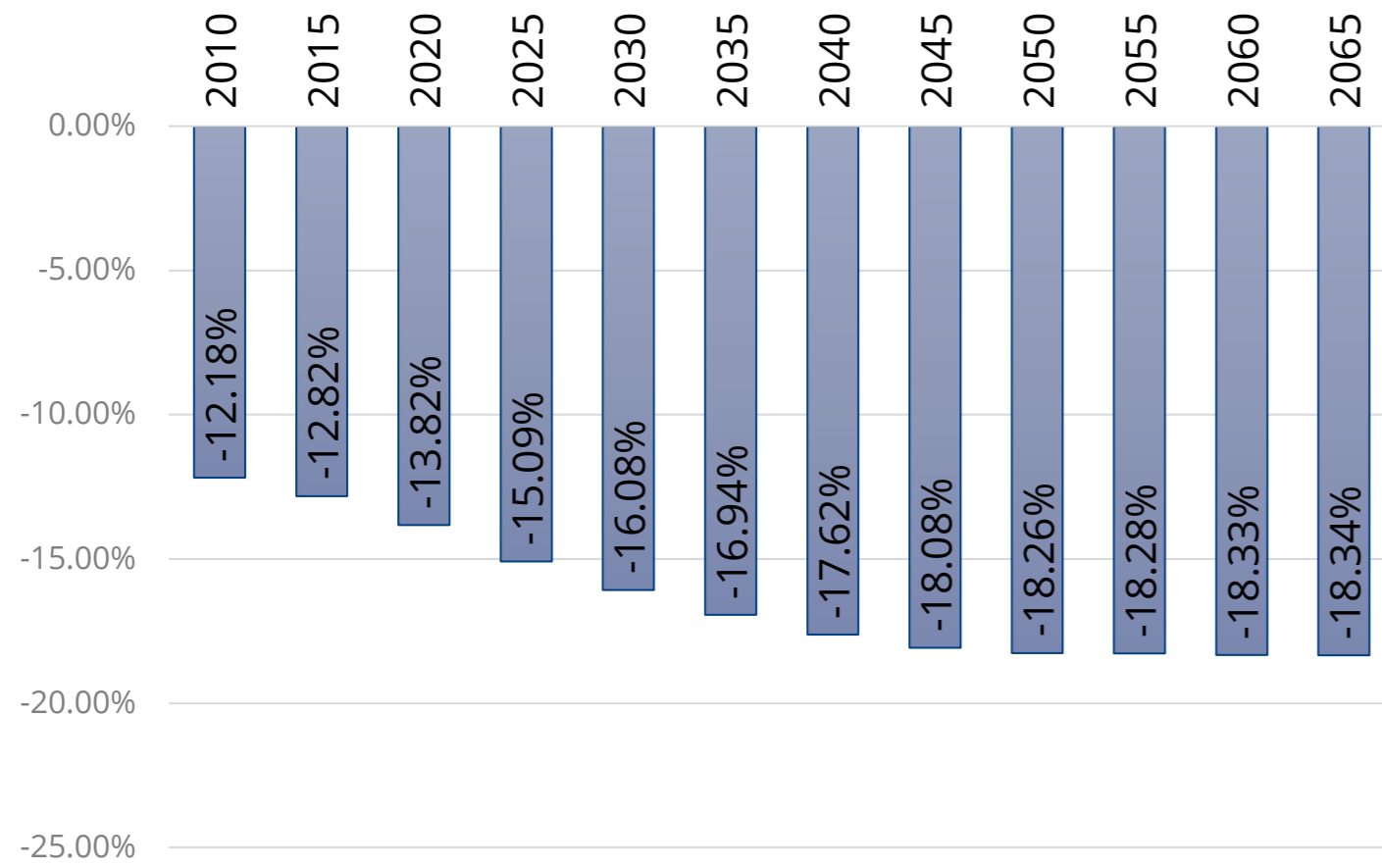


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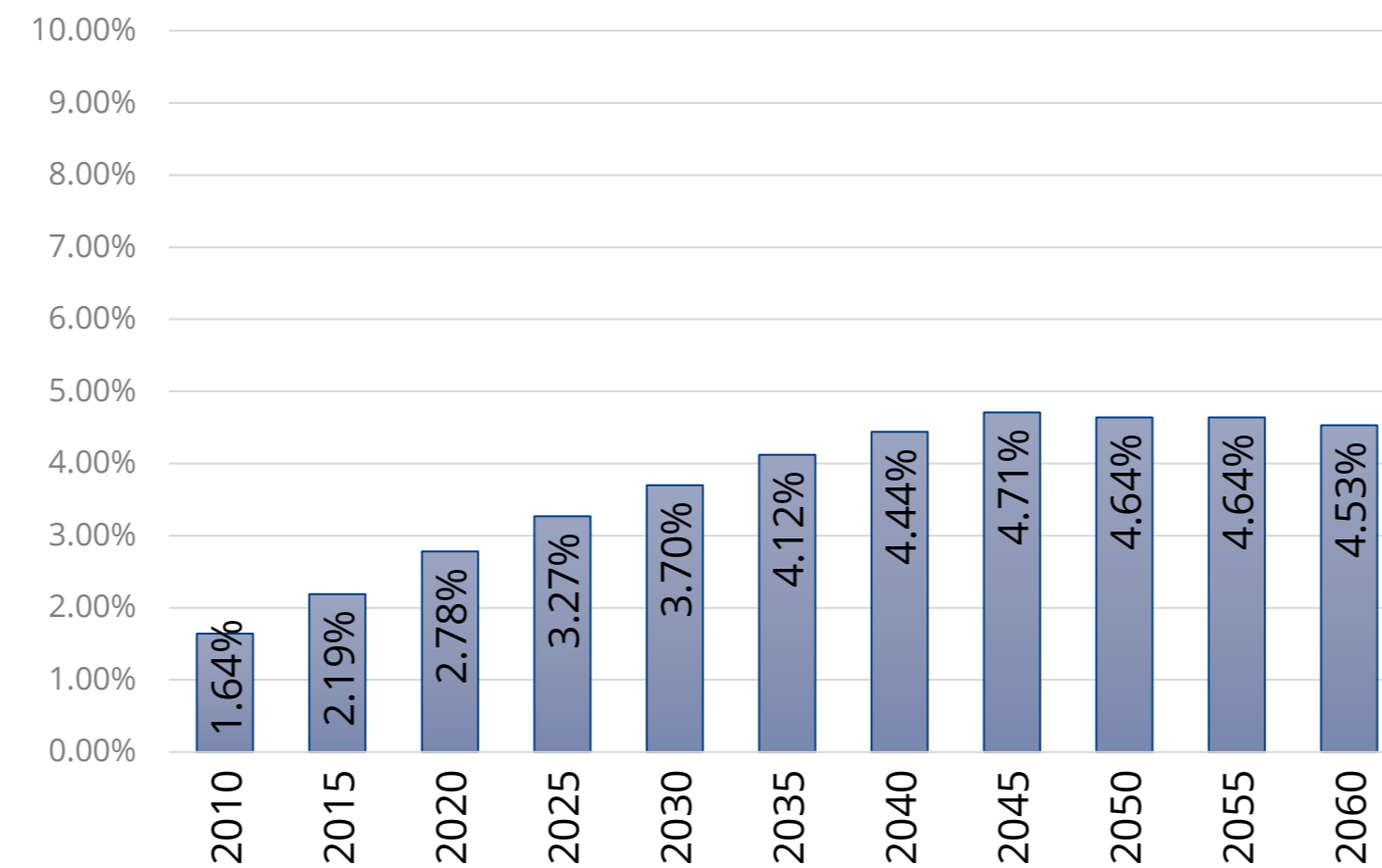
Annual Rate of Return Summary – 25th Percentile

As of 9/30/2022

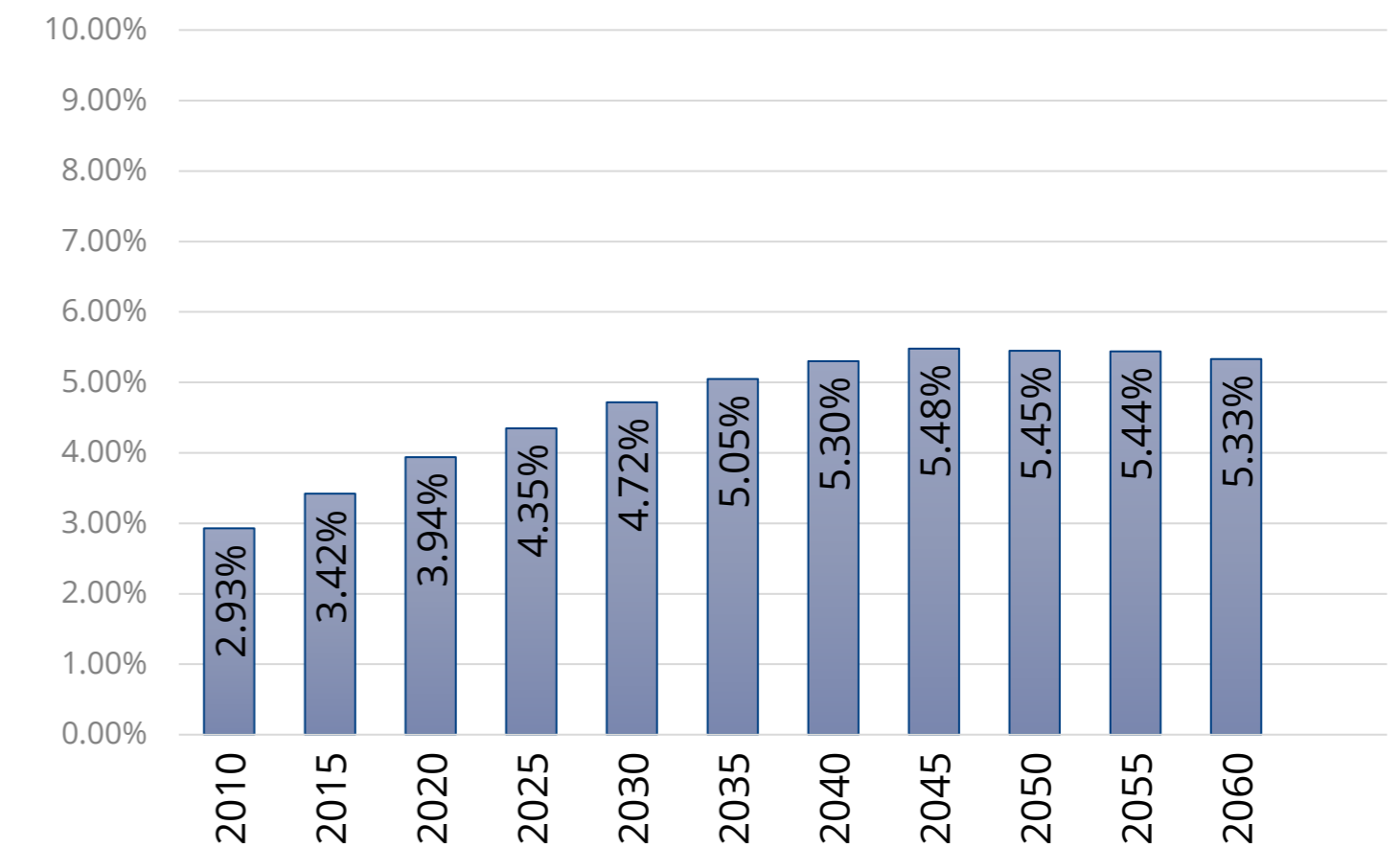
Alaska Target Date Fund - 1 Year



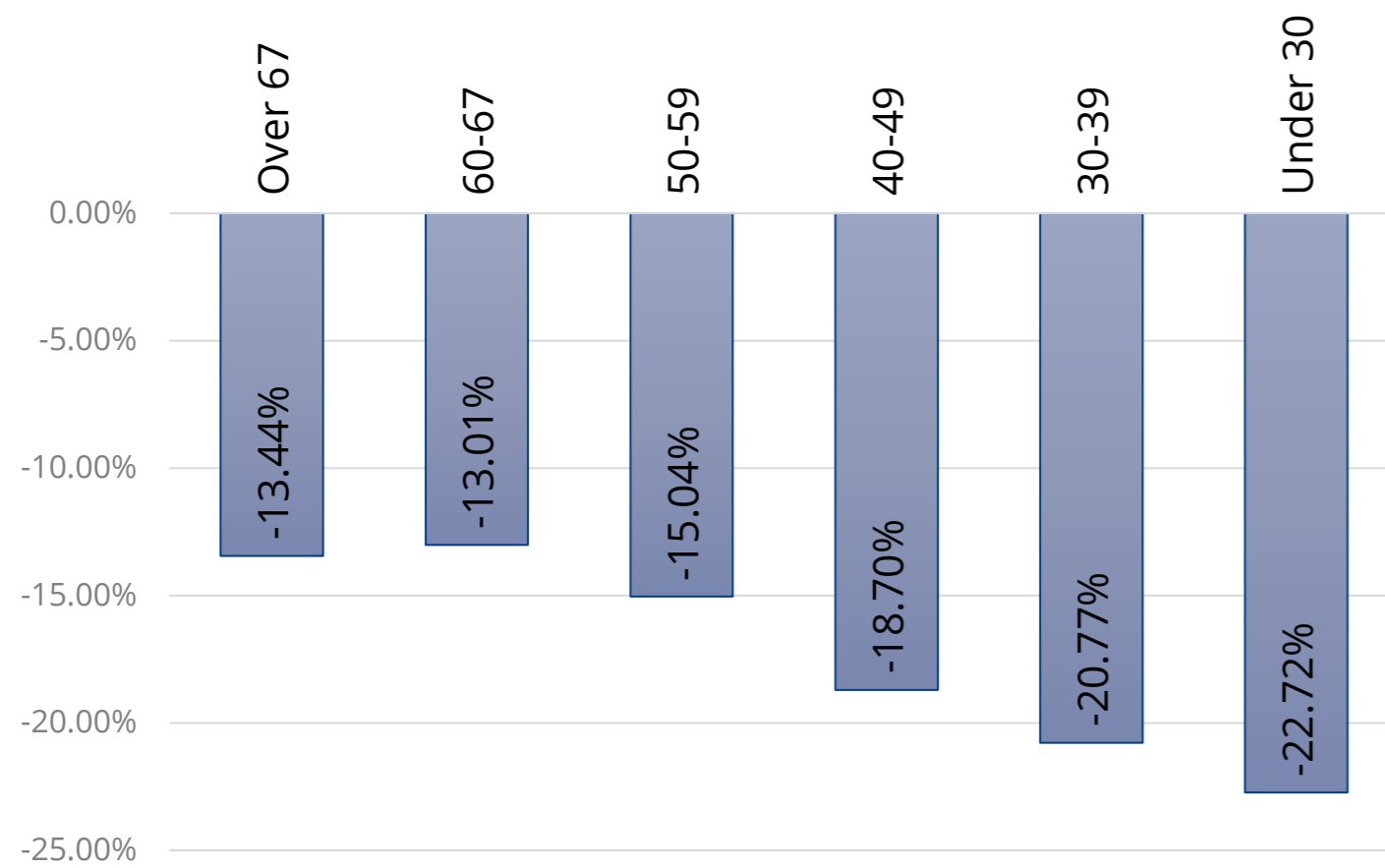
Alaska Target Date Fund - 3 Year



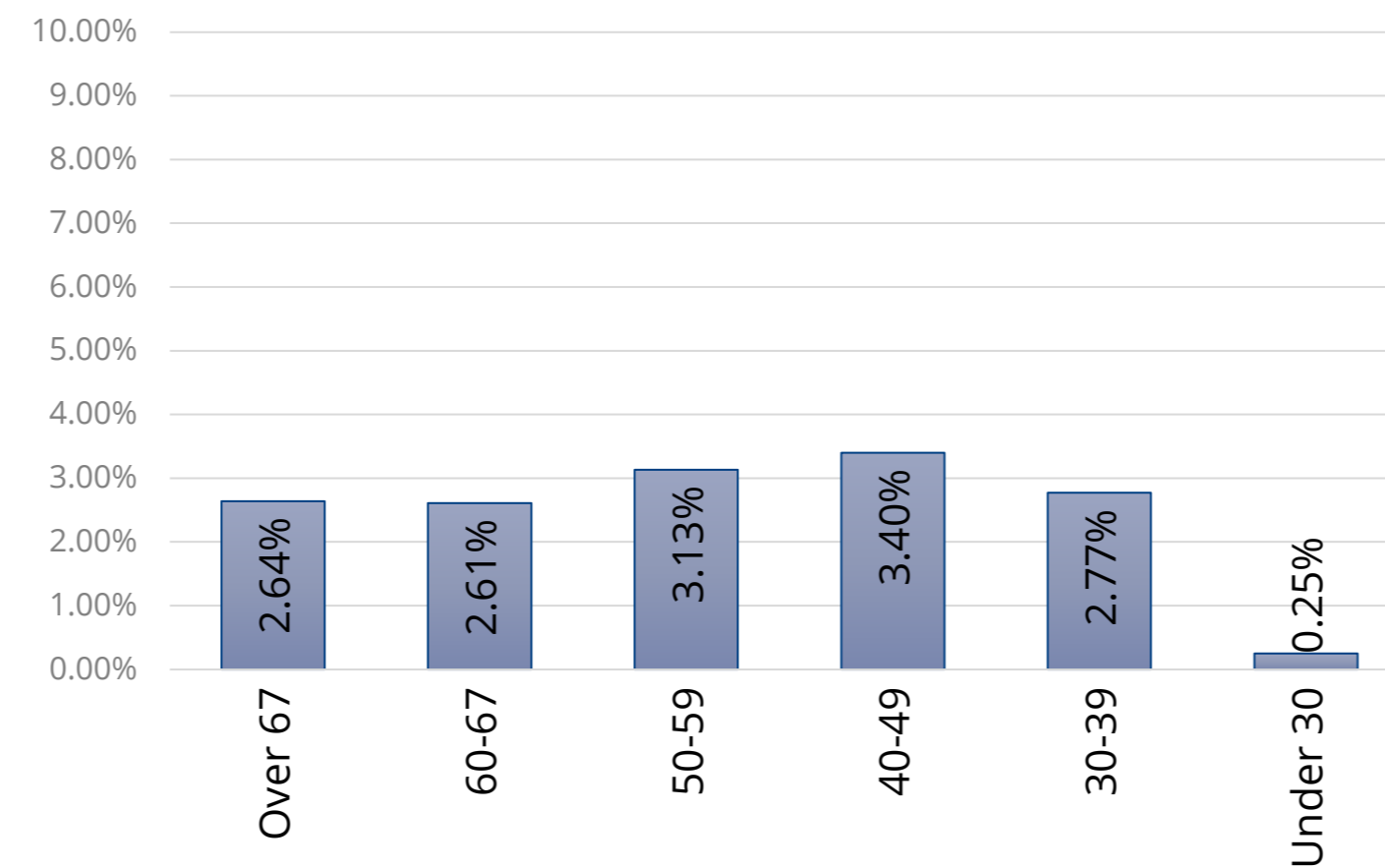
Alaska Target Date Fund - 5 Year



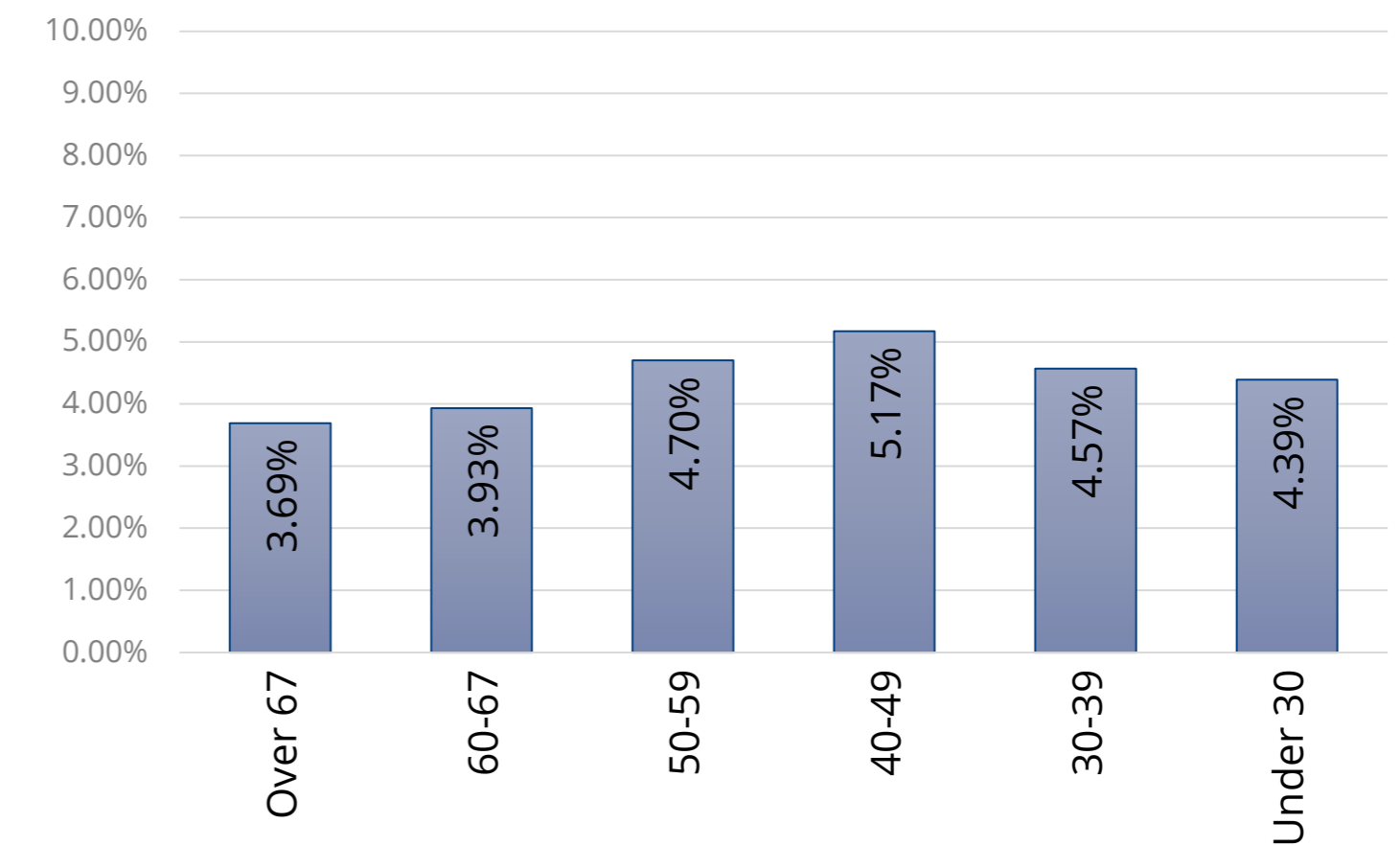
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$(1 + [\text{January Rate of Return}]) * \dots (1 + [\text{December Rate of Return}])$

Investor Type:

Reviewing participant rates of return effectively requires consideration on the approach that each individual has taken to allocate their balance. To simplify this review, we identify participants by the approach they consistently employed over the period the returns were realized. As a result, an individual that employed a joint strategy or switched strategies during the period will be considered a "Do-It-Yourself" type. Of note: Empower continues to enrich this source, and detail available for 1 year returns may not be available for 3 and 5 year turns.

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State of Alaska Teachers' Retirement System Tier III Defined Contribution Plan

98214-05



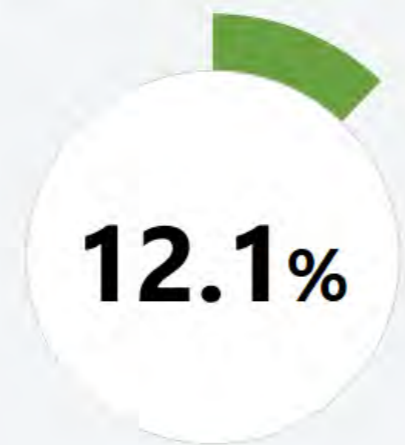


Advisory services

As of 9/30/2022

Advisory services compares participants using and not using the advisory service. The illustration includes participants actively employed and separated from service with a balance.

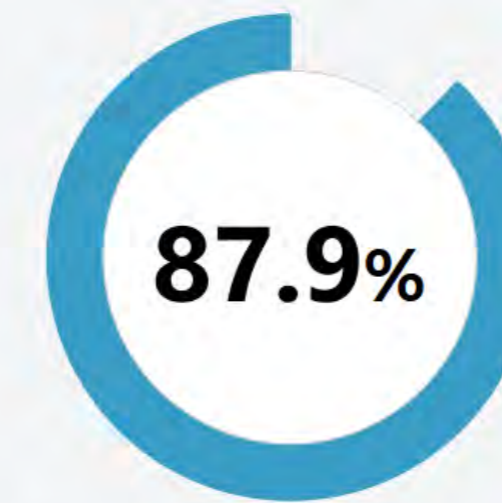
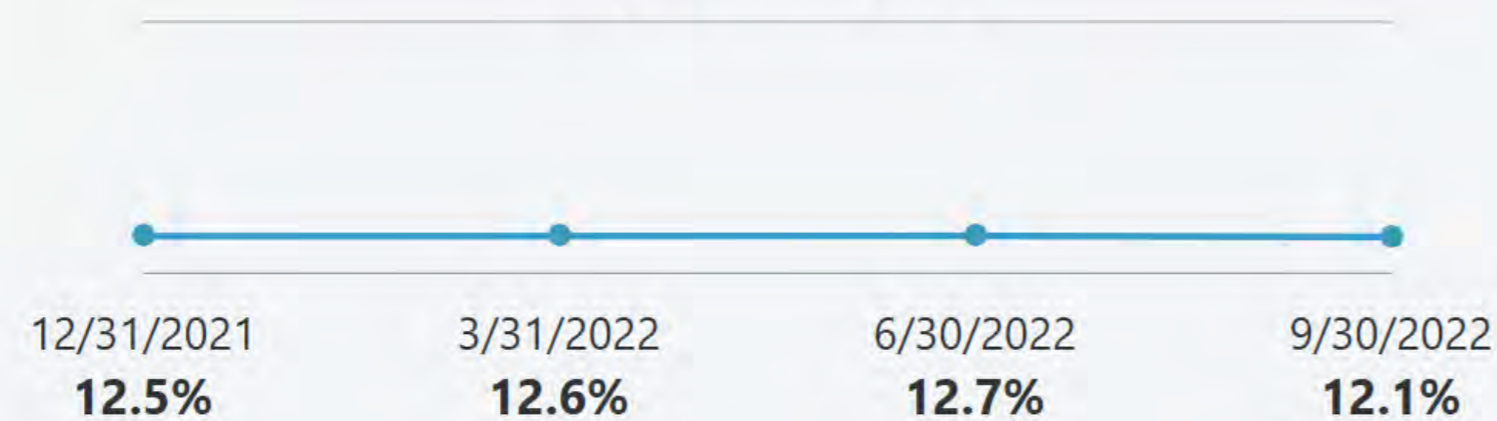
Population of participants using and not using My Total Retirement



of participants are using **My Total Retirement**

This amounts to **1,285** participants

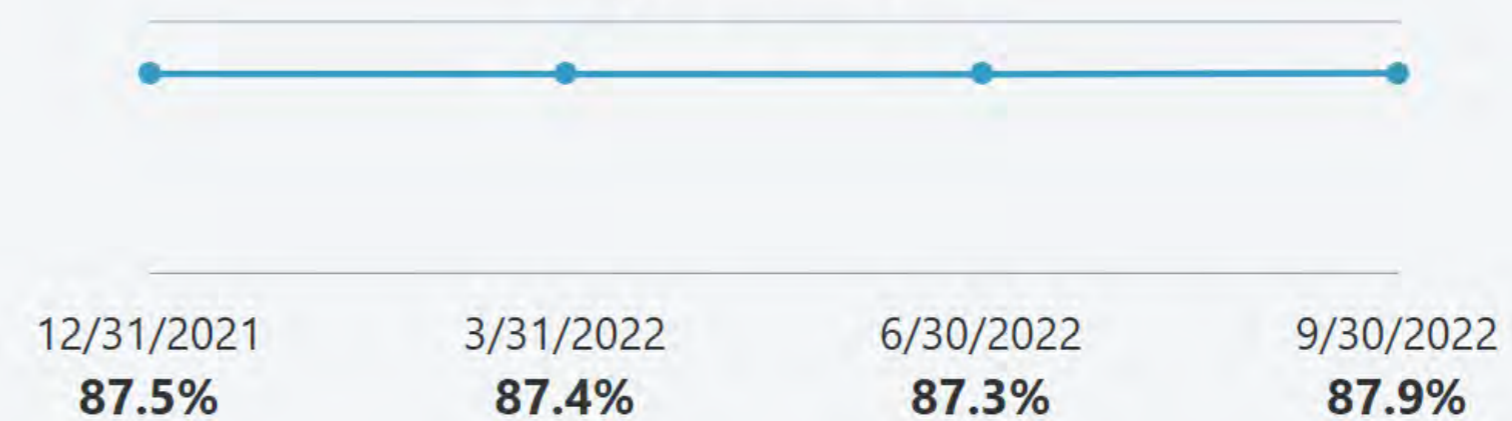
Population over time



of participants are using other investment strategies

This amounts to **9,332** participants

Population over time



F1.2a Empower Retirement Advisory Services Powered by Morningstar. Online Advice and My Total Retirement are part of the Empower Retirement Advisory Services suite of services offered by Empower Advisory Group, LLC, a registered investment advisor. Lifetime Income Score and average contribution rate will show as not available when the data required for those calculations has not been provided
98214-05 State of Alaska Teachers' Retirement System Tier III Defined Contribution Plan



Advisory services

As of 9/30/2022

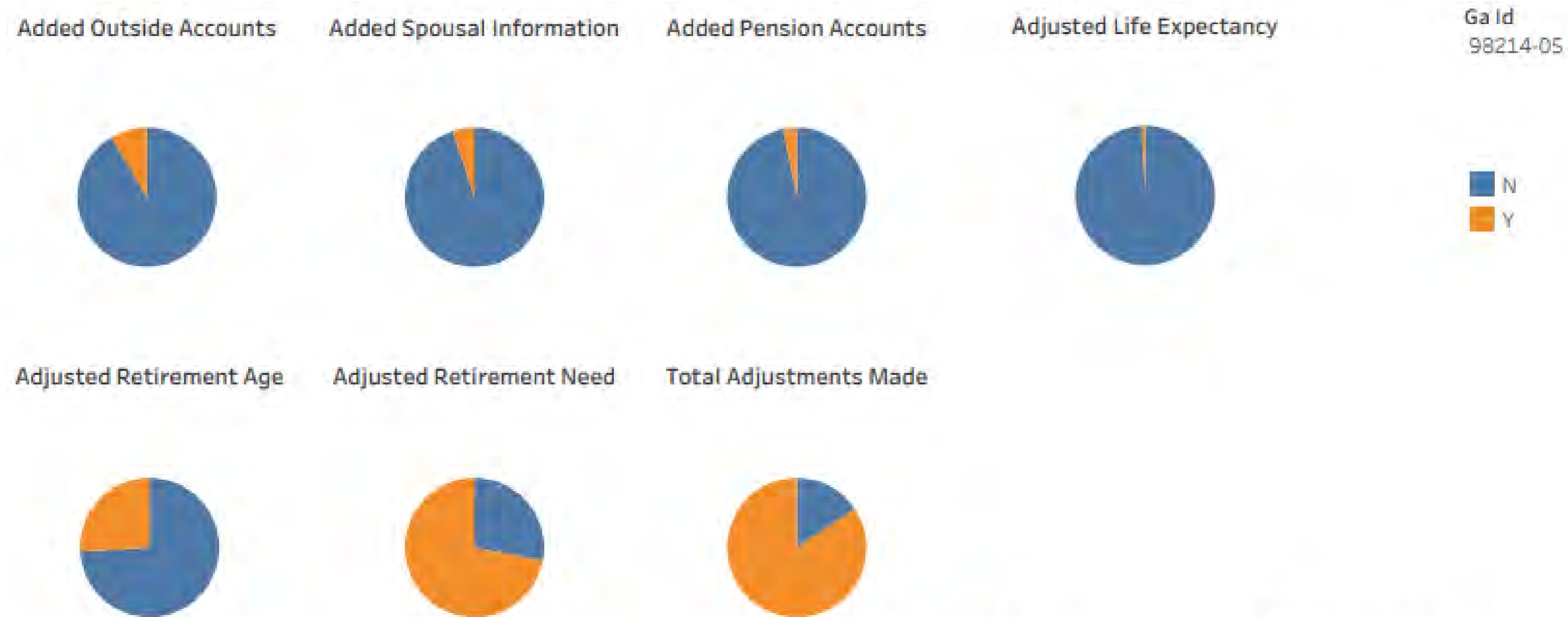
Advisory services compares participants using and not using the advisory service. The illustration includes participants actively employed and separated from service with a balance.

Insights into participants using and not using My Total Retirement

		Under 30 yrs	30-39 yrs	40-49 yrs	50-59 yrs	60-67 yrs	Over 67 yrs
My Total Retirement users	% of participants	1%	8%	17%	17%	18%	23%
	# of participants	13	299	504	286	130	53
	Average balance	\$35,245	\$116,556	\$145,184	\$147,624	\$131,266	\$98,496
	Average equity percent	62.5%	59.6%	52.5%	43.4%	37.0%	34.6%
		↓	↓	↓	↓	↓	↓
Other investment strategy users	% of participants	99%	92%	83%	83%	82%	77%
	# of participants	1,113	3,578	2,434	1,421	606	180
	Average balance	\$17,288	\$53,151	\$69,147	\$69,822	\$71,317	\$52,188
	Average equity percent	50.2%	50.5%	50.5%	49.5%	47.7%	48.7%

Median Lifetime Income Score and average contribution rate will show as not available when the data required for those calculations has not been provided
 98214-05 State of Alaska Teachers' Retirement System Tier III Defined Contribution Plan

Personalization – Teachers' Retirement System Tier III Plan as of 9/30/22



Gal Id
98214-05

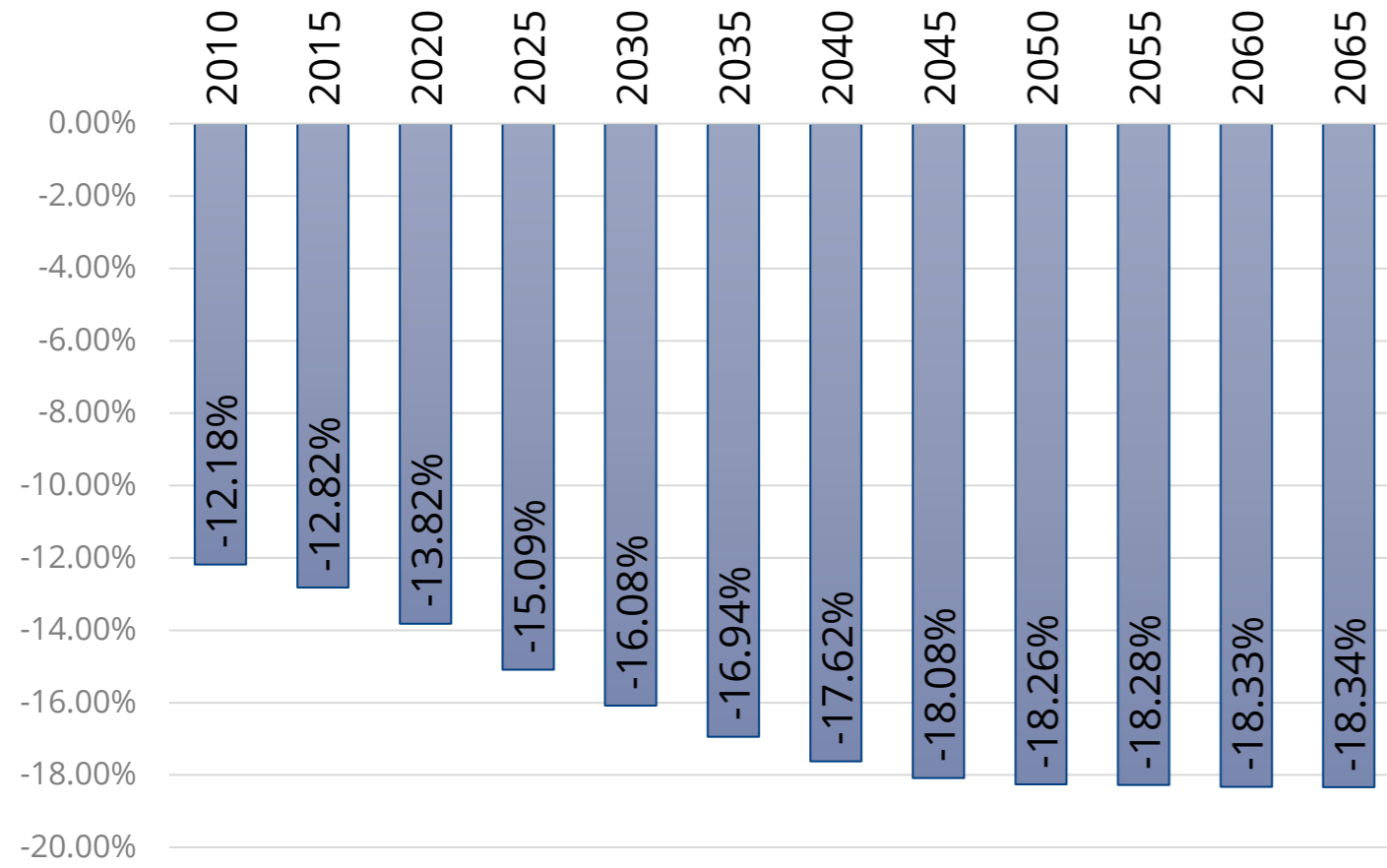
	Participant Accounts	% of Total in MA
Added Outside Accounts ¹	126	8.53%
Added Spousal Information ²	74	5.01%
Added Pension Accounts ¹	46	3.11%
Adjusted Life Expectancy ³	13	0.88%
Adjusted Retirement Age ⁴	382	25.85%
Adjusted Retirement Need ⁵	1,064	71.99%
Total That Made Adjustments	1,247	84.37%
Total Enrolled	1,478	100.00%

- 1 The Advisory Service process allows for the inclusion of outside financial and pension information to allow for more personalized retirement readiness recommendations
- 2 The inclusion of spousal/partner information allows for a holistic, household retirement income projection
- 3 Participants may adjust their life expectancy to help receive recommendations appropriate to their retirement income needs
- 4 Adjusting retirement age helps provide recommendations appropriate to the participant's savings horizon, and determined by a comparison of the retirement age in Advisory Services against the plan's default retirement age in the recordkeeping system
- 5 This column represents whether participants have adjusted their retirement income need to something other than 100%, post-tax replacement retirement income NOTAPPROVEDFORUSEWITHPLANPARTICIPANTS

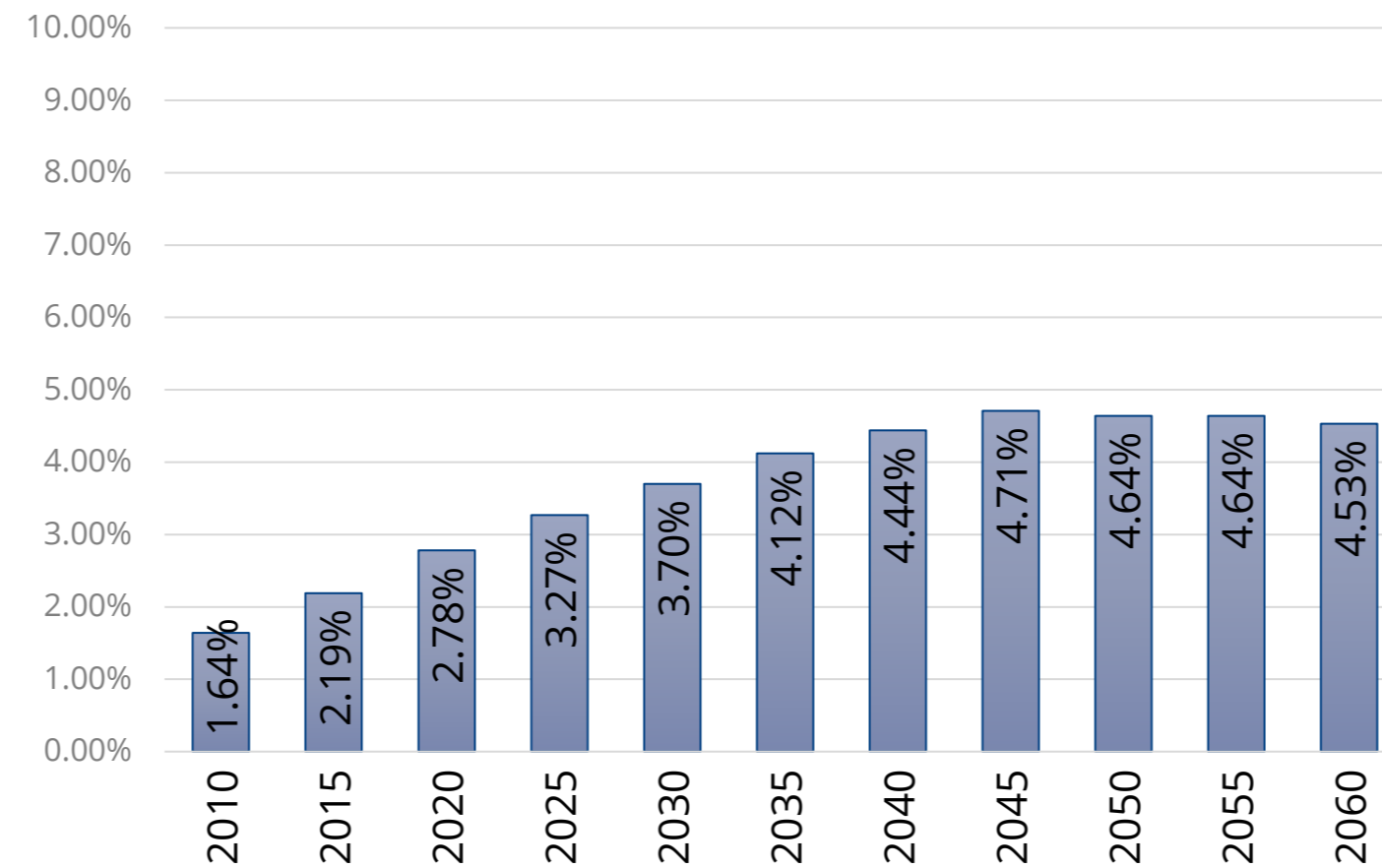
Annual Rate of Return Summary

As of 9/30/2022

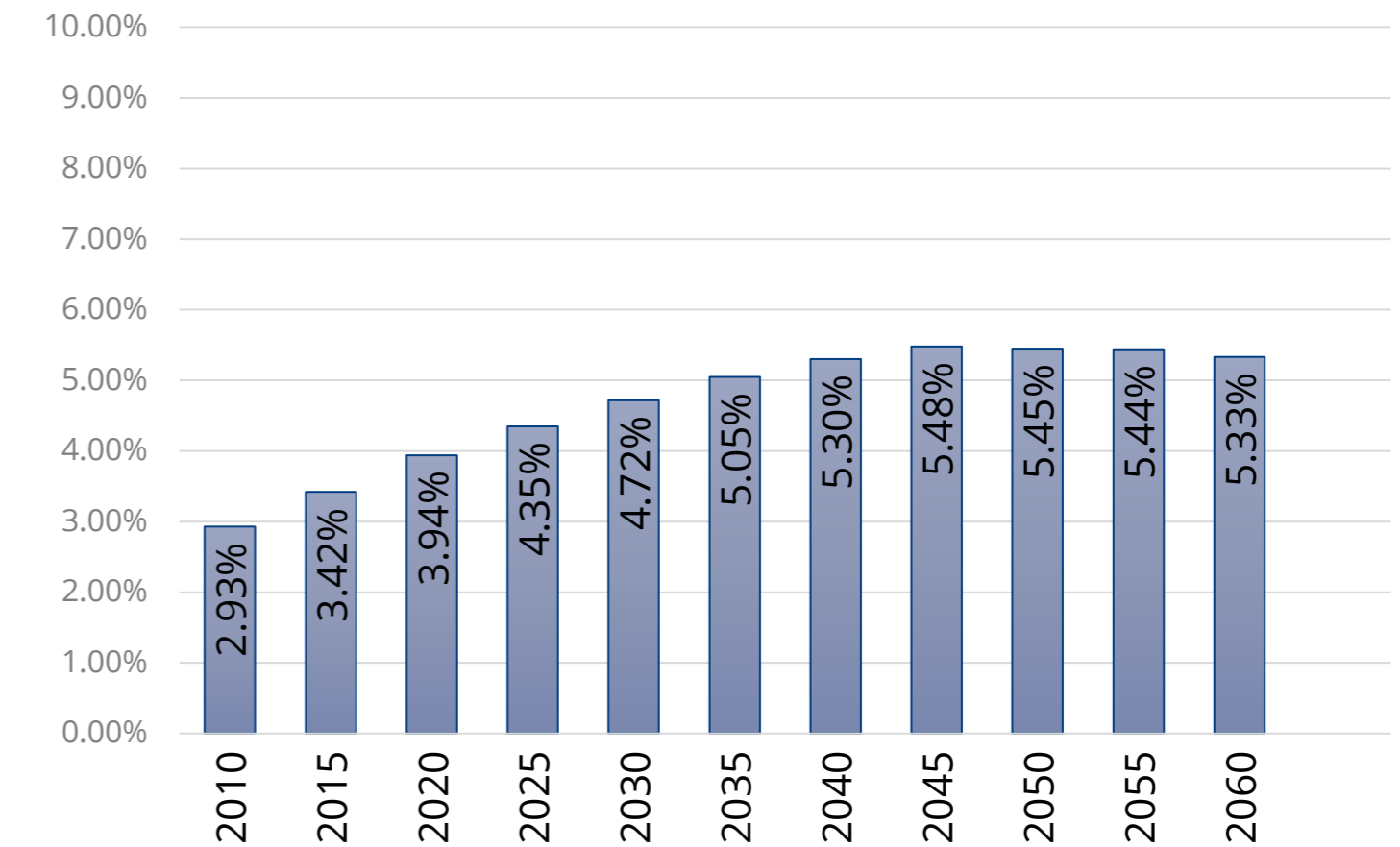
Alaska Target Date Fund - 1 Year



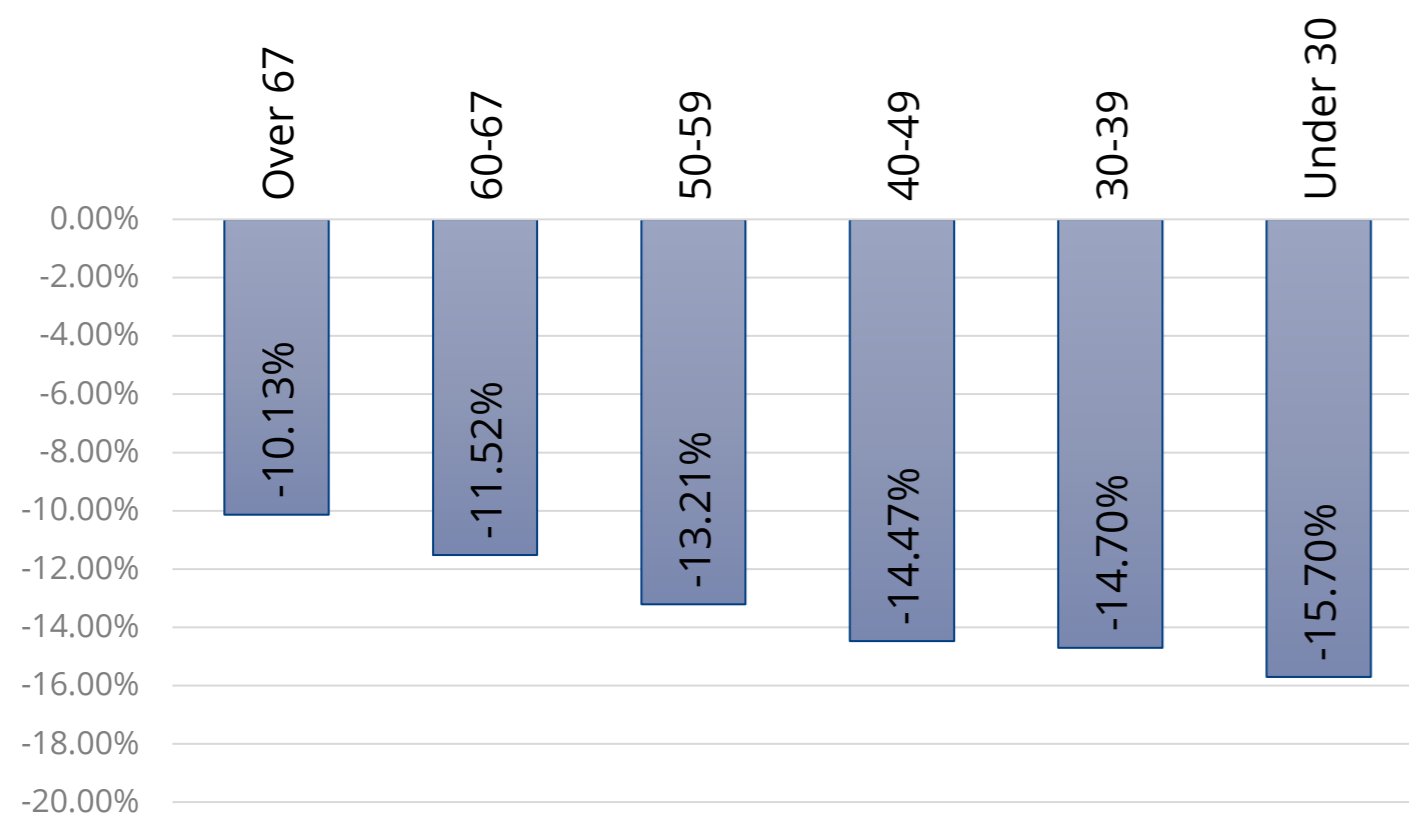
Alaska Target Date Fund - 3 Year



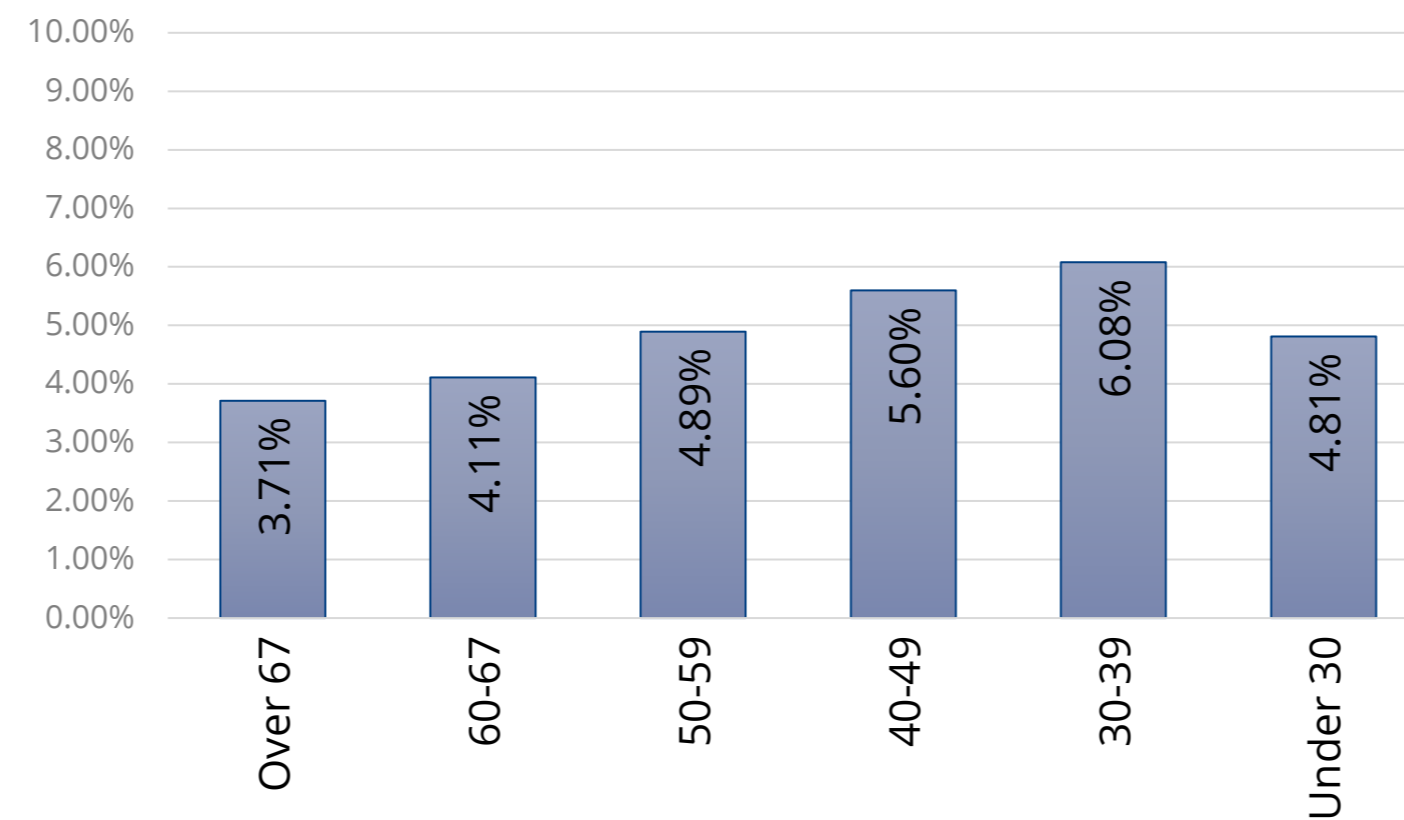
Alaska Target Date Fund - 5 Year



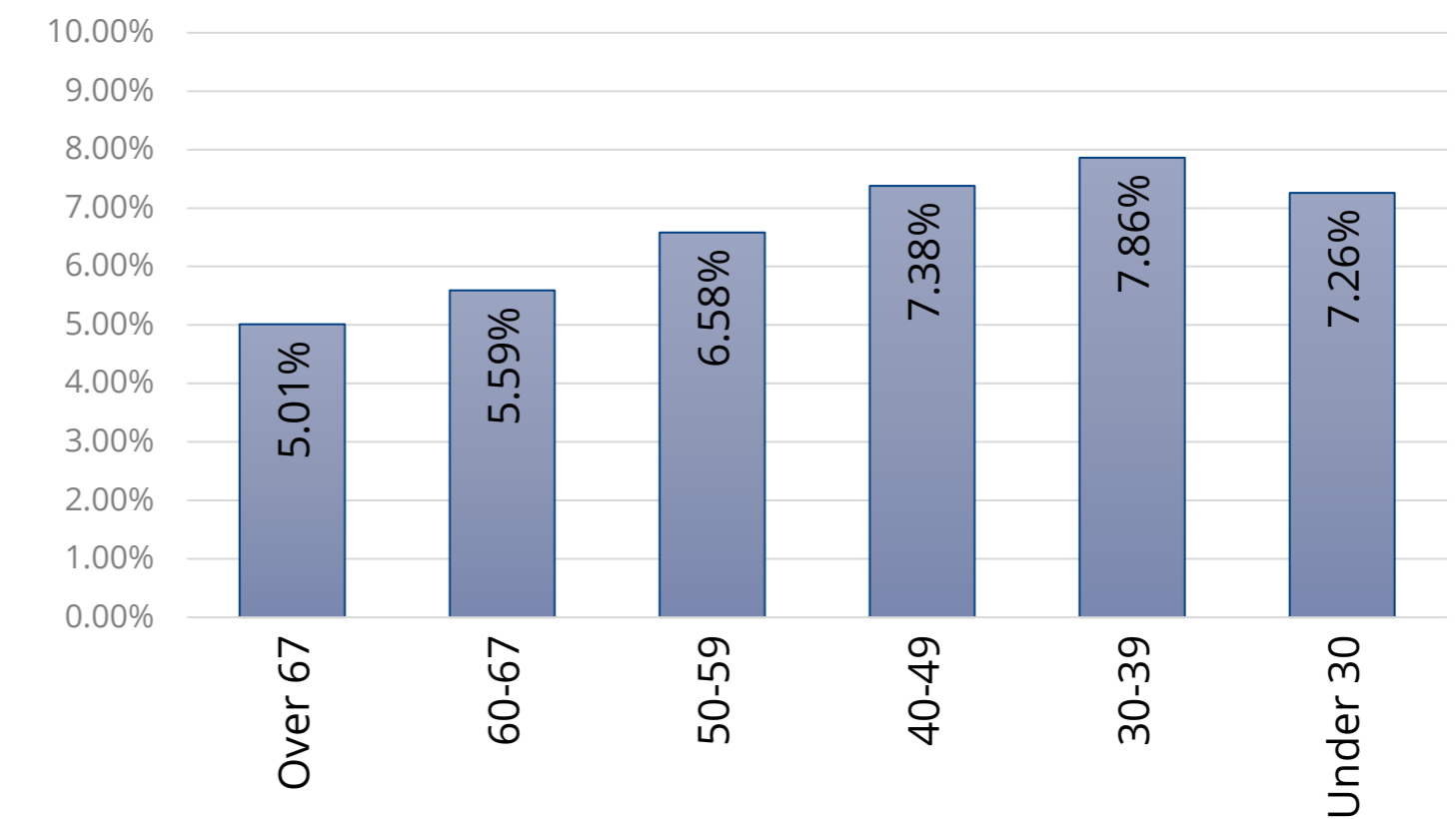
All Investment Strategies - Median 1 Year by Age Band



All Investment Strategies - Median 3 Year by Age Band



All Investment Strategies - Median 5 Year by Age Band

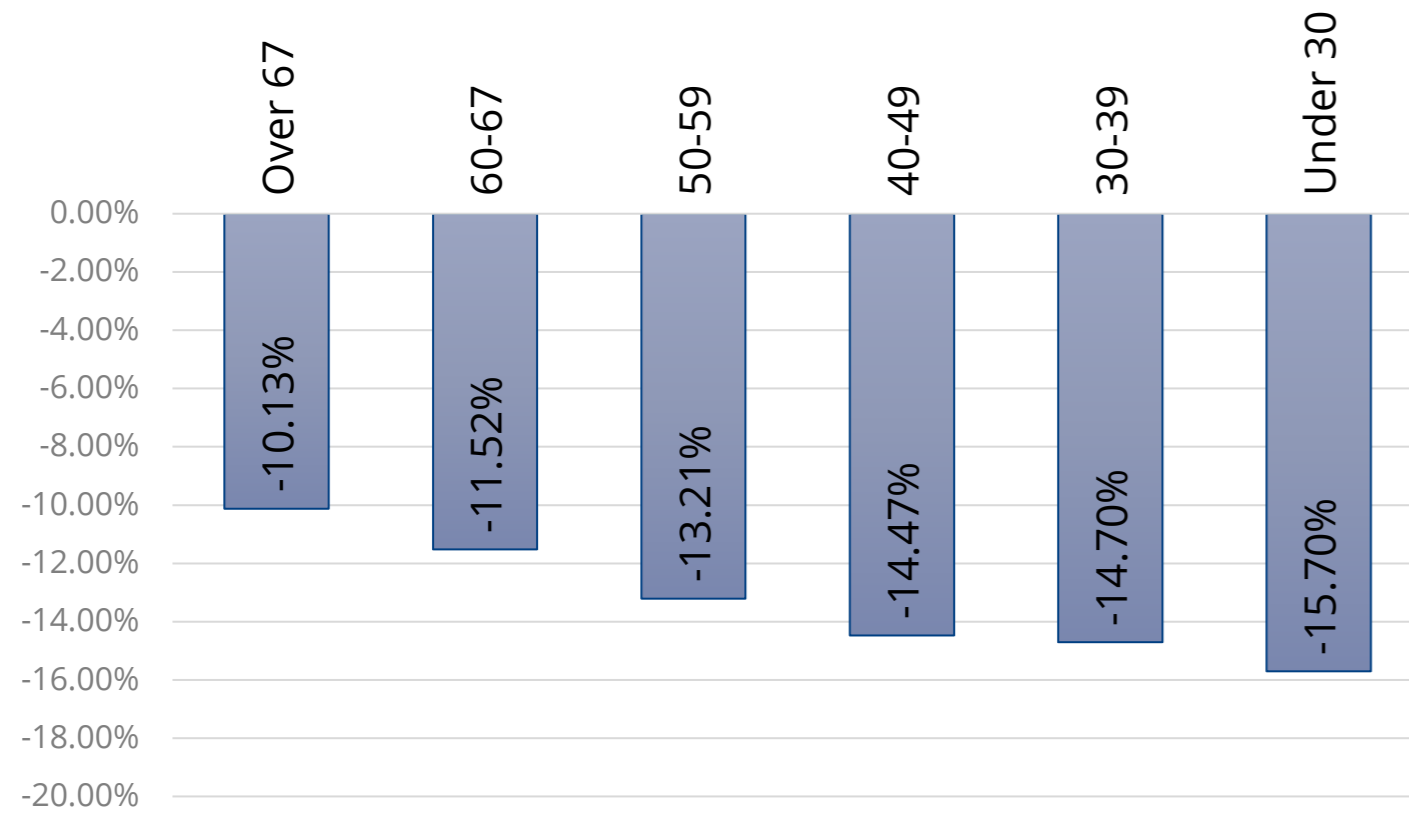


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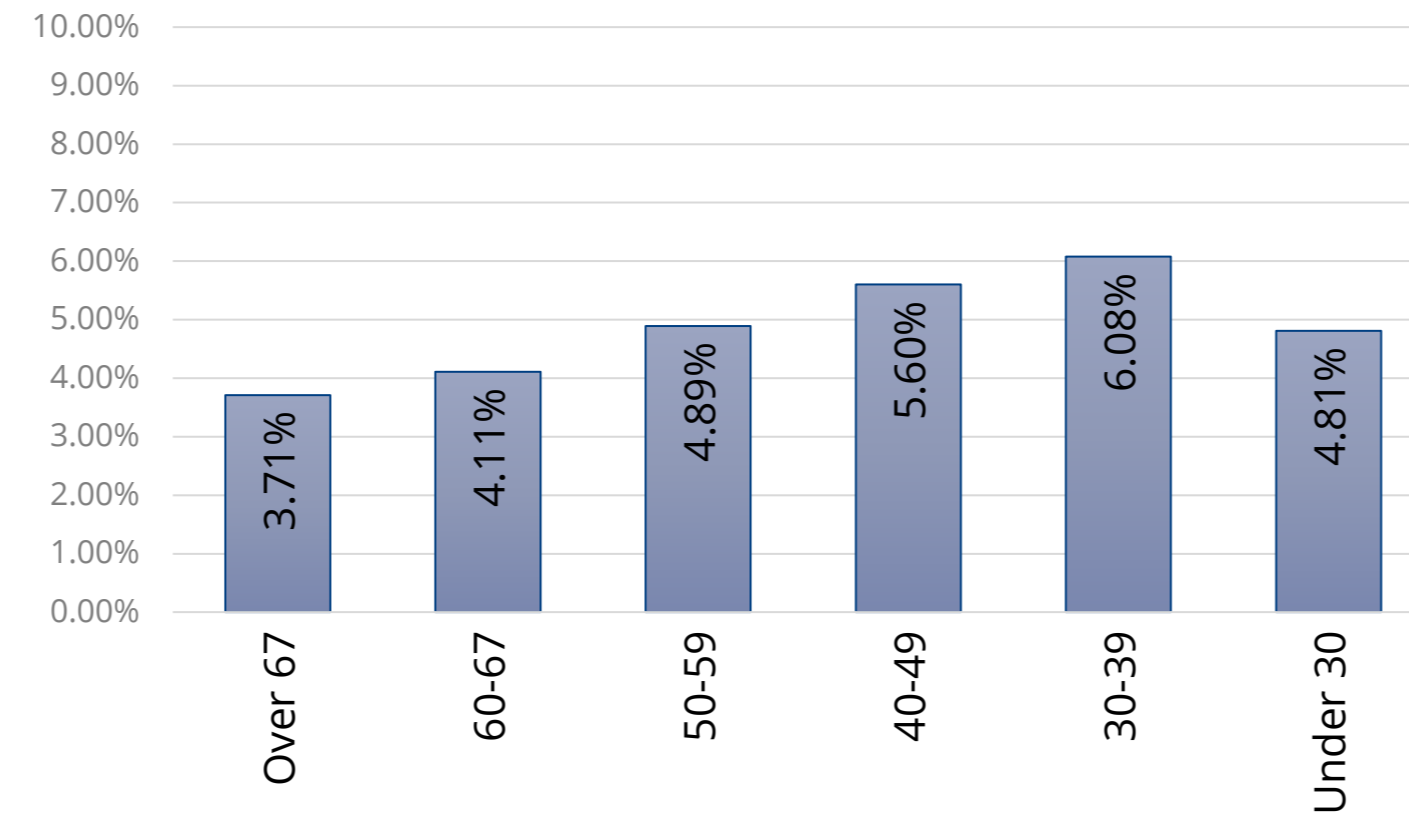
Annual Rate of Return Summary

As of 9/30/2022

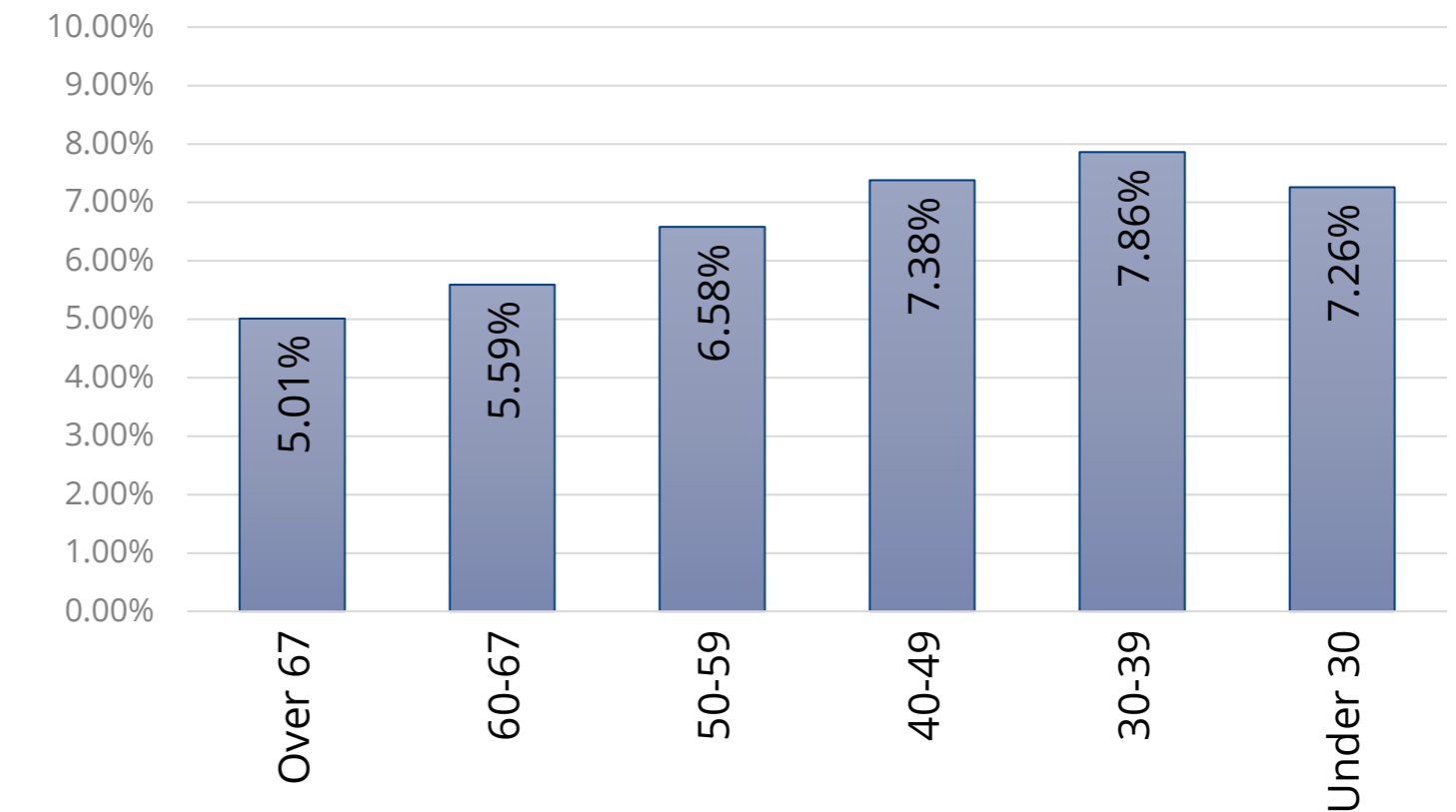
**All Investment Strategies -
Median 1 Year by Age Band**



**All Investment Strategies -
Median 3 Year by Age Band**



**All Investment Strategies -
Median 5 Year by Age Band**

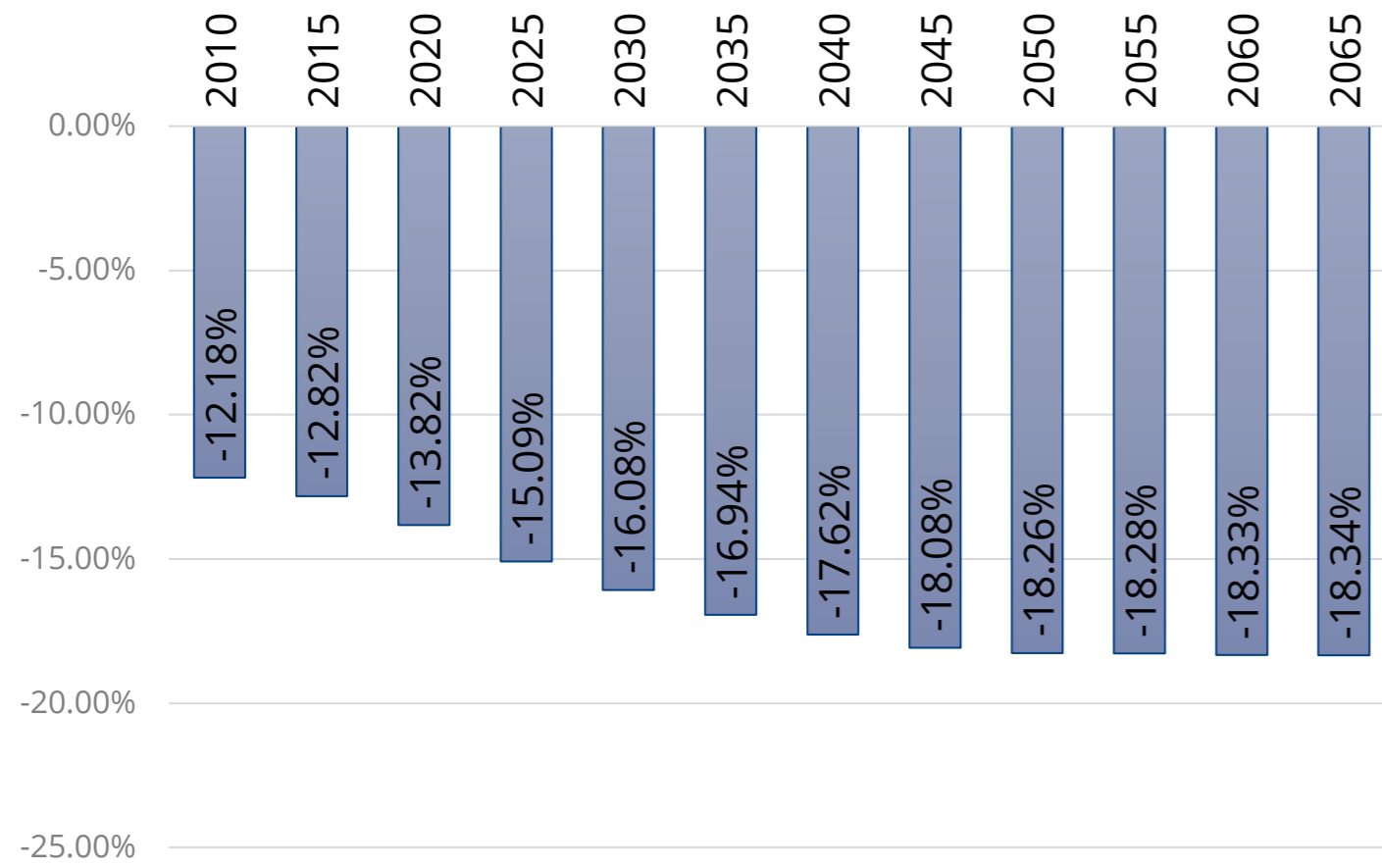


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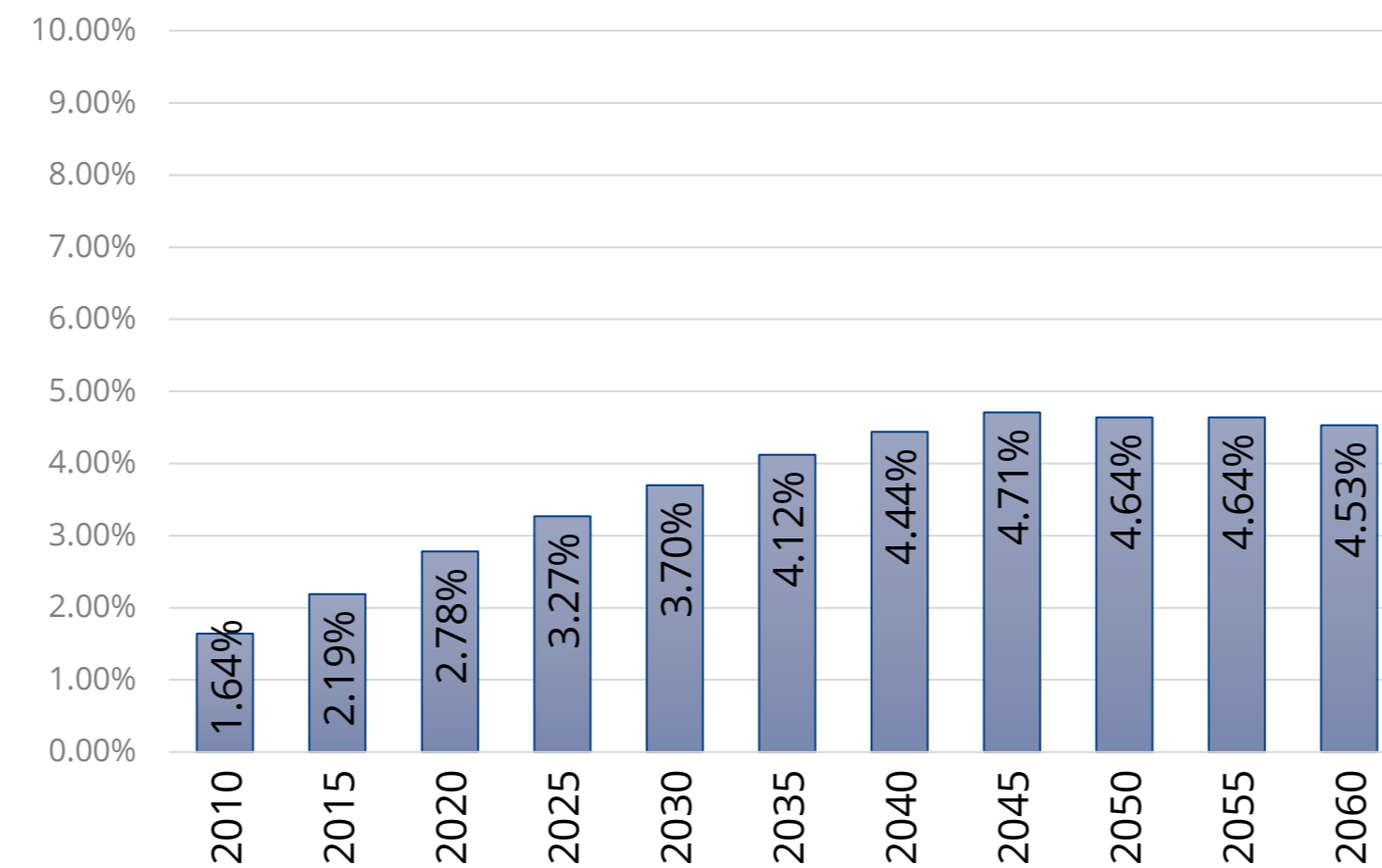
Annual Rate of Return Summary – 75th Percentile

As of 9/30/2022

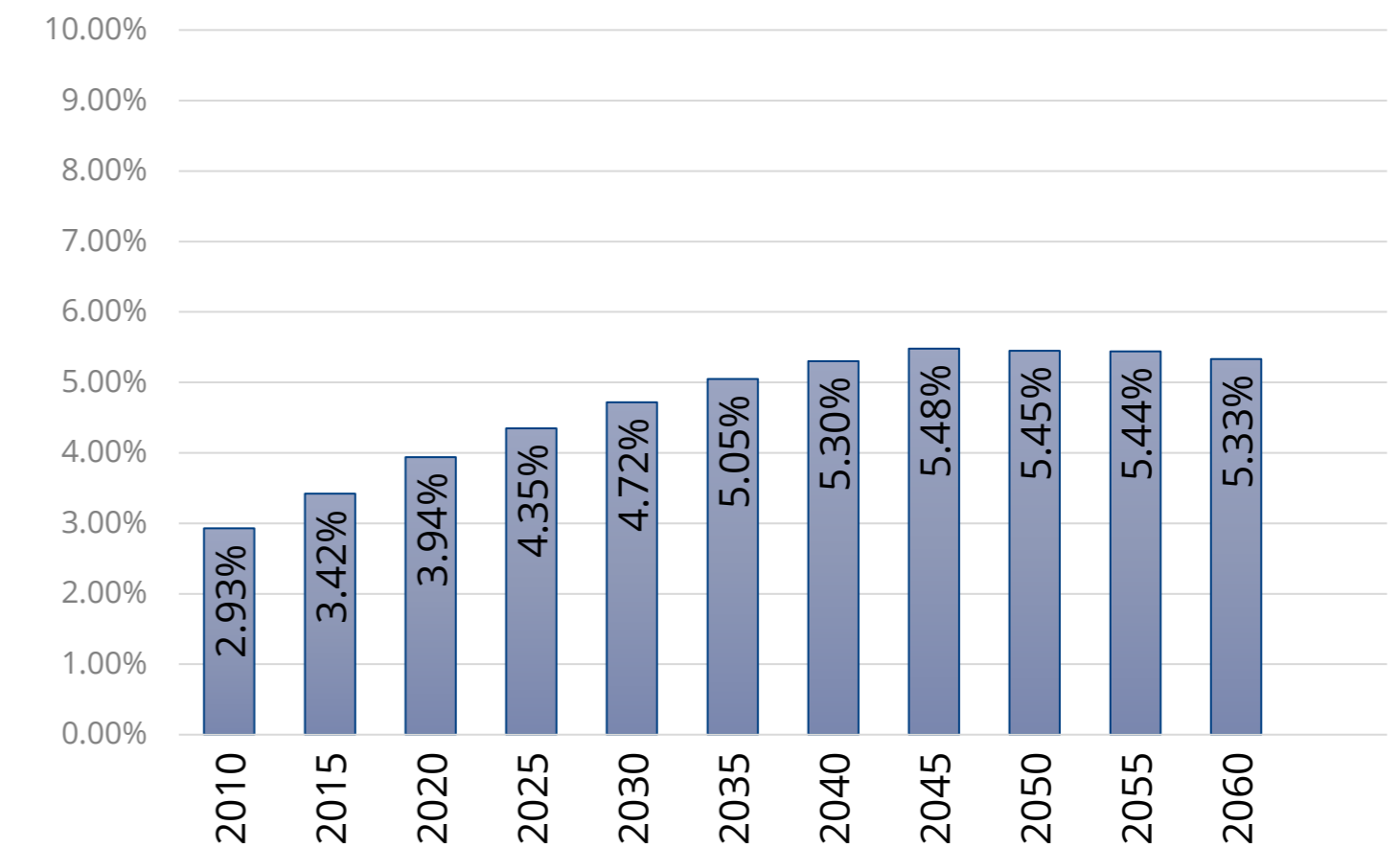
Alaska Target Date Fund - 1 Year



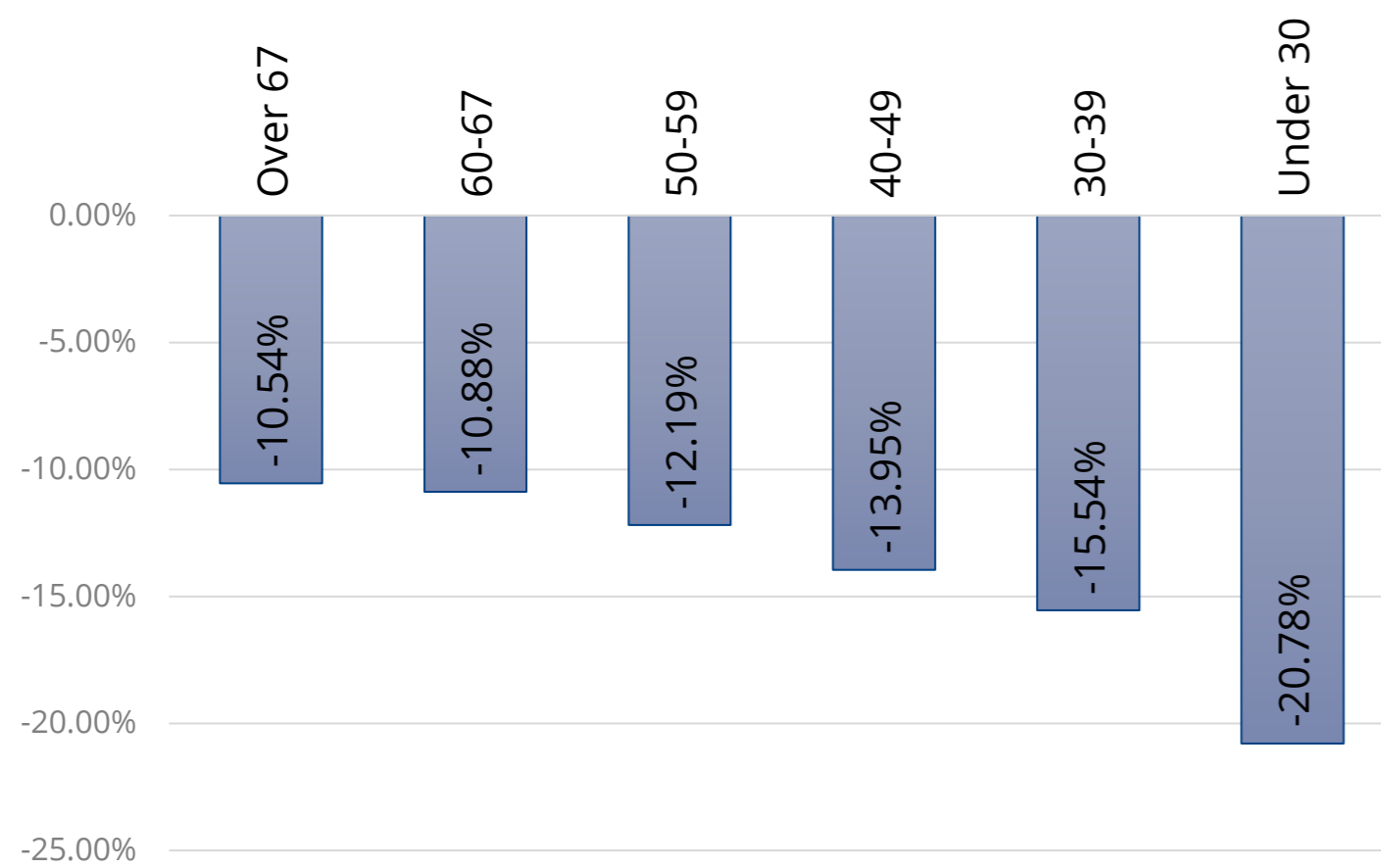
Alaska Target Date Fund - 3 Year



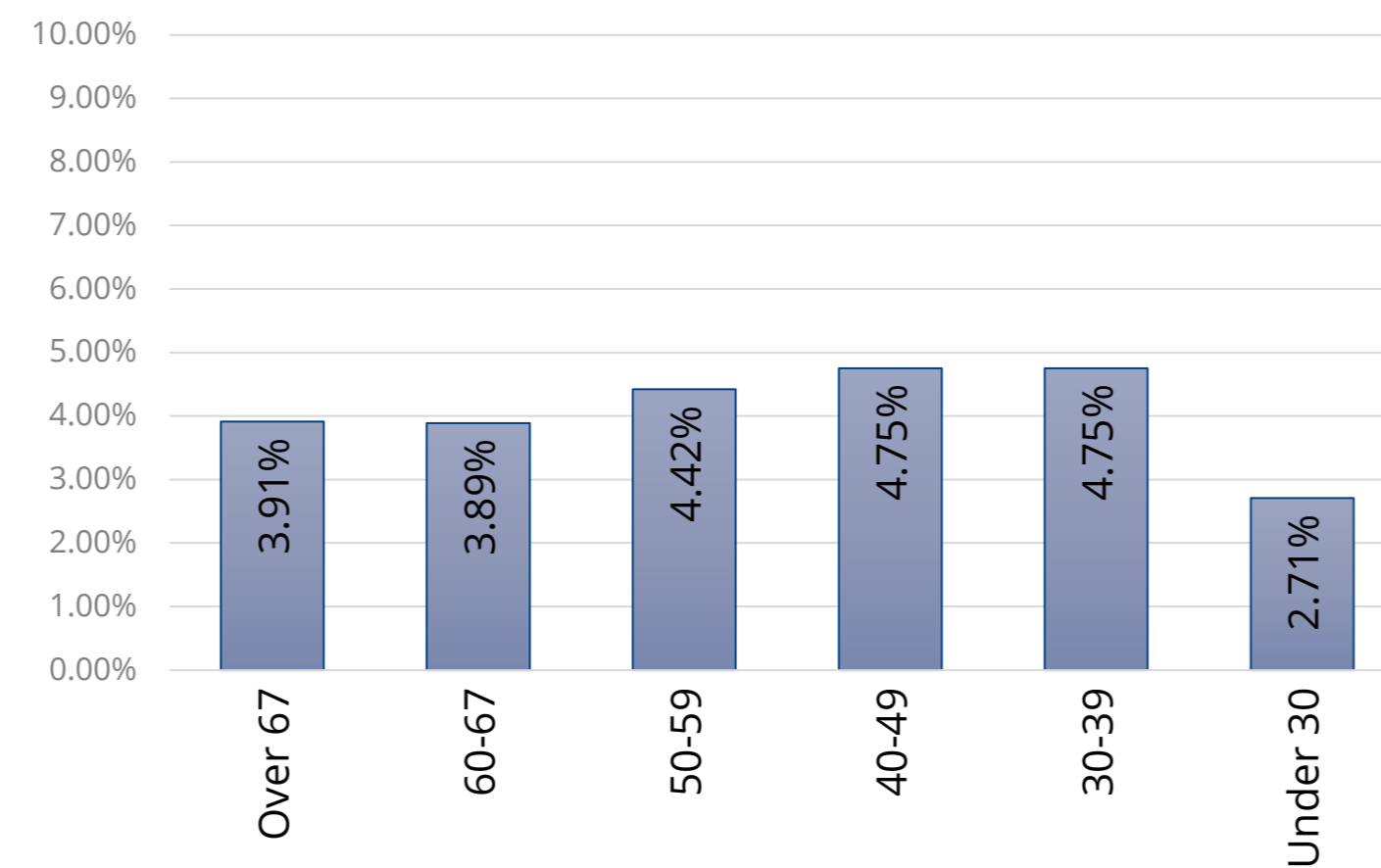
Alaska Target Date Fund - 5 Year



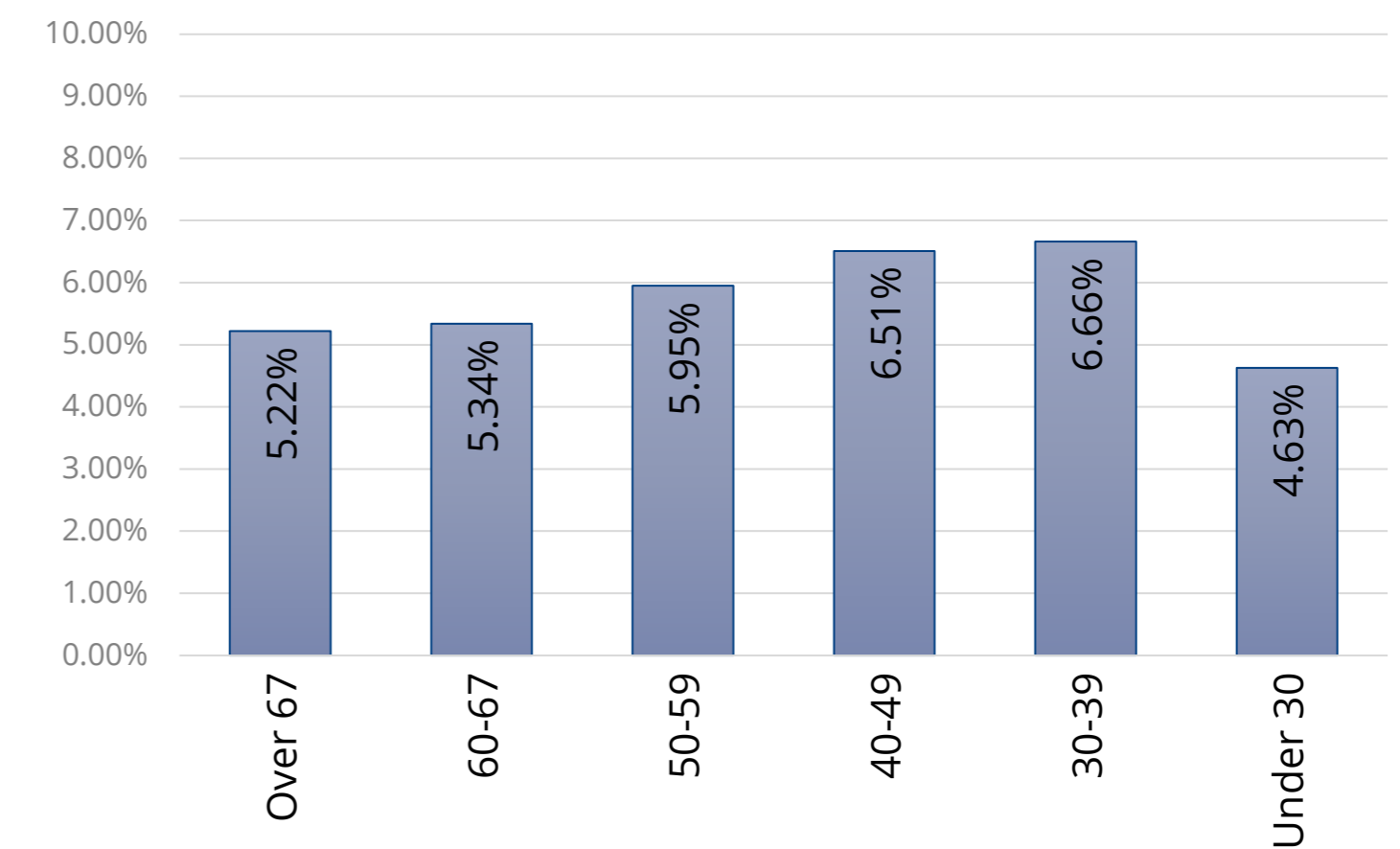
MTR – 75th Percentile 1 Year by Age Band



MTR – 75th Percentile 3 Year by Age Band



MTR – 75th Percentile 5 Year by Age Band

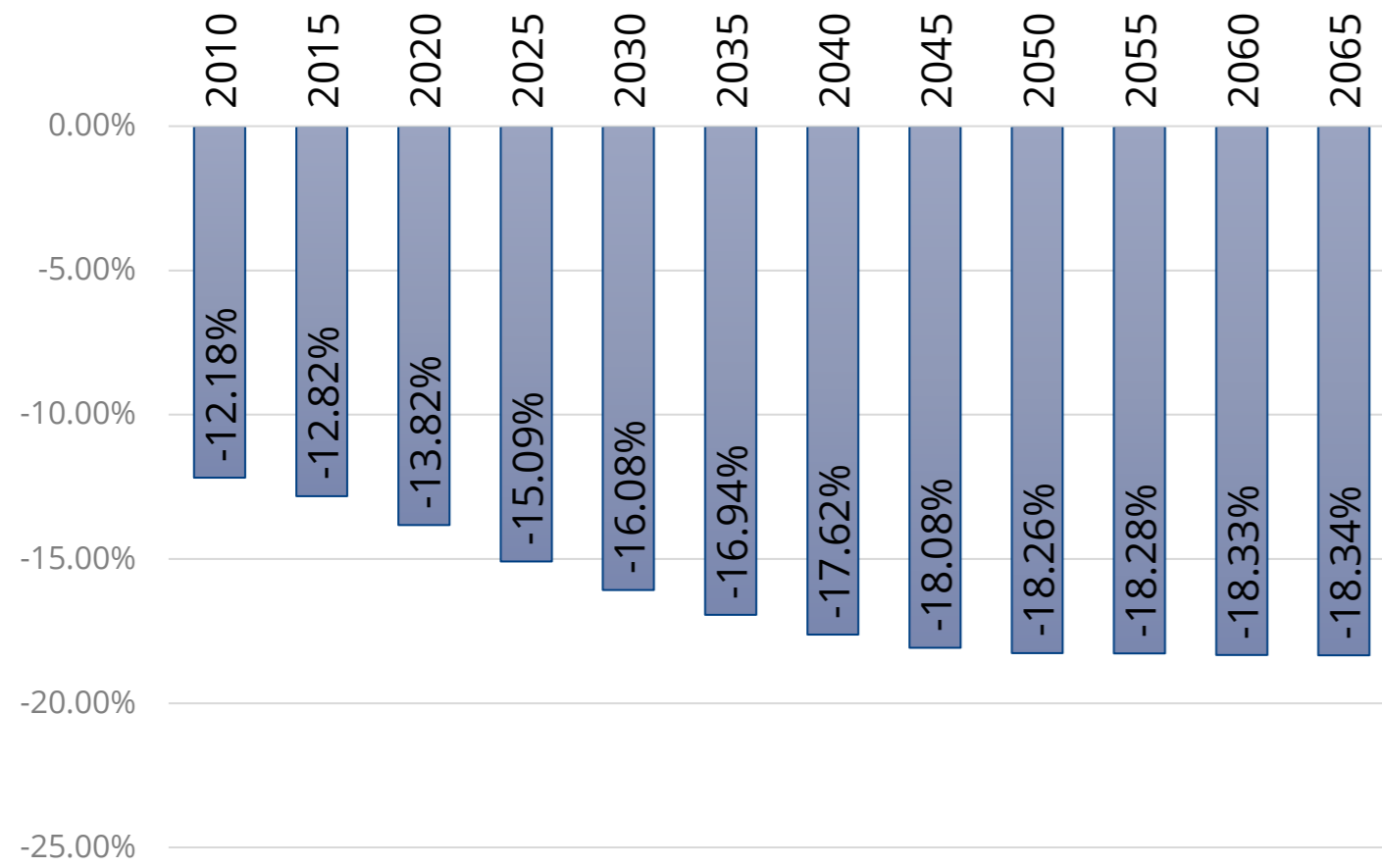


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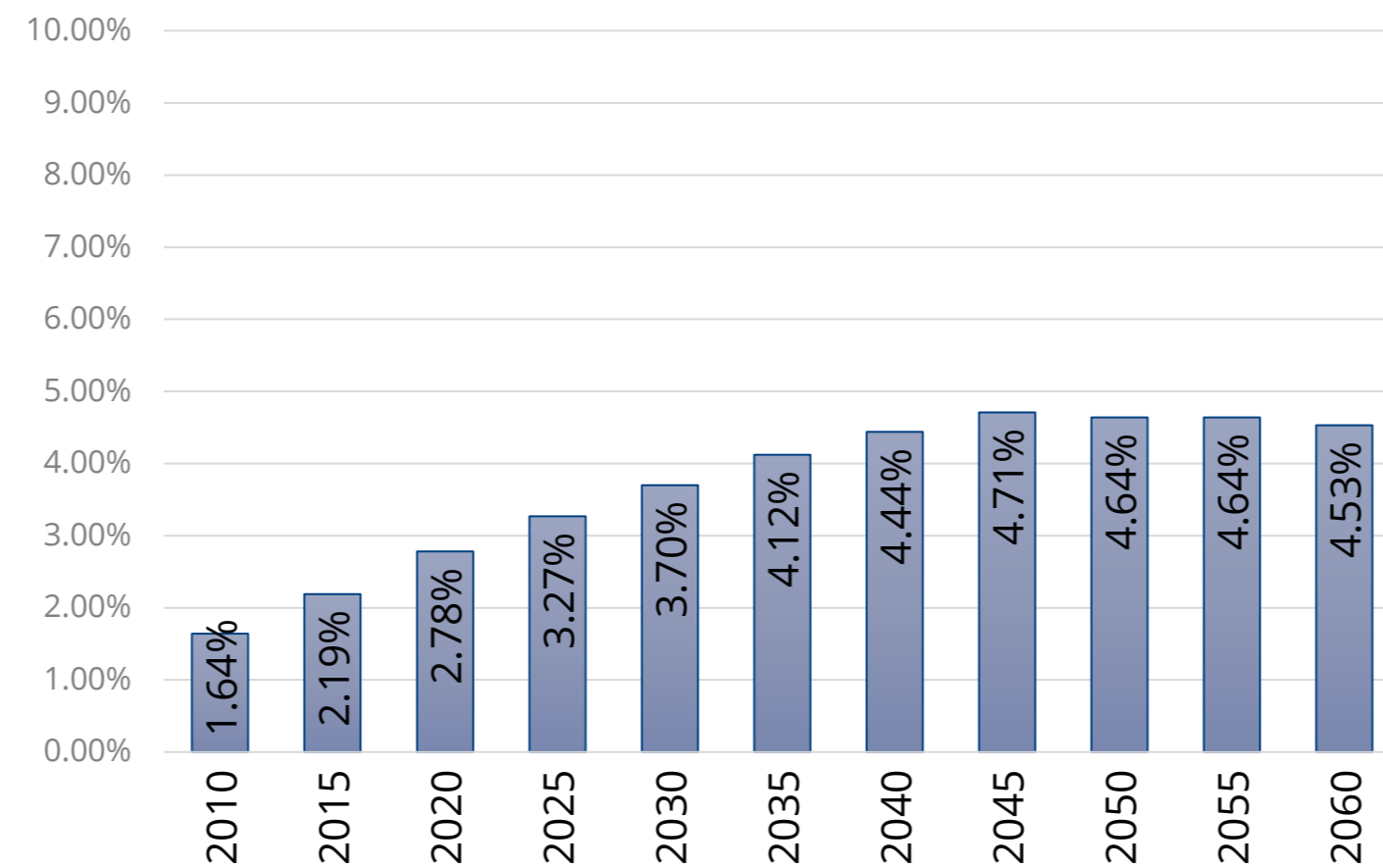
Annual Rate of Return Summary - Median

As of 9/30/2022

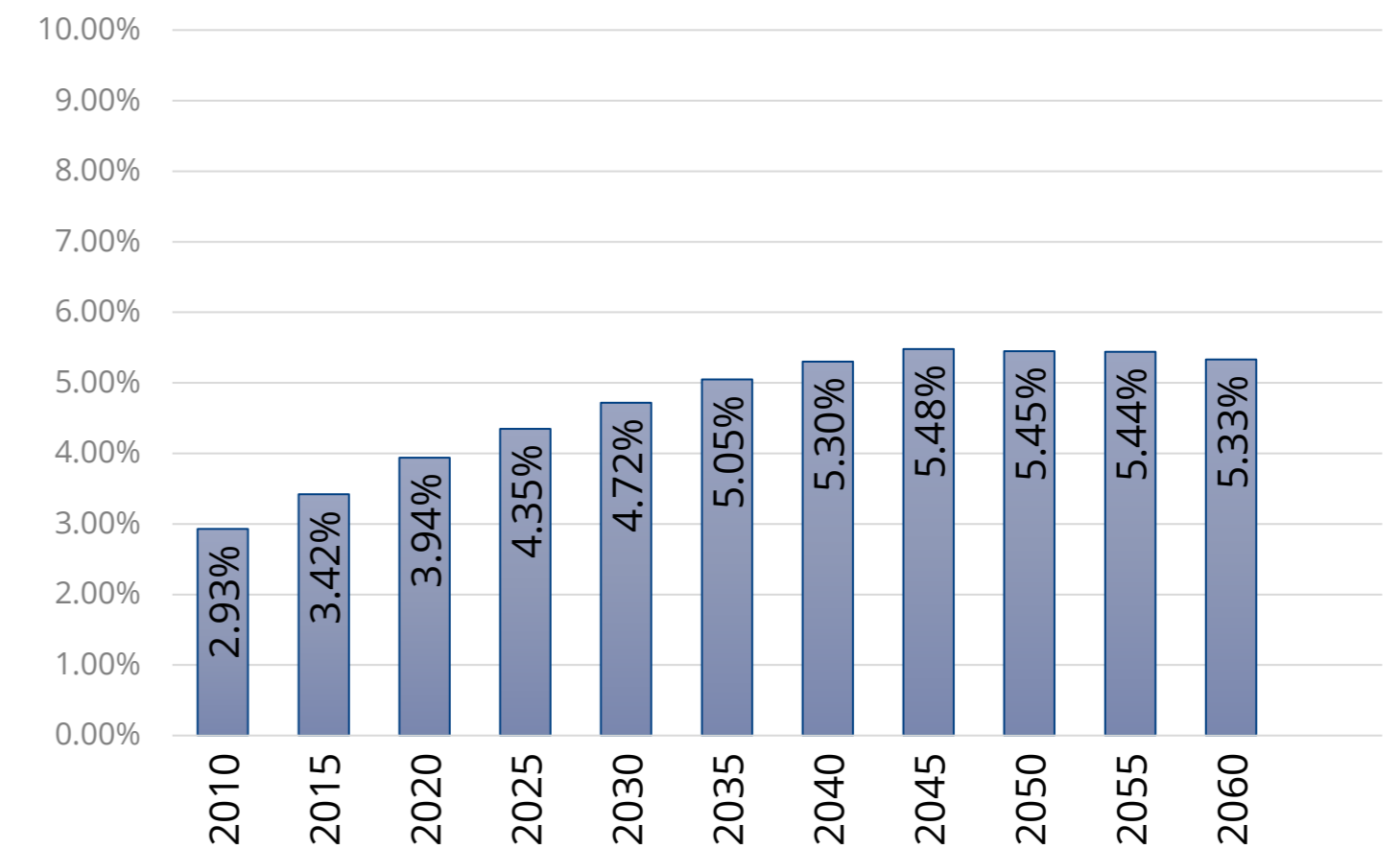
Alaska Target Date Fund - 1 Year



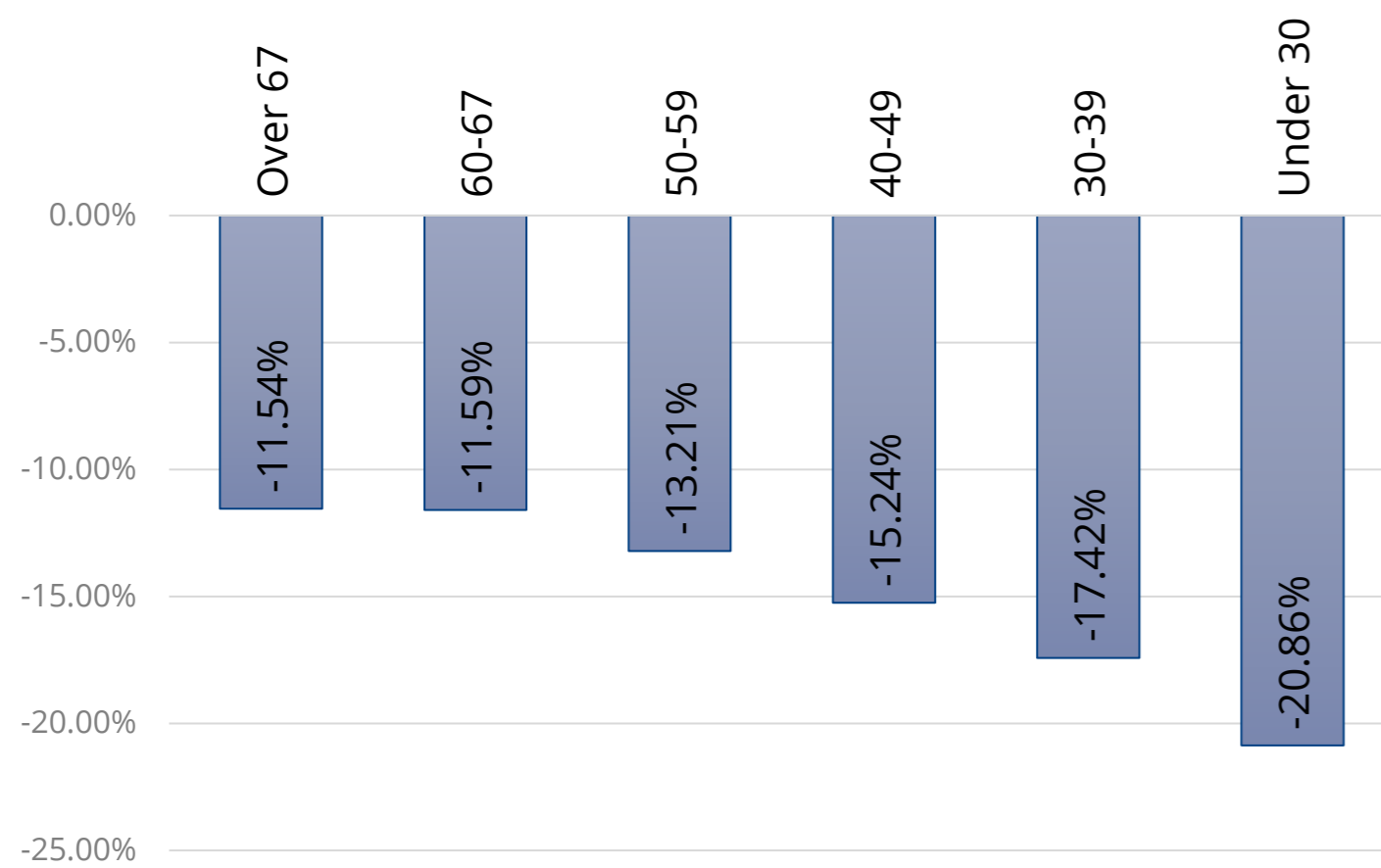
Alaska Target Date Fund - 3 Year



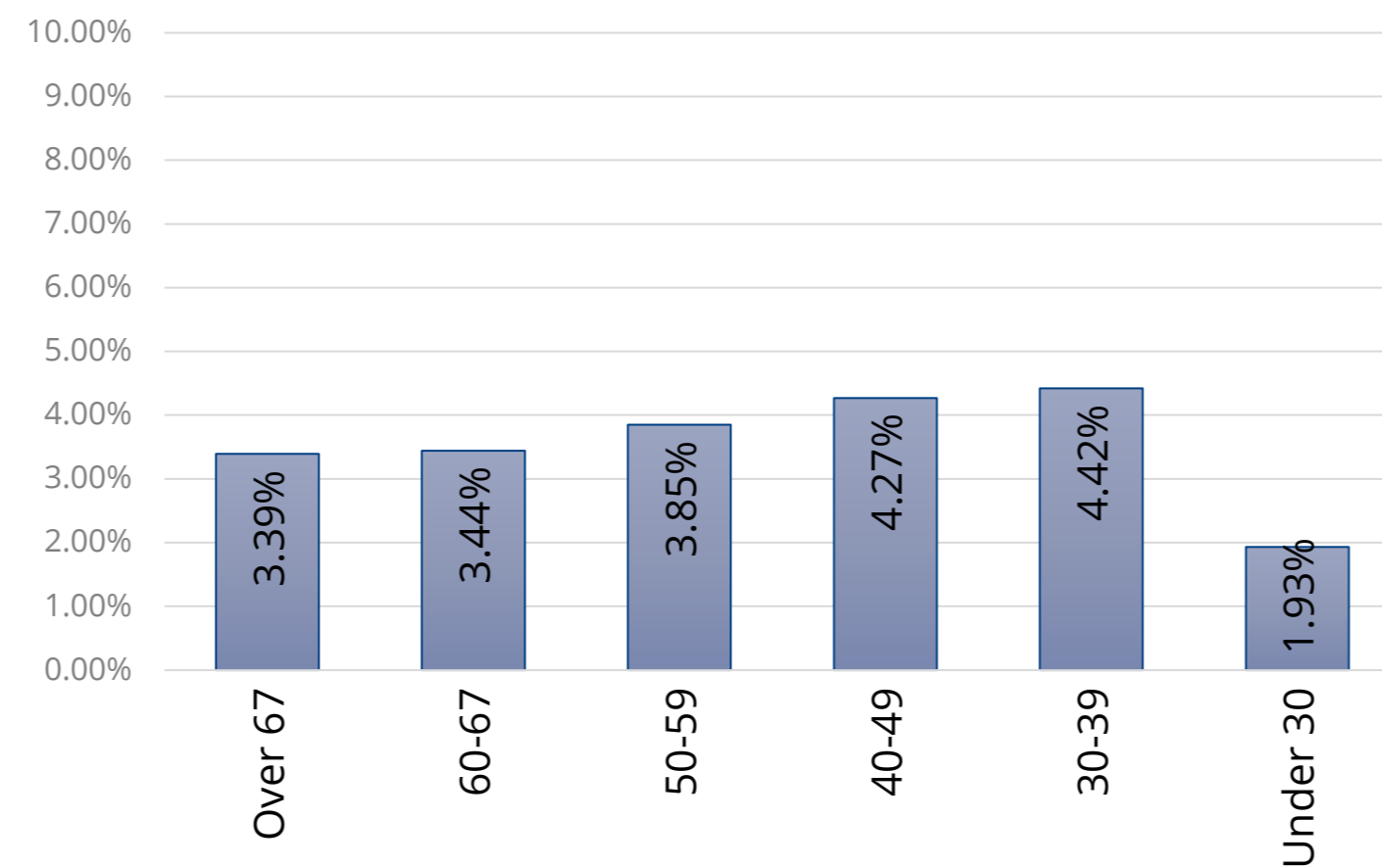
Alaska Target Date Fund - 5 Year



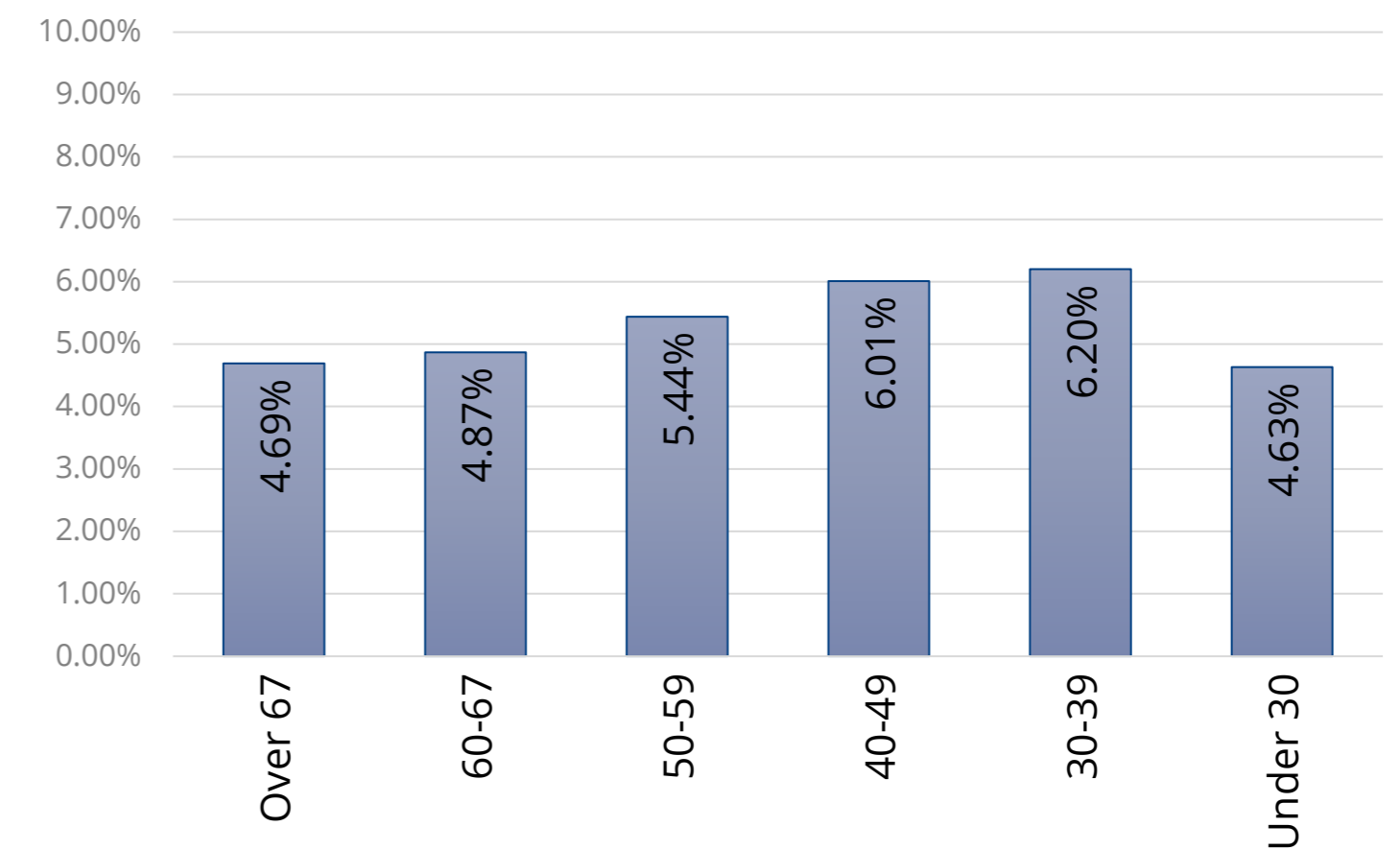
MTR - Median 1 Year by Age Band



MTR - Median 3 Year by Age Band



MTR - Median 5 Year by Age Band

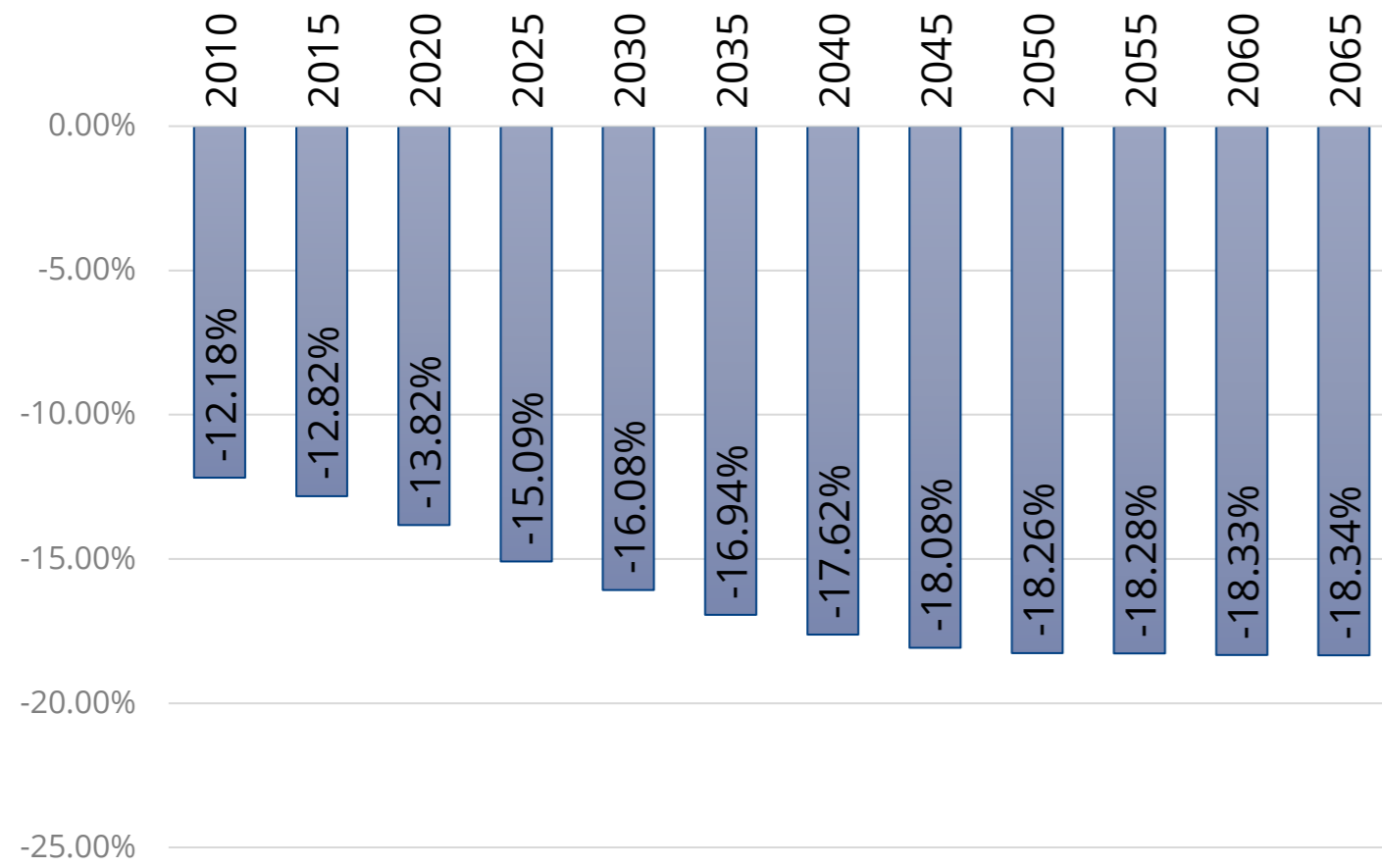


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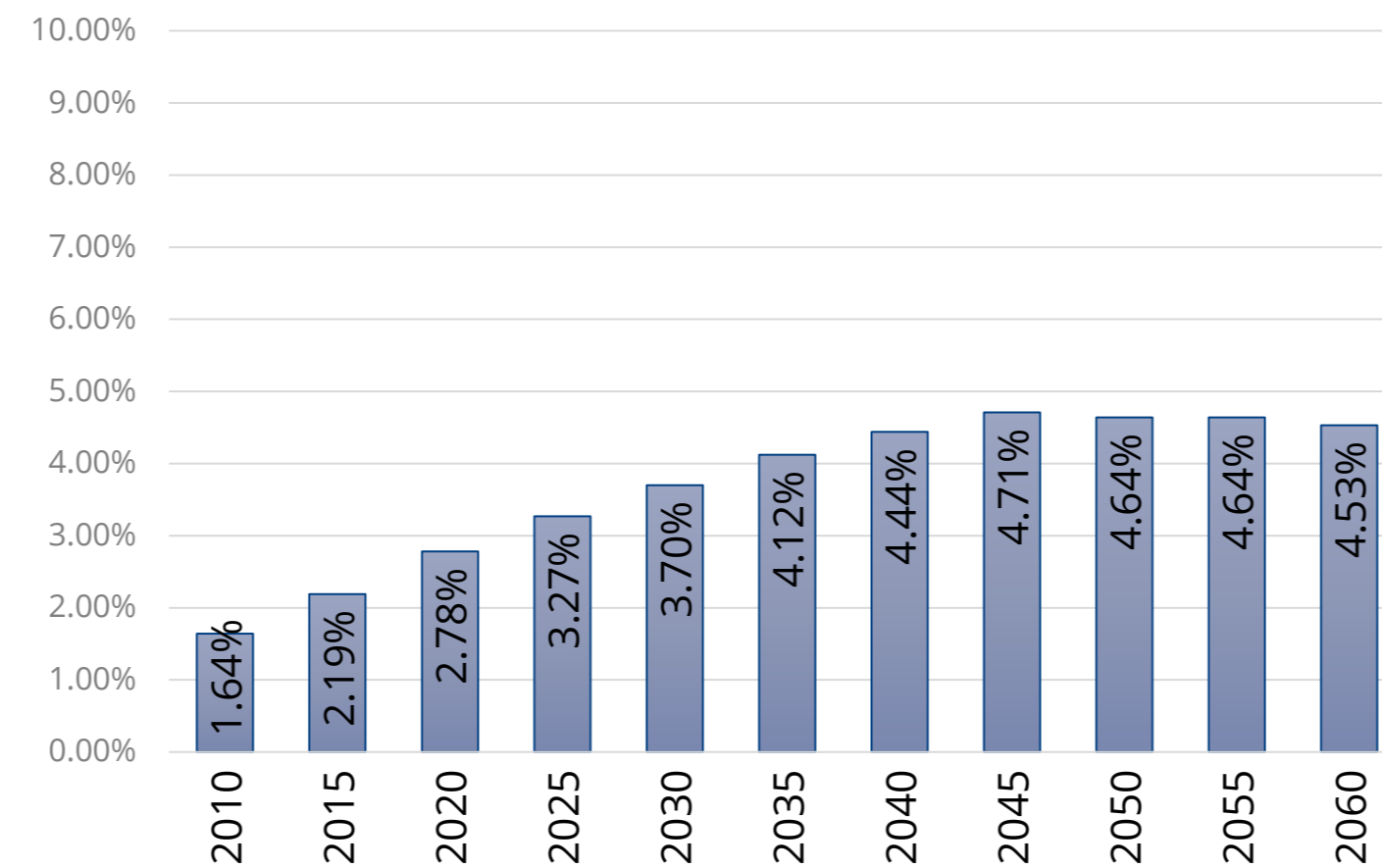
Annual Rate of Return Summary – 25th Percentile

As of 9/30/2022

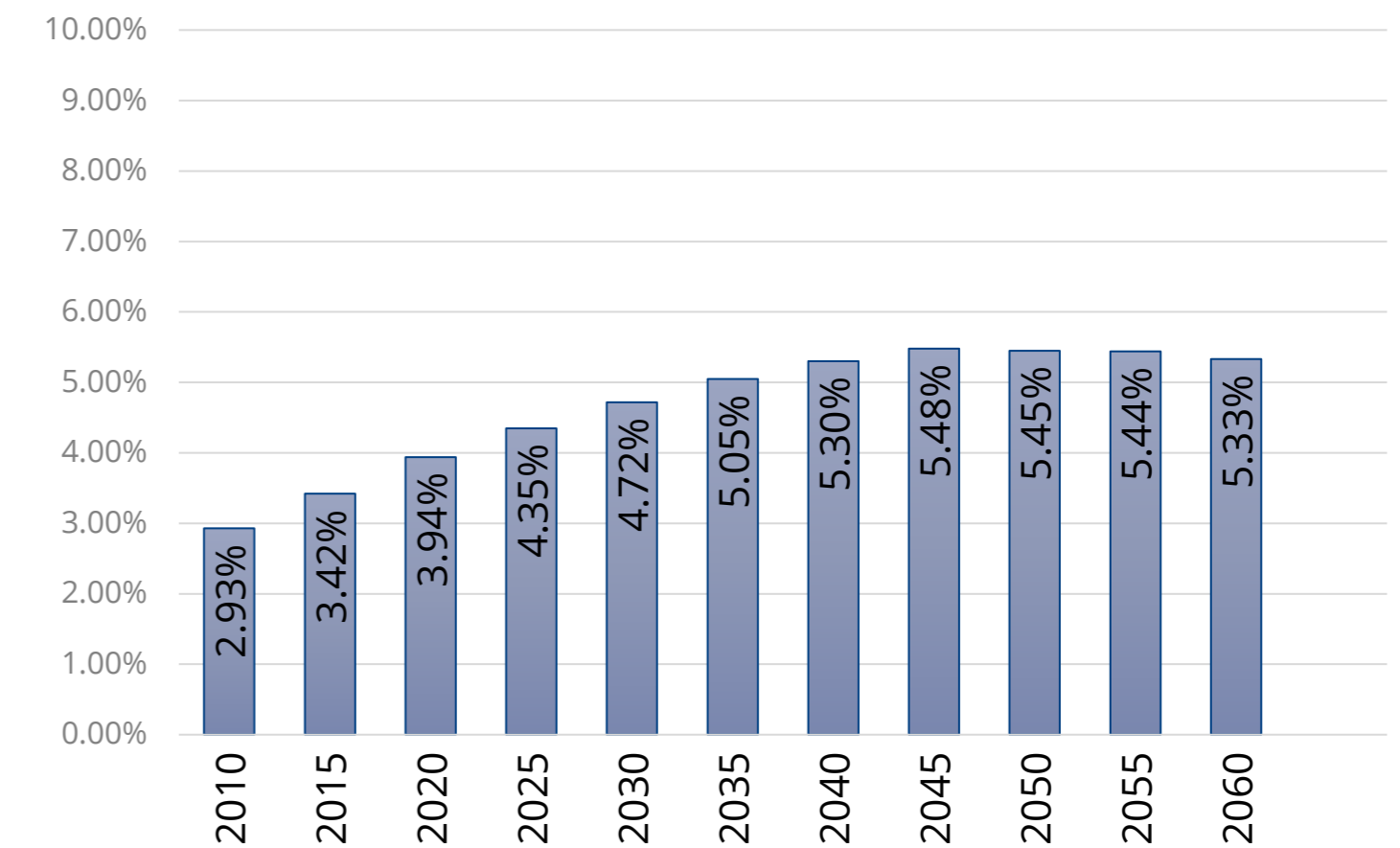
Alaska Target Date Fund - 1 Year



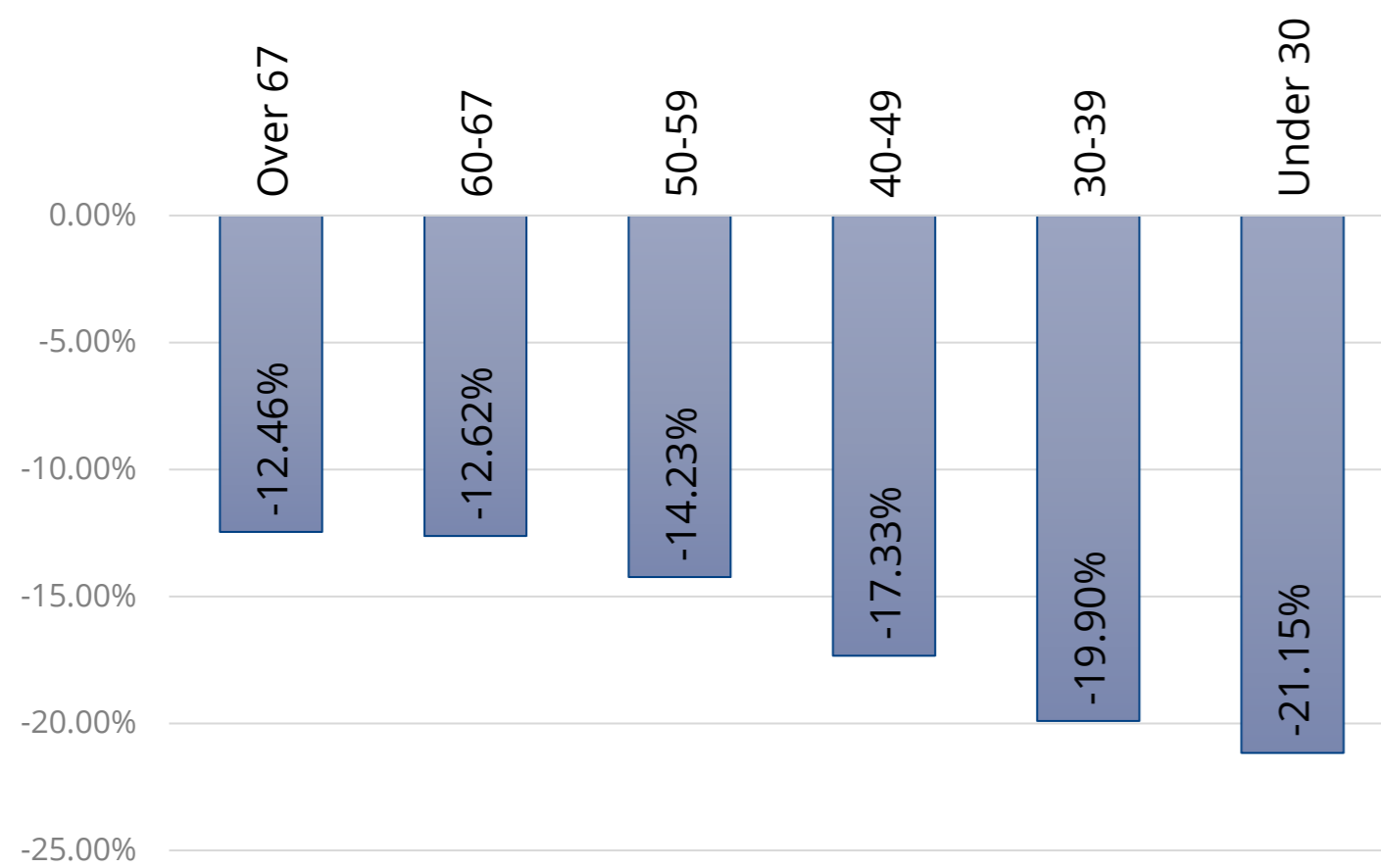
Alaska Target Date Fund - 3 Year



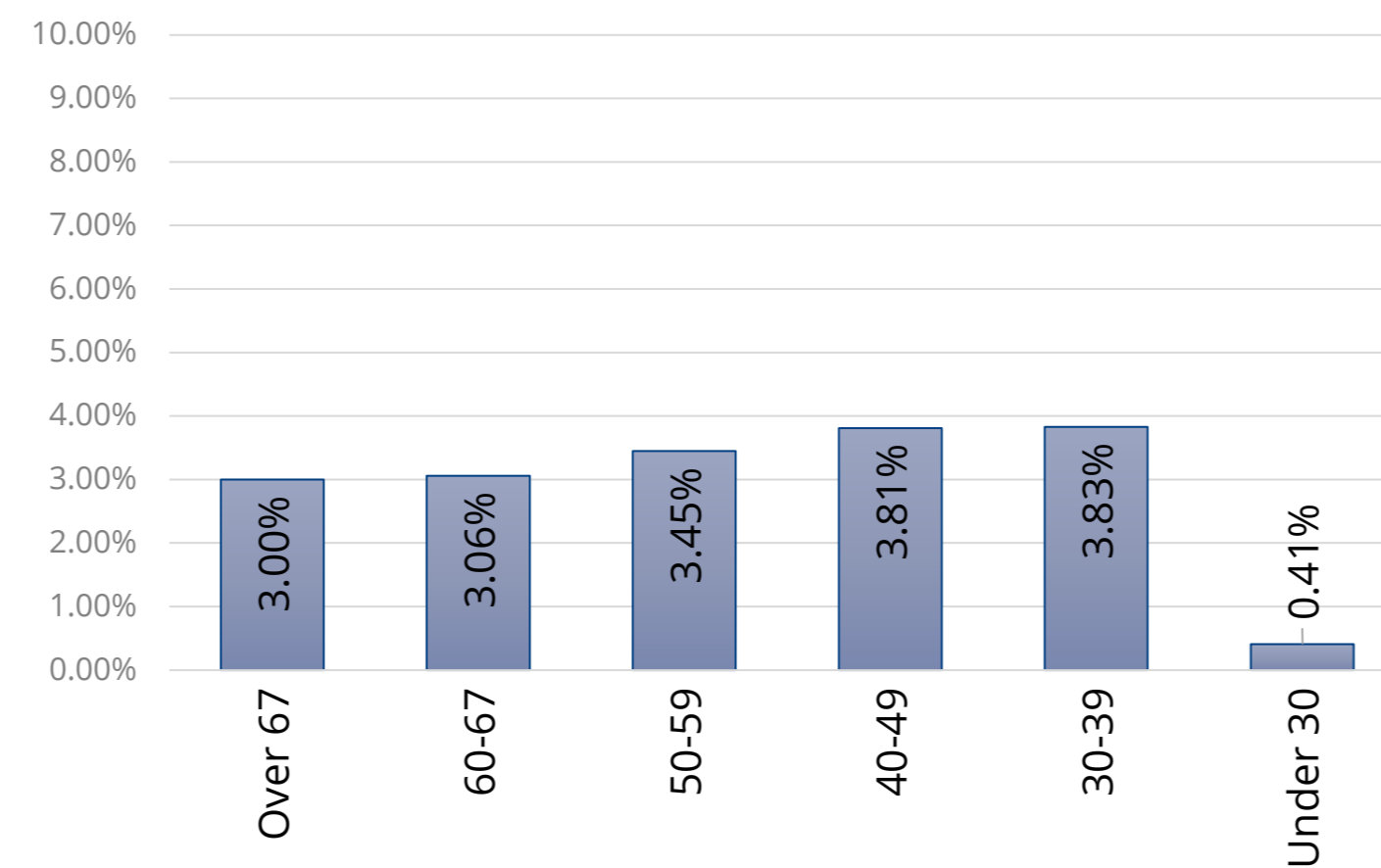
Alaska Target Date Fund - 5 Year



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MTR – 25th Percentile 3 Year by Age Band



MTR – 25th Percentile 5 Year by Age Band



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Rate of Return Definitions & Methodology

Rate of Return:

Rate of return is calculated based on all account activity between the first and last day of the period. It is calculated based on a formula which estimates the equivalent rate of return during the statement period, based on the opening balance, transaction activity and closing balance. The formula was reviewed by Empower Advisory Group, LLC, a registered investment adviser.

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$(1 + [\text{January Rate of Return}]) * \dots (1 + [\text{December Rate of Return}])$

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Investment Performance



Investment Performance

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INVESTMENT OPTION	Ticker	Gross/Net Expense Ratio	Inception Date	Returns as of Month Ending 10/31/2022					Returns as of Quarter Ending 09/30/2022					Calendar Year Returns			
				1 Month YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	3 Month	1 Year	3 Year	5 Year	10 Year/ Since Inception	2021	2020	2019	
Domestic Fixed Income																	
Passive U.S. Bond Index Fund	N/A	0.04 / 0.04	08-01-2018	-1.29	-15.62	-15.65	-3.77	N/A	-0.30	-4.75	-14.58	-3.26	N/A	0.00	-1.64	7.49	8.70
Barclays US Aggregate Bond Index ⁸	N/A	- / -		-1.30	-15.72	-15.68	-3.77	-0.54	0.74	-4.75	-14.60	-3.26	-0.27	0.89	-1.54	7.51	8.72
Stable Value/Money Market																	
Stable Value Fund ^{6,27}	N/A	0.21 / 0.21	08-01-2018	0.17	1.57	1.87	2.12	N/A	2.24	0.48	1.86	2.13	N/A	2.25	1.93	2.43	2.65
State Street Inst Treasury Money Market ²	TRIXX	0.12 / 0.12	10-25-2007	0.23	0.86	0.86	0.51	1.06	0.60	0.47	0.63	0.49	1.03	0.58	0.01	0.40	2.10
Citigroup 3-Month T-Bill ^{8,14}	N/A	- / -		*	*	*	*	*	*	0.45	0.63	0.57	1.13	0.66	0.05	0.58	2.25
Balanced																	
Alaska Balanced Trust ^{5,7,19,20,21}	N/A	0.10 / 0.10	03-31-1992	1.80	-13.40	-13.02	1.33	2.80	4.31	-4.66	-13.09	1.08	2.58	4.08	6.06	10.86	13.47
Alaska Balanced Custom Index ^{5,8,22}	N/A	- / -		1.92	-13.95	-13.46	1.12	2.72	4.19	-4.69	-13.54	0.84	2.48	3.96	6.43	10.42	13.91
Alaska Long-Term Balanced Trust ^{5,7,19,20,21}	N/A	0.12 / 0.12	06-18-2001	3.62	-15.66	-14.99	3.47	4.41	6.57	-5.20	-15.38	2.80	3.92	6.11	11.13	13.98	18.64
Alaska Long-Term Balanced Custom Index ^{5,7,8,22}	N/A	- / -		3.69	-16.35	-15.57	3.24	4.37	6.48	-5.21	-15.95	2.56	3.88	6.03	11.56	13.58	19.39
BlackRock Strategic Completion NL F ^{5,6}	N/A	0.11 / 0.11	09-01-2011	2.28	-13.77	-12.67	1.87	3.06	1.85	-7.87	-11.80	1.60	2.68	1.58	18.71	2.68	13.20

Investment Performance

INVESTMENT OPTION	Ticker	Gross/Net Expense Ratio	Inception Date	Returns as of Month Ending 10/31/2022					Returns as of Quarter Ending 09/30/2022					Calendar Year Returns			
				1 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	3 Month	1 Year	3 Year	5 Year	10 Year/ Since Inception	2021	2020	2019
Domestic Equity																	
Russell 3000 Index ^{6,21}	N/A	0.01 / 0.01	06-01-2000	8.21	-18.32	-16.36	9.82	9.90	6.82	-4.45	-17.46	7.73	8.65	11.41	25.74	20.78	31.04
Russell 3000 Index ^{8,26}	N/A	- / -		8.20	-18.44	-16.52	9.78	9.87	*	-4.46	-17.63	7.70	8.62	11.39	25.66	20.89	31.02
S & P 500 Stock Index Fund ^{1,21}	N/A	0.01 / 0.01	02-01-1996	8.09	-17.71	-14.62	10.19	10.42	12.77	-4.88	-15.48	8.14	9.22	11.69	28.69	18.36	31.47
S & P 500 Index ^{8,9,10}	N/A	- / -		8.10	-17.70	-14.61	10.22	10.44	12.79	-4.88	-15.47	8.16	9.24	11.70	28.71	18.40	31.49
Environmental, Social and Governance Fd ^{6,21}	N/A	0.05 / 0.05	08-01-2018	7.32	-20.52	-18.56	9.82	N/A	9.75	-6.33	-17.00	7.91	N/A	8.10	31.63	18.52	31.35
MSCI USA ESG Index ^{8,28}	N/A	- / -		7.30	-20.47	-18.50	9.92	*	9.87	-6.30	-16.92	8.03	*	8.23	31.73	18.84	31.66
US Small Cap Trust ^{7,21}	N/A	0.60 / 0.60	12-10-2001	8.63	-20.27	-21.30	7.25	9.21	12.23	-2.26	-24.10	4.92	7.71	11.05	17.12	25.10	34.20
Russell 2000 Index ^{4,8,25,29}	N/A	- / -		11.01	-16.86	-18.54	7.05	5.56	9.93	-2.19	-23.50	4.29	3.55	8.55	14.82	19.96	25.52
International Equity																	
World Equity Ex-US Index ^{6,17,21}	N/A	0.07 / 0.07	09-09-2008	3.44	-24.14	-24.54	-1.51	-0.43	3.42	-10.38	-24.98	-1.49	-0.73	3.11	8.03	10.78	21.73
International Equity Fund ⁷	AKIEQ	0.38 / 0.38	03-27-2015	4.57	-30.11	-31.08	-1.92	-1.14	-0.18	-11.84	-32.68	-2.31	-1.90	-0.78	8.12	16.18	24.96
MSCI ACWI ex-US Index ^{8,24}	N/A	- / -		2.99	-24.31	-24.73	-1.68	-0.60	*	-9.91	-25.17	-1.52	-0.81	2.57	7.82	10.65	21.51

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Investment Performance

INVESTMENT OPTION	Gross/Net Expense Ratio	Inception Date	Returns as of Month Ending 10/31/2022					Returns as of Quarter Ending 09/30/2022					Calendar Year Returns				
			1 Month YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	3 Month	1 Year	3 Year	5 Year	10 Year/ Since Inception	2021	2020	2019		
Alaska Target Date Retirement 2010 Trust ^{3,4,7,19,21,29}	N/A	0.21 / 0.21	04-30-2009	2.26	-12.38	-11.94	2.02	3.20	5.10	-4.52	-12.18	1.64	2.93	4.80	6.99	10.39	14.18
Alaska 2010 Custom Index ^{4,8,22,29}	N/A	- / -		2.38	-12.92	-12.38	1.86	3.18	5.05	-4.56	-12.64	1.47	2.89	4.75	7.40	10.08	14.63
Alaska Target Date Retirement 2015 Trust ^{3,4,7,19,20,21,29}	N/A	0.13 / 0.13	02-01-1996	2.63	-13.04	-12.54	2.63	3.74	5.96	-4.69	-12.82	2.19	3.42	5.61	8.25	11.50	15.85
Alaska 2015 Custom Index ^{4,8,22,29}	N/A	- / -		2.70	-13.67	-13.07	2.38	3.62	5.85	-4.70	-13.34	1.93	3.30	5.50	8.57	11.09	16.24
Alaska Target Date Retirement 2020 Trust ^{3,4,7,19,20,21,29}	N/A	0.14 / 0.14	11-02-2000	3.15	-14.11	-13.50	3.32	4.32	6.81	-4.91	-13.82	2.78	3.94	6.39	9.99	12.73	18.13
Alaska 2020 Custom Index ^{4,8,22,29}	N/A	- / -		3.21	-14.76	-14.05	3.06	4.20	6.68	-4.90	-14.36	2.52	3.81	6.26	10.33	12.32	18.56
Alaska Target Date Retirement 2025 Trust ^{3,4,7,19,20,21,29}	N/A	0.15 / 0.15	11-02-2005	3.78	-15.44	-14.73	3.95	4.83	7.54	-5.20	-15.09	3.27	4.35	7.05	11.90	14.04	20.18
Alaska 2025 Custom Index ^{4,8,22,29}	N/A	- / -		3.86	-16.09	-15.28	3.69	4.72	7.42	-5.16	-15.68	3.00	4.23	6.92	12.29	13.57	20.64
Alaska Target Date Retirement 2030 Trust ^{3,4,7,19,21,29}	N/A	0.15 / 0.15	04-30-2009	4.31	-16.44	-15.64	4.51	5.29	8.18	-5.39	-16.08	3.70	4.72	7.61	13.56	15.05	22.02
Alaska 2030 Custom Index ^{4,8,22,29}	N/A	- / -		4.40	-17.04	-16.14	4.31	5.21	8.08	-5.37	-16.61	3.48	4.64	7.51	14.04	14.61	22.49
Alaska Target Date Retirement 2035 Trust ^{3,4,7,19,21,29}	N/A	0.16 / 0.16	04-30-2009	4.84	-17.31	-16.41	5.06	5.70	8.72	-5.60	-16.94	4.12	5.05	8.09	15.04	16.08	23.63
Alaska 2035 Custom Index ^{4,8,22,29}	N/A	- / -		4.92	-17.90	-16.92	4.83	5.61	8.60	-5.55	-17.47	3.89	4.96	7.97	15.48	15.62	24.08
Alaska Target Date Retirement 2040 Trust ^{3,4,7,19,21,29}	N/A	0.16 / 0.16	04-30-2009	5.32	-17.96	-17.00	5.49	6.02	9.09	-5.78	-17.62	4.44	5.30	8.40	16.33	16.77	24.81
Alaska 2040 Custom Index ^{4,8,22,29}	N/A	- / -		5.38	-18.55	-17.51	5.26	5.93	8.96	-5.70	-18.15	4.20	5.21	8.28	16.76	16.29	25.26
Alaska Target Date Retirement 2045 Trust ^{3,4,7,19,21,29}	N/A	0.16 / 0.16	08-31-2009	5.69	-18.41	-17.39	5.87	6.28	9.26	-5.88	-18.08	4.71	5.48	8.53	17.41	17.31	25.61
Alaska 2045 Custom Index ^{4,8,22,29}	N/A	- / -		5.76	-19.00	-17.91	5.64	6.19	9.14	-5.81	-18.63	4.49	5.40	8.41	17.84	16.85	26.08
Alaska Target Date Retirement 2050 Trust ^{3,4,7,19,21,29}	N/A	0.16 / 0.16	08-31-2009	5.87	-18.54	-17.49	5.86	6.27	9.26	-5.93	-18.26	4.64	5.45	8.52	17.54	17.35	25.55
Alaska 2050 Custom Index ^{4,8,22,29}	N/A	- / -		5.92	-19.18	-18.09	5.59	6.16	9.12	-5.85	-18.89	4.38	5.34	8.38	17.93	16.85	26.08
Alaska Target Date Retirement 2055 Trust ^{3,4,7,19,21,29}	N/A	0.16 / 0.16	08-31-2009	5.87	-18.54	-17.51	5.86	6.27	9.25	-5.93	-18.28	4.64	5.44	8.51	17.55	17.31	25.62
Alaska 2055 Custom Index ^{4,8,22,29}	N/A	- / -		5.92	-19.18	-18.09	5.59	6.16	9.12	-5.85	-18.89	4.38	5.34	8.38	17.93	16.85	26.08

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Investment Performance

INVESTMENT OPTION	Ticker	Gross/Net Expense Ratio	Inception Date	Returns as of Month Ending 10/31/2022					Returns as of Quarter Ending 09/30/2022					Calendar Year Returns			
				1 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	3 Month	1 Year	3 Year	5 Year	10 Year/ Since Inception	2021	2020	2019
Alaska Target Date Retirement 2060 Trust ^{3,4,7,19,21,29}	N/A	0.23 / 0.23	11-05-2015	5.88	-18.57	-17.57	5.76	6.16	7.66	-5.95	-18.33	4.53	5.33	6.87	17.41	17.19	25.52
Alaska 2060 Custom Index ^{4,8,22,29}	N/A	- / -		5.92	-19.18	-18.09	5.59	6.16	7.69	-5.85	-18.89	4.38	5.34	6.89	17.93	16.85	26.08
Alaska Target Date Retirement 2065 Trust	N/A	0.23 / 0.23	01-07-2020	5.88	-18.59	-17.56	N/A	N/A	11.70	-5.89	-18.34	N/A	N/A	5.50	17.47	N/A	N/A
Alaska 2065 Custom Index ⁸	N/A	- / -		5.92	-19.18	-18.09	N/A	N/A	*	-5.85	-18.89	N/A	N/A	4.85	17.93	N/A	N/A
JPMorgan SmartRetirement Blend 2015 R6 ^{16,18}	JTQJX	1.24 / 0.19	12-30-2016	2.11	-15.75	-15.12	-1.56	0.71	2.18	-4.19	-15.38	-2.09	0.51	1.84	6.81	4.81	N/A
JPMorgan SmartRetirement Blend 2020 R6 ^{15,18}	JSYRX	0.44 / 0.19	07-02-2012	2.11	-15.82	-15.28	0.26	2.10	4.89	-4.31	-15.58	-0.08	1.91	4.63	6.36	10.14	15.52

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Required Disclosures

These returns and fund operating expenses are expressed as percentages. 3, 5 and 10 Year/Since Inception returns shown are annualized. For 10 Year/Since Inception, if the fund was not in existence for 10 years, returns shown are since inception. If the fund is less than one year old, returns are not annualized.

Performance returns reflect a deduction for fund operating expenses. Your Plan may also assess an administrative fee which would reduce the performance quoted above.

Funds may impose redemption fees and/or transfer restrictions if assets are held for less than the published holding period.

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Expense ratios provided are the Funds' total annual operating expense ratios, gross of any fee waivers or expense reimbursement.

Benchmark index performance is provided gross of all fees.

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A ticker symbol is not available for those funds that are exempt from SEC registration.

The net expense ratio is less applicable fee waivers or expense reimbursements the investment adviser and/or administrator may have agreed upon, either voluntary or by contractual agreement; the gross expense ratio is not. Voluntary fee waivers and reimbursements may be modified or terminated at any time. Additional information can be found in the Fund's prospectus and/or other disclosure documents regarding effective dates and/or if waivers or reimbursements are voluntary or by contractual agreement. Absent waivers or reimbursements, the performance would have been lower.

1.The investment management fees for the S&P 500 Stock Index Fund vary based on total assets of all participants in each fund. The fees for the S&P 500 Stock Index Fund include custodial expenses of approximately 0.05%.

2.You could lose money by investing in a money market fund. Although the fund seeks to preserve the value of your investment at \$1 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency.

The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

3.Asset allocation funds may be subject to operating expenses for the fund and for each underlying fund.

4.A target date fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date (which is the assumed retirement date for an investor).

5.Asset allocation and balanced investment options and models are subject to the risks of the underlying investments.

6.A collective trust is not a mutual fund and is exempt from SEC registration. Designed for and exclusively sold to qualified retirement plans and their participants, the funds are not available to individual retail investors.

7.Collective Trust Fund Option. A ticker symbol is not available for this investment option.

8.A benchmark index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. You cannot invest directly in a benchmark index.

9.Benchmark index returns are supplied by Morningstar, Inc. There may be another benchmark that is more specific to each of the funds listed under the broad asset class. Please refer to the fund's prospectus for more specific information as to the fund's actual benchmark index.

10.The S&P 500 Index is a registered trademark of Standard & Poor's Financial Services LLC. It is an unmanaged index considered indicative of the domestic large-cap equity market and is used as a proxy for the stock market in general.

14.The Citigroup 3-Month U.S. Treasury Bill Index is an unmanaged index which tracks the total return on currently traded U.S. Treasury bills with remaining maturity closest to three months.

15.The Fund has a Contractual Expense Ratio Waiver in the amount of .25% which expires on 31-MAR-2023.

16.The Fund has a Contractual Expense Ratio Waiver in the amount of 1.05% which expires on 31-MAR-2023.

17.#

18.Where data obtained from Morningstar, (C)2022 Morningstar, Inc. All rights reserved. The data: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

19.The Alaska Balanced, Alaska Long-Term Balanced, and Alaska Target Retirement Date Trusts are not mutual funds. They are common trusts established by T. Rowe Price Company under Maryland banking law. Their units are exempt from registration under the Securities Exchange Act of 1933. Investments in the trusts are not deposits of, or guaranteed by, the U.S. government or its agencies or T. Rowe Price Trust Company and are subject to investment risks, including loss of principal.

20.The inception dates for the Target Retirement 2015, Target Retirement 2020, Target Retirement 2025, Long Term Balanced Trust, and Balanced Trust are for a respective predecessor product managed substantially in the same style, and performance for the respective predecessor product has been used for periods prior to the current product's inception. For all products performance has been calculated beginning with the first full month of operations.

21.All performance is provided net of all fees.

22.The benchmarks for the Balanced, Long Term Balanced, Target 2010 Fund, and Target Retirement Trusts are custom component benchmarks weighted according to the strategic allocation for each option. Prior to 10/29/08, the weighted benchmark components consisted of Citigroup 3 Mth T-Bill Index, Bloomberg Barclays Capital U.S. Government/Credit Index, Bloomberg Barclays Capital U.S. GNMA Index, S&P 500 Index, Russell 2500 Index, and MSCI EAFE Index. As of 10/29/08, the weighted benchmark components consist of Citigroup 3 Mth T-Bill Index, Bloomberg Barclays Capital U.S. Aggregate Index, Russell 3000 Index, and MSCI EAFE Index. Citigroup 3 Mth T-Bill Index, MSCI EAFE Index and Custom Indices are from 1/31/96.

24.The MSCI ACWI Index (All Country World) is a broad equity index consisting of approximately 2,400 companies in 45 developed and emerging countries. Emerging markets exposure accounts for roughly 10% of the Index. The MSCI ACWI Index is a trademark of MSCI Inc.

25.The Russell 2000 Index is an unmanaged index which tracks the performance of the 2000 smallest companies in the Russell 3000 Index. The Russell 3000 Index measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market. Russell Investment Group is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Russell 2000 and Russell 3000 are trademarks of Russell Investment Group.

26.The Russell 3000 Index measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market. Russell Investment Group is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Russell 2000 and Russell 3000 are trademarks of Russell Investment Group.

27.Reported returns are inclusive of wrap fees but gross of investment management fees, custody fees, and administrative fees charged by the recordkeeper. Fees accrue daily and decline incrementally as the fund's assets increase. The effective investment management fee is calculated based on the aggregate/combined assets of the two portfolios (Alaska Interest Income Fund, Alaska Stable Value Fund).

28 Benchmark is a linked benchmark consisting of the S&P 500 Index from inception 10/30/08 through 9/30/13 and the MSCI USA ESG Index from 10/1/2013 forward.

29 The date in the name of the target date fund is the assumed date of retirement. The asset allocation becomes more conservative as the fund nears the target retirement date; however, the principal value of the fund is never guaranteed.

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Thank you



Empower Advisory Service Updates

Presented March 15, 2023

Default analysis

Default Analysis – Data as of 9/30/2016

	# participants	# participants in MTR	# of Participants defaulted* into MTR and have a balance (regardless of current investment strategy)	# of Participants defaulted into MTR, have a balance and remain in MTR	MTR defaulted participants as a percentage of total participants	MTR defaulted participants as a % of total MTR ppts
PERS	27,784	5,585	6,582	5,182	18%	92%
TRS	6,969	1,549	1,806	1,488	21%	96%

* MTR was the plan default investment option from 6/30/2006 to 6/30/2009.

	# participants	# of Participants defaulted* into TDF and have a balance (regardless of current investment strategy)	# of Participants defaulted into TDF, have a balance and remain in TDF	TDF defaulted participants as a % of total ppts	TDF defaulted participants as a % of total TDF ppts
PERS	27,784	21,200	19,993	71%	94%
TRS	6,969	5,163	4,940	70%	95%

* T. Rowe Target Date Series was the plan default investment option from 7/1/2009 to present.

Default Analysis – Data as of 2/15/2023

	# participants	# participants in MTR	# of Participants defaulted* into MTR and have a balance (regardless of current investment strategy)	# of Participants defaulted into MTR, have a balance and remain in MTR	MTR defaulted participants as a percentage of total participants	MTR defaulted participants as a % of total MTR ppts
PERS	47,616	5,989	5,336	3,854	8%	64%
TRS	10,946	1,509	1,534	1,194	10%	79%

* MTR was the plan default investment option from 6/30/2006 to 6/30/2009.

	# participants	# of Participants defaulted* into TDF and have a balance (regardless of current investment strategy)	# of Participants defaulted into TDF, have a balance and remain in TDF	TDF defaulted participants as a % of total ppts	TDF defaulted participants as a % of total TDF ppts
PERS	47,616	42,307	37,854	79%	89%
TRS	10,946	9,412	8,608	78%	91%

* T. Rowe Target Date Series was the plan default investment option from 7/1/2009 to present.

My Total Retirement™: Today vs. tomorrow experience



My Investments – 1st screen

Account Overview - 1st screen

- Select “My Investments”

The screenshot displays the EMPOWER Account Overview page. The top navigation bar includes the EMPOWER logo, menu items for Overview, Account, Investing, and Planning, and user options for Español, SA, and Log out. The breadcrumb trail shows Home / Account / Account overview. A left sidebar lists various account management options, with 'My Investments' highlighted by a red circle. The main content area is titled 'Account overview' and features several key metrics: a balance of \$40,326.47, an annualized rate of return of -6.04% (from 11/1/2021 to 2/21/2023), and a 'TOP INVESTMENTS' section showing a 100% allocation to BNY Mellon Smallcap Stock Index Inv. Other sections include Beneficiaries (None on file), Loan Balance (Data currently unavailable), Statements (None available), and Delivery options (e-delivery). A Transaction History section is partially visible at the bottom.

My Investments – 2nd screen

My Investments – 2nd screen

- Select “Change My Investments”

The screenshot displays the EMPOWER web interface for 'My Investments'. The top navigation bar includes 'Overview', 'Account', 'Investing', and 'Planning'. The left sidebar contains sections for 'ACCOUNT INFORMATION', 'PAYCHECK CONTRIBUTIONS', 'INVESTMENTS', 'LOANS & WITHDRAWALS', and 'PLAN INFORMATION'. The main content area shows 'My investments' with a date selector set to 2/21/2023. A large green circle represents the current investment. Below it, a table lists the investment details:

INVESTMENT	BALANCE
BNY Mellon Smallcap Stock Index Inv	\$40,326.47
Total: \$40,326.47	

A red circle highlights the 'Change My Investments' button located at the bottom right of the investment details section. Below the table, there are links for 'Asset Class Disclosure' and 'Equity/Bond Mix Disclosure', followed by a disclaimer about performance data.

My Investments – 3rd screen updated as of March 2023

Investment Help – decide how they want to be helped

- Choices are “Do it for me”, “Help me do it” or “Do it myself”
- Select “Do it for me” (add new language below)

Let investment professionals create and manage your personalized investment strategy. (fee-based service) Learn more.

How much support do you want in selecting your investments?

The screenshot shows a user interface with three selection cards. The first card, 'Do it for me', features an icon of a person with a speech bubble and a checkmark. Its text reads: 'Let investment professionals create and manage your personalized investment strategy. (fee-based service) Learn more'. Below this is a green button labeled 'Do it for me'. The second card, 'Help me do it', features an icon of two people with a plus sign. Its text reads: 'Solutions that can provide guidance to align your investment selections with your retirement objectives.' Below this is a blue button labeled 'Help me do it'. The third card, 'Do it myself', features an icon of a hand holding a coin. Its text reads: 'Already know what investments you want? Use this option to select your individual investments.' Below this is an orange button labeled 'Do it myself'. At the bottom left of the screen is a grey 'Back' button. At the bottom center is a line of text: 'For more investment information, go to [Investment Lineup](#) to access the prospectus and/or disclosure documents.'

Information page – 4th screen updated as of Feb 2023

Information screen

- All inquires of interest go through this page before a participant can choose to enroll.
- Select “Get Started”
 - Brings them to a page to determine if they would like to enroll into MTR

The screenshot shows a user interface with a navigation bar at the top containing 'Overview', 'Account', 'Investing', and 'Planning'. On the left, a 'NET WORTH' summary shows a total of \$36,204, with assets at \$36,204 and liabilities at \$0. Below this, it lists 'Employer accounts' totaling \$36,204.29 and a 'Sample Corporation' with a balance of \$0. A 'Link another account' button is visible. The main content area features a large heading: 'Here to help create a personalized retirement strategy that fits your life'. Below this is a red-bordered box containing text: 'My Total Retirement™ can help you reach the future you imagine. You focus on the now and we'll help with the later. Sign up to receive personalized saving and investing advice, management and monitoring.' A blue 'Get started' button is positioned below the text. Further down, a section titled 'My Total Retirement™ offers retirement planning that gives you:' lists four benefits: 'A personalized strategy' (with a red-bordered box around the text: 'We develop a strategy that includes customized savings, investment and income planning advice for less than what you may pay elsewhere.'), 'A comprehensive plan' (with a red-bordered box around the text: 'Based on the information you provide us, we review all of your finances to provide you with a comprehensive plan designed to meet your unique needs and goals.'), 'A dedicated team' (with a red-bordered box around the text: 'You have ongoing access to investment advisor representatives who can help you navigate market uncertainty or changes in your life or career.'), and 'Simplicity' (with a red-bordered box around the text: 'Your strategy will be professionally monitored and managed to help make sure it continues to align with your evolving goals.'). A 'Get started' button is located below these benefits. At the bottom, there is a section 'Do you want to keep managing your investments on your own?' with a 'Get some advice' button, and a 'Need help?' section with a 'Get in touch 844-302-2448' button. A red-bordered box at the bottom of the page contains the text: 'You can get a personalized retirement strategy and ongoing investment management for a fee. This annual fee is based on a percentage of your account balance and may cost less than it would to access this type of service elsewhere. There is no guarantee provided by any plan or participant in any of the advisory services will result in a profit.' A small disclaimer at the very bottom reads: 'Online Advice and My Total Retirement™ are part of the Employer Retirement Advisory Services suite of services offered by Advised Assets Group, LLC, a registered investment advisor.'

The 'Fee Details' table shows the annual fee structure based on account balance. The text above the table states: 'Experience full benefits at a low cost. You can get your personalized retirement strategy and investment management started for a nominal fee of your eligible account balance annually.'

Balance	Annual Rate
Up to \$50,000	0.50%
From \$50,000.01 to \$100,000	0.50%
From \$100,000.01 to \$500,000	0.50%
From \$500,000.01 to \$1,000,000	0.50%
Above \$1,000,000	0.50%

Below the table, it notes: 'The annual My Total Retirement™ fee is based on a percentage of your account balance and may cost less than it would to access this type of service outside your plan.' A 'Back' button is located at the bottom of the table.

“You can elect to receive a personalized retirement strategy and ongoing investment management for a fee. This annual fee is based on a percentage of your account balance and may cost less than it would to access this type of service elsewhere.”

My Investments – 5th screen

MTR enrollment screen

- Navigates to MTR/AMA confirmation page, provides:
 - Allocation recommendation
 - Expenses
 - Advisory Agreement
- Select “Agree”
 - Enrolls them into MTR

EMPOWER Overview Account Investing Planning Español SA Log out

NET WORTH \$40,326

Assets	\$40,326
Liabilities	\$0

Empower accounts \$40,326.47

City of ABC 457 Retirement... \$40,326.47
City of ABC 457 Retir... a few seconds ago

[Link another account](#)

My Total Retirement

City of ABC

You selected the following account(s) to be enrolled in the service.

ACCOUNT	BALANCE
City of ABC 457 Retirement Plan	\$40,326.47

Enrollment into My Total Retirement may cause an allocation change or rebalance to take place on your account.

Below are the applicable fees, which will be deducted directly from your retirement account. Fees are charged in the frequency and manner detailed in the [Advisory Services Agreement](#). You can cancel your enrollment anytime, for any reason, without penalty.

ASSETS UNDER MANAGEMENT	ANNUAL RATE
Up to \$100,000	0.90%
Next \$150,000	0.80%
Next \$150,000	0.70%
Over \$400,000	0.60%

■ Current Allocation ■ Recommended Allocation

US Stocks Int'l Stocks US Bonds Int'l Bonds Alternatives Cash

Advisory services materials including the terms of service, regulatory documents and ongoing communications are available in English only. If you need translation assistance, please work with a qualified translator to ensure you fully understand your obligations upon enrollment.

By clicking the "Agree" button, you confirm you have reviewed and agree to the [Advisory Services Agreement](#), and you acknowledge that you have received the [ADV Disclosure Brochure](#) and the [Privacy Policy](#).

[Back](#) [Agree](#)

Required Disclosures

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Empower Advisory Group, LLC, Internal Rate of Return (IROR) All Segments Study, 2018. The participant return distribution included in this study is used to illustrate the difference between those participants within the 90th percentile and the 10th percentile to preserve statistical integrity of the data reported. Refer to the study, available through AAG, for additional disclosures and methodologies.

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RO1366437-1020



Thank you

ALASKA RETIREMENT MANAGEMENT BOARD

STAFF REPORT

**Division of Retirement & Benefits Report
March 15, 2023**

FY 2024 Health Reimbursement Arrangement employer contribution amounts –

Attached for your information is the memorandum establishing the FY 2024 Health Reimbursement Arrangement (HRA) employer contribution amount as determined by Alaska Statute 39.30.370.

Also attached is a summary spreadsheet for Fiscal Years 2008 - 2024.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: Fiscal Year 2024 Health Reimbursement ACTION: _____
Arrangement amounts for employers

DATE: March 15, 2023 INFORMATION: X

BACKGROUND:

AS 39.30.350 “Employer Contribution Fund” states that Teachers’ and Public Employees’ Retiree health reimbursement arrangement plan trust fund is an employer contribution fund. Employee contributions are not permitted.

AS 39.30.360 “Management and Investment of the Fund” states that “The Alaska Retirement Management Board is the fiduciary of the fund and has the same powers and duties under this section in regard to the fund as are provided under AS 37.10.220.”

AS 39.30.370 “Contributions by Employers” states that “For each member of the plan, an employer shall contribute to the teachers’ and public employees’ retiree health reimbursement arrangement plan trust fund an amount equal to three percent of the average annual compensation of all employees of all employers in the TRS and PERS.” The Division of Retirement & Benefits calculates the HRA amount annually and reports this to all affected employers for proper payroll reporting each fiscal year.

STATUS:

Attached is the memorandum from the Division of Retirement & Benefits for Fiscal Year 2024’s Health Reimbursement Arrangement employer contribution based on employer pay cycles.


Additionally, attached is a summary spreadsheet for fiscal years 2008 - 2024.


MEMORANDUM

STATE OF ALASKA DEPARTMENT OF ADMINISTRATION Division of Retirement and Benefits

To: Ajay Desai
Director

Date: November 7, 2022

Thru: Kevin Worley 
Chief Financial Officer

From: Christina Maiquis 
Accounting Unit Supervisor

Subject: FY 2024 HRA Employer
Contribution Amounts

Alaska Statute 39.30.370 "Contributions by Employers" relates to the employer contributions required to fund the Health Reimbursement Arrangement (HRA) Plan for Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS) Defined Contribution Retirement (DCR) Plan members. The statute states in part:

For each member of the plan, an employer shall contribute to the teachers' (TRS) and public employees' (PERS) retiree health reimbursement arrangement plan trust fund an amount equal to three percent of the average annual compensation of all employees of all employers in the teachers' retirement system and public employees' retirement system. The administrator shall maintain a record for each member to account for employer contributions on behalf of that member.

In order to compute the dollar amount required to fund the PERS and TRS HRA Plan, a rate of 3.00% is applied to the average annual compensation of all employees of all employers in PERS and TRS. Contributions to a DCR members HRA account are required each pay period in which the employee is enrolled in the Defined Contribution Retirement (DCR) Plan, regardless of the compensation paid during the calendar year. By definition, the HRA employer contribution is a dollar amount.

The Fiscal Year 2024 HRA employer contribution amounts are shown below:

FY 2024 HRA Amounts

Annual	Quarterly	Monthly	Semi-monthly	Bi-weekly	Weekly	Hourly
\$2,302.56	\$575.64	\$191.88	\$95.94	\$88.56	\$44.28	\$1.48

The attached document shows a comparative of HRA rates since Fiscal Year 2008.

Approved:



Kevin Worley, Chief Financial Officer

January 11, 2023

Date

Attachment

Division of Retirement & Benefits
Health Reimbursement Arrangement (HRA)
Employer contribution amounts by fiscal year

<u>Fiscal Year</u>	<u>Annual</u>	<u>Annual Percentage of Change</u>	<u>Quarterly</u>	<u>Monthly</u>	<u>Semi-monthly</u>	<u>Bi-weekly</u>	<u>Weekly</u>	<u>Hourly</u>
2008	1,531.27	-	382.82	127.61	63.80	58.89	-	0.98
2009	1,616.81	5.59%	404.20	134.73	67.37	62.18	-	1.04
2010	1,699.71	5.13%	424.93	141.64	70.82	65.37	-	1.09
2011	1,720.70	1.23%	430.17	143.39	71.70	66.18	-	1.10
2012	1,778.09	3.34%	444.52	148.17	74.09	68.39	-	1.14
2013	1,848.43	3.96%	462.11	154.04	77.02	71.09	-	1.18
2014	1,896.60	2.61%	474.15	158.05	79.03	72.95	-	1.22
2015	1,960.53	3.37%	490.13	163.38	81.69	75.41	37.70	1.26
2016	2,004.52	2.24%	501.13	167.04	83.52	77.10	38.55	1.28
2017	2,049.36	2.24%	512.34	170.78	85.39	78.82	39.41	1.31
2018	2,084.16	1.70%	521.04	173.68	86.84	80.16	40.08	1.34
2019	2,102.88	0.90%	525.72	175.24	87.62	80.88	40.44	1.35
2020	2,121.60	0.89%	530.40	176.80	88.40	81.60	40.80	1.36
2021	2,159.04	1.76%	539.76	179.92	89.96	83.04	41.52	1.38
2022	2,168.40	0.43%	542.10	180.70	90.35	83.40	41.70	1.39
2023	2,237.04	3.17%	559.26	186.42	93.21	86.04	43.02	1.43
2024	2,302.56	2.93%	575.64	191.88	95.94	88.56	44.28	1.48

NOTE: For fiscal year 2007, HRA amounts were computed by employer rather than the HRA as a plan. Beginning fiscal year 2008, HRA amounts were computed and applied uniformly to all members and are reflected above.

Alaska Retirement Management Board
Defined Contribution Committee
PERS / TRS / SBS / DEF COMP / SOCIAL SECURITY Listing
As of March 1, 2023

PERS #	TRS #	EMPLOYER NAME	PERS	TRS	SBS	SOA DEFERRED COMP	PERS EMPLOYEES IN SOCIAL SECURITY (SS)	PERS EMPLOYEES NOT IN SBS OR SOCIAL SECURITY
101	737	STATE OF ALASKA	Y	Y	Y	Y		
102	756	SOUTHWEST REGION SD	Y	Y				Y
103	770	ANNETTE ISLAND SD	Y	Y			Y	
104	752	BERING STRAIT SD	Y	Y			Y	
105	768	CHATHAM SD	Y	Y			Y	
107		CITY OF VALDEZ	Y					Y
108	710	JUNEAU BOROUGH SD	Y	Y		Y	Y	
109		MATANUSKA-SUSITNA BOROUGH	Y		Y			
110	722	MATANUSKA-SUSITNA BOROUGH SD	Y	Y	Y			
111	701	ANCHORAGE SD	Y	Y			Y	
112	767	COPPER RIVER SD	Y	Y			Y	
113	733	UNIVERSITY OF ALASKA	Y	Y				Y
115		CITY OF KENAI	Y					Y
116		FAIRBANKS NORTH STAR BOROUGH	Y				Y	
117	706	FAIRBANKS NORTH STAR BOROUGH SD	Y	Y			Y	
118	764	DENALI BOROUGH SD	Y	Y	Y	Y		
120		CITY AND BOROUGH OF SITKA	Y		Y			
121	771	CHUGACH SD	Y	Y				Y
122		KETCHIKAN GATEWAY BOROUGH	Y			Y	Y	
123		CITY OF SOLDOTNA	Y					Y
124	761	IDITAROD AREA SD	Y	Y			Y	
125	755	KUSPUK SD	Y	Y			Y	
126		CITY AND BOROUGH OF JUNEAU	Y				Y	
128		CITY OF KODIAK	Y				Y	
129		CITY OF FAIRBANKS	Y					Y
131		CITY OF WASILLA	Y		Y			
133	727	SITKA SCHOOL DISTRICT	Y	Y	Y	Y		
134		CITY OF PALMER	Y				Y	
135		CITY AND BOROUGH OF WRANGELL	Y		Y			
136		CITY OF BETHEL	Y			Y		Y
137	730	VALDEZ CITY SD	Y	Y				Y
138	708	HOONAH CITY SD	Y	Y			Y	
139		CITY OF NOME	Y				Y	
140		CITY OF KOTZEBUE	Y				Y	
141	735	GALENA CITY SD	Y	Y			Y	
143		PETERSBURG BOROUGH	Y					Y
144		BRISTOL BAY BOROUGH	Y			Y		Y
145		NORTH SLOPE BOROUGH	Y				Y	
146	731	WRANGELL PUBLIC SCHOOLS	Y	Y	Y			
148		CITY OF CORDOVA	Y				Y	
149	720	NOME CITY SD	Y	Y			Y	
151		CITY OF KING COVE	Y				Y	
152		ALASKA HOUSING FINANCE CORPORATION	Y				Y	
153	753	LOWER YUKON SD	Y	Y			Y	
154	751	NORTHWEST ARCTIC BOROUGH SD	Y	Y				Y
155	769	SOUTHEAST ISLAND SD	Y	Y			Y	
156	759	PRIBILOF SD	Y	Y			Y	
157	754	LOWER KUSKOKWIM SD	Y	Y			Y	
158	718	KODIAK ISLAND BOROUGH SD	Y	Y			Y	
159	763	YUKON FLATS SD	Y	Y			Y	
160	762	YUKON / KOYUKUK SD	Y	Y				Y
161	736	NORTH SLOPE BOROUGH SD	Y	Y			Y	
162	758	ALEUTIAN REGION SD	Y	Y			Y	
163		CORDOVA COMMUNITY MEDICAL CENTER	Y			Y	Y	
164	757	LAKE AND PENINSULA BOROUGH SD	Y	Y				Y
166	775	TANANA SD	Y	Y		Y		Y
167	743	SOUTHEAST REGIONAL RESOURCE CENTER	Y	Y			Y	
168	709	HYDABURG CITY SD	Y	Y				Y
169		CITY OF TANANA	Y					Y
170		NORTH PACIFIC FISHERY MANAGEMENT COUNCIL	Y			Y		Y
171		CITY OF BARROW	Y				Y	
172		CITY OF SAINT PAUL	Y		Y			

Alaska Retirement Management Board
Defined Contribution Committee
PERS / TRS / SBS / DEF COMP / SOCIAL SECURITY Listing
As of March 1, 2023

PERS #	TRS #	EMPLOYER NAME	PERS	TRS	SBS	SOA DEFERRED COMP	PERS EMPLOYEES IN SOCIAL SECURITY (SS)	PERS EMPLOYEES NOT IN SBS OR SOCIAL SECURITY
173		MUNICIPALITY OF ANCHORAGE	Y				Y	
174		KODIAK ISLAND BOROUGH	Y			Y	Y	
175		NOME JOINT UTILITY SYSTEM	Y				Y	
176		CITY OF SAND POINT	Y					Y
177	714	KETCHIKAN GATEWAY BOROUGH SD	Y	Y			Y	
178		CITY OF DILLINGHAM	Y				Y	
179		CITY OF UNALASKA	Y				Y	
180		KENAI PENINSULA BOROUGH	Y				Y	
181		CITY OF KETCHIKAN	Y					Y
182		CITY OF SEWARD	Y					Y
183		CITY OF FORT YUKON	Y				Y	
184	742	BRISTOL BAY BOROUGH SD	Y	Y				Y
185	704	CORDOVA CITY SD	Y	Y			Y	
186		CITY OF CRAIG	Y				Y	
187		PETERSBURG MEDICAL CENTER	Y			Y		Y
189		HAINES BOROUGH	Y		Y	Y		
190	746	KENAI PENINSULA BOROUGH SD	Y	Y			Y	
191		CITY OF NORTH POLE	Y					Y
192		CITY OF GALENA	Y				Y	
193		CITY OF NENANA	Y				Y	
195	778	YUPIIT SD	Y	Y			Y	
196	719	NENANA CITY SD	Y	Y			Y	
198		CITY OF SAXMAN	Y				Y	
199		CITY OF HOONAH	Y				Y	
200		CITY OF PELICAN	Y				Y	
202		CITY OF WHITTIER	Y					Y
203		ANCHORAGE COMMUNITY DEVELOPMENT AUTHORITY					Y	
204	705	CRAIG CITY SD	Y	Y			Y	
205	744	DILLINGHAM CITY SD	Y	Y			Y	
206		CITY OF THORNE BAY	Y			Y		Y
208		CITY OF AKUTAN	Y				Y	
209	729	UNALASKA CITY SD	Y	Y			Y	
211	777	KASHUNAMIUT SD	Y	Y				Y
215		CITY OF HOMER	Y			Y	Y	
218	779	SPECIAL EDUCATION SERVICE AGENCY	Y	Y	Y			
219		BARTLETT REGIONAL HOSPITAL	Y				Y	
220		NORTHWEST ARCTIC BOROUGH	Y			Y		Y
221	748	SAINT MARY'S SD	Y	Y			Y	
222		CITY OF SELAWIK	Y				Y	
223		BRISTOL BAY HOUSING AUTHORITY	Y					Y
224		COPPER RIVER BASIN REGIONAL HOUSING AUTHORITY	Y		Y	Y		
225	728	SKAGWAY CITY SD	Y	Y				Y
227		CITY OF KLAWOCK	Y				Y	
228	724	PETERSBURG CITY SD	Y	Y				Y
230		ALEUTIANS EAST BOROUGH	Y					Y
231		CITY OF KIVALINA	Y					Y
235		CITY OF HUSLIA	Y				Y	
237		CITY OF KALTAG	Y					Y
240	707	HAINES BOROUGH SD	Y	Y	Y			
241		CITY OF NOORVIK	Y				Y	
242		CITY OF ELIM	Y				Y	
243		CITY OF ATKA	Y					Y
244	780	ALEUTIANS EAST BOROUGH SD	Y	Y				Y
246	765	DELTA / GREELY SD	Y	Y			Y	
247		LAKE AND PENINSULA BOROUGH	Y		Y	Y		
248		CITY AND BOROUGH OF YAKUTAT	Y					Y
251	717	KLAWOCK CITY SD	Y	Y			Y	
254		CITY OF MEKORYUK	Y					Y
255	766	ALASKA GATEWAY SD	Y	Y		Y	Y	
256		CITY OF SAINT GEORGE	Y					Y
257		PELICAN CITY SD	Y	Y			Y	
258		DENALI BOROUGH	Y		Y	Y		

Alaska Retirement Management Board
Defined Contribution Committee
PERS / TRS / SBS / DEF COMP / SOCIAL SECURITY Listing
As of March 1, 2023

PERS #	TRS #	EMPLOYER NAME	PERS	TRS	SBS	SOA DEFERRED COMP	PERS EMPLOYEES IN SOCIAL SECURITY (SS)	PERS EMPLOYEES NOT IN SBS OR SOCIAL SECURITY
259		CITY OF ALLAKAKET	Y					Y
260		CITY OF KACHEMAK	Y					Y
262		COOK INLET HOUSING AUTHORITY	Y		Y			
263		INTERIOR REGIONAL HOUSING AUTHORITY	Y					Y
264	732	YAKUTAT SD	Y	Y				Y
265	712	KAKE CITY SD	Y	Y		Y	Y	
267		ALEUTIAN HOUSING AUTHORITY	Y				Y	
270		BERING STRAITS REGIONAL HOUSING AUTHORITY	Y					Y
271		CITY OF EGEGIK	Y		Y			
275		ILISAGVIK COLLEGE	Y				Y	
276		NORTH PACIFIC RIM HOUSING AUTHORITY	Y				Y	
278		SAXMAN SEAPORT	Y					Y
279		TLINGIT-HAIDA REGIONAL HOUSING AUTHORITY	Y					Y
280		CITY OF TOKSOOK BAY	Y				Y	
281		BARANOF ISLAND HOUSING AUTHORITY	Y		Y	Y		
282		CITY OF DELTA JUNCTION	Y				Y	
283		CITY OF ANDERSON	Y				Y	
284		INTER-ISLAND FERRY AUTHORITY	Y		Y	Y		
285		CITY OF HOOPER BAY	Y					Y
286		CITY OF SELDOVIA	Y				Y	
287		CITY OF KOYUK	Y					Y
288		NORTHWEST INUPIAT HOUSING AUTHORITY	Y					Y
290		CITY OF UPPER KALSKAG	Y					Y
291		CITY OF SHAKTOOLIK	Y					Y
293		TAGIUGMIULLU NUNAMIULLU HOUSING AUTHORITY	Y				Y	
296		MUNICIPALITY OF SKAGWAY	Y				Y	
298		CITY OF ANIAK	Y				Y	
299		ALASKA GASLINE DEVELOPMENT CORPORATION	Y		Y	Y		
TOTALS			151	57	21	24	80	51

Alaska Retirement Management Board
Defined Contribution Committee
PERS / TRS / SBS / DEF COMP / SOCIAL SECURITY Listing
As of March 1, 2023

PERS #	TRS #	EMPLOYER NAME	PERS	TRS	SBS	SOA DEFERRED COMP	PERS EMPLOYEES IN SOCIAL SECURITY (SS)	PERS EMPLOYEES NOT IN SBS OR SOCIAL SECURITY
101	737	ALASKA, STATE OF	Y	Y	Y	Y		
299		ALASKA GASLINE DEVELOPMENT CORPORATION	Y		Y	Y		
255	766	ALASKA GATEWAY SD	Y	Y		Y	Y	
152		ALASKA HOUSING FINANCE CORPORATION	Y				Y	
267		ALEUTIAN HOUSING AUTHORITY	Y				Y	
162	758	ALEUTIAN REGION SD		Y			Y	
230		ALEUTIANS EAST BOROUGH	Y					Y
244	780	ALEUTIANS EAST BOROUGH SD	Y	Y				Y
203		ANCHORAGE COMMUNITY DEVELOPMENT AUTHORITY	Y				Y	
111	701	ANCHORAGE SD	Y	Y			Y	
103	770	ANNETTE ISLAND SD	Y	Y			Y	
281		BARANOF ISLAND HOUSING AUTHORITY	Y		Y	Y		
219		BARTLETT REGIONAL HOSPITAL	Y				Y	
104	752	BERING STRAIT SD	Y	Y			Y	
270		BERING STRAITS REGIONAL HOUSING AUTHORITY	Y					Y
144		BRISTOL BAY BOROUGH	Y			Y		Y
184	742	BRISTOL BAY BOROUGH SD	Y	Y				Y
223		BRISTOL BAY HOUSING AUTHORITY	Y					Y
105	768	CHATHAM SD	Y	Y			Y	
121	771	CHUGACH SD	Y	Y				Y
126		CITY AND BOROUGH OF JUNEAU	Y				Y	
120		CITY AND BOROUGH OF SITKA	Y		Y			
135		CITY AND BOROUGH OF WRANGELL	Y		Y			
248		CITY AND BOROUGH OF YAKUTAT	Y					Y
208		CITY OF AKUTAN	Y				Y	
259		CITY OF ALLAKAKET	Y					Y
283		CITY OF ANDERSON	Y				Y	
298		CITY OF ANIAK	Y				Y	
243		CITY OF ATKA	Y					Y
171		CITY OF BARROW	Y				Y	
136		CITY OF BETHEL	Y			Y		Y
148		CITY OF CORDOVA	Y				Y	
186		CITY OF CRAIG	Y				Y	
282		CITY OF DELTA JUNCTION	Y				Y	
178		CITY OF DILLINGHAM	Y				Y	
271		CITY OF EGEGIK	Y		Y			
242		CITY OF ELIM	Y				Y	
129		CITY OF FAIRBANKS	Y					Y
183		CITY OF FORT YUKON	Y				Y	
192		CITY OF GALENA	Y				Y	
215		CITY OF HOMER	Y			Y	Y	
199		CITY OF HOONAH	Y				Y	
285		CITY OF HOOPER BAY	Y					Y
235		CITY OF HUSLIA	Y				Y	
260		CITY OF KACHEMAK	Y					Y
237		CITY OF KALTAG	Y					Y
115		CITY OF KENAI	Y					Y
181		CITY OF KETCHIKAN	Y					Y
151		CITY OF KING COVE	Y				Y	
231		CITY OF KIVALINA	Y					Y
227		CITY OF KLAWOCK	Y				Y	
128		CITY OF KODIAK	Y				Y	
140		CITY OF KOTZEBUE	Y				Y	
287		CITY OF KOYUK	Y					Y
254		CITY OF MEKORYUK	Y					Y
193		CITY OF NENANA	Y				Y	
139		CITY OF NOME	Y				Y	
241		CITY OF NOORVIK	Y				Y	
191		CITY OF NORTH POLE	Y					Y
134		CITY OF PALMER	Y				Y	
200		CITY OF PELICAN	Y				Y	
256		CITY OF SAINT GEORGE	Y					Y

Alaska Retirement Management Board
Defined Contribution Committee
PERS / TRS / SBS / DEF COMP / SOCIAL SECURITY Listing
As of March 1, 2023

PERS #	TRS #	EMPLOYER NAME	PERS	TRS	SBS	SOA DEFERRED COMP	PERS EMPLOYEES IN SOCIAL SECURITY (SS)	PERS EMPLOYEES NOT IN SBS OR SOCIAL SECURITY
172		CITY OF SAINT PAUL	Y		Y			
176		CITY OF SAND POINT	Y					Y
198		CITY OF SAXMAN	Y				Y	
222		CITY OF SELAWIK	Y				Y	
286		CITY OF SELDOVIA	Y				Y	
182		CITY OF SEWARD	Y					Y
291		CITY OF SHAKTOOLIK	Y					Y
123		CITY OF SOLDOTNA	Y					Y
169		CITY OF TANANA	Y					Y
206		CITY OF THORNE BAY	Y			Y		Y
280		CITY OF TOKSOOK BAY	Y				Y	
179		CITY OF UNALASKA	Y				Y	
290		CITY OF UPPER KALSKAG	Y					Y
107		CITY OF VALDEZ	Y					Y
131		CITY OF WASILLA	Y		Y			
202		CITY OF WHITTIER	Y					Y
262		COOK INLET HOUSING AUTHORITY	Y		Y			
224		COPPER RIVER BASIN REGIONAL HOUSING AUTHORITY	Y		Y	Y		
112	767	COPPER RIVER SD	Y	Y			Y	
185	704	CORDOVA CITY SD	Y	Y			Y	
163		CORDOVA COMMUNITY MEDICAL CENTER	Y			Y	Y	
204	705	CRAIG CITY SD	Y	Y			Y	
246	765	DELTA / GREELY SD	Y	Y			Y	
258		DENALI BOROUGH	Y		Y	Y		
118	764	DENALI BOROUGH SD	Y	Y	Y	Y		
205	744	DILLINGHAM CITY SD	Y	Y			Y	
116		FAIRBANKS NORTH STAR BOROUGH	Y				Y	
117	706	FAIRBANKS NORTH STAR BOROUGH SD	Y	Y			Y	
141	735	GALENA CITY SD	Y	Y			Y	
189		HAINES BOROUGH	Y		Y	Y		
240	707	HAINES BOROUGH SD	Y	Y	Y			
138	708	HOONAH CITY SD	Y	Y			Y	
168	709	HYDABURG CITY SD	Y	Y				Y
124	761	IDITAROD AREA SD	Y	Y			Y	
275		ILISAGVIK COLLEGE	Y				Y	
263		INTERIOR REGIONAL HOUSING AUTHORITY	Y					Y
284		INTER-ISLAND FERRY AUTHORITY	Y		Y	Y		
108	710	JUNEAU BOROUGH SD	Y	Y		Y	Y	
265	712	KAKE CITY SD	Y	Y		Y	Y	
211	777	KASHUNAMIUT SD	Y	Y				Y
180		KENAI PENINSULA BOROUGH	Y				Y	
190	746	KENAI PENINSULA BOROUGH SD	Y	Y			Y	
122		KETCHIKAN GATEWAY BOROUGH	Y			Y	Y	
177	714	KETCHIKAN GATEWAY BOROUGH SD	Y	Y			Y	
251	717	KLAWOCK CITY SD	Y	Y			Y	
174		KODIAK ISLAND BOROUGH	Y			Y	Y	
158	718	KODIAK ISLAND BOROUGH SD	Y	Y			Y	
125	755	KUSPUK SD	Y	Y			Y	
247		LAKE AND PENINSULA BOROUGH	Y		Y	Y		
164	757	LAKE AND PENINSULA BOROUGH SD	Y	Y				Y
157	754	LOWER KUSKOKWIM SD	Y	Y			Y	
153	753	LOWER YUKON SD	Y	Y			Y	
109		MATANUSKA-SUSITNA BOROUGH	Y		Y			
110	722	MATANUSKA-SUSITNA BOROUGH SD	Y	Y	Y			
173		MUNICIPALITY OF ANCHORAGE	Y				Y	
296		MUNICIPALITY OF SKAGWAY	Y				Y	
196	719	NENANA CITY SD	Y	Y			Y	
149	720	NOME CITY SD	Y	Y			Y	
175		NOME JOINT UTILITY SYSTEM	Y				Y	
170		NORTH PACIFIC FISHERY MANAGEMENT COUNCIL	Y			Y		Y
276		NORTH PACIFIC RIM HOUSING AUTHORITY	Y				Y	
145		NORTH SLOPE BOROUGH	Y				Y	

Alaska Retirement Management Board
Defined Contribution Committee
PERS / TRS / SBS / DEF COMP / SOCIAL SECURITY Listing
As of March 1, 2023

PERS #	TRS #	EMPLOYER NAME	PERS	TRS	SBS	SOA DEFERRED COMP	PERS EMPLOYEES IN SOCIAL SECURITY (SS)	PERS EMPLOYEES NOT IN SBS OR SOCIAL SECURITY
161	736	NORTH SLOPE BOROUGH SD	Y	Y			Y	
220		NORTHWEST ARCTIC BOROUGH	Y			Y		Y
154	751	NORTHWEST ARCTIC BOROUGH SD	Y	Y				Y
288		NORTHWEST INUPIAT HOUSING AUTHORITY	Y					Y
257		PELICAN CITY SD	Y	Y			Y	
143		PETERSBURG BOROUGH	Y					Y
228	724	PETERSBURG CITY SD	Y	Y				Y
187		PETERSBURG MEDICAL CENTER	Y			Y		Y
156	759	PRIBILOF SD	Y	Y			Y	
221	748	SAINT MARY'S SD	Y	Y			Y	
278		SAXMAN SEAPORT	Y					Y
133	727	SITKA SCHOOL DISTRICT	Y	Y	Y	Y		
225	728	SKAGWAY CITY SD	Y	Y				Y
155	769	SOUTHEAST ISLAND SD	Y	Y			Y	
167	743	SOUTHEAST REGIONAL RESOURCE CENTER	Y	Y			Y	
102	756	SOUTHWEST REGION SD	Y	Y				Y
218	779	SPECIAL EDUCATION SERVICE AGENCY	Y	Y	Y			
293		TAGIUGMIULLU NUNAMIULLU HOUSING AUTHORITY	Y				Y	
166	775	TANANA SD	Y	Y		Y		Y
279		TLINGIT-HAIDA REGIONAL HOUSING AUTHORITY	Y					Y
209	729	UNALASKA CITY SD	Y	Y			Y	
113	733	UNIVERSITY OF ALASKA	Y	Y				Y
137	730	VALDEZ CITY SD	Y	Y				Y
146	731	WRANGELL PUBLIC SCHOOLS	Y	Y	Y			
264	732	YAKUTAT SD	Y	Y				Y
160	762	YUKON / KOYUKUK SD	Y	Y				Y
159	763	YUKON FLATS SD	Y	Y			Y	
195	778	YUPIIT SD	Y	Y			Y	
		TOTALS	151	57	21	24	80	51

List of PERS Employers Participating in Social Security, SBS, or Neither

The following School Districts offer neither Social Security or SBS to PERS employee:

- Bristol Bay Borough SD
- Chugach SD
- Haines Borough SD
- Hydaburg City SD
- Kashunamuit SD
- Lake and Peninsula Borough SD
- Northwest Arctic Borough SD
- Petersburg City SD
- Skagway City SD
- Southwest Region SD
- Tanana SD
- University of Alaska
- Valdez SD
- Yukon/Koyukuk SD

The following school districts offer SBS to PERS employees:

- Denali Borough SD
- Matanuska-Susitna Borough SD
- Sitka Borough SD
- Wrangell Public SD

PERS employees at the following school districts should be participating in Social Security:

- Alaska Gateway SD
- Aleutian Region SD
- Anchorage SD
- Annette Island SD
- Bering Strait SD
- Chatham SD
- Copper River SD
- Cordova City SD
- Craig City SD
- Delta/Greely SD
- Dillingham City SD
- Fairbanks North Star Borough SD
- Galena City SD

- Hoonah City SD
- Iditarod Area SD
- Juneau Borough SD
- Kake City SD
- Kenai Peninsula Borough SD
- Ketchikan Gateway Borough SD
- Klawock City SD
- Kodiak Island Borough SD
- Kuspuk SD
- Lower Kuskokwim SD
- Lower Yukon SD
- Nenana City SD
- Nome City SD
- North Slope Borough SD
- Pelican City SD
- Pribilof SD
- Saint Mary's SD
- Southeast Island SD
- Southeast Regional Resource Center
- Unalaska City SD
- Yakutat SD
- Yukon Flats SD
- Yupiit SD

Contact Us

Anchorage Office

4100 Spenard Road Anchorage, AK 99517
Phone: (907) 274-0536

Juneau Office

201 Main Street, Suite 300 Juneau, AK 99801
Phone: (907) 586-3090

Fairbanks Office

2118 S. Cushman Street Fairbanks, AK 99701
Phone: (907) 456-4435

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ALASKA RETIREMENT MANAGEMENT BOARD

Defined Contribution Plan Committee

SUBJECT: Managed Account Review ACTION: X

DATE: March 15, 2023 INFORMATION: _____

BACKGROUND:

Managed account services are provided in Alaska’s participant-directed investment programs by an affiliate of the recordkeeper Empower. A managed account provides several elective services to participants that generally includes asset allocation, portfolio construction, and rebalancing.

STATUS:

The last review of the managed account service was conducted by Callan LLC in 2016 and is attached. It is considered good practice to periodically re-evaluate managed account services.

Staff recommends engaging Callan LLC to conduct a review of the managed account service.

RECOMMENDATION:

The Defined Contribution Plan Committee recommends that the Alaska Retirement Management Board direct staff to engage Callan LLC to conduct a review of the managed account service.

Attachment: Callan 2016 Managed Account Review

September 30, 2016



Managed Account Review

Steve Center, CFA
Fund Sponsor Consulting

Paul Erlendson
Fund Sponsor Consulting

Lori Lucas, CFA
Fund Sponsor Consulting

Jamie McAllister
Fund Sponsor Consulting

James Veneruso, CFA, CAIA
Fund Sponsor Consulting

Managed Account Services

For the ARMB plans, the managed account solution is provided through the Empower participant website by their wholly owned subsidiary, Advised Assets Group, LLC (AAG), which uses a program powered by Morningstar/Ibbotson.

The managed account offering includes the following services:

- Retirement readiness forecast
- Retirement spend-down projection
- Portfolio rebalancing & monitoring
- Communication package
- Allocation and construction of customized portfolios

Advice and Managed Accounts: ARMB-Specific

Opt In or Out?	Opt In (though managed accounts was the default up to July 2009)	
Number of Participants Using Advice (as of 12/31/2015; amount in parenthesis is % of ppts)	457 Plan: 99 ppts (0.9%)	SBS Plan: 141 ppts (0.3%)
	PERS Plan: 33 ppts (0.1%)	TRS Plan: 3 ppts (0.04%)
Number of Participants Using Managed Accounts (as of 12/31/2015; amount in parenthesis is % of ppts)	457 Plan: 1,140 ppts (10.4%)	SBS Plan: 1,150 ppts (2.6%)
	PERS Plan: 5,731 ppts (20.8%)	TRS Plan: 1,573 ppts (23.0%)
Estimated Number of Participants Defaulted into Managed Accounts Prior to July 2009	Roughly 75% of participants using managed accounts appear to be defaulted in.	
Can participants be in Advice and Managed Accounts at the same time?	No. A participant can only be in one or the other at one time.	
% of Participants electing Advice/Managed Accounts on their own vs. through a representative	Unable to provide this data currently – they are looking at this as a future enhancement	
Frequency of Review	Advice: as requested by participant Managed Accounts: annually	

- For the ARMB plans, the managed account solution is provided through the Empower participant website by their wholly owned subsidiary, Advised Assets Group, LLC (AAG), which uses a program powered by Morningstar/Ibbotson.
- Less than 1% of the population use Advice across the four Plans.
- For the PRS and TRS Plans, over 20% of participants use Managed Accounts. It is notably less for the SBS and 457 Plans.

Advice Managed Account Fee Application and Comparison

Advice/Managed Accounts	Empower	Industry Comps
Guidance	Included	Typically included
Advice Annual Fee	\$25 (only assessed to those that use it)	Typically \$0 to \$10 per participant
Managed Account Fee	Tiered Schedule: Up to \$100,000: 0.45% of assets \$100,000 to \$250,000: 0.35% of assets \$250,000 to \$400,000: 0.25% of assets Over \$400,000: 0.15% of assets	0 bps to 60 bps (typically 10 to 50 bps)

	SBS Plan	457 Plan	PERS Plan	TRS Plan	<u>Total ARMB Plans</u>
Estimated Advice Fees	\$3,525	\$2,475	\$825	\$75	\$6,900
Estimated Managed Account Fees*	\$390,867	\$369,941	\$566,468	\$261,088	\$1,588,363
TOTAL ESTIMATED REVENUE	\$394,392	\$372,416	\$567,293	\$261,163	\$1,595,263

- With Empower, Advice fees are only charged to those participants that use Advice. With other recordkeepers, they typically charge the Advice fee across the entire participant base (whether or not the participant uses the service). While the \$25 Advice fee is higher than the typical industry fee, it is more favorable overall given the low participant use of Advice (less than 1%).
- Managed account fees fall within range of that of the market.

*To estimate the aggregate managed account fees, we used the average participant balance (by Plan) and applied the managed account fee schedule. In all Plans, the average balance was below the \$100,000 threshold.

Fees at a Glance

Example of the Tiered Fee Schedule in Practice

Balance	Blended Basis Points	Dollar Equivalent
\$50,000	0.45%	\$225
\$150,000	0.42%	\$625
\$250,000	0.39%	\$975
\$500,000	0.30%	\$1,500

- The above fees are for the asset allocation piece only. They do not include the underlying investment management fees. The combined fee on the underlying portfolios can range from 15 to 32 basis points. The total is range is: **45 to 77 basis points.**
- This is well above the existing target date funds where the stated fees range from **13 to 16 basis points.**

Overview of the Managed Account Program

Underlying Methodology – Human Capital Approach

- Based on these inputs and the underlying building blocks available, the Managed Account platform builds out an allocation aimed at reaching the participant's retirement goals with a 70% probability. The goal is by default set to be 100% final income replacement.
- The allocations are based on a human capital approach. This assumes that participants retirement needs are met through a combination of human and financial capital.
 - Under this framework human capital is defined as the present value of future savings directed a retirement needs. Financial capital are the actual present savings at a given point in time.
 - Human capital in this framework is modeled as 70% equity, 30% fixed income.
 - The implication is that those who are younger (and have more human capital) have higher allocations to equity while those who are older (with less remaining human capital) have higher allocations to fixed income.
 - This approach is also similar to that of T.Rowe Price in the target date offering. In both cases, the less that is needed from a retirement income standpoint from the DC plan, the more risk a participant can take.

The human capital approach also informs most target date funds and helps to explain the theory behind downward sloping glide paths which de-risk as a participant approaches retirement.

Overview of the Managed Account Program

Inputs that Drive Outcomes

- The custom portfolios are driven by inputs from both Empower's record keeping platform as well as data inputted by participants. These include:

From Empower	From Participant
• Participant balance	• Spousal assets
• Assets	• Dependents
• Contributions	• Outside assets
• Age	• Cash flows
	• Pension data
	• Risk preference
	• Desired retirement income

In addition to the above data, ARMB feeds in participants' estimated pension data if applicable.

Overview of the Managed Account Program

Further Use of Assumptions

- The managed account program then makes further assumptions around:
 - IRS Contribution Limitations
 - Minimum Required Distributions
 - Estimated taxes: based on participant's address on file
 - Social Security: based on current salary information and salary growth
 - Salary growth: assumed to grow at the long-term rate of inflation

Overview of the Managed Account Program

Underlying Funds

Once the higher level asset allocation model is built using the aforementioned inputs, the underlying funds options are analyzed to build out the asset allocation. This step uses both:

- Quantitative
 - Returns based style analysis
 - Forward-looking alpha
 - Style consistency
 - Performance analysis
 - Peer group screening

- Qualitative
 - style changes
 - holdings based analysis,
 - People
 - Process
 - Philosophy

ARMB Underlying Funds

- Morningstar recommends a minimum of 5 asset classes from which to build a portfolio:

- Large Cap
- Small/Mid Cap
- Foreign Equity
- Bonds
- Cash Alternatives

As currently constituted within the ARMB the managed account system allocation among:

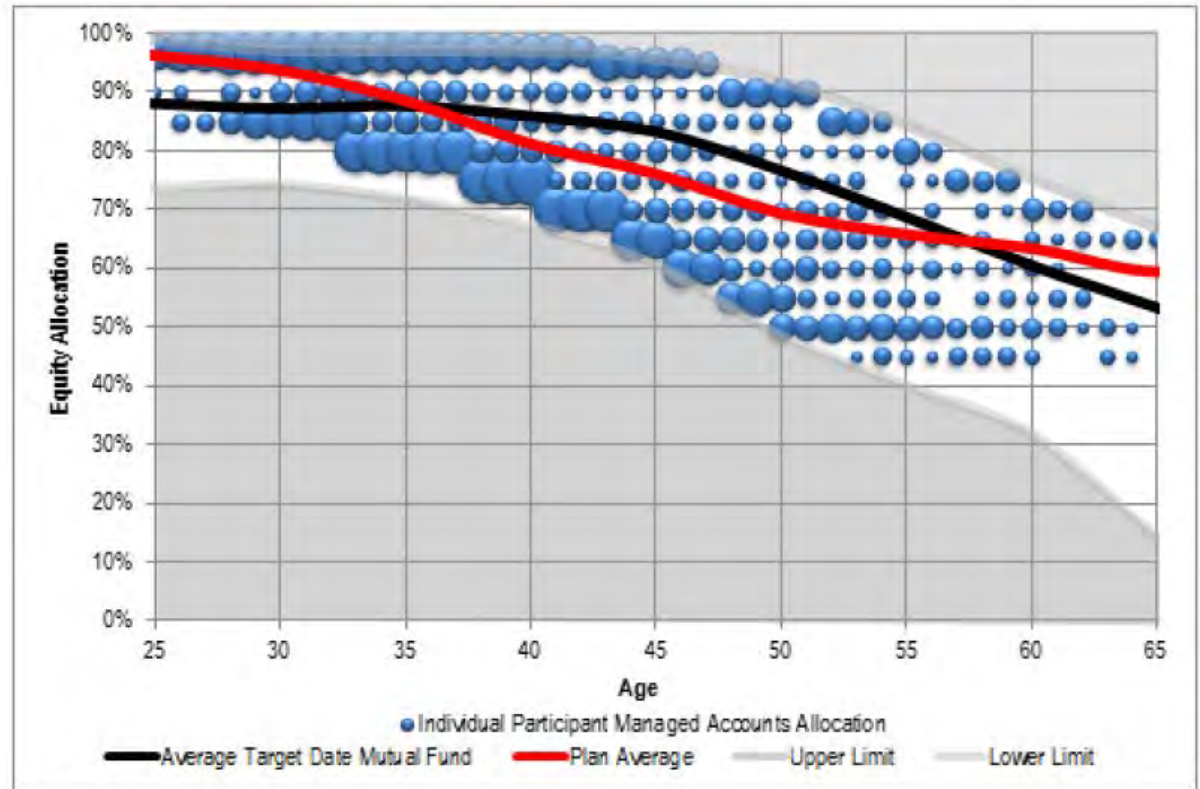
- Cash Alternatives (2)
 - *Stable Value, Money Market*
- TIPS (1)
 - *US Inflation Protected Securities*
- Bond Funds (4)
 - *Government/Credit Bond Index, Intermediate Bond Fund, Long Treasury Bond, World Government Bond ex-US Index*
- Large Cap Funds (3)
 - *S&P 500 Index Fund, Russell 3000 Index Fund, Allianz/RCM Socially Responsible Investment*
- International Equity (2)
 - *World Ex-US Index, International Equity Fund*
- REITS (1)
 - *US Real Estate Investment Trust Index*
- Small/Mid Cap Fund (1)
 - *US Small Cap Trust*

The managed account platform can also allocate to the three balanced funds.

Range of Allocations

- Based on participant data, actual allocations are formed.
- These allocations feature an equity/fixed income mix that can vary widely depending on the inputs.
- For example an individual at age 65 could have an allocation ranging from roughly 15% to nearly 70%.
- This range includes the T.Rowe Price target date allocation where at age 65, the allocation to equity is roughly 55%.

Possible Allocations



Source: Advised Asset Group, LLC

On Going Monitoring

On an ongoing basis

- Portfolios are monitored
- Funds are rebalanced (quarterly)
- Capital market expectations are updated (annually)

Example Allocations

- The allocations below represent hypothetical allocations for someone starting out a career (“accumulation”) and someone at retirement (“decumulation”). At point there are conservative, moderate and aggressive variations:

State of Alaska Funds ↓ Funds	Dynamic Model Portfolio Fund Allocations					
	Accumulation %			Decumulation %		
	Conservative	Moderate	Aggressive	Conservative	Moderate	Aggressive
Russell 3000 Index	0%	5%	19%	0%	9%	19%
S & P 500 Stock Index Fund	3%	8%	13%	4%	6%	21%
US Small Cap Trust	3%	13%	25%	0%	12%	27%
International Equity Fund	3%	6%	17%	3%	6%	13%
World Equity Ex-US Index	0%	5%	18%	0%	0%	12%
Alaska Balanced Trust	3%	10%	0%	4%	10%	0%
Alaska Long-Term Balanced Trust	0%	5%	0%	0%	6%	0%
SSgA Global Balanced Fund	3%	6%	0%	0%	7%	0%
Government/Credit Bond Index Fund	21%	9%	3%	0%	0%	0%
Intermediate Bond Fund	21%	7%	0%	33%	20%	3%
State Street Inst Treasury Money Market	3%	0%	0%	11%	0%	0%
US Treasury Inflation Protected Sec Indx	7%	3%	0%	27%	10%	0%
Stable Value Fund	20%	12%	0%	12%	9%	0%
US Real Estate Investment Trust Index	0%	3%	5%	3%	5%	5%
World Government Bond Ex-US Index QIB	13%	8%	0%	3%	0%	0%
Total	100%	100%	100%	100%	100%	100%

Source: Advised Asset Group’s Advisory Services Review for Callan

Historical Performance Comparison

- On a net-of fee performance standpoint, the performance for managed accounts has been a mixed bag.
- While the past year was a favorable period, over the longer term, performance has lagged the most comparable target date option (based on allocations to equity and growth assets).
- On a risk-adjusted basis though, even net-of-fees, performance for the managed account is favorable relative to the most comparable target date vintage. This further bolsters the case, that there is value for those taking the time to tailor the allocations to their particular circumstances.

	1-Year Return	3-Year Return	5-Year Return	5-Year Sharpe Ratio
Target Date 2010	1.36	5.58	6.01	0.91
Accumulation - Conservative	4.46	3.33	3.22	1.18
Decumulation – Conservative	3.64	2.99	3.09	1.08
Target Date 2015	1.08	6.32	6.77	0.86
Accumulation – Moderate	2.1	5.35	5.56	0.86
Decumulation – Moderate	2.26	5.7	6.11	0.98
Target Date 2055	-0.58	8.07	8.71	0.73
Accumulation – Aggressive	-0.66	6.44	6.77	0.60
Decumulation - Aggressive	0.16	7.4	7.85	0.66

Conclusions

Observations

- Roughly 75% of participants using managed accounts appear to be defaulted in.
- The participant inputs are vital to calibrating the asset allocation. Given the range of possible portfolios, it is up to the participant to supply accurate data to build out the best possible allocation. At issue though is whether or not participants actually take the time to input their data.
- Although Empower was not able to provide statistics on the number of participants using managed accounts who proactively enter their personal data in order to tailor the managed account to their situation, Callan's understanding based on conversations with Empower is that the number is low.

Recommendations

- Advice/Managed Account Reporting Request – request that Empower provide additional information on managed accounts on periodic basis, including building a report that indicates the way in which participants are enrolled in these services and how they use them (e.g., do they provide outside information?).
- Consider an asset re-enrollment given that some participants, particularly those defaulted (roughly 75% of users), may not have re-evaluated their investment options since they were defaulted into managed accounts prior to July 2009.

March 15, 2023



**Alaska Retirement Management
Board Defined Contribution Plans**

Investment Structure Evaluation

Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

Steve Center, CFA

Senior Vice President

Butch Cliff, CFA

Executive Vice President

Patrick Wisdom

Assistant Vice President

Executive Summary

Investment Structure Evaluation

Objective: Identify potential changes to the investment structure with the intent to even better serve the needs of participants over the next 5 to 10 years.

Observations and Considerations:

- This study evaluates the investment structure of Alaska Retirement Management Board (ARMB) Defined Contribution (DC) Plans (the “Plans”). In analyzing the structure of the Plans, this evaluation seeks to identify whether there are investment options that could be added, and likewise whether there are options that could be eliminated, with an eye toward maintaining or improving participants’ ability to construct diversified portfolios in accordance with a range of risk/reward preferences.
- As a result of this evaluation, Callan believes the Plans’ investment lineup is sound, features a reasonable number of investment options, and provides access to a sufficient range of asset classes. Callan offers the following areas for further consideration:

Consider...	Rationale
Removing the Money Market Option.	Money market and stable value may have overlapping roles as capital preservation options, while stable value has historically provided a returns premium. Current usage of the money market option is low.
Adding a Core Plus Fixed Income Option.	Active core plus fixed income managers have demonstrated a historical ability to add value above their benchmarks through their ability to allocate to out-of-benchmark sectors and manage duration exposure.
Removing the Passive U.S. All-Cap Equity Option and Adding a Passive U.S. Small/Mid-Cap Equity Option.	The U.S. large-cap and all-cap options have a high degree of overlap, both in terms of securities and participants with a balance. Moreover, U.S. small/mid-cap equity is the only core tier asset class that participants do not currently have the option to invest in a <i>standalone</i> passively implemented strategy.
Removing the Balanced Funds.	Balanced funds and target date funds may have overlapping roles as asset allocation options, while target date funds account for some degree of evolving risk tolerance via a dynamically shifting asset allocation.
Revisiting offering the JPM SmartRetirement Funds.	The JPMorgan SmartRetirement 2015 Fund will be liquidated and closed, expected to occur in late 2023. As a result of this recent announcement and differences in glidepath methodology between JPMorgan and T. Rowe price, ARMB may explore the merits of continuing to offer the Funds.

ARMB DC Plans Summary*

The ARMB DC Plans have more than \$8 billion in combined assets and more than 120,000 participant accounts. Among the 4 Plans, the SBS has the largest share of assets and participant accounts.

	457	SBS	PERS	TRS	Combined
Total Assets	\$1,083,250,137	\$4,520,005,286	\$1,900,300,897	\$783,639,870	\$8,287,196,190
Total Participant Accounts	12,749	51,272	47,087	10,914	122,022
Average Account Balance	\$84,987	\$88,166	\$40,357	\$71,828	--
Median Account Balance	\$22,008	\$17,666	\$15,804	\$43,280	--

*As of Nov. 25, 2022, source: Empower

Evaluating the Defined Contribution Plan Investment Structure

Human behavior influences how we approach investment design recommendations

Inertia

Default options attract assets. Participants tend to remain wholly invested in default investment options.

Momentum

Studies have shown that hot-performing funds may lead participants to chase returns, which often detracts from long-term individual participant returns.

Influence

Plans weighted toward stock funds or bond funds often result in participant preference for more of same.

Choice

Individuals want choice but are easily overwhelmed. Choice overload may result in decreased plan participation.

Goal: Limit impact of participant behavioral biases to minimize adverse impact on successful savings and investing outcomes.

Optimizing the Investment Structure

Building the optimal three-tier investment structure

- ▶ Callan uses a three-tiered framework to organize the options in a DC plan's investment structure.
- ▶ This approach seeks to address the needs of the various constituencies within an employee population.
- ▶ No two plans are exactly the same, and therefore the ideal structure will vary based on plan-specific circumstances.

Tier I: Asset Allocation

Target Date Funds
Balanced

Simple (and smart) choice for participants who prefer a single-fund solution and the delegation of the asset allocation decision to a professional manager

Tier II: Core Options

Capital Preservation
U.S. Fixed Income
U.S. Large Cap Equity
Non-U.S. Equity
U.S. Small Cap Equity

Provide primary building blocks to create diversified portfolios
For participants who wish to build and manage their own portfolios
Often useful to offer both active and passive options within Tier II

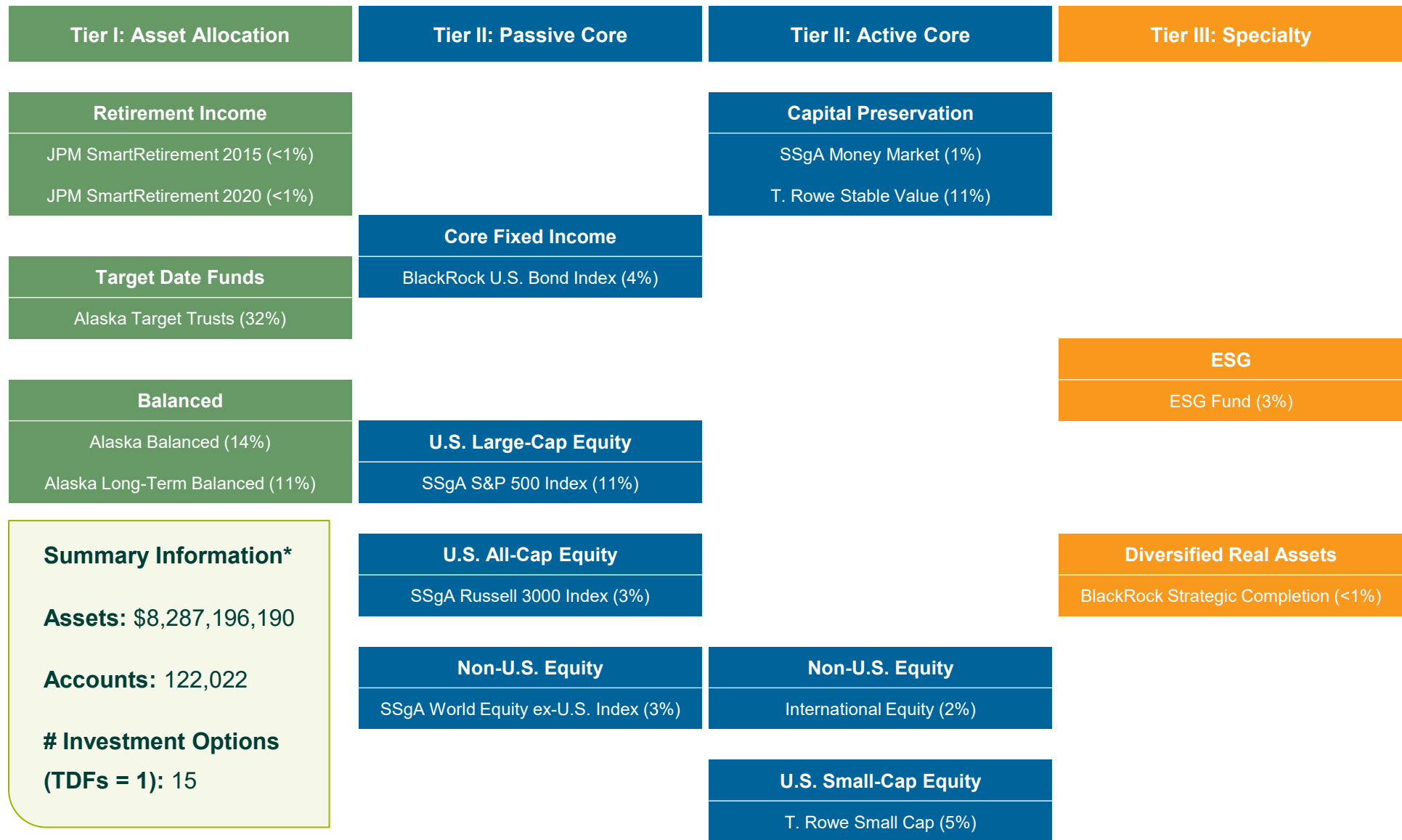
Tier III: Specialty Options

ESG
Diversified Real Assets
Brokerage

Includes non-core asset classes geared toward sophisticated participants who desire more flexibility
A brokerage window in the Plans could allow participants to access investment options outside those offered in the core lineup.

ARMB DC Plans Current Investment Structure*

The diagram below depicts the menu of investment options, by asset category, currently offered to the Plans' participants.



*Allocations as of Nov. 25, 2022, source: Empower

Plan Comparisons and Utilization

ARMB DC Plans Benchmarking

Comparators: Callan DC Index and DC Trends Survey

In the following slides, the Plans are benchmarked against two sources:

Callan DC Index

- This quarterly Index serves as a proxy for the DC universe and tracks performance, asset allocation, and cash flows of approximately 100 large defined contribution plans representing more than \$400 billion in assets.
- Index figures are as of Sept. 30, 2022.

Callan DC Trends Survey

- The 15th annual Callan Defined Contribution Trends Survey incorporated responses from 101 large DC plan sponsors, including both Callan clients and other organizations.
- About three quarters of respondents had at least \$1 billion in total plan assets, and nearly 1 in 5 (17%) had a participant count above 100,000.

Primary industry

Financial Services	17%
Energy / Utilities	16%
Technology	14%
Health Care	11%
Government	8%
Manufacturing	7%
Other	7%
Aerospace / Defense	6%
Insurance	6%
Professional Services	5%
Education	3%

Number of participants in DC plan

> 100,000	17%
50,001 to 100,000	8%
10,001 to 50,000	32%
5,001 to 10,000	18%
1,001 to 5,000	14%
≤ 1,000	12%

Assets in DC plan

> \$5 billion	37%
\$1 to \$5 billion	37%
\$500.1 mm to \$1 bn	8%
\$200.1 to \$500 million	8%
\$100.1 to \$200 million	6%
≤ \$100 million	3%

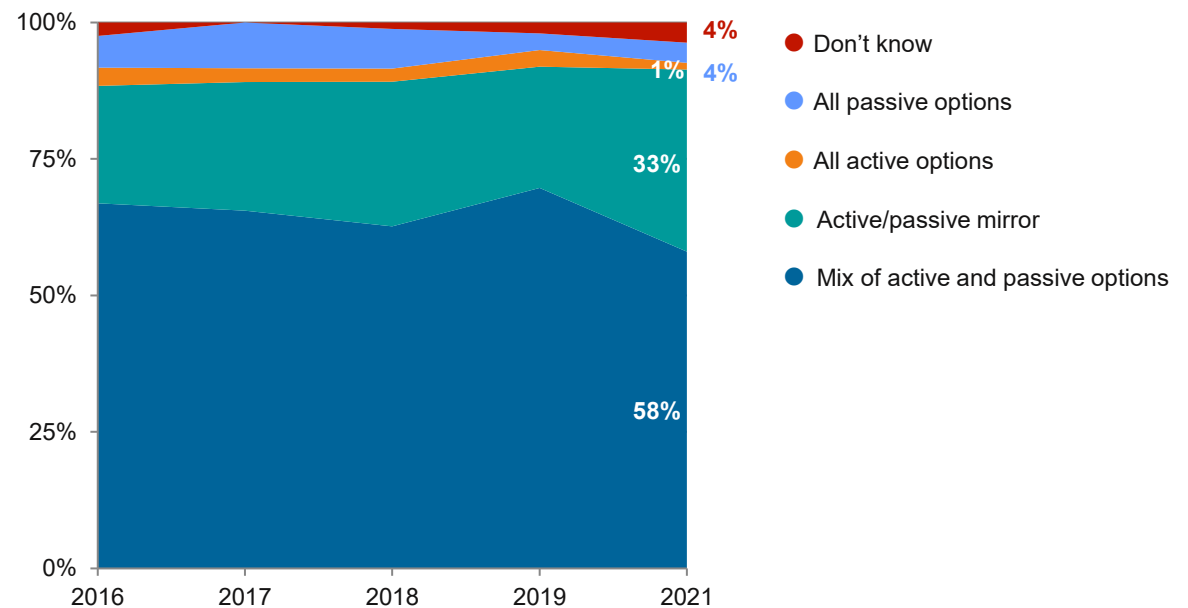
Note: Charts may not sum to 100% due to rounding. Dotted orange lines represent where the ARMB DC Plans fall within survey respondent characteristics.

ARMB DC Plans Investment Menu

The ARMB DC Plans' investment menu provides a mix of active and passive options, which is the investment menu type offered by nearly 6 in 10 respondents to the Callan DC Trends Survey.

- In the context of Callan's tiered investment structure, the ARMB DC Plans offer a mix of active and passive options.
 - Nearly 6 in 10 plans offered a mix.
- A full active/passive mirror structure allows participants to choose between low-cost market exposure and the opportunity for alpha via active management within each of the core asset classes:
 - Core/core plus fixed income
 - U.S. large-cap equity
 - Non-U.S. equity
 - U.S. small/mid-cap equity

What best describes your plan's investment menu approach?



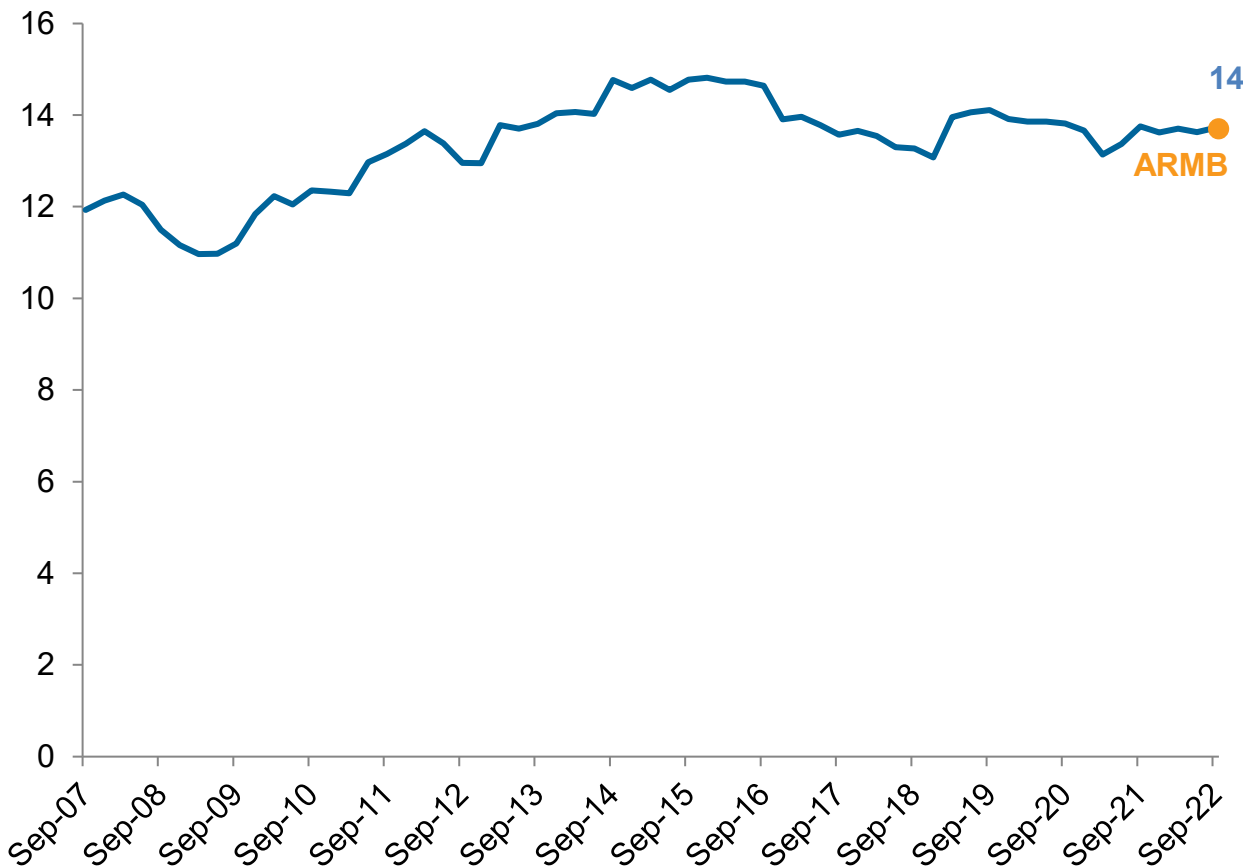
Source: Callan 2022 DC Trends Survey

ARMB DC Plans Number of Investment Options

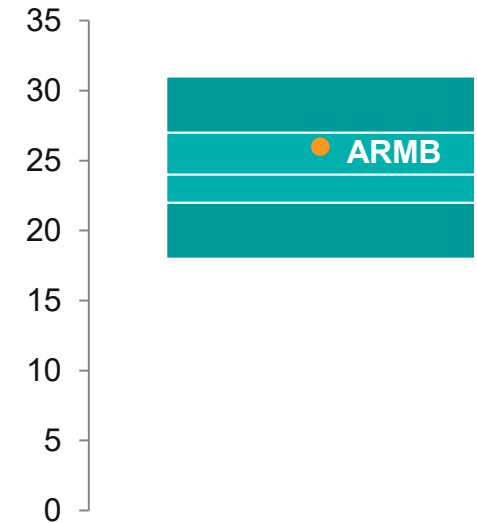
DC Index Data as of Sept. 30, 2022

Excluding target date funds, the ARMB DC Plans offer 14 investment options to participants, directly in line with the average number offered by plans in the DC Index.

Average # of Options (Excluding TDFs)



of Options (Including TDFs)



90th percentile	31
75th percentile	27
Median	24
25th percentile	22
10th percentile	18
ARMB	26

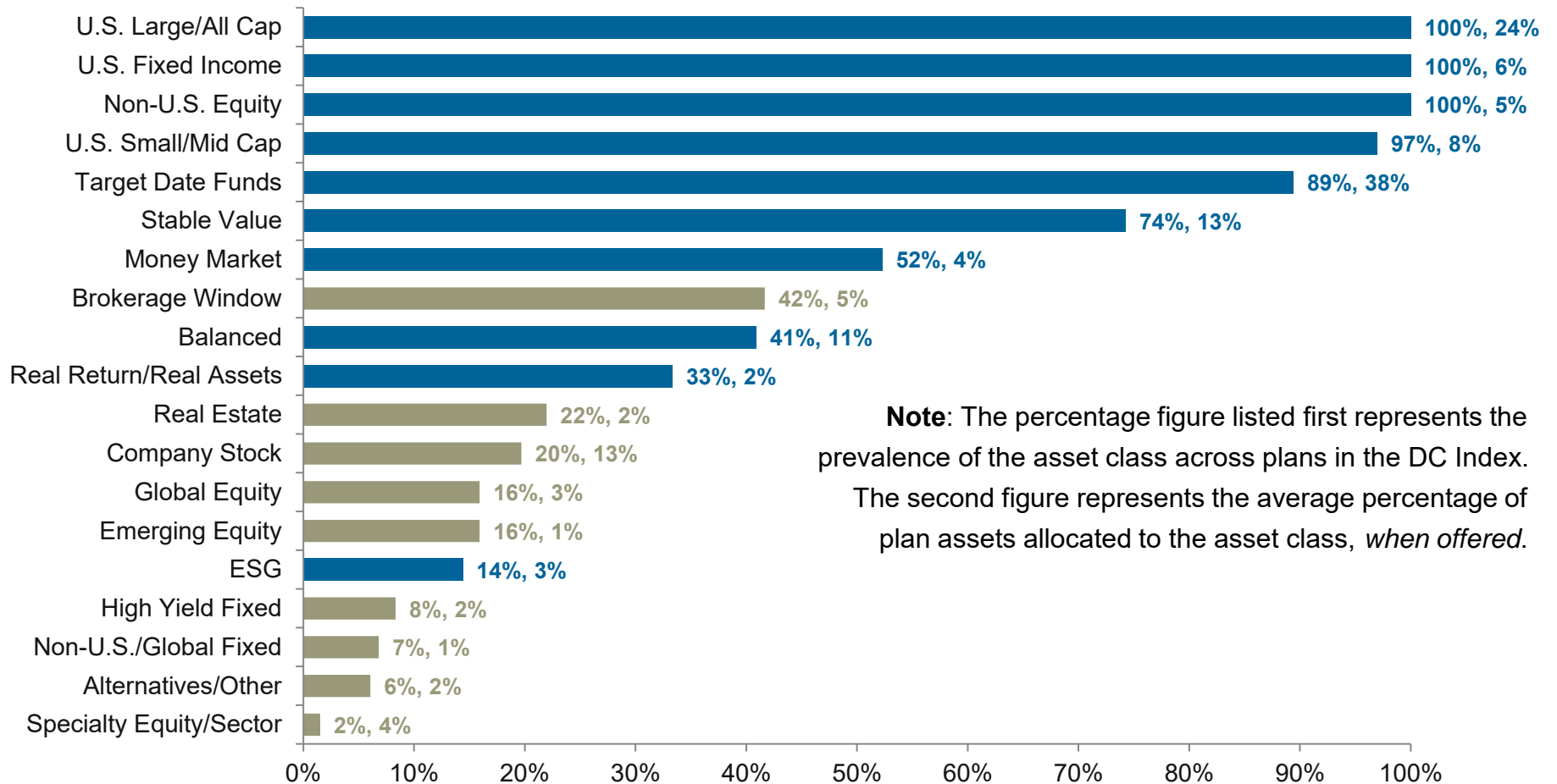
Source: Callan DC Index

ARMB DC Plans Asset Classes Offered

DC Index Data as of Sept. 30, 2022

Blue bars in the chart represent asset classes offered by the ARMB DC Plans. The Plans' investment menu provides access to each asset class offered by at least half of plans in the DC Index.

Asset Class Prevalence



Note: The percentage figure listed first represents the prevalence of the asset class across plans in the DC Index. The second figure represents the average percentage of plan assets allocated to the asset class, *when offered*.

Source: Callan DC Index

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Investment Structure Considerations

ARMB DC Plans Alternative Investment Structure I*

Tier I: Asset Allocation	Tier II: Passive Core	Tier II: Active Core	Tier III: Specialty
Retirement Income JPM SmartRetirement 2015 (<1%) JPM SmartRetirement 2020 (<1%)		Capital Preservation SSgA Money Market (1%) T. Rowe Stable Value (11%)	
Target Date Funds Alaska Target Trusts (32%)	Core Fixed Income BlackRock U.S. Bond Index (4%)	Core Plus Fixed Income Core Plus Bond Option	
Balanced Alaska Balanced (14%) Alaska Long-Term Balanced (11%)	U.S. Large-Cap Equity SSgA S&P 500 Index (11%)		ESG ESG Fund (3%)
	U.S. All-Cap Equity SSgA Russell 3000 Index (3%)		Diversified Real Assets BlackRock Strategic Completion (<1%)
	Non-U.S. Equity SSgA World Equity ex-U.S. Index (3%)	Non-U.S. Equity International Equity (2%)	
	U.S. Small/Mid-Cap Equity Passive Small/Mid-Cap Option	U.S. Small-Cap Equity T. Rowe Small Cap (5%)	

*Allocations as of Nov. 25, 2022, source: Empower

ARMB DC Plans Alternative Investment Structure II*

Tier I: Asset Allocation	Tier II: Passive Core	Tier II: Active Core	Tier III: Specialty
Retirement Income JPM SmartRetirement 2015 (<1%) JPM SmartRetirement 2020 (<1%)		Capital Preservation SSgA Money Market (1%) T. Rowe Stable Value (11%)	
Target Date Funds Alaska Target Trusts (32%)	Core Fixed Income BlackRock U.S. Bond Index (4%)	Core Plus Fixed Income Core Plus Bond Option	
Balanced Alaska Balanced (14%) Alaska Long-Term-Balanced (11%)	U.S. Large-Cap Equity SSgA S&P 500 Index (11%)		ESG ESG Fund (3%)
	U.S. All-Cap Equity SSgA Russell 3000 Index (3%)		Diversified Real Assets BlackRock Strategic Completion (<1%)
	Non-U.S. Equity SSgA World Equity ex-U.S. Index (3%)	Non-U.S. Equity International Equity (2%)	
	U.S. Small/Mid-Cap Equity Passive Small/Mid-Cap Option	U.S. Small-Cap Equity T. Rowe Small Cap (5%)	

*Allocations as of Nov. 25, 2022, source: Empower

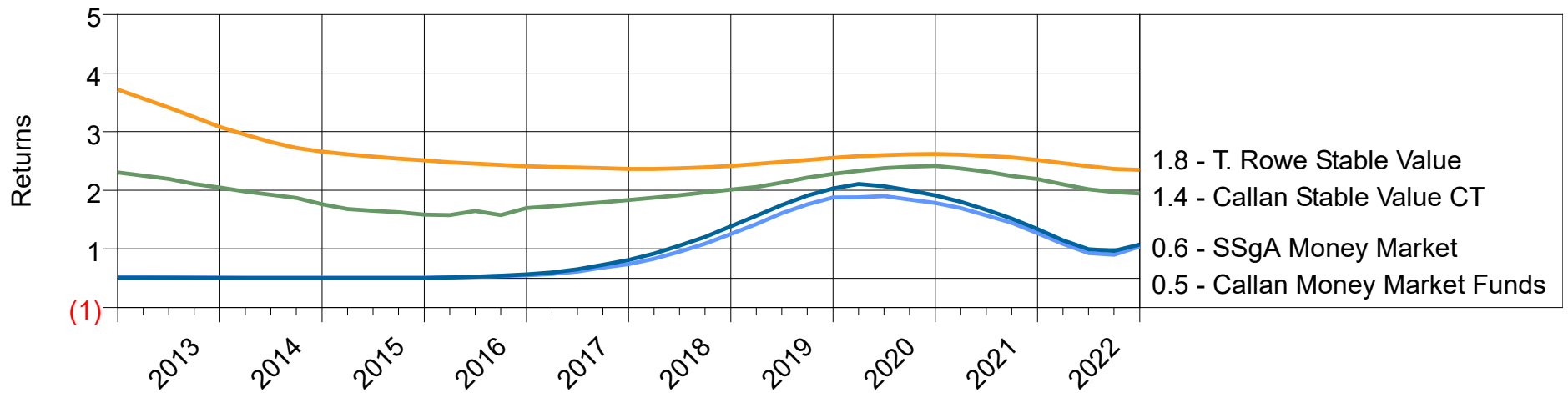
Summary of Investment Structure Considerations

Consider...	Rationale
Removing the Money Market Option.	Money market and stable value may have overlapping roles as capital preservation options, while stable value has historically provided a returns premium. Current usage of the money market option is low.
Adding a Core Plus Fixed Income Option.	Active core plus fixed income managers have demonstrated a historical ability to add value above their benchmarks through their ability to allocate to out-of-benchmark sectors and manage duration exposure.
Removing the Passive U.S. All-Cap Equity Option and Adding a Passive U.S. Small/Mid-Cap Equity Option.	The U.S. large-cap and all-cap options have a high degree of overlap, both in terms of securities and participants with a balance. Moreover, U.S. small/mid-cap equity is the only core tier asset class that participants do not currently have the option to invest in a <i>standalone</i> passively implemented strategy.
Removing the Balanced Funds.	Balanced funds and target date funds may have overlapping roles as asset allocation options, while target date funds account for some degree of evolving risk tolerance via a dynamically shifting asset allocation.
Revisiting offering the JPM SmartRetirement Funds.	The JPMorgan SmartRetirement 2015 Fund will be liquidated and closed, expected to occur in late 2023. As a result of this recent announcement and differences in glidepath methodology between JPMorgan and T. Rowe price, ARMB may explore the merits of continuing to offer the Funds.

Capital Preservation – Money Market and Stable Value

Money market and stable value may have overlapping roles as capital preservation options. Given the historical returns premium provided by stable value funds, consider removing the money market option to further streamline the structure.

Rolling 12 Quarter Returns for 10 Years Ended December 31, 2022



Holding(s)	457(b)		SBS		PERS		TRS	
	Non-MA Participants	Managed Account Participants	Non-MA Participants	Managed Account Participants	Non-MA Participants	Managed Account Participants	Non-MA Participants	Managed Account Participants
Money Market Only	13%	0%	19%	0%	55%	1%	62%	0%
Stable Value Only	75%	44%	67%	48%	29%	34%	25%	33%
Both	12%	56%	14%	52%	16%	65%	13%	67%

Note: Participant holding patterns as of Nov. 25, 2022. Among participants with money market/stable value balance. Source: Empower.

Core Plus Fixed Income

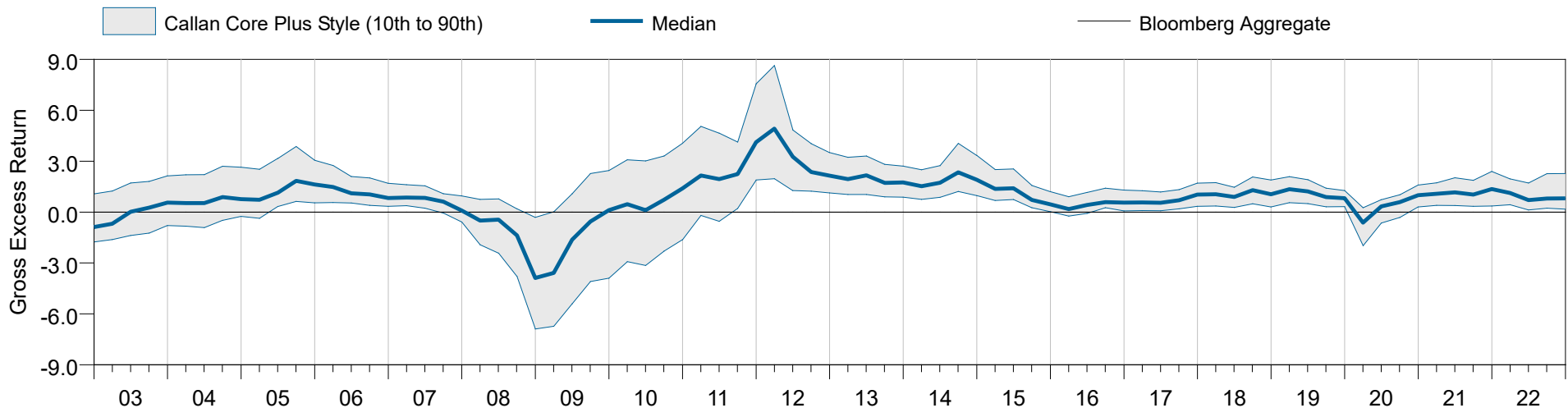
Even with a fee hurdle of 65 basis points (well above the median core plus fixed income expense ratio), the median core plus fixed income manager beat the Bloomberg U.S. Aggregate Bond Index in **63% of rolling 3-year periods over the last 20 years**.

Fee Hurdle	0.20%	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%
Median	80%	80%	79%	78%	78%	76%	74%	69%	64%	63%
45th Percentile	84%	81%	79%	79%	78%	76%	76%	75%	71%	65%
40th Percentile	85%	84%	84%	81%	81%	80%	79%	79%	78%	75%
35th Percentile	86%	86%	85%	84%	83%	81%	81%	81%	80%	78%
30th Percentile	88%	88%	88%	86%	86%	84%	84%	83%	83%	80%
25th Percentile	89%	89%	89%	89%	88%	86%	85%	85%	84%	84%

Average Annualized 3-Year Excess Return (gross) – Median Manager:

0.84%

Rolling 3-Year Gross Excess Return relative to Bloomberg Aggregate for 20 Years ended December 31, 2022



U.S. Large/All-Cap Equity

Participant holding patterns reveal that most managed account users have balances in both the S&P 500 Index fund and Russell 3000 Index fund, while other participants are more likely to have a balance in only the S&P 500 Index fund. Notably, the funds have a high degree of overlapping securities, as **common holdings represent roughly 85% of the weight of the Russell 3000 Index.**

Holding(s)	457(b)		SBS	
	Non-MA Participants	Managed Account Participants	Non-MA Participants	Managed Account Participants
SSgA S&P 500 Index Only	64%	21%	61%	17%
SSgA Russell 3000 Index Only	10%	0%	10%	0%
Both	26%	79%	29%	83%

Holding(s)	PERS		TRS	
	Non-MA Participants	Managed Account Participants	Non-MA Participants	Managed Account Participants
SSgA S&P 500 Index Only	52%	11%	52%	9%
SSgA Russell 3000 Index Only	11%	0%	11%	0%
Both	37%	89%	37%	91%

Note: Participant holding patterns as of Nov. 25, 2022. Among participants with a U.S. large/all-cap equity balance. Source: Empower.

Target Date Funds and Balanced Funds

Participant holding patterns show that managed account users have balances in only the balanced option(s), while other participants are more likely to have balances in only the Target Trusts.

Holding(s)	457(b)		SBS	
	Non-MA Participants	Managed Account Participants	Non-MA Participants	Managed Account Participants
Target Trusts Only	61%	0%	62%	0%
Balanced Option(s) Only	32%	100%	36%	100%
Target Trusts & Balanced Option(s)	7%	0%	3%	0%

Holding(s)	PERS		TRS	
	Non-MA Participants	Managed Account Participants	Non-MA Participants	Managed Account Participants
Target Trusts Only	97%	0%	97%	0%
Balanced Option(s) Only	2%	100%	2%	100%
Target Trusts & Balanced Option(s)	0%	0%	0%	0%

Note: Participant holding patterns as of Nov. 25, 2022. Among participants with a balance in the Alaska Target Trusts and/or balanced option(s). Source: Empower.

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SDBA Overview & Considerations

Self-Directed Brokerage Windows

ARMB Investment Categories for Consideration

Brokerage Window Investment Categories

Fixed Income

Core Plus Fixed Income*
High Yield Fixed Income

U.S. Equity

U.S. Large-Cap Value Equity
U.S. Large-Cap Growth Equity

Non-U.S. Equity

Developed Markets Equity
Emerging Markets Equity
Non-U.S. Small-Cap Equity

Other

REITS
TIPS

*If ARMB does not elect to add a core plus fixed income option to the core investment menu, core plus may be considered for brokerage window inclusion.

Importantly, if a limited set of investment options outside of those already available on the core menu is offered to participants, it could create certain challenges, such as difficulty replacing options on the limited menu once they have been made available to participants. As a result, ARMB could alternatively consider expanding the core investment menu to include options in addition to those currently offered.

Self-Directed Brokerage Windows

Implementation Considerations

- The implementation of a self-directed brokerage window within a DC plan requires deliberate planning and action by the plan sponsor, who is responsible for:
 - Selecting and monitoring the self-directed brokerage provider
 - Determining which plan design elements to include
 - For example, which money types are able to be invested in the self-directed brokerage window (e.g., pre-tax vs. Roth, employee deferrals vs. employer contributions, etc.)
 - Determining whether to include any account restrictions to manage exposure and risk
 - For example, which broad investment types to include and any limitation on investment(s)
 - Common investment restrictions are excluding any investments that could generate unrelated business income tax for the plan (such as limited partnerships) or excluding investments in employer securities.
- In addition, the plan sponsor should be aware of:
 - Participant communications related to the self-directed brokerage window
 - Fees and revenues associated with the self-directed brokerage window
 - There is often an annual fee for participants that use the self-directed brokerage window. There may also be a one-time fee for adding the brokerage window to a plan.
 - Participants typically pay transaction and trading fees as well as any other fees associated with their investments in the brokerage window.

Callan

**Appendix – Asset Distribution and
Managed Account Allocations**

Asset Distribution – ARMB DC Plans

Investment Option	Assets Owned by Non-Managed Account Users	Assets Owned by Managed Account Users	Total Assets
JPM SmartRetirement 2015	\$960,253	\$0	\$960,253
JPM SmartRetirement 2020	\$386,266	\$0	\$386,266
Alaska Target Trusts	\$2,668,004,539	\$4	\$2,668,004,543
Alaska Balanced	\$1,007,887,996	\$118,158,871	\$1,126,046,867
Alaska Long-Term Balanced	\$748,769,492	\$148,118,196	\$896,887,689
SSgA Money Market	\$98,724,032	\$15,343,640	\$114,067,673
T. Rowe Stable Value	\$563,813,429	\$336,794,511	\$900,607,939
BlackRock U.S. Bond Index	\$126,202,192	\$195,261,157	\$321,463,349
SSgA S&P 500 Index	\$803,656,759	\$85,311,336	\$888,968,095
SSgA Russell 3000 Index	\$172,125,445	\$73,817,825	\$245,943,270
SSgA World Equity ex-U.S. Index	\$56,357,448	\$168,857,694	\$225,215,142
International Equity	\$82,422,770	\$108,763,527	\$191,186,298
T. Rowe Small Cap	\$269,872,004	\$159,837,614	\$429,709,618
ESG Fund	\$117,430,344	\$101,167,295	\$218,597,638
BlackRock Strategic Completion	\$14,305,225	\$173,982	\$14,479,207
	\$6,772,118,374	\$1,515,077,816	\$8,287,196,190

*As of Nov. 25, 2022, source: Empower

Managed Account Allocations – ARMB DC Plans

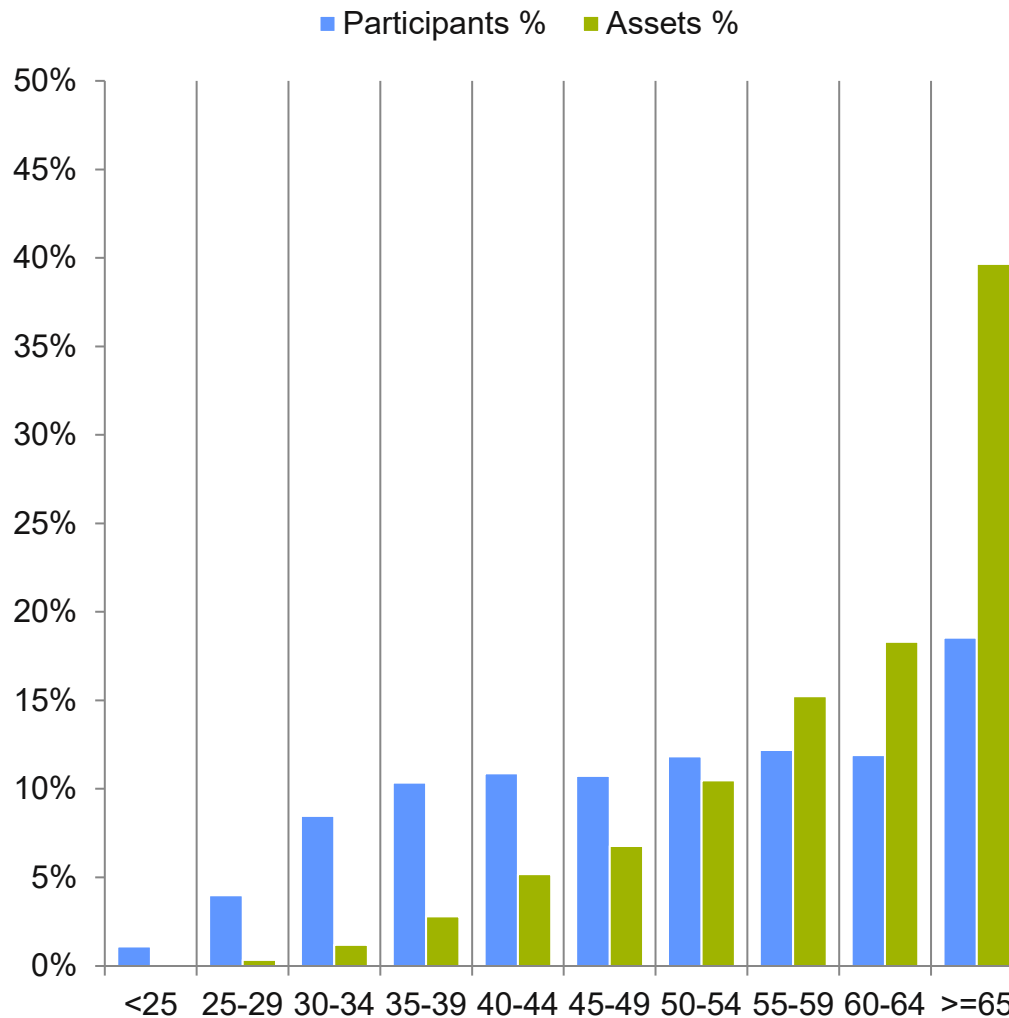
Investment Option	Representative Risk-Based Portfolios						
	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
SSgA Money Market	9%	5%	1%	0%	0%	0%	0%
T. Rowe Stable Value	40%	33%	28%	20%	13%	5%	0%
BlackRock U.S. Bond Index	35%	24%	15%	10%	8%	5%	3%
Alaska Balanced	5%	8%	9%	8%	6%	2%	0%
Alaska Long-Term Balanced	5%	9%	11%	9%	6%	3%	0%
SSgA S&P 500 Index	0%	3%	5%	6%	6%	6%	6%
SSgA Russell 3000 Index	0%	0%	0%	5%	10%	15%	17%
SSgA World Equity ex-U.S. Index	3%	7%	10%	12%	13%	17%	21%
International Equity	0%	2%	3%	8%	14%	20%	24%
T. Rowe Small Cap	0%	5%	9%	13%	16%	19%	21%
ESG Fund	3%	7%	9%	9%	9%	9%	8%

Source: Empower

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Appendix – Participant Analysis

ARMB Participant Ages, Assets, and Savings Patterns – 457(b) Plan*

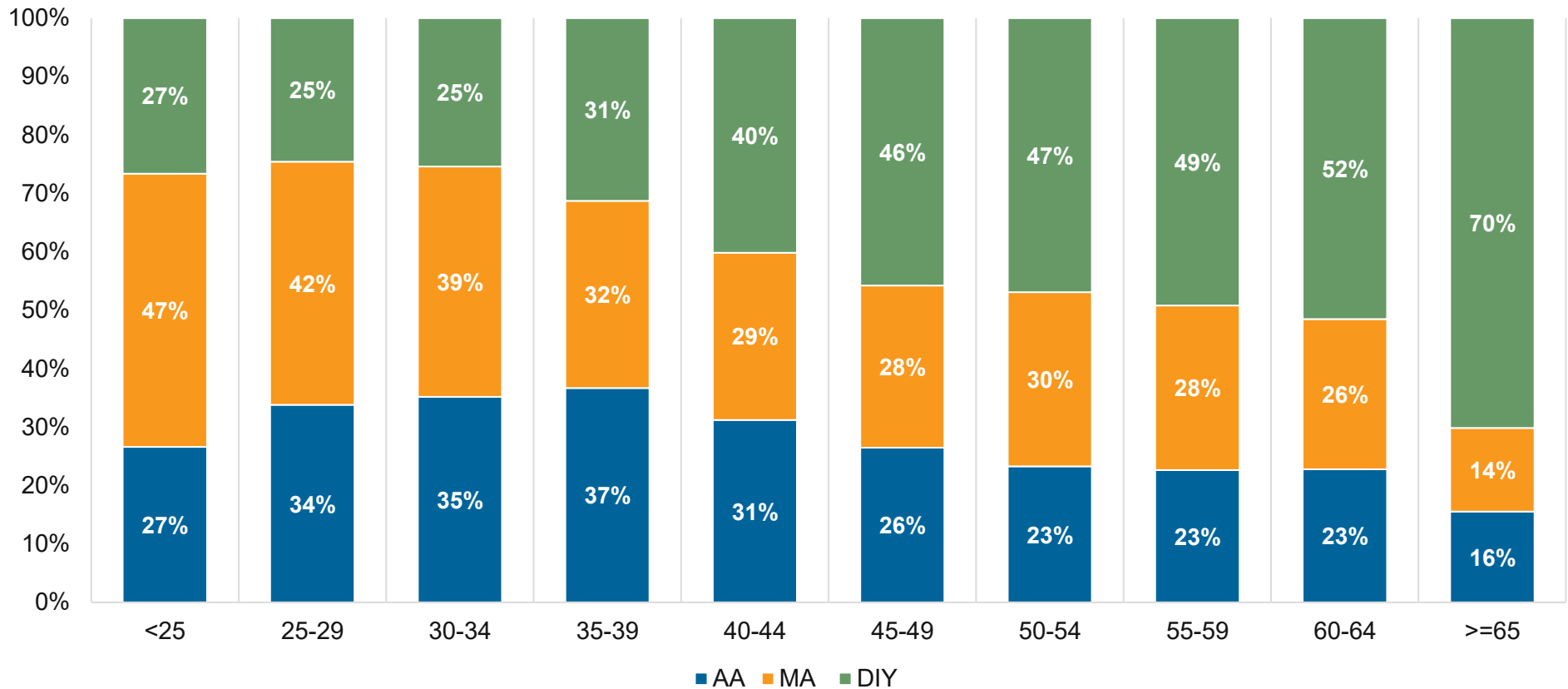


Status	Participants %	Gender	Participants %
Active	60%	Male	50%
Inactive	40%	Female	50%

Age Range	Median Balance	Average Balance
<25	\$1,569	\$3,991
25-29	\$2,770	\$7,228
30-34	\$5,488	\$11,910
35-39	\$8,965	\$22,870
40-44	\$13,662	\$40,447
45-49	\$19,915	\$53,550
50-54	\$27,409	\$75,322
55-59	\$40,875	\$106,198
60-64	\$51,996	\$130,692
>=65	\$87,641	\$181,807

*As of Nov. 25, 2022, source: Empower

ARMB Participant Investment Menu Utilization – 457(b) Plan*



The Plan's participant population can be categorized into three groups, based on how they use the investment menu:

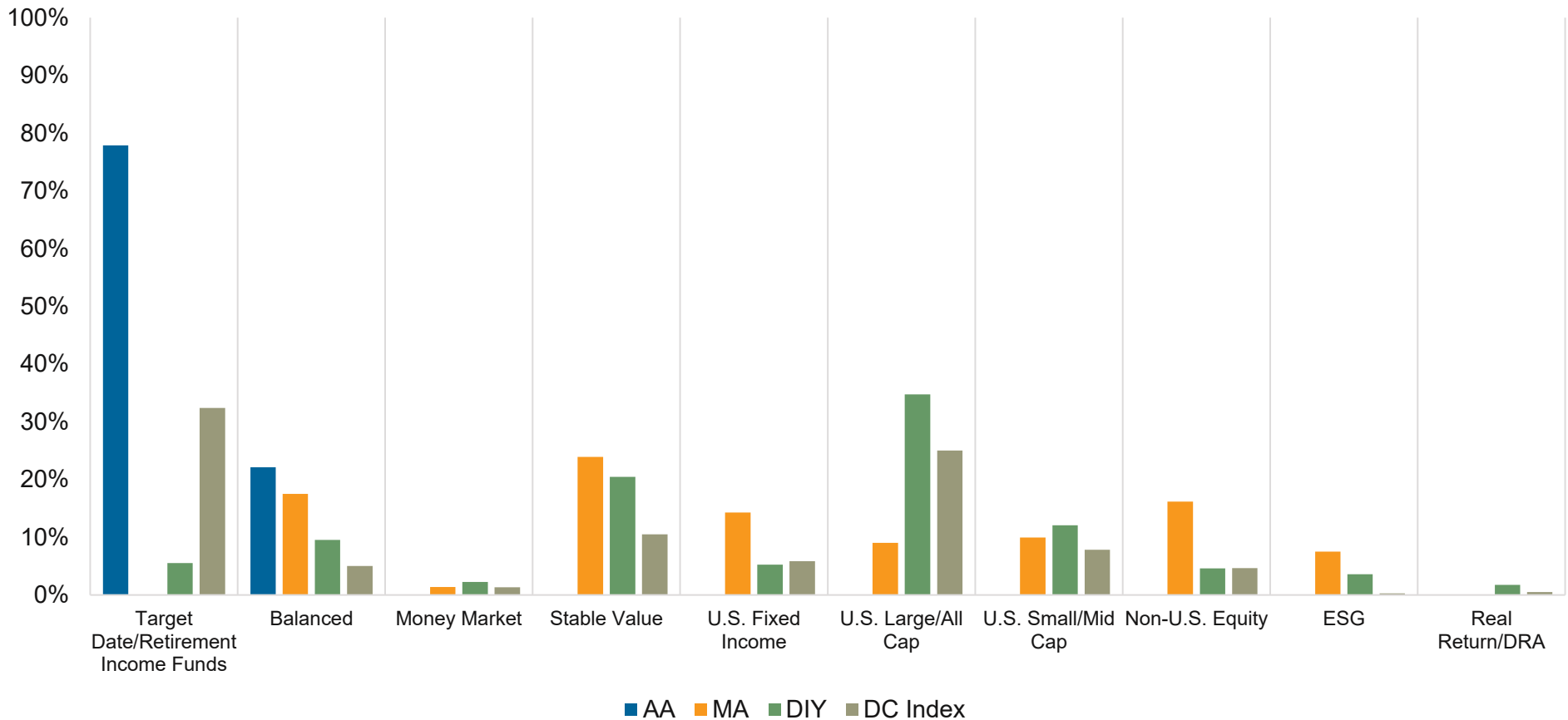
- 1. Asset Allocation (AA) participants** – participants wholly invested in either TDFs or balanced funds; **26%** of participants
- 2. Managed Account (MA) participants** – participants currently enrolled in the managed account service; **28%** of participants
- 3. Do-it-Yourself (DIY) participants** – participants using the core and/or specialty tier investment options and not currently enrolled in the managed account service; **47%** of participants

*As of Nov. 25, 2022, source: Empower

ARMB Asset Class Allocations – 457(b) Plan*

In the Plan, managed account users have relatively high allocations to balanced, U.S. fixed income, non-U.S. equity, and ESG. Conversely, DIY participants have relatively high allocations to U.S. large/all cap.

Asset Class Allocations

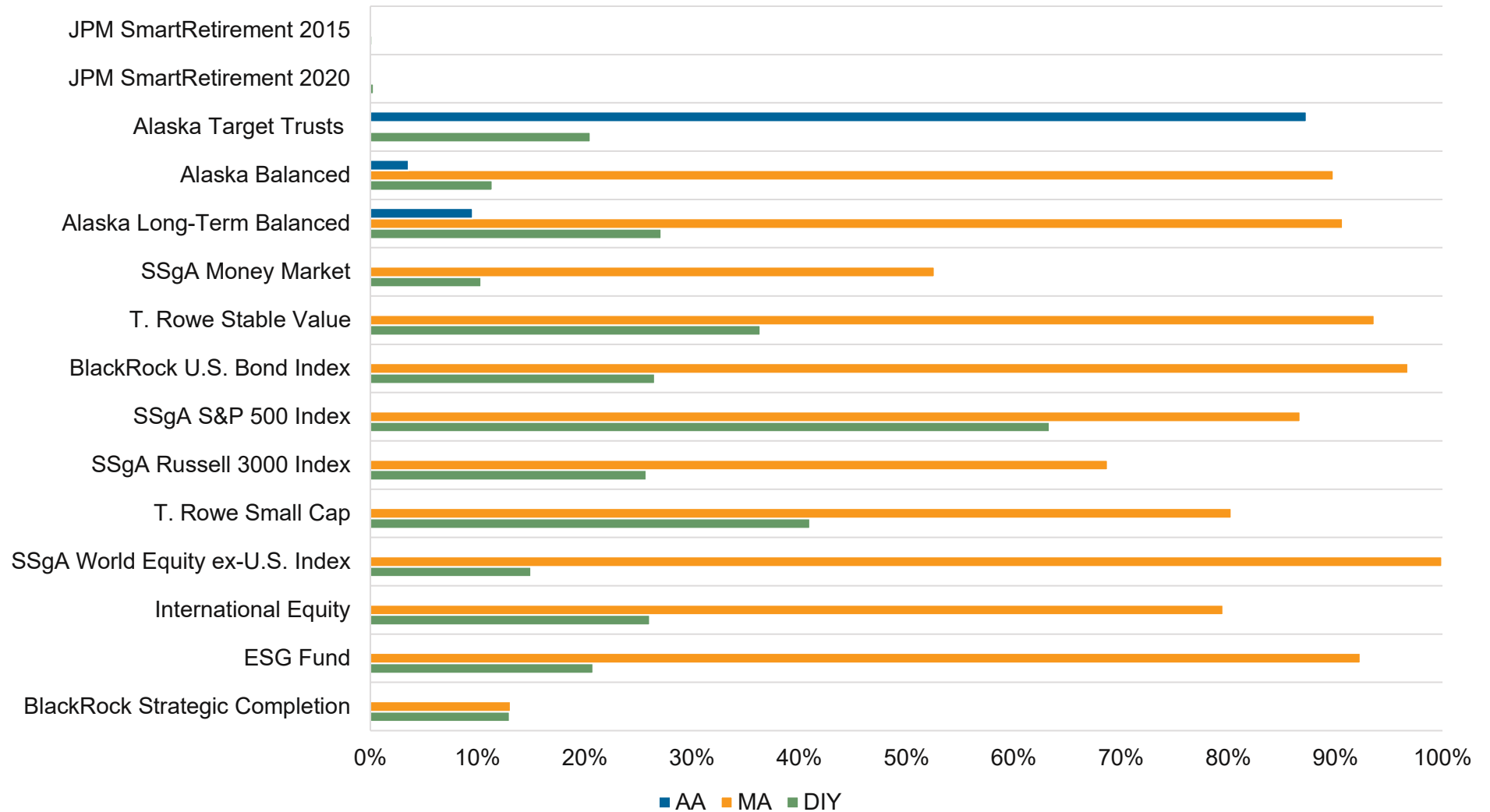


*ARMB data as of Nov. 25, 2022, and DC Index data as of Sept. 30, 2022. DC Index figures represent average asset class allocations, when offered.

Sources: Empower and Callan DC Index.

ARMB Investment Option Utilization – 457(b) Plan*

Percentage of Participants with a Balance



*As of Nov. 25, 2022, source: Empower

ARMB Participant Holding Patterns – 457(b) Plan*

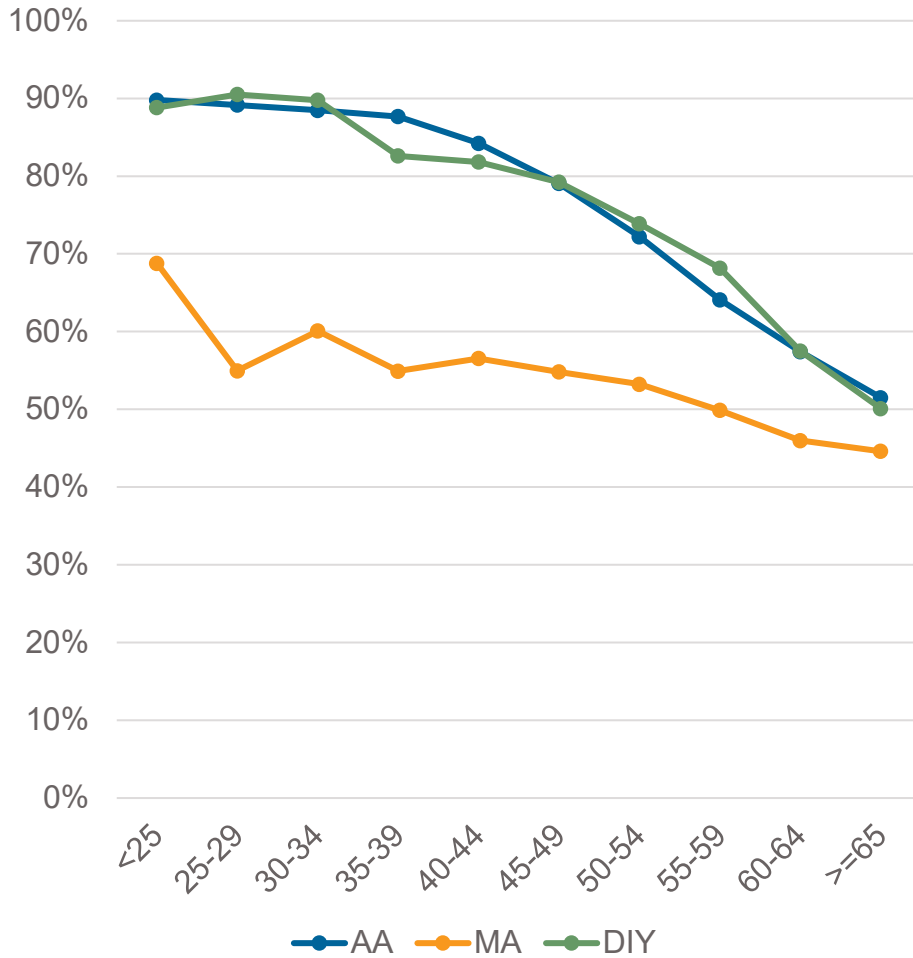
In the Plan, all managed account users hold between 7 and 12 investment options. Conversely, DIY participants hold fewer options, as three quarters hold 4 or fewer options.

Number of Options	AA Participants		MA Participants		DIY Participants	
	#	%	#	%	#	%
1	3,270	100%	0	0%	1,393	23%
2	14	0%	0	0%	1,307	22%
3	0	0%	0	0%	998	17%
4	0	0%	0	0%	731	12%
5	0	0%	0	0%	526	9%
6	0	0%	0	0%	346	6%
7	0	0%	985	28%	227	4%
8	0	0%	46	1%	135	2%
9	0	0%	68	2%	120	2%
10	0	0%	1,387	39%	100	2%
11	0	0%	889	25%	42	1%
12	0	0%	143	4%	14	0%
13	0	0%	0	0%	5	0%
TOTAL	3,284	100%	3,518	100%	5,944	100%

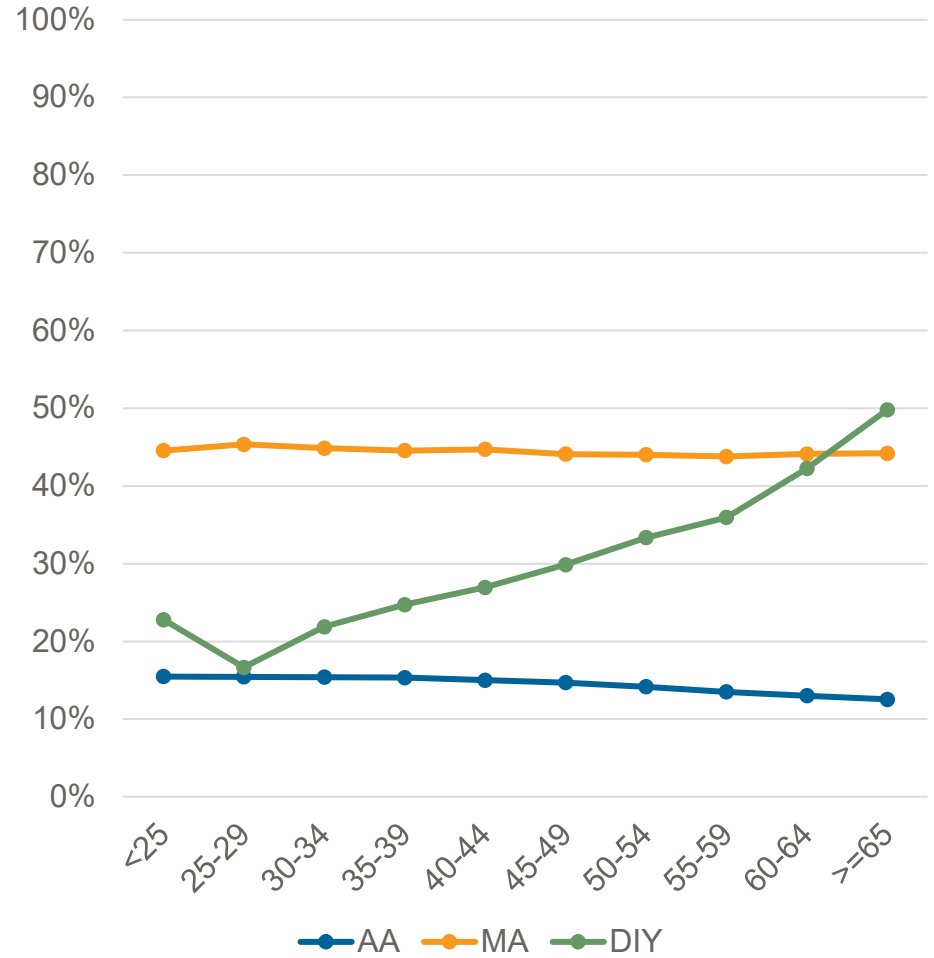
*As of Nov. 25, 2022. Totals in table exclude participants with no balance. Source: Empower.

ARMB Equity and Active Shares by Age – 457(b) Plan

Average Equity Allocation

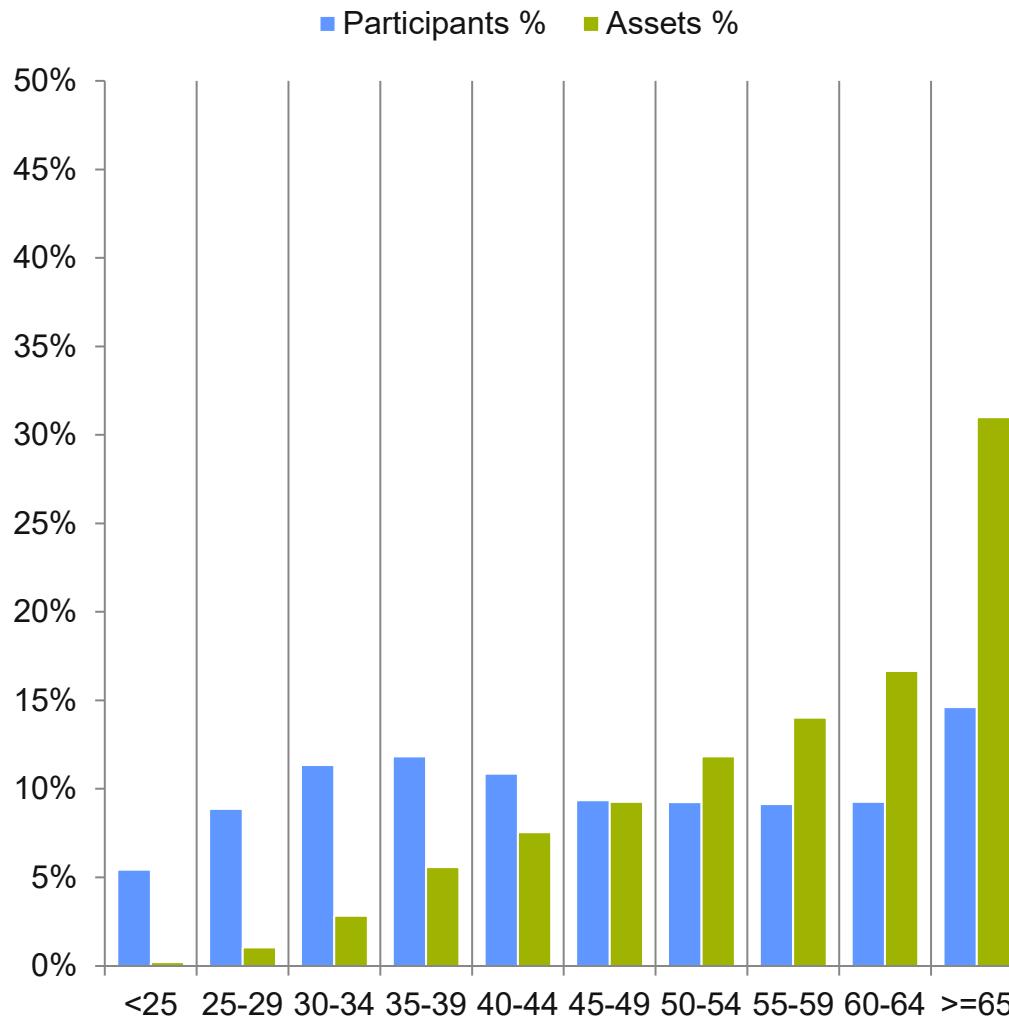


Average Active Allocation



*As of Nov. 25, 2022, source: Empower

ARMB Participant Ages, Assets, and Savings Patterns – SBS*

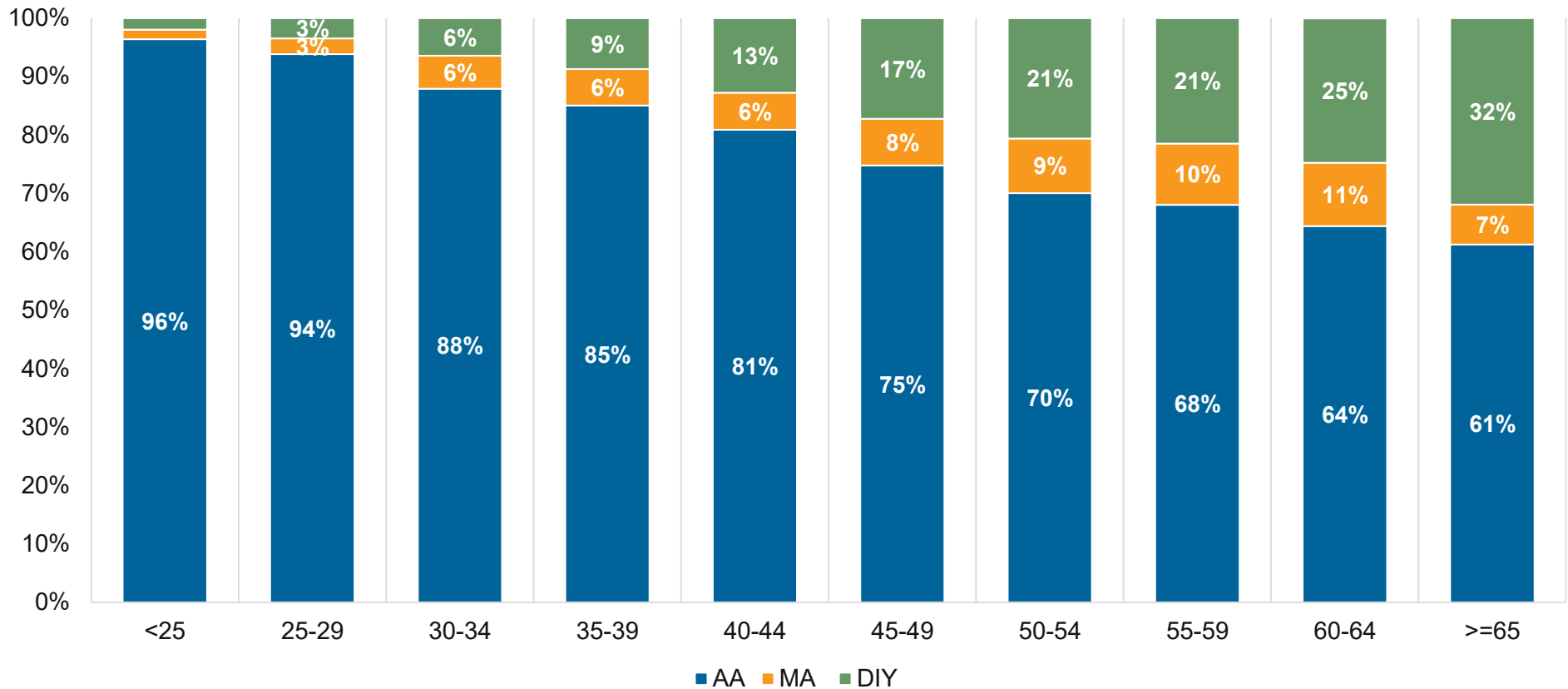


Status	Participants %	Gender	Participants %
Active	48%	Male	46%
Inactive	52%	Female	54%

Age Range	Median Balance	Average Balance
<25	\$1,255	\$3,462
25-29	\$3,914	\$10,291
30-34	\$7,935	\$21,928
35-39	\$13,048	\$41,564
40-44	\$17,877	\$61,307
45-49	\$28,006	\$87,362
50-54	\$39,436	\$112,857
55-59	\$55,946	\$135,160
60-64	\$76,071	\$158,459
>=65	\$84,181	\$186,910

*As of Nov. 25, 2022, source: Empower

ARMB Participant Investment Menu Utilization – SBS*



The Plan's participant population can be categorized into three groups, based on how they use the investment menu:

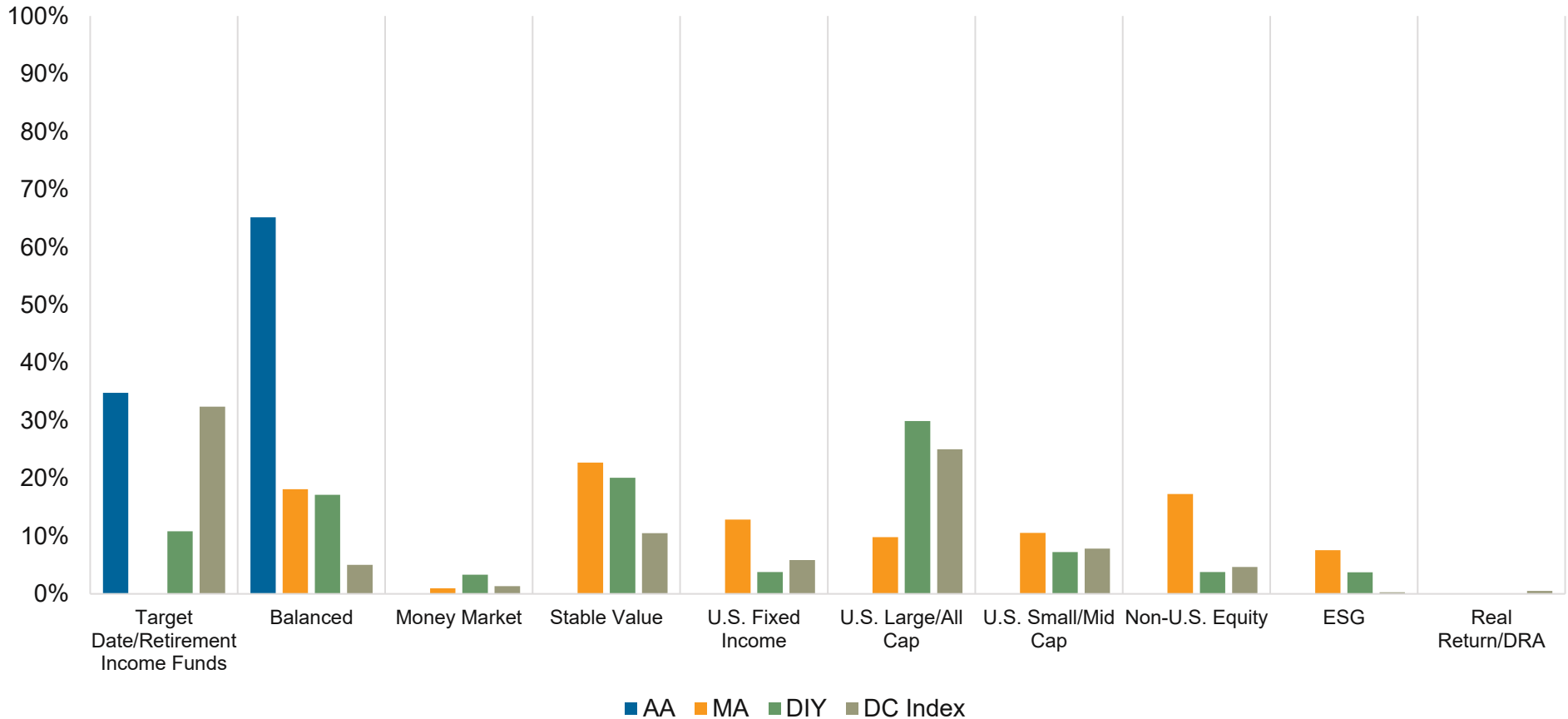
- 1. Asset Allocation (AA) participants** – participants wholly invested in either TDFs or balanced funds; **77%** of participants
- 2. Managed Account (MA) participants** – participants currently enrolled in the managed account service; **7%** of participants
- 3. Do-it-Yourself (DIY) participants** – participants using the core and/or specialty tier investment options and not currently enrolled in the managed account service; **16%** of participants

*As of Nov. 25, 2022, source: Empower

ARMB Asset Class Allocations – SBS*

In the Plan, managed account users have relatively high allocations to U.S. fixed income, non-U.S. equity, and ESG. Conversely, DIY participants have relatively high allocations to U.S. large/all cap.

Asset Class Allocations

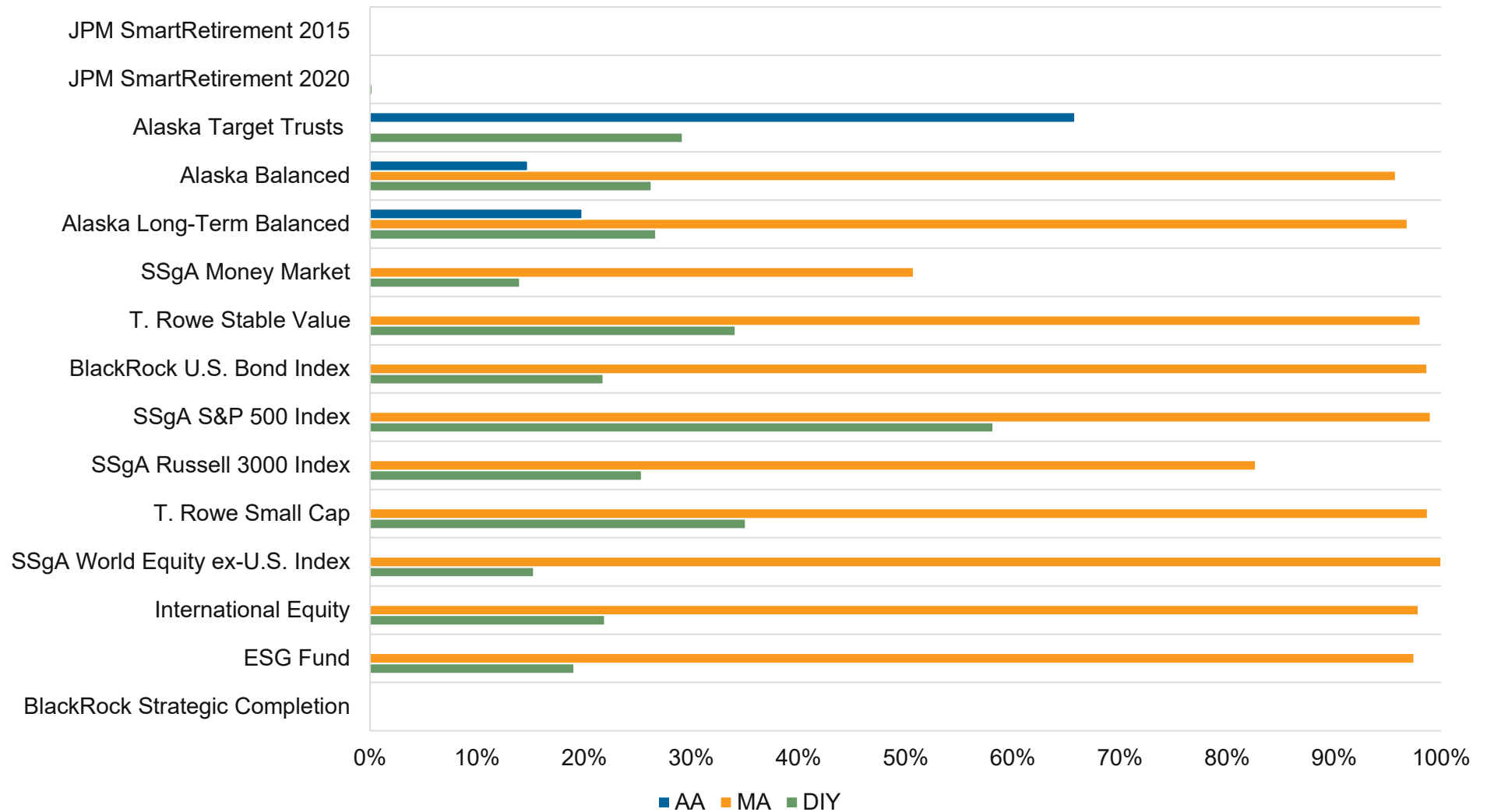


*ARMB data as of Nov. 25, 2022, and DC Index data as of Sept. 30, 2022. DC Index figures represent average asset class allocations, when offered.

Sources: Empower and Callan DC Index.

ARMB Investment Option Utilization – SBS*

Percentage of Participants with a Balance



*As of Nov. 25, 2022, source: Empower

ARMB Participant Holding Patterns – SBS*

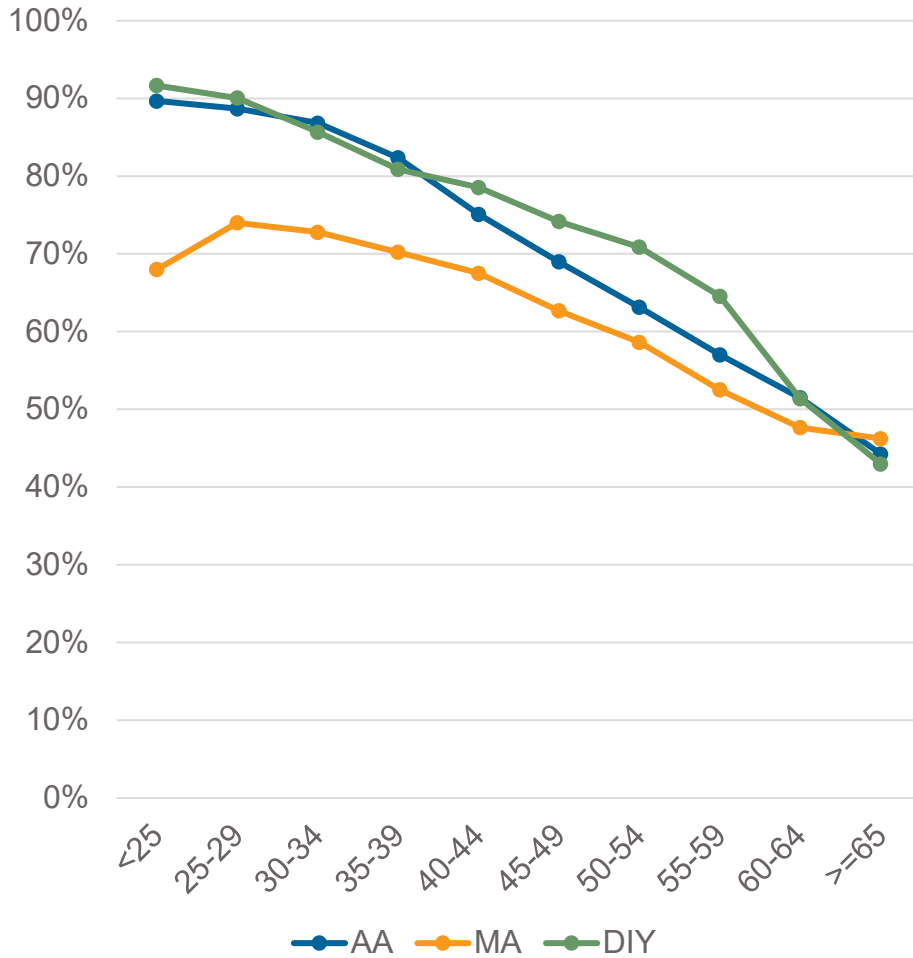
In the Plan, all managed account users hold between 7 and 12 investment options. Conversely, DIY participants hold fewer options, as three quarters hold 4 or fewer options.

Number of Options	AA Participants		MA Participants		DIY Participants	
	#	%	#	%	#	%
1	39,346	100%	0	0%	1,843	22%
2	149	0%	0	0%	2,053	25%
3	0	0%	0	0%	1,276	16%
4	0	0%	0	0%	949	12%
5	0	0%	0	0%	652	8%
6	0	0%	0	0%	457	6%
7	0	0%	142	4%	308	4%
8	0	0%	30	1%	212	3%
9	0	0%	77	2%	179	2%
10	0	0%	1,835	51%	183	2%
11	0	0%	1,230	34%	63	1%
12	0	0%	256	7%	12	0%
13	0	0%	0	0%	13	0%
14	0	0%	0	0%	2	0%
TOTAL	39,495	100%	3,570	100%	8,202	100%

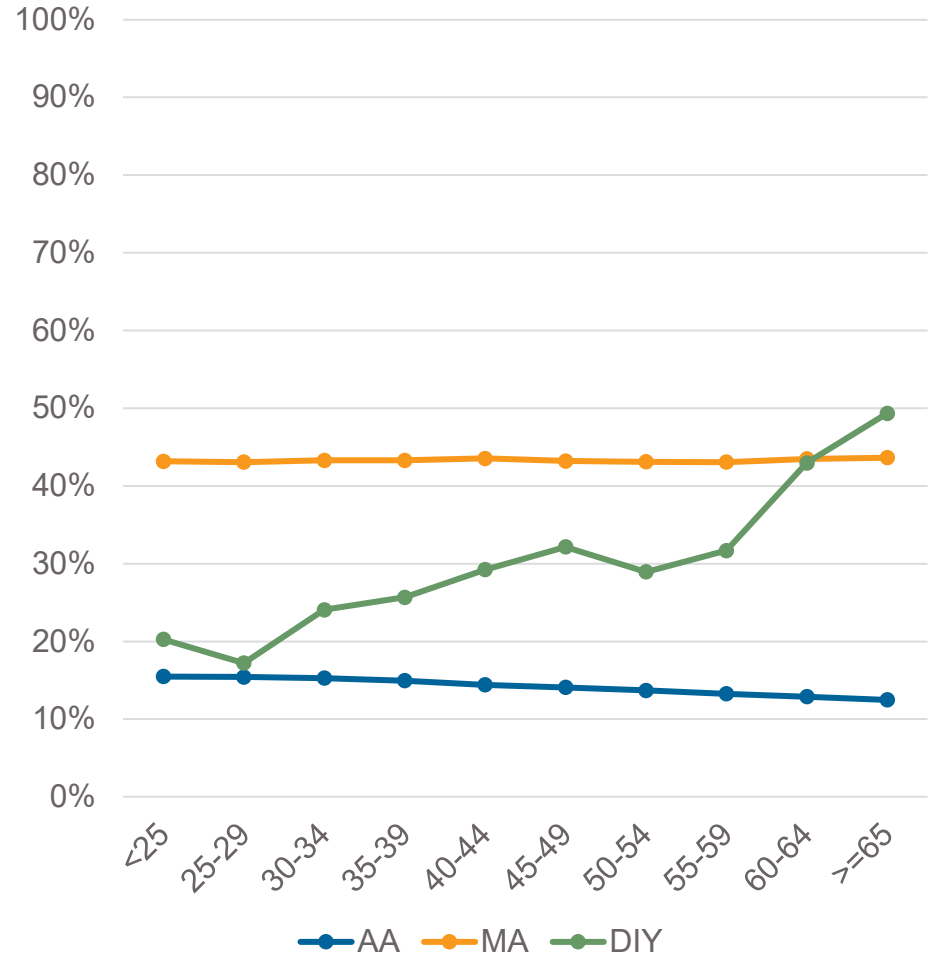
*As of Nov. 25, 2022. Totals in table exclude participants with no balance. Source: Empower.

ARMB Equity and Active Shares by Age – SBS*

Average Equity Allocation

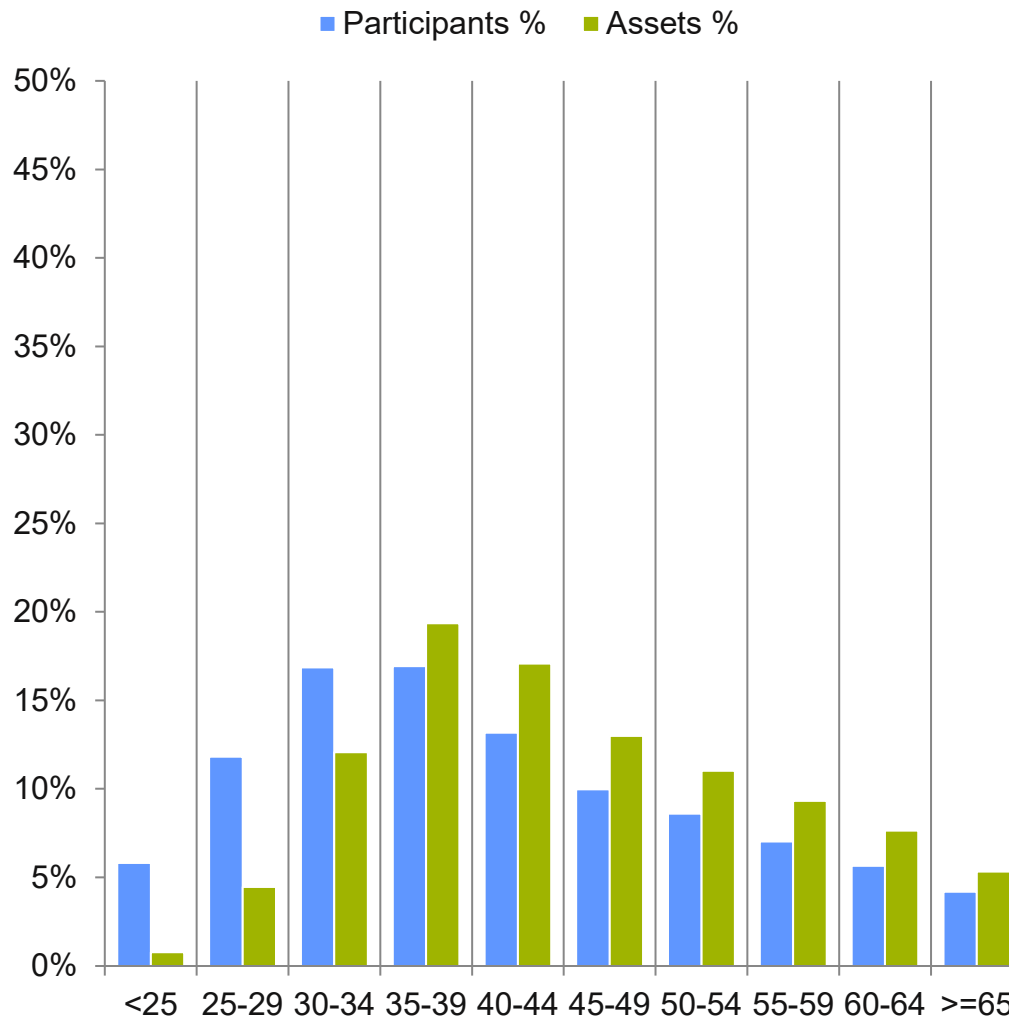


Average Active Allocation



*As of Nov. 25, 2022, source: Empower

ARMB Participant Ages, Assets, and Savings Patterns – PERS*

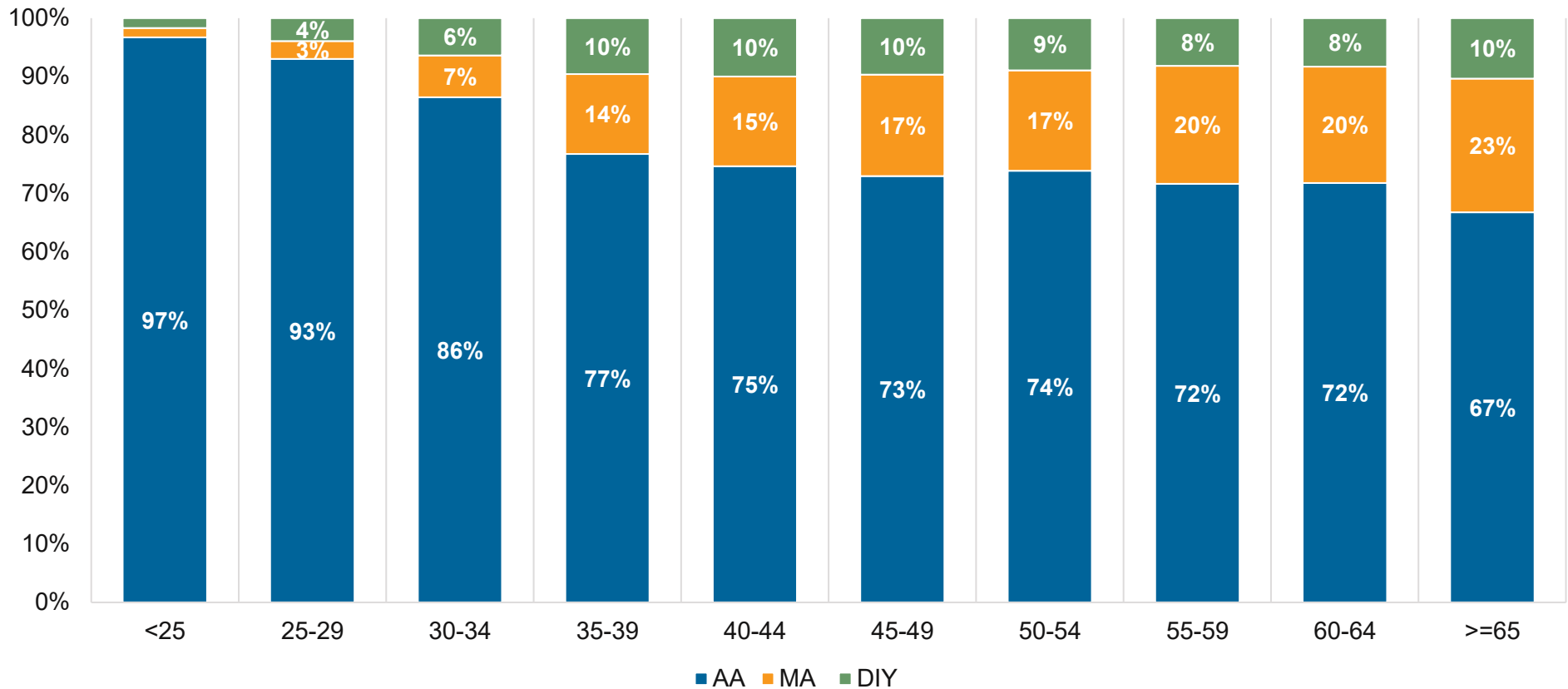


Status	Participants %	Gender	Participants %
Active	64%	Male	43%
Inactive	36%	Female	57%

Age Range	Median Balance	Average Balance
<25	\$3,014	\$5,278
25-29	\$7,725	\$15,220
30-34	\$13,517	\$28,862
35-39	\$20,199	\$46,153
40-44	\$23,304	\$52,321
45-49	\$23,056	\$52,527
50-54	\$24,936	\$51,781
55-59	\$28,630	\$53,583
60-64	\$28,479	\$54,606
>=65	\$26,345	\$51,477

*As of Nov. 25, 2022, source: Empower

ARMB Participant Investment Menu Utilization – PERS*



The Plan's participant population can be categorized into three groups, based on how they use the investment menu:

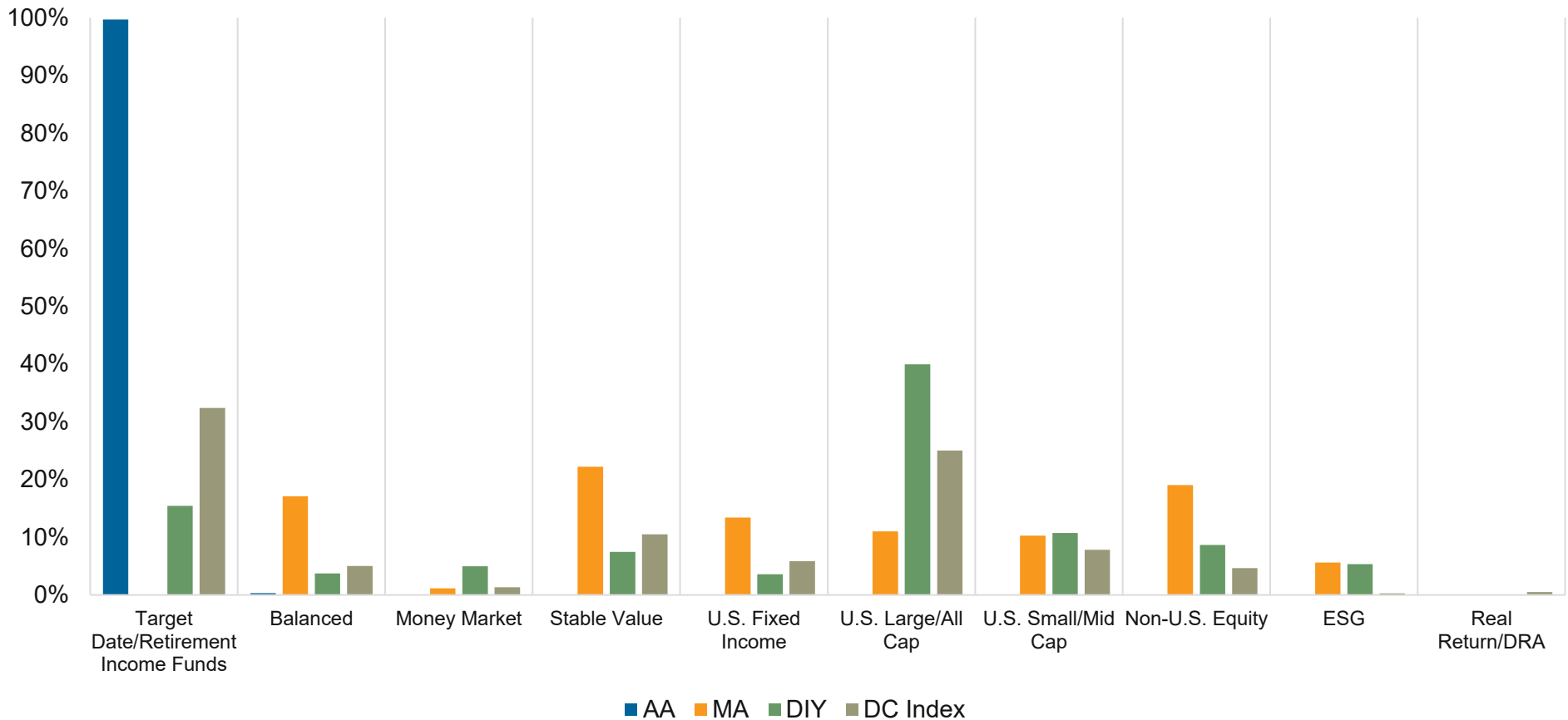
- 1. Asset Allocation (AA) participants** – participants wholly invested in either TDFs or balanced funds; **80%** of participants
- 2. Managed Account (MA) participants** – participants currently enrolled in the managed account service; **13%** of participants
- 3. Do-it-Yourself (DIY) participants** – participants using the core and/or specialty tier investment options and not currently enrolled in the managed account service; **8%** of participants

*As of Nov. 25, 2022, source: Empower

ARMB Asset Class Allocations – PERS*

In the Plan, managed account users have relatively high allocations to balanced, stable value, U.S. fixed income, and non-U.S. equity. Conversely, DIY participants have relatively high allocations to U.S. large/all cap.

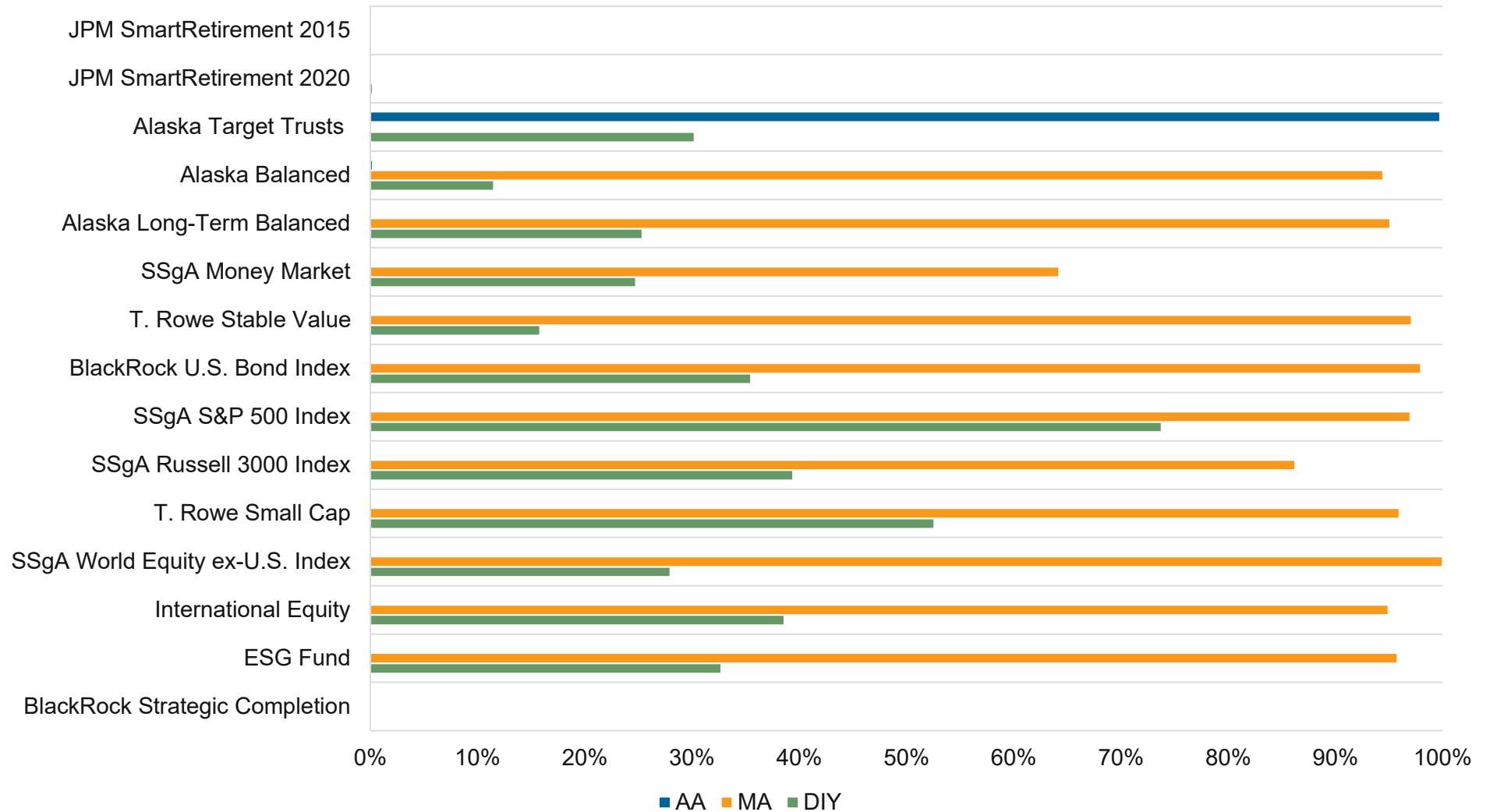
Asset Class Allocations



*ARMB data as of Nov. 25, 2022, and DC Index data as of Sept. 30, 2022. DC Index figures represent average asset class allocations, when offered. Sources: Empower and Callan DC Index.

ARMB Investment Option Utilization – PERS*

Percentage of Participants with a Balance



*As of Nov. 25, 2022, source: Empower

ARMB Participant Holding Patterns – PERS*

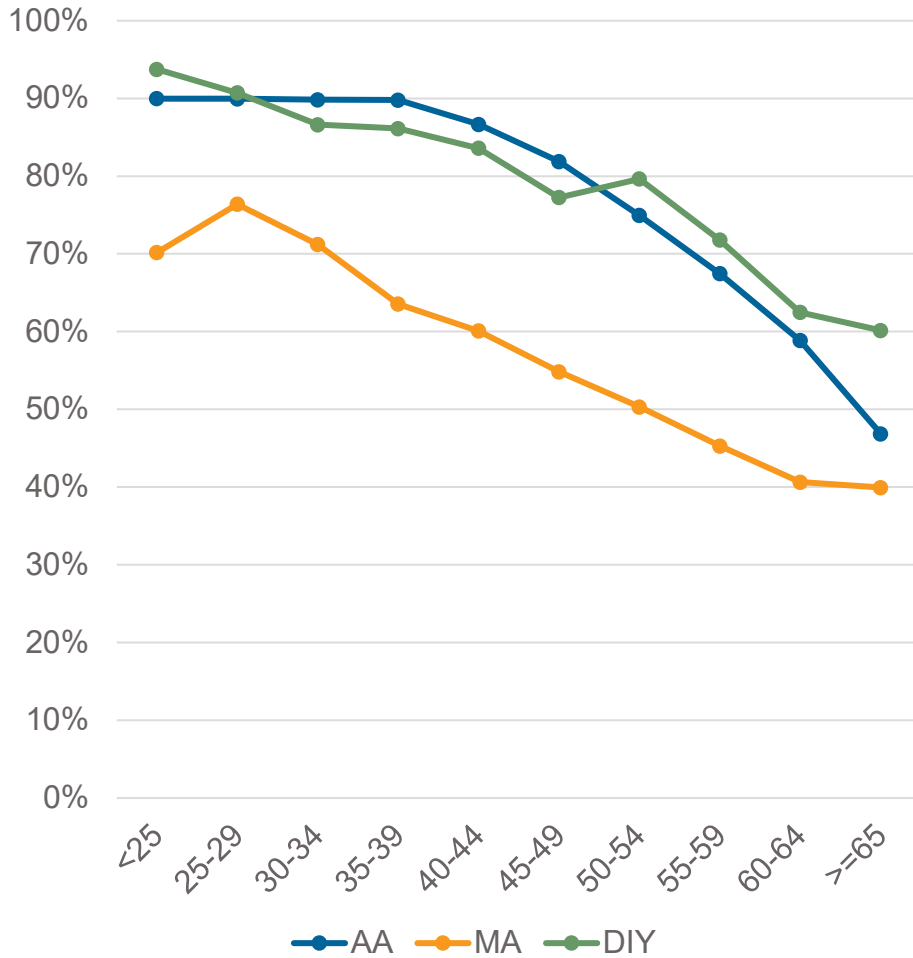
In the Plan, all managed account users hold between 7 and 13 investment options. Conversely, DIY participants hold fewer options, as nearly three quarters hold 5 or fewer options.

Number of Options	AA Participants		MA Participants		DIY Participants	
	#	%	#	%	#	%
1	37,442	100%	0	0%	587	16%
2	2	0%	0	0%	647	18%
3	0	0%	0	0%	410	11%
4	0	0%	0	0%	463	13%
5	0	0%	0	0%	485	13%
6	0	0%	0	0%	365	10%
7	0	0%	431	7%	182	5%
8	0	0%	134	2%	198	5%
9	0	0%	66	1%	152	4%
10	0	0%	2,104	35%	118	3%
11	0	0%	2,462	41%	41	1%
12	0	0%	783	13%	13	0%
13	0	0%	1	0%	1	0%
TOTAL	37,444	100%	5,981	100%	3,662	100%

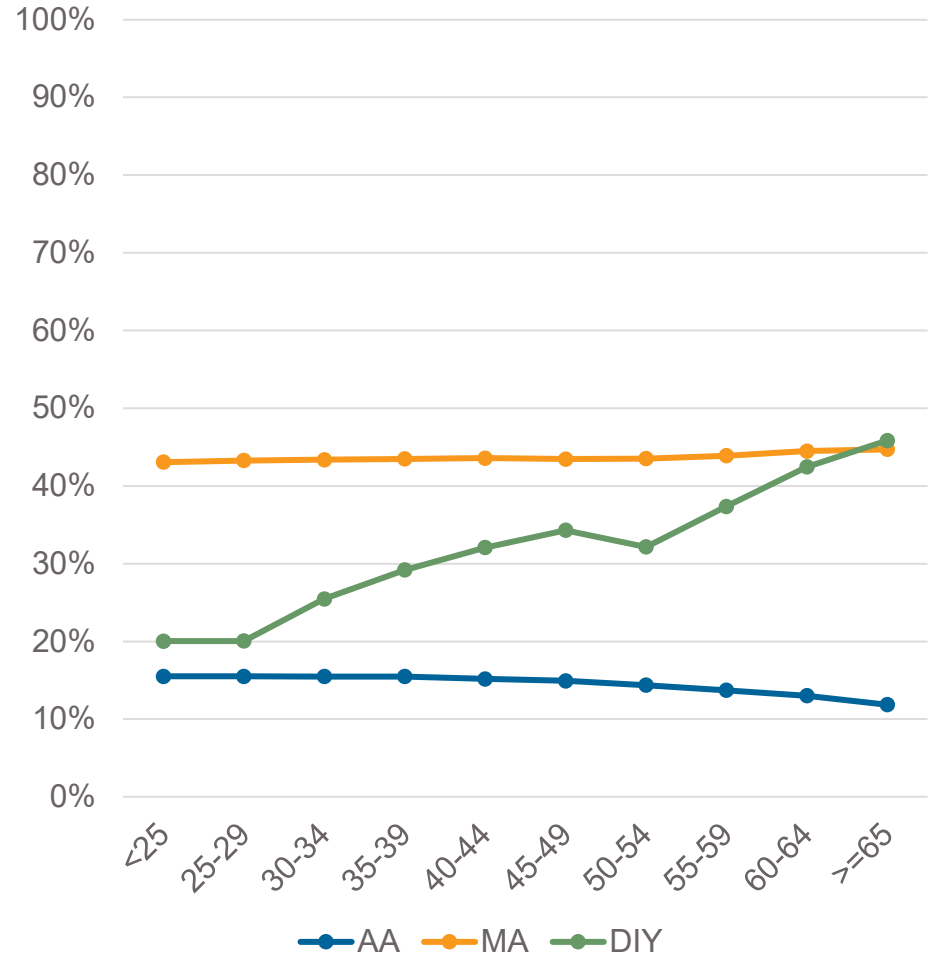
*As of Nov. 25, 2022. Totals in table exclude participants with no balance. Source: Empower.

ARMB Equity and Active Shares by Age – PERS*

Average Equity Allocation

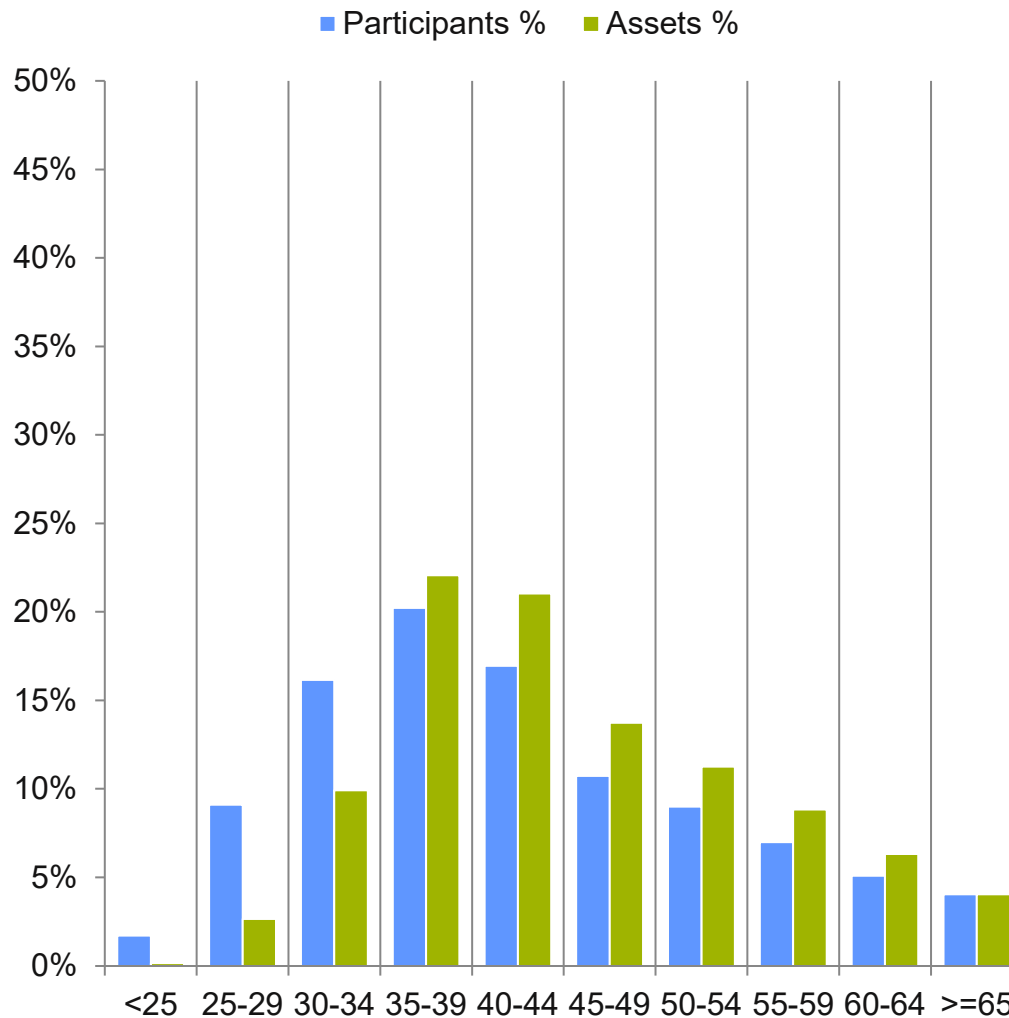


Average Active Allocation



*As of Nov. 25, 2022, source: Empower

ARMB Participant Ages, Assets, and Savings Patterns – TRS*

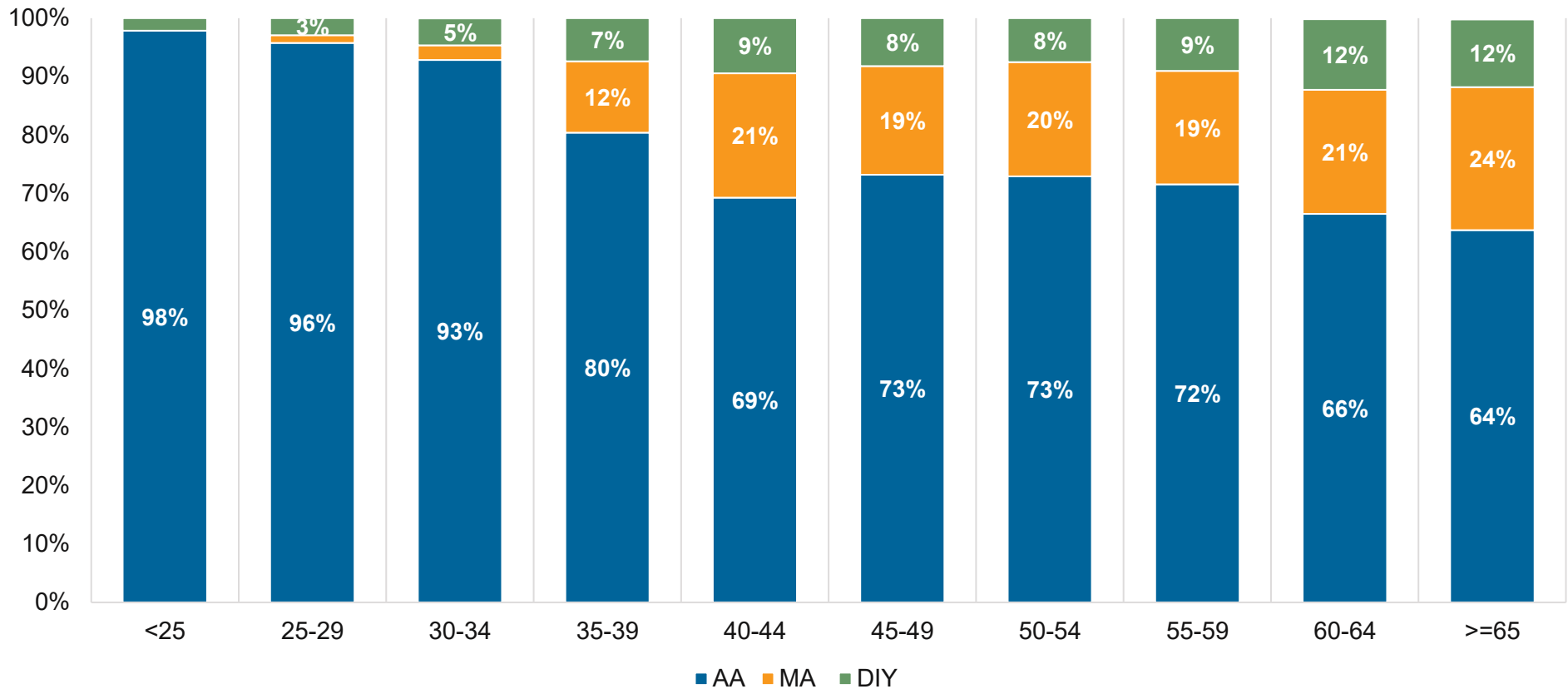


Status	Participants %	Gender	Participants %
Active	72%	Male	27%
Inactive	28%	Female	73%

Age Range	Median Balance	Average Balance
<25	\$2,909	\$6,529
25-29	\$16,814	\$20,945
30-34	\$32,091	\$44,118
35-39	\$55,847	\$78,287
40-44	\$61,584	\$89,108
45-49	\$62,980	\$91,862
50-54	\$60,118	\$89,851
55-59	\$60,612	\$90,661
60-64	\$62,570	\$89,337
>=65	\$46,252	\$72,024

*As of Nov. 25, 2022, source: Empower

ARMB Participant Investment Menu Utilization – TRS*



The Plan's participant population can be categorized into three groups, based on how they use the investment menu:

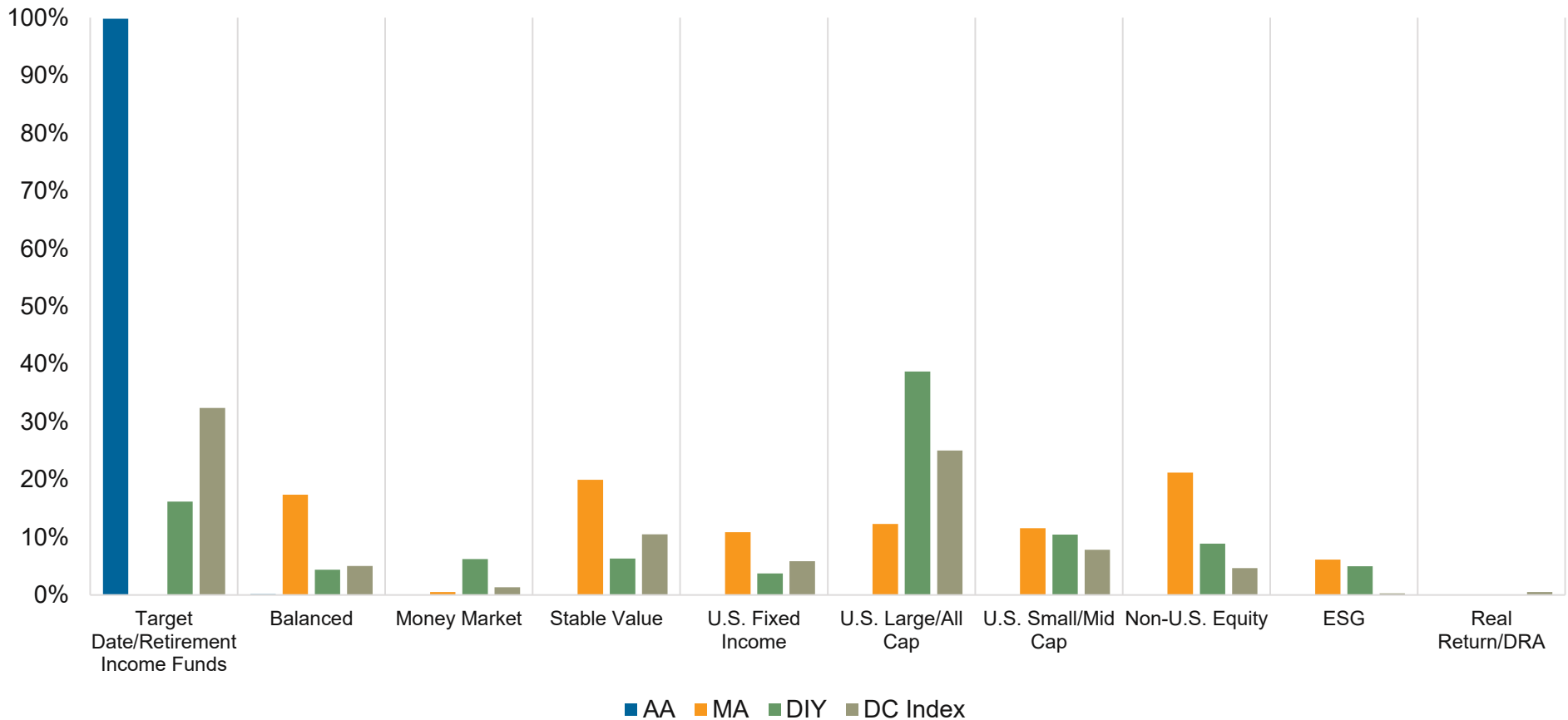
- 1. Asset Allocation (AA) participants** – participants wholly invested in either TDFs or balanced funds; **79%** of participants
- 2. Managed Account (MA) participants** – participants currently enrolled in the managed account service; **14%** of participants
- 3. Do-it-Yourself (DIY) participants** – participants using the core and/or specialty tier investment options and not currently enrolled in the managed account service; **7%** of participants

*As of Nov. 25, 2022, source: Empower

ARMB Asset Class Allocations – TRS*

In the Plan, managed account users have relatively high allocations to balanced, stable value, U.S. fixed income, and non-U.S. equity. Conversely, DIY participants have relatively high allocations to U.S. large/all cap.

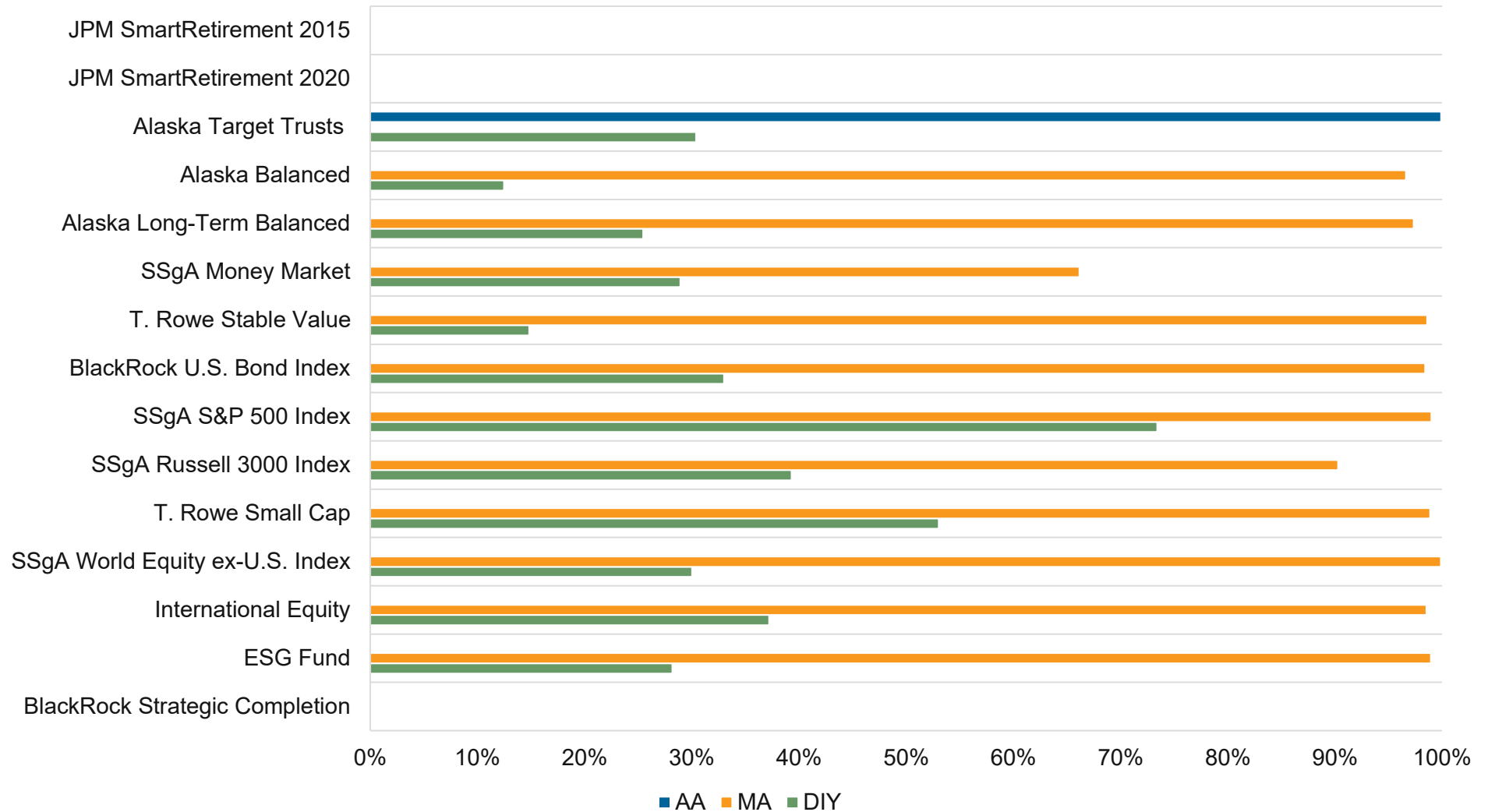
Asset Class Allocations



*ARMB data as of Nov. 25, 2022, and DC Index data as of Sept. 30, 2022. DC Index figures represent average asset class allocations, when offered. Sources: Empower and Callan DC Index.

ARMB Investment Option Utilization – TRS*

Percentage of Participants with a Balance



*As of Nov. 25, 2022, source: Empower

ARMB Participant Holding Patterns – TRS*

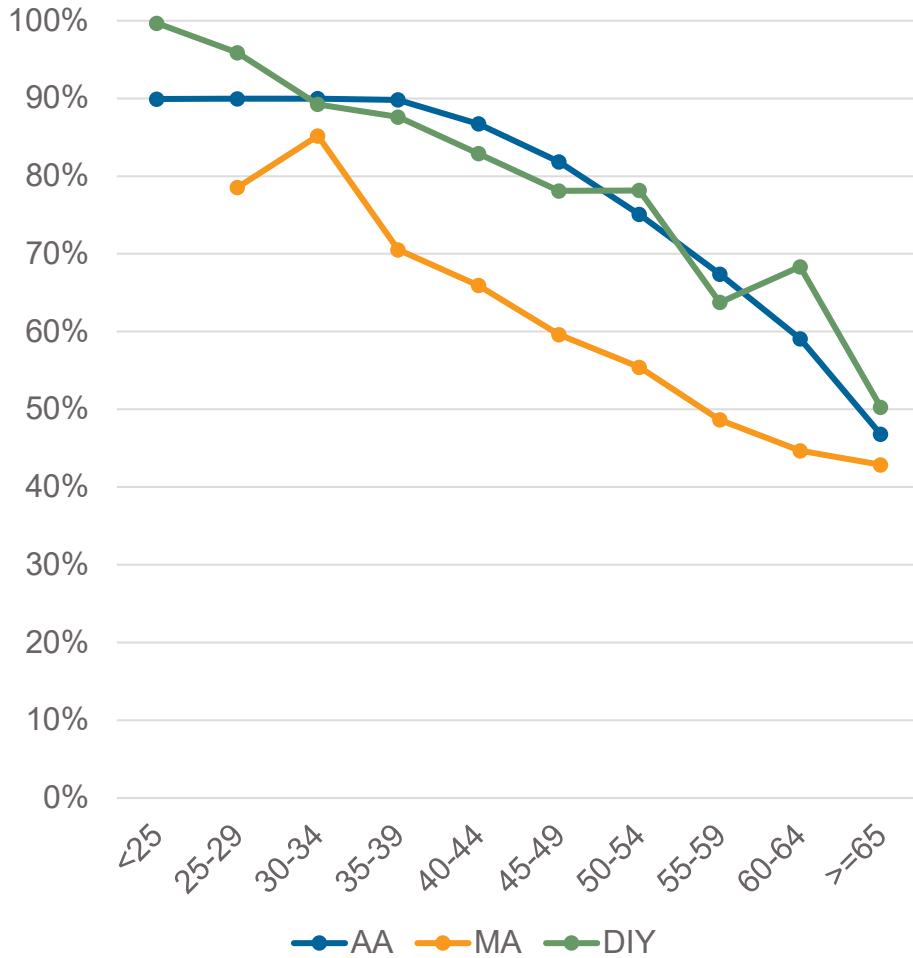
In the Plan, all managed account users hold between 7 and 12 investment options. Conversely, DIY participants hold fewer options, as nearly 70% hold 5 or fewer options.

Number of Options	AA Participants		MA Participants		DIY Participants	
	#	%	#	%	#	%
1	8,598	100%	0	0%	150	19%
2	0	0%	0	0%	148	18%
3	0	0%	0	0%	93	11%
4	0	0%	0	0%	88	11%
5	0	0%	0	0%	75	9%
6	0	0%	0	0%	89	11%
7	0	0%	41	3%	48	6%
8	0	0%	19	1%	36	4%
9	0	0%	8	1%	31	4%
10	0	0%	537	36%	37	5%
11	0	0%	624	42%	13	2%
12	0	0%	274	18%	1	0%
TOTAL	8,598	100%	1,503	100%	809	100%

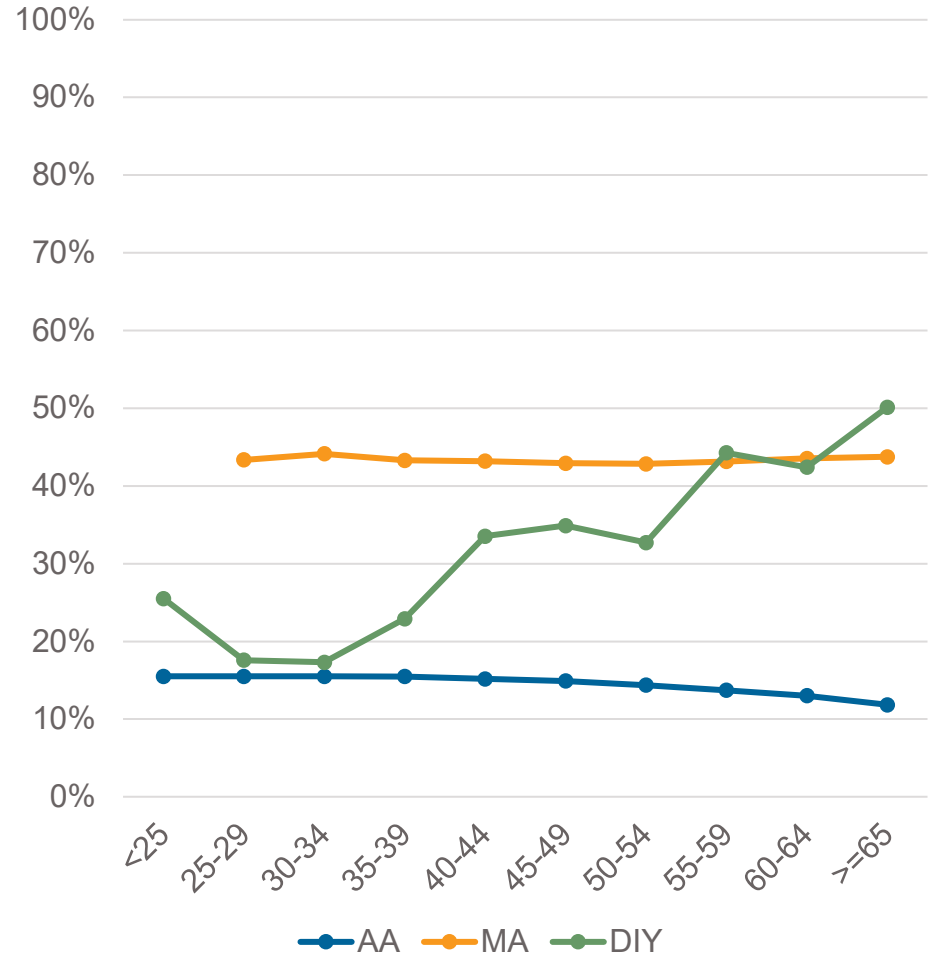
*As of Nov. 25, 2022. Totals in table exclude participants with no balance. Source: Empower.

ARMB Equity and Active Shares by Age – TRS*

Average Equity Allocation



Average Active Allocation



*As of Nov. 25, 2022, source: Empower

Callan

Appendix – Asset Class Overviews

Tier I: Overview and Best Practices

Overview

- Tier I is the asset allocation fund tier and is intended for “do-it-for-me” participants who prefer a single-fund solution and the delegation of the asset allocation decision to a professional manager.
- Callan believes that asset allocation funds, in general, are good alternatives for savings plan participants because they are professionally designed, periodically rebalanced, and can keep participants from chasing hot-performing funds. Importantly, they are also approved default investment alternatives (DIAs) as defined in the 2006 Pension Protection Act. They can also be positioned as the easy choice for those participants lacking the knowledge, interest, or time to manage their accounts directly.

Callan’s Philosophy

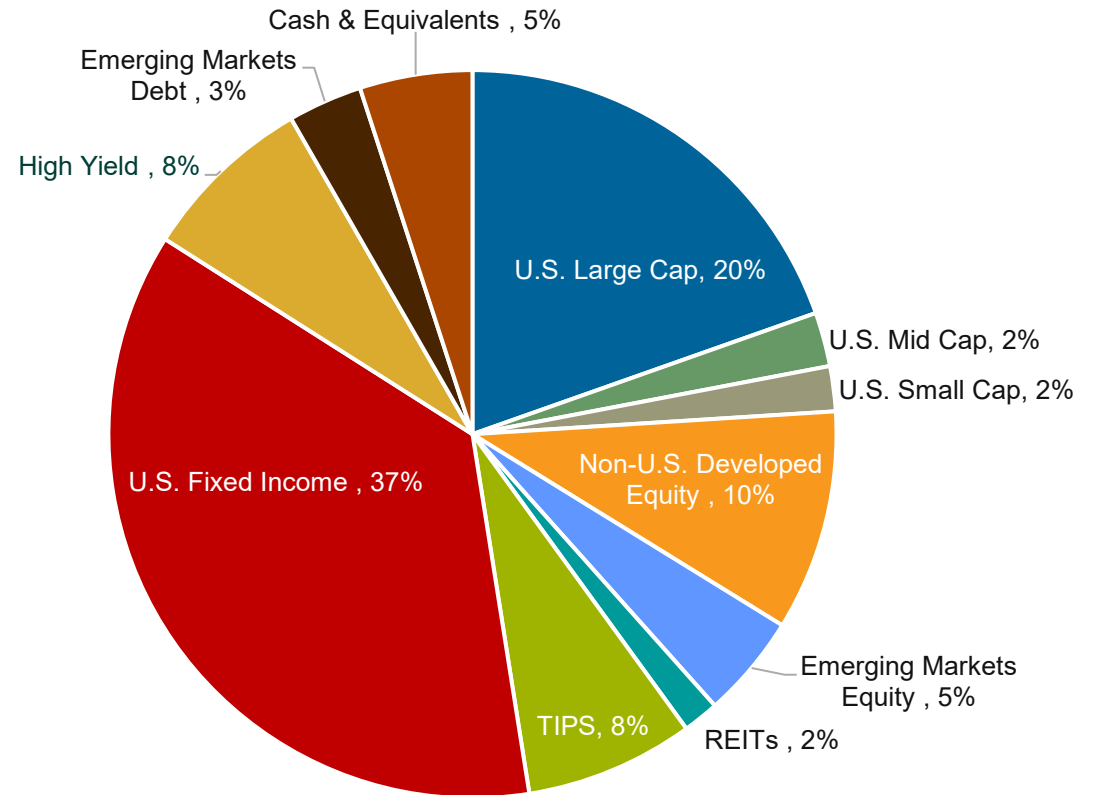
- Within Tier I, Callan advocates that plans offer a suite of target date funds as the DIA.
- Although TDFs have certain limitations (e.g., only use age as main input for risk tolerance), they present a suitable investment option for participants who wish to take a “set and forget” approach. The shifting allocations derived from a TDF suite’s glidepath provide participants with an asset allocation strategy that features more aggressive allocations in their early working years and more conservative allocations as they approach retirement.
- Callan does not have a “one size fits all” philosophy when it comes to TDF management style (i.e., passive vs. active). Instead, Callan believes plan sponsors should periodically evaluate their TDF suite to ensure that it is a suitable investment option in light of plan design and participant demographics. As part of a TDF evaluation, plan sponsors should consider multiple facets, including but not limited to glidepath construction, performance, and fees.

Tier I: Asset Allocation Options – Retirement Income

Observations

- Within Tier I, ARMB offers two managed payout funds as retirement income options:
 - **Retirement Income:** JPM SmartRetirement 2015 (<1% of assets) and JPM SmartRetirement 2020 (<1%)
- The JPM Funds are part of JPM's target date fund suite and provide “sample” withdrawal rates via an online spending tool. The sample withdrawal rates are expected to range between 4% and 7% and are periodically reviewed.
- The Funds are intended to provide withdrawals over a 30-year period, assuming participants take the sample withdrawal rates.

JPM SR 2015 and 2020 Allocations*



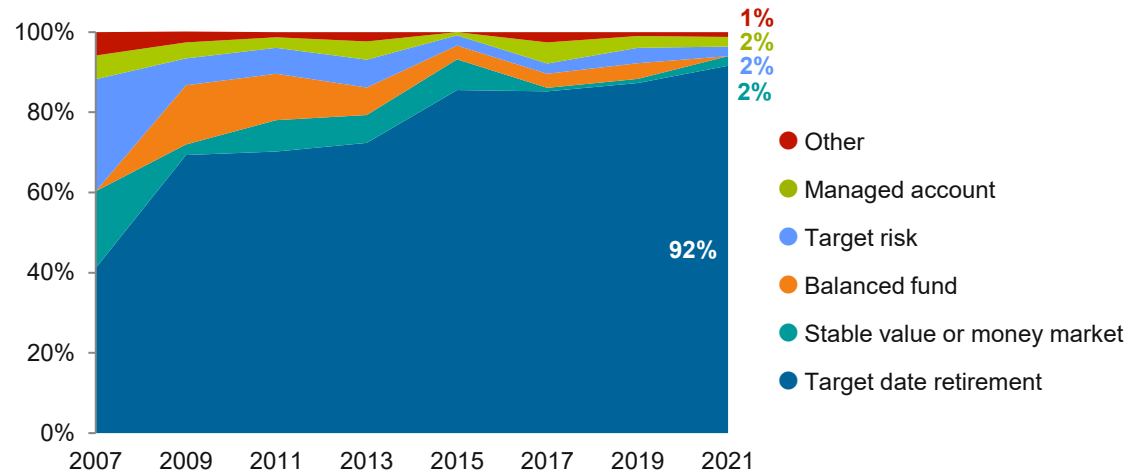
*As of Sept. 30, 2022, source: JPMorgan

Tier I: Asset Allocation Options – Target Date Funds and Balanced

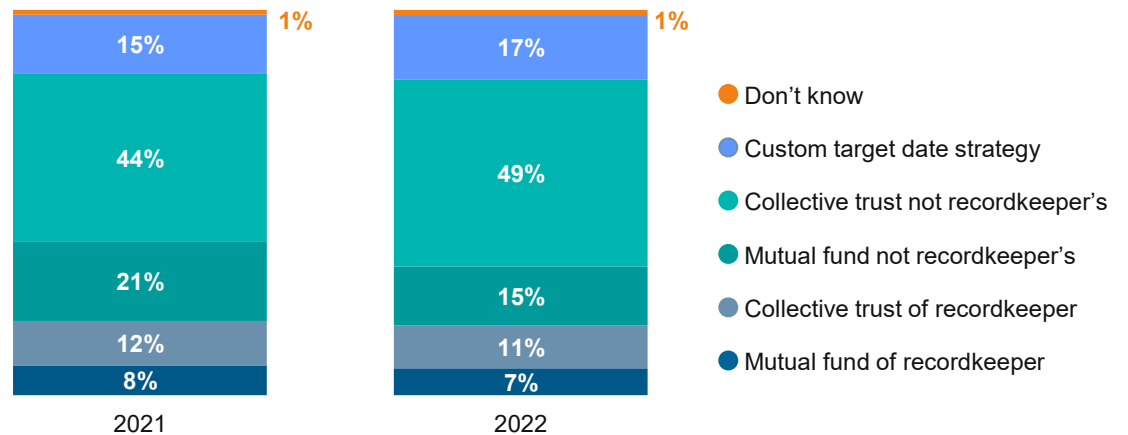
Observations

- ARMB offers a TDF suite and two balanced funds in Tier I:
 - **TDFs:** Alaska Target Trusts (32% of assets)
 - **Balanced:** Alaska Balanced (14%) and Alaska Long-Term Balanced (11%)
- Target date funds present value to participants who may not be very financially savvy, may be overwhelmed by a large number of investment options, and/or do not have the time/capacity to build their own portfolios. They offer relatively easy diversification and the possibility of a set-and-forget investment approach.
- Balanced funds have become less prevalent in DC plans as TDF usage drastically increased after the Pension Protection Act (PPA) of 2006.

Current default investment alternative for non-participant directed monies



Approach utilized if TDF offered



Source: Callan 2022 DC Trends Survey

Tier II: Overview and Best Practices

Overview

- Tier II is the core fund tier and is intended for “do-it-yourself” participants who prefer to construct their own portfolios by utilizing the core tier options as essential building blocks.
- Tier II lineups are typically comprised of competitively priced, diversified core options, with limited or no duplication or overlap. In addition, the core tier often consists of both passively managed and actively managed options to provide participants with sufficient building blocks and the ability to make a decision regarding their conviction in the ability of active management to add alpha.

Callan’s Philosophy

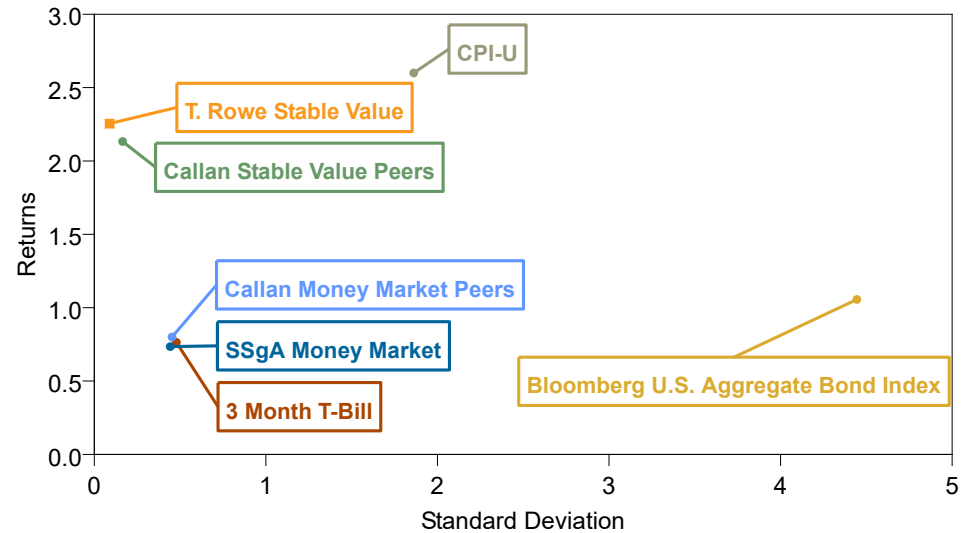
- Callan generally recommends that a plan’s core tier investment lineup provides sufficient asset class coverage by including funds whose benchmarks generally represent the following asset classes:
 - Capital preservation
 - Core/core plus fixed income
 - U.S. Large-cap equity
 - Non-U.S. equity
 - U.S. small/mid-cap equity
- If the participant base is well engaged and consists of a large “do-it-yourself” population, a plan may consider offering an active/passive mirror within Tier II. Active/passive mirrors provide participants with additional choice in the portfolio construction process and allow them to make a choice between relatively low-cost market exposure or the pursuit of alpha via active management.

Tier II: Core Options – Capital Preservation

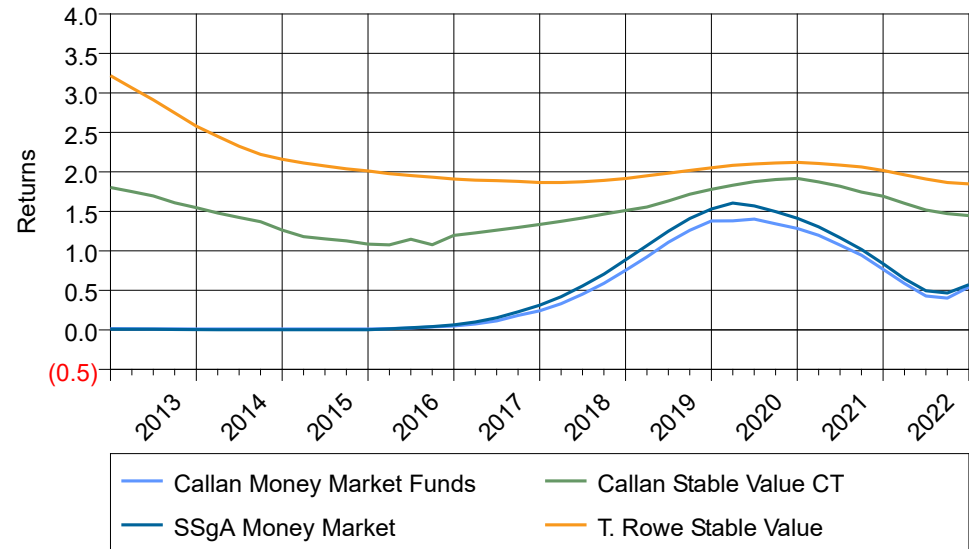
Observations

- Within capital preservation, the Plans offer:
 - **Money Market:** SSgA Money Market (1% of assets)
 - **Stable Value:** T. Rowe Stable Value (11% of assets)
- Stable value funds have historically offered a higher yield than money market funds.
- Although stable value has had a historical return premium over money market, they often carry distinct features:
 - **Wrap contracts:** Add costs to the structure and may result in investment restrictions for the investment managers of the stable value assets.
 - **Performance:** The crediting rate often decreases in a rising interest rate environment due to the longer duration of the underlying portfolio.
 - **Equity wash provisions:** Transfers between stable value and funds with similar investment objectives (e.g., competing options) may be subject to an industry-standard 90-day equity wash provision (meaning that a participant would have to maintain the reallocated balance in an equity-oriented fund for 90 days before reinvesting in stable value or a named competing option).

Risk & Returns for 10 Years Ended December 31, 2022



Rolling 12 Quarter Returns for 10 Years Ended December 31, 2022

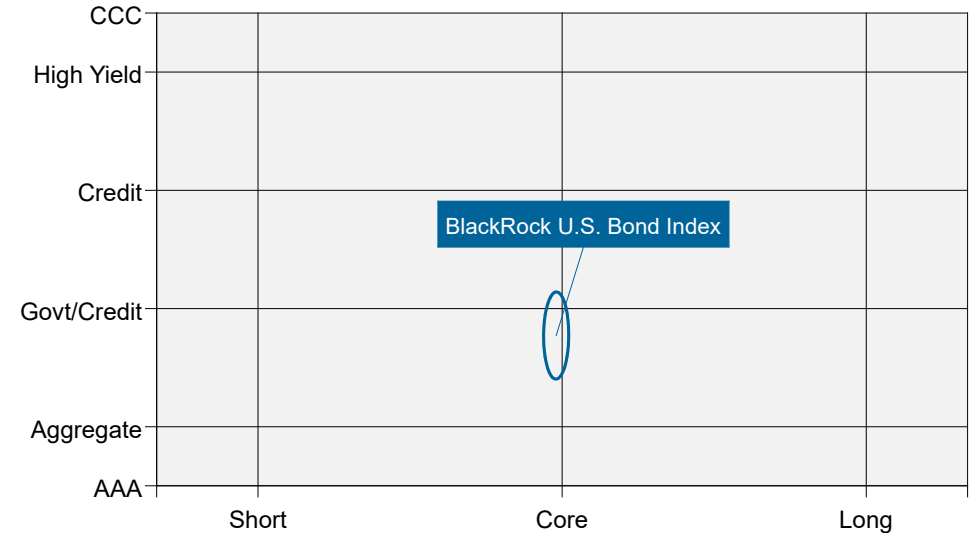


Tier II: Core Options – Core Fixed Income

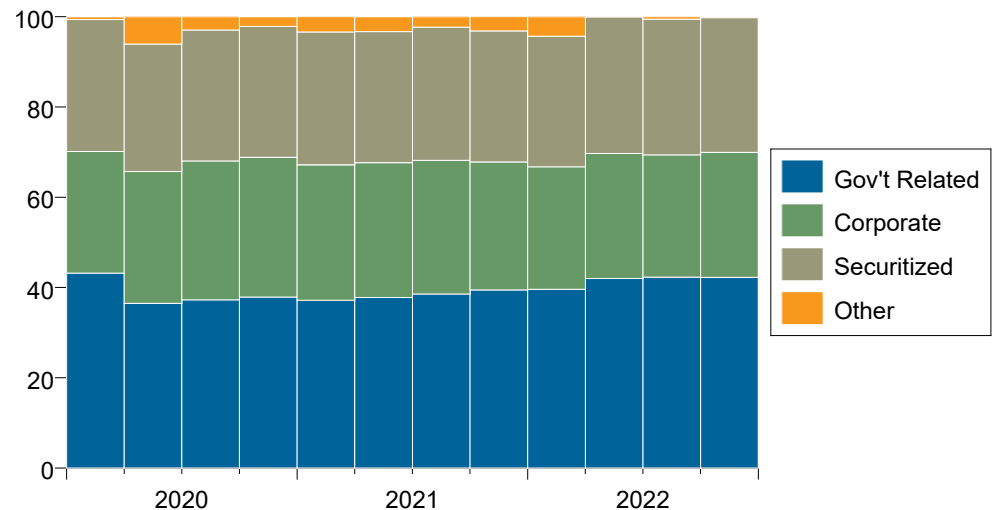
Observations

- ARMB offers one core fixed income option:
 - **Passive Core:** BlackRock U.S. Bond Index (4% of assets)
- The BlackRock strategy seeks to track the Bloomberg U.S. Aggregate Bond Index and provides relatively low-cost exposure to broad U.S. investment grade fixed income.
- Within DC plan lineups, Callan supports active management of core plus fixed income, as core plus managers have demonstrated an ability to add value above their benchmarks.
 - Core plus funds may provide additional diversification by allocating to out-of-benchmark sectors such as high yield fixed income.
 - Core plus mandates provide managers more flexibility to manage duration and credit exposure. This is an important lever for active managers, particularly given the relatively high allocation to low-yielding government debt within and increasing duration of the Bloomberg U.S. Aggregate Bond Index.

Fixed Income Style Map for 5 Years Ended December 31, 2022



Fixed Income Sector Exposure for 3 Years Ended December 31, 2022
Strategy: BlackRock U.S. Bond Index

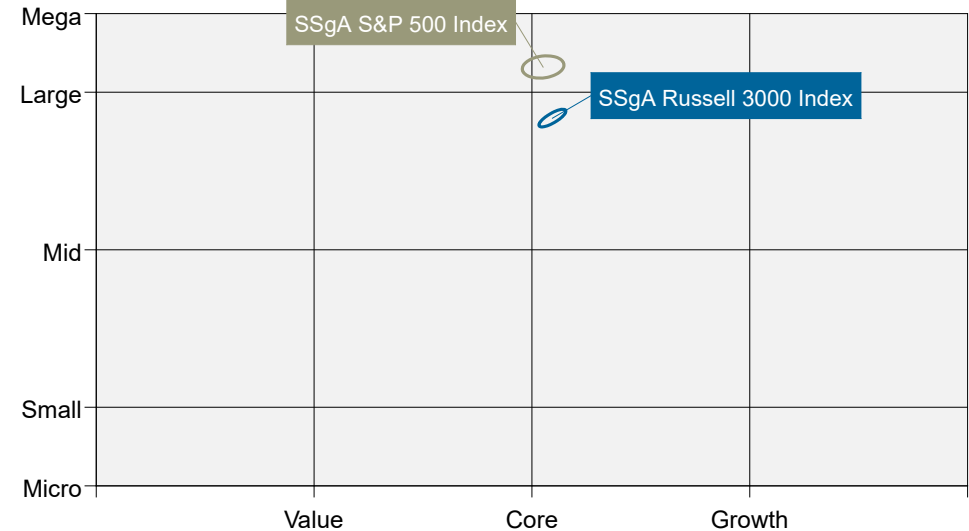


Tier II: Core Options – U.S. Large/All-Cap Equity

Observations

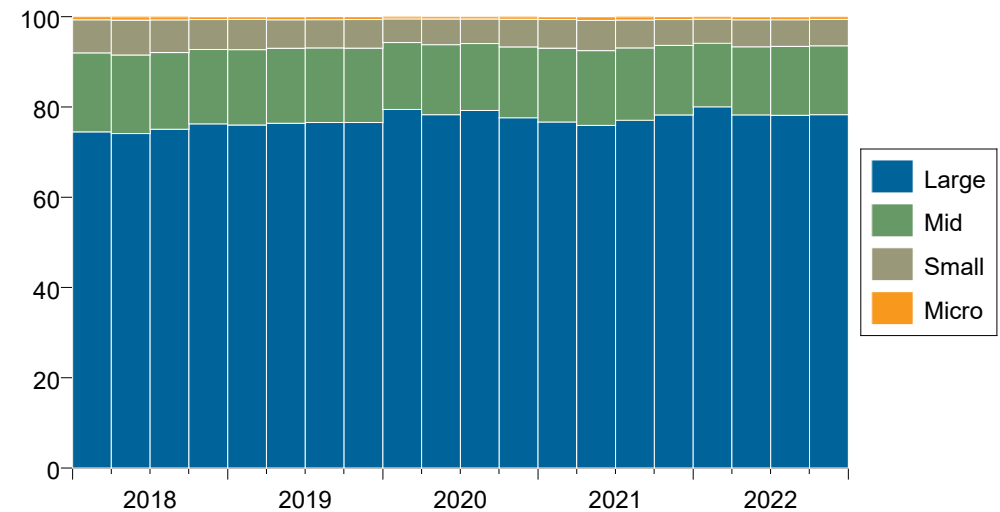
- Within U.S. large/all-cap equity, the Plans offer:
 - **Passive Large Cap:** SSgA S&P 500 Index (11% of assets)
 - **Passive All Cap:** SSgA Russell 3000 Index (3%)
- The SSgA strategies provide relatively low-cost exposure to the broad U.S. large-cap and all-cap equity markets.
- The large-cap component of the SSgA Russell 3000 Index strategy has typically ranged between 75% and 80%.
- U.S. large-cap equity has been a relatively efficient market, as active large-cap equity managers have historically had difficulty beating their benchmarks.

U.S. Equity Style Map for 5 Years Ended December 31, 2022



Capitalization Exposure for 5 Years Ended December 31, 2022

Fund: SSgA Russell 3000 Index

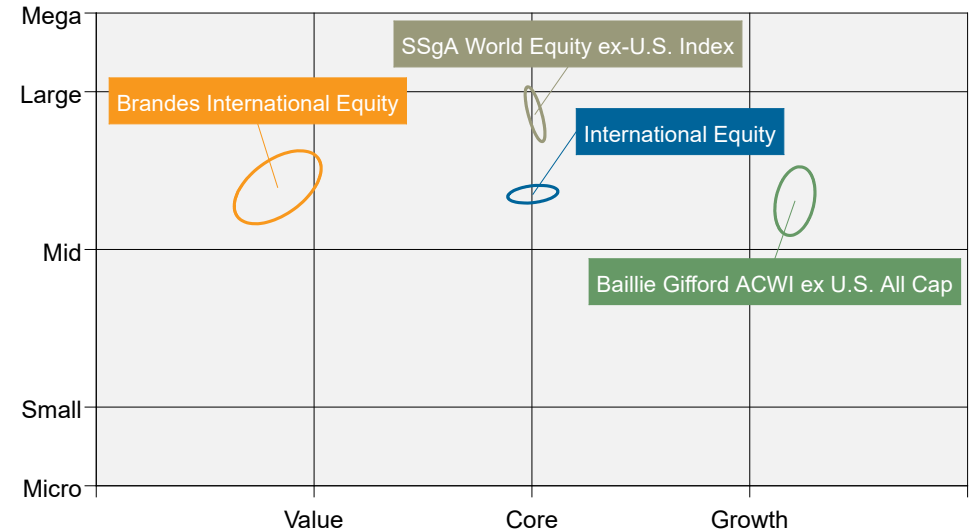


Tier II: Core Options – Non-U.S. Equity

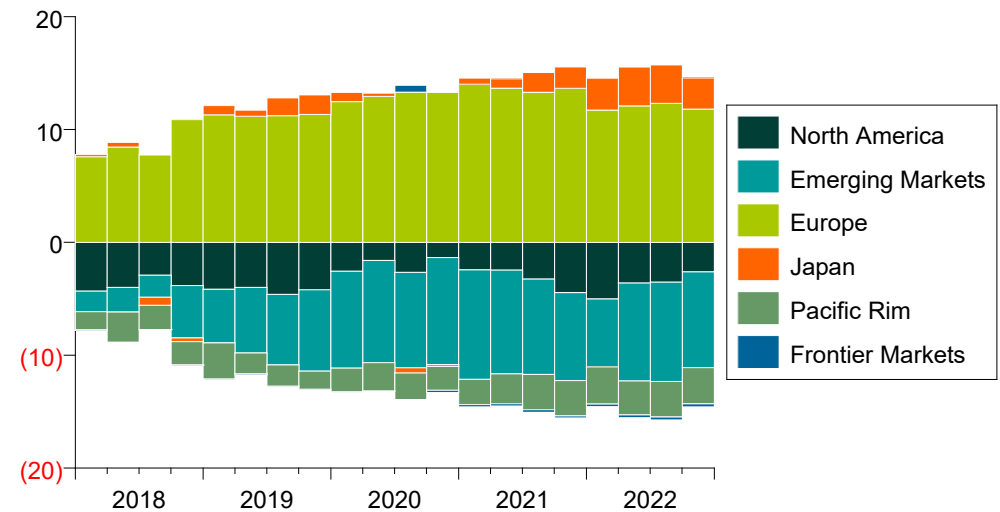
Observations

- ARMB offers two non-U.S. equity options:
 - **Passive:** SSgA World Equity ex-U.S. Index (3% of assets)
 - **Active:** International Equity (2%)
- The passive option seeks to track the MSCI ACWI ex U.S. and provides relatively low-cost exposure to the broad non-U.S. large/mid-cap equity market.
- The International Equity Fund is a multi-manager option with a strategic weighting of 50% Brandes International Equity and 50% Baillie Gifford ACWI ex U.S. All Cap.
- The Fund is benchmarked to the MSCI ACWI ex U.S. Relative to the benchmark, the Fund has had higher exposure to non-U.S. small/mid cap equity.
- Regionally, the Fund has maintained higher-than-benchmark exposure to Europe and lower exposures to emerging markets, North America, and the Pacific Rim.

Non-U.S. Equity Style Map for 5 Years Ended December 31, 2022



Regional Exposure for 5 Years Ended December 31, 2022
International Equity Relative to MSCI ACWI ex U.S.

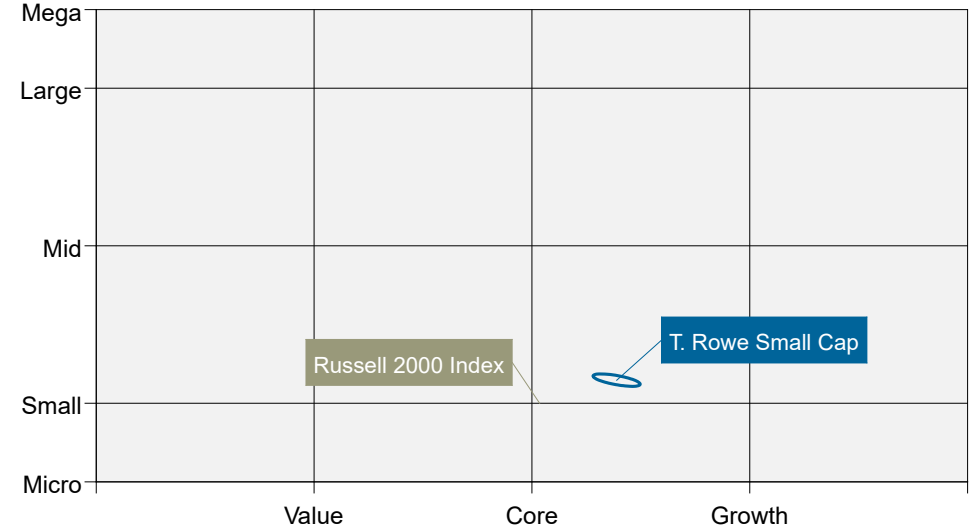


Tier II: Core Options – U.S. Small-Cap Equity

Observations

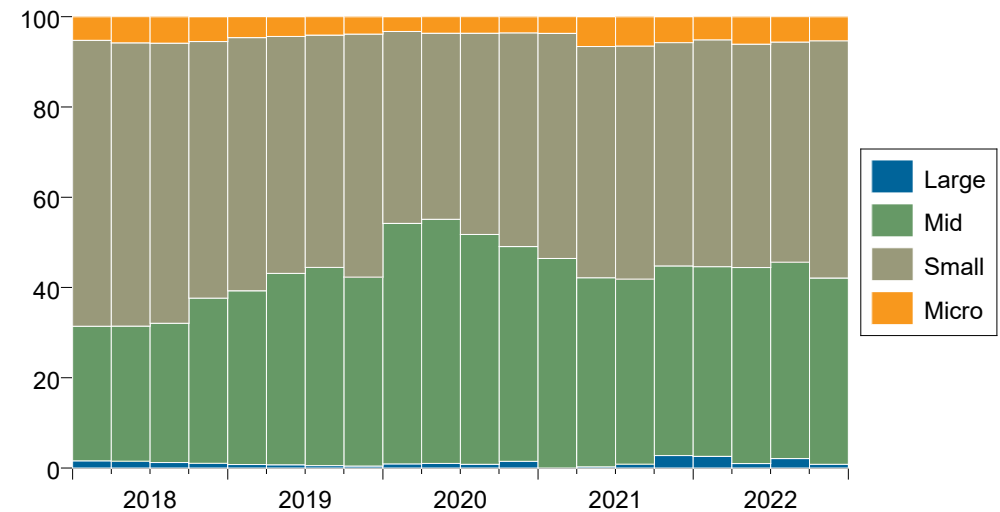
- Within U.S. small-cap equity, the Plans offer:
 - **Active:** T. Rowe Small Cap (5% of assets)
- The T. Rowe Small Cap strategy is benchmarked to the Russell 2000 Index and has exhibited a growth tilt relative to the benchmark.
- From a capitalization perspective, T. Rowe Small Cap has maintained more of “SMID-cap” (i.e., mid cap and small cap) orientation than a pure small-cap orientation.
- U.S. small/mid-cap equity has often been a less efficient market than U.S. large-cap equity, as active small/mid-cap equity managers have historically had greater success adding value above their benchmarks.

U.S. Equity Style Map for 5 Years Ended December 31, 2022



Capitalization Exposure for 5 Years Ended December 31, 2022

Fund: T. Rowe Small Cap



Tier III: Overview and Best Practices

Overview

- Tier III is the specialty fund tier and contains any investment funds that are not considered core.
- Examples of funds that would be classified as specialty include sector-specific funds (e.g., technology sector funds), aggressive growth or deep-value U.S. equity funds, emerging markets funds, and real estate investment trusts. Some plan sponsors may also offer a self-directed brokerage window or company stock fund, both of which would be placed in this tier.

Callan's Philosophy

- Callan recommends that plans offer a limited set of options within the specialty tier given the complex nature of specialty funds and the potential confusion they may bring to participants.
- Offering too many specialty funds may lead to inappropriate allocations for participants who use naïve diversification strategies such as the “1/N rule.”* Therefore, it is generally best practice to offer a streamlined specialty tier and instead allow “do-it-yourself” participants to build diversified portfolios using the core tier funds.
- A self-directed brokerage window can add value if the participant population contains financially savvy individuals who seek specialty options to complement their portfolios.

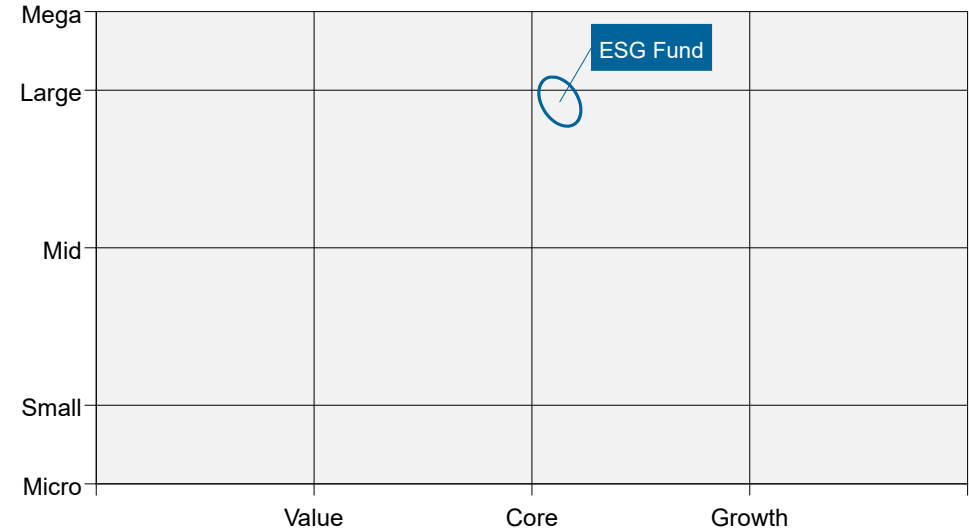
*The “1/N rule” refers to an asset allocation decision that involves allocating equally across all N funds under consideration

Tier III: Specialty Options – ESG

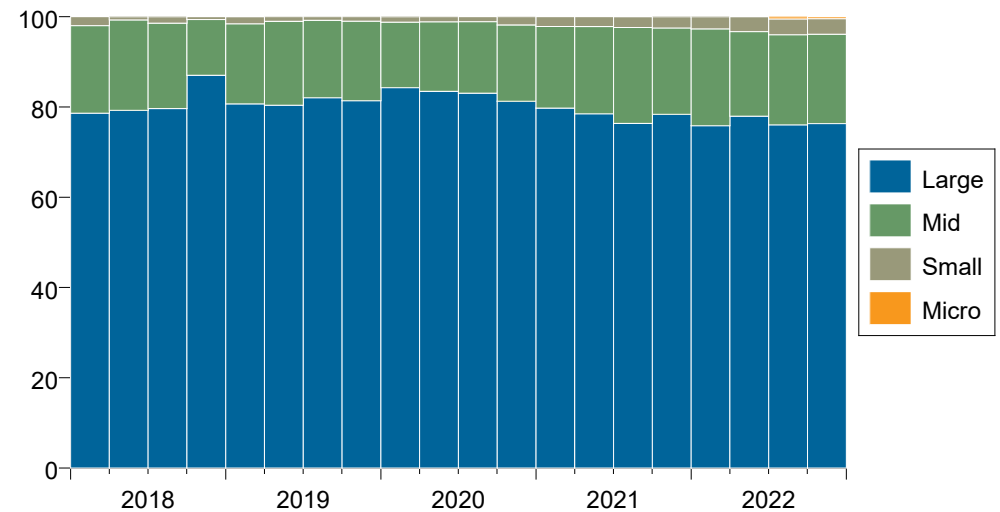
Observations

- ARMB offers an ESG option in the specialty tier:
 - **ESG:** ESG Fund (3% of assets)
- The ESG Fund is a white label fund that consists of an allocation to the Northern Trust U.S. Quality ESG strategy.
- The Northern Trust strategy is benchmarked to the MSCI USA ESG Index.
- The strategy employs a quantitative, factor-based approach to target high quality and highly rated ESG U.S. large-cap and mid-cap companies. The large-cap component of the Fund has typically ranged between 75% and 80%.
 - The strategy had nearly 150 holdings as of Nov. 30, 2022.

U.S. Equity Style Map for 5 Years Ended December 31, 2022



Capitalization Exposure for 5 Years Ended December 31, 2022
Fund: ESG Fund



Tier III: Specialty Options – Diversified Real Assets

Observations

- Within Tier III, the Plans offer an inflation-sensitive option:
 - **Diversified Real Assets:** BlackRock Strategic Completion (<1% of assets)
- The BlackRock Strategic Completion Fund employs a diversified approach to inflation sensitivity via exposures to TIPS, commodities, and REITs. These asset classes often respond to different types of inflation and at different times.

10-Year Returns Correlations (as of Dec. 31, 2022)

BlackRock Strategic Completion	1.00						
Bloomberg U.S. TIPS Index	0.68	1.00					
Bloomberg Commodity Index	0.71	0.24	1.00				
FTSE NAREIT Composite Index	0.85	0.54	0.36	1.00			
Russell 3000 Index	0.78	0.42	0.44	0.78	1.00		
Bloomberg U.S. Aggregate Bond Index	0.37	0.81	-0.20	0.41	0.25	1.00	
CPI-U	0.15	-0.04	0.54	-0.04	-0.17	-0.37	1.00
	BlackRock Strategic Completion	Bloomberg U.S. TIPS Index	Bloomberg Commodity Index	FTSE NAREIT Composite Index	Russell 3000 Index	Bloomberg U.S. Aggregate Bond Index	CPI-U

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Alaska Retirement Management Board
Defined Contribution Plan Committee
Schedule of 2023 Meetings

March 15, 2023 (Juneau/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. Update: TRS members with Social Security Data
4. Final Report: Investment Structure Analysis
5. (Additional Topics To Be Determined)

June 14, 2023 (Anchorage/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. (Additional Topics To Be Determined)

September 13, 2023 (Anchorage/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. (Additional Topics To Be Determined)

December 6, 2023 (Anchorage/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. Annual Planning – Set Committee Goals
4. (Additional Topics To Be Determined)

Periodic and As Needed Meeting Topics

1. Committee Self-Assessment (*Generally conducted during June & December meetings*)
2. (Topics To Be Determined)

Alaska Retirement Management Board
Defined Contribution Plan Committee
Proposed Schedule of 2024 Meetings

March 6, 2024 (Juneau/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. Update: TRS members with Social Security Data
4. Final Report: Investment Structure Analysis
5. (Additional Topics To Be Determined)

June 12, 2024 (Anchorage/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. (Additional Topics To Be Determined)

September 18, 2024 (Fairbanks/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. (Additional Topics To Be Determined)

December 4, 2024 (Anchorage/ Videoconference)

1. DRB and Empower Update
 Surveys, Education/Outreach Efforts, New Initiatives/Plans
2. Treasury Update
 Investment Updates, New Initiatives/Plans
3. Annual Planning – Set Committee Goals
4. (Additional Topics To Be Determined)

Periodic and As Needed Meeting Topics

1. Committee Self-Assessment (*Generally conducted during June & December meetings*)
2. (Topics To Be Determined)

APPENDIX

- DOA-DRB Presentation to Senate Finance - 2.14.2023
Funding Status Update
- DOA-DRB Presentation to Senate Finance - 2.23.2023
Defined Benefit vs. Defined Contribution Comparison
- Defined Contribution Plan Committee Charter

State of Alaska

Department of Administration

Division of Retirement and Benefits

Presentation to the Senate Finance Committee

- Funding Status Update
 - Public Employees' Retirement System (PERS)
 - Teachers' Retirement System (TRS)
- Ajay Desai, Director
- Kevin Worley, Chief Financial Officer
- Betsy Wood, Chief Health Administrator
- February 14, 2023



Organization – PERS / TRS

Dept. of Revenue Treasury Division

Invests retirement system
assets

Staff

General Consultants

Internal Investment Team

External Investment Management

Alaska Retirement Management Board (ARMB)

Sets contribution rates,
invests retirement system
assets

Investment Advisory Committee

Reviewer Actuary
(GRS)

Dept. of Administration Division of Retirement & Benefits

Administer retirement and
benefits system

Staff

Valuation Actuary (Buck)/Consultants

Third Party Administrators. (TPA)

External Audits



Membership (as of June 30, 2022)

	PERS					TRS				Total	%	
Employers	151					57				208		
<u>Defined Benefit (DB) Plans</u>	Tier I	Tier II	Tier III	Total		Tier I	Tier II	Total				
Actives	505	1,922	6,569	8,996	DB: 26%	131	3,059	3,190	DB: 32%	12,186	DB: 27%	
Inactive – Vested	236	1,514	3,174	4,924	DB: 69%	25	713	738	DB: 47%	5,662	DB: 65%	
Retired	21,915	9,584	5,766	37,265	DB: 100%	9,825	3,598	13,423	DB: 100%	50,688	DB: 100%	
TOTAL	22,656	13,020	15,509	51,185		9,981	7,370	17,351		68,536		
<u>Defined Contribution (DC) Plans</u>												
Actives				25,609	DC: 74%				6,649	DC: 68%	32,258	DC: 73%
Inactive - Vested				2,260	DC: 31%				817	DC: 53%	3,077	DC: 35%
Retired				166	DC: 0%				39	DC: 0%	205	DC: 0%
TOTAL				28,035					7,505		35,540	
GRAND TOTAL				79,220					24,856		104,076	



Source: Division of Retirement and Benefits. June 30, 2022, Audited Financial Statements

Investment Experience

	2021		2022 (DRAFT)	
	PERS	TRS	PERS	TRS
Assumed Actuarial Earnings Rate	7.38%	7.38%	7.25%	7.25%
Based on Fair Market Value of Assets	30.00%	30.10%	-6.00%	-6.00%
Based on Actuarial Value of Assets (Smoothing over 5-Year Period)	11.60%	11.60%	8.70%	8.70%

The actuarial value of assets was reinitialized to equal, fair value as of June 30, 2014, with the \$3 Billion infusion from HB 119.

Beginning in FY 2015, the valuation method recognizes 20% of the investment gain or loss each year for five years (“Smoothing”).



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Funded Status – Valuation Results (\$000's)

Defined Benefit Total (Pension and HealthCare Combined)

	PERS			TRS		
	2020	2021	2022 (DRAFT)	2020	2021	2022 (DRAFT)
a. Actuarial Accrued Liability	\$22,316,075	\$22,276,145	\$22,750,748	\$9,936,711	\$9,911,490	\$10,246,623
b. Actuarial Value of Assets (AVA)	\$17,703,068	\$19,047,864	\$19,941,441	\$8,608,347	\$9,178,106	\$9,537,420
c. Unfunded Actuarial Accrued Liability based on AVA	\$4,613,007	\$3,228,281	\$2,809,307	\$1,328,364	\$733,384	\$709,203
d. Funded Ratio based on AVA	79.3%	85.5%	87.7%	86.6%	92.6%	93.1%
e. Fair Value of Assets (FVA)	\$17,282,672	\$21,696,450	\$19,685,274	\$8,398,260	\$10,454,512	\$9,418,862
f. Unfunded Actuarial Accrued Liability based on FVA	\$5,033,403	\$579,695	\$3,065,474	\$1,538,451	(\$543,022)	\$827,761
g. Funded Ratio based on FVA	77.4%	97.4%	86.5%	84.5%	105.5%	91.9%



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Funded Status – Pension (\$'000's)

Defined Benefit Pension	PERS			TRS		
	2020	2021	2022 (DRAFT)	2020	2021	2022 (DRAFT)
a. Actuarial Accrued Liability	\$15,279,525	\$15,419,975	\$16,093,679	\$7,447,036	\$7,471,887	\$7,804,046
b. Actuarial Value of Assets (AVA)	\$9,713,710	\$10,466,709	\$10,961,498	\$5,587,064	\$5,910,369	\$6,100,204
c. Unfunded Actuarial Accrued Liability based on AVA	\$5,565,815	\$4,953,266	\$5,132,181	\$1,859,972	\$1,561,518	\$1,703,842
d. Funded Ratio based on AVA	63.6%	67.9%	68.1%	75.0%	79.1%	78.2%
e. Fair Value of Assets (FVA)	\$9,469,161	\$11,912,309	\$10,816,140	\$5,444,799	\$6,731,481	\$6,026,651
f. Unfunded Actuarial Accrued Liability based on FVA	\$5,810,364	\$3,507,666	\$5,277,539	\$2,002,237	\$740,406	\$1,777,395
g. Funded Ratio based on FVA	62.0%	77.3%	67.2%	73.1%	90.1%	77.2%



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Funded Status – HealthCare (\$000's)

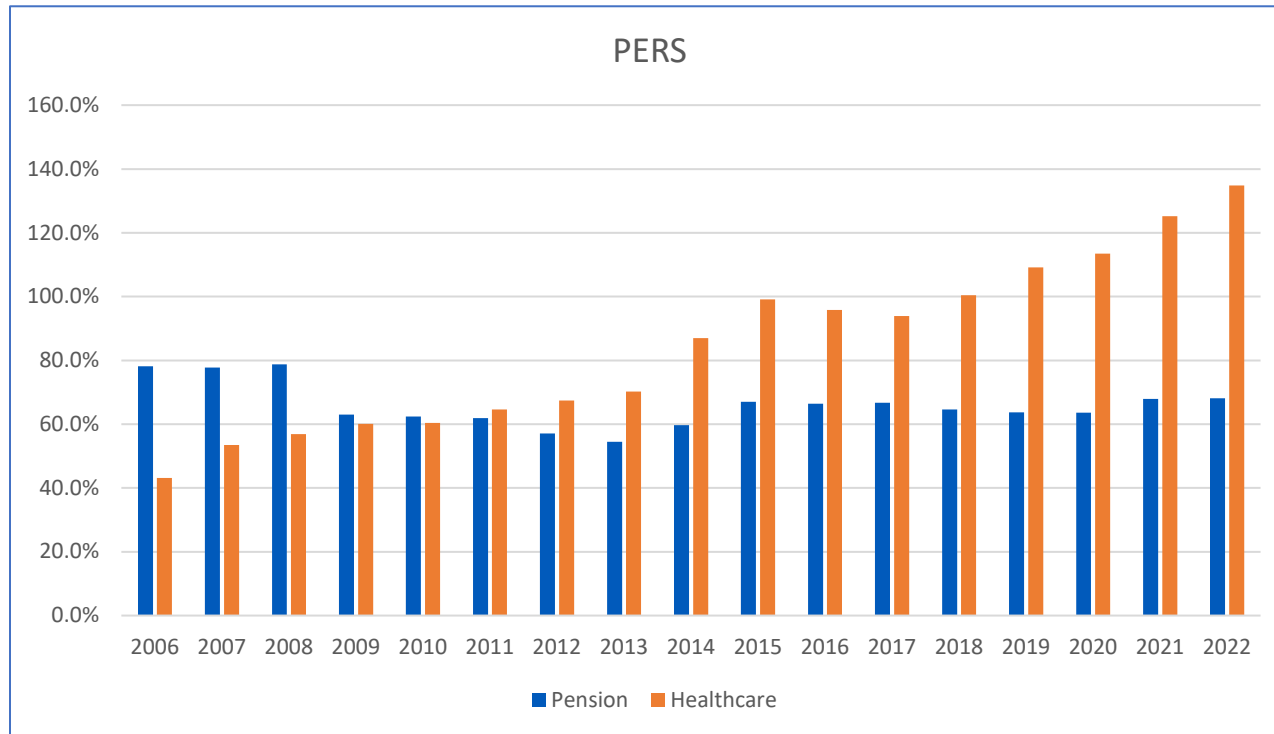
Defined Benefit HealthCare	PERS			TRS		
	2020	2021	2022 (DRAFT)	2020	2021	2022 (DRAFT)
a. Actuarial Accrued Liability	\$7,036,550	\$6,856,170	\$6,657,069	\$2,489,675	\$2,439,603	\$2,442,577
b. Actuarial Value of Assets (AVA)	\$7,989,358	\$8,581,155	\$8,979,943	\$3,021,283	\$3,267,737	\$3,437,216
c. Unfunded Actuarial Accrued Liability based on AVA	(\$952,808)	(\$1,724,985)	(\$2,322,874)	(\$531,608)	(\$828,134)	(\$994,639)
d. Funded Ratio based on AVA	113.5%	125.2%	134.9%	121.4%	133.9%	140.7%
e. Fair Value of Assets (FVA)	\$7,813,511	\$9,784,141	\$8,869,134	\$2,953,461	\$3,723,031	\$3,392,211
f. Unfunded Actuarial Accrued Liability based on FVA	(\$776,961)	(\$2,927,971)	(\$2,212,065)	(\$463,786)	(\$1,283,428)	(\$949,634)
g. Funded Ratio based on FVA	111.0%	142.7%	133.2%	118.6%	152.6%	138.9%



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Funded Ratio – PERS Pension and HealthCare

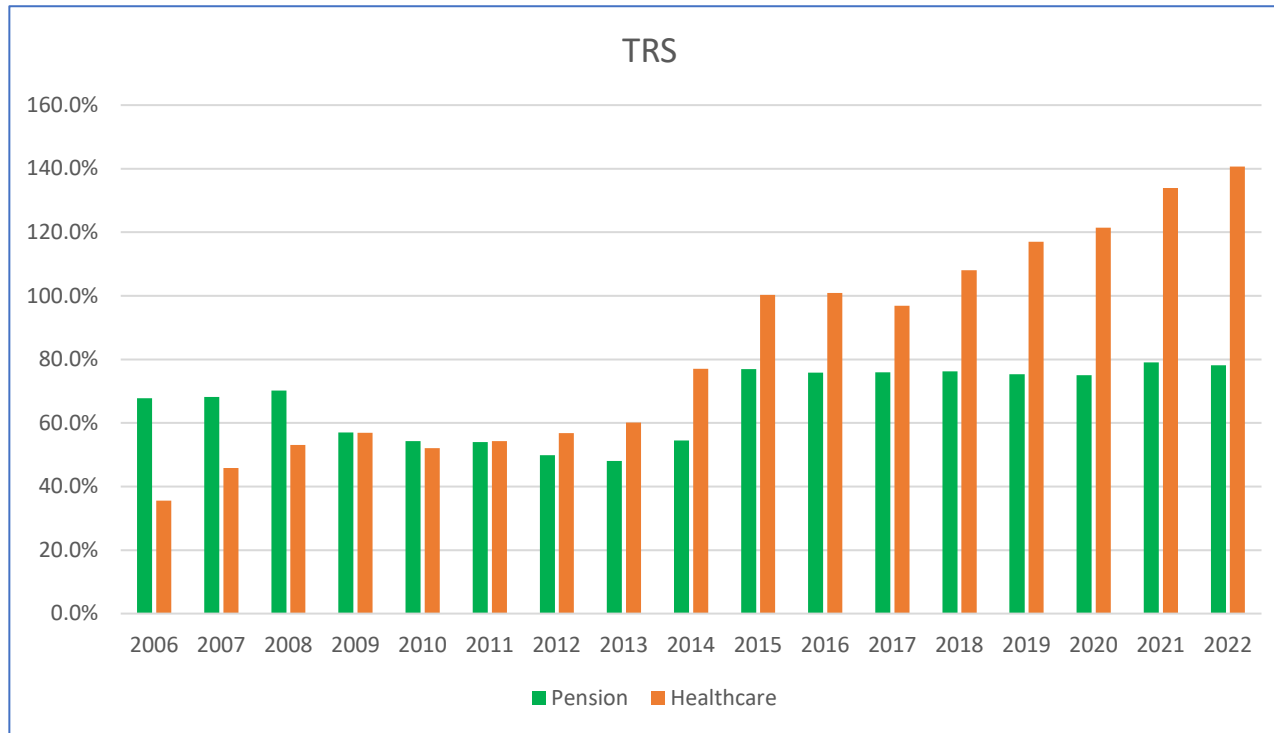
(Based on Actuarial Valuation Reports)



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Funded Ratio – TRS Pension and HealthCare

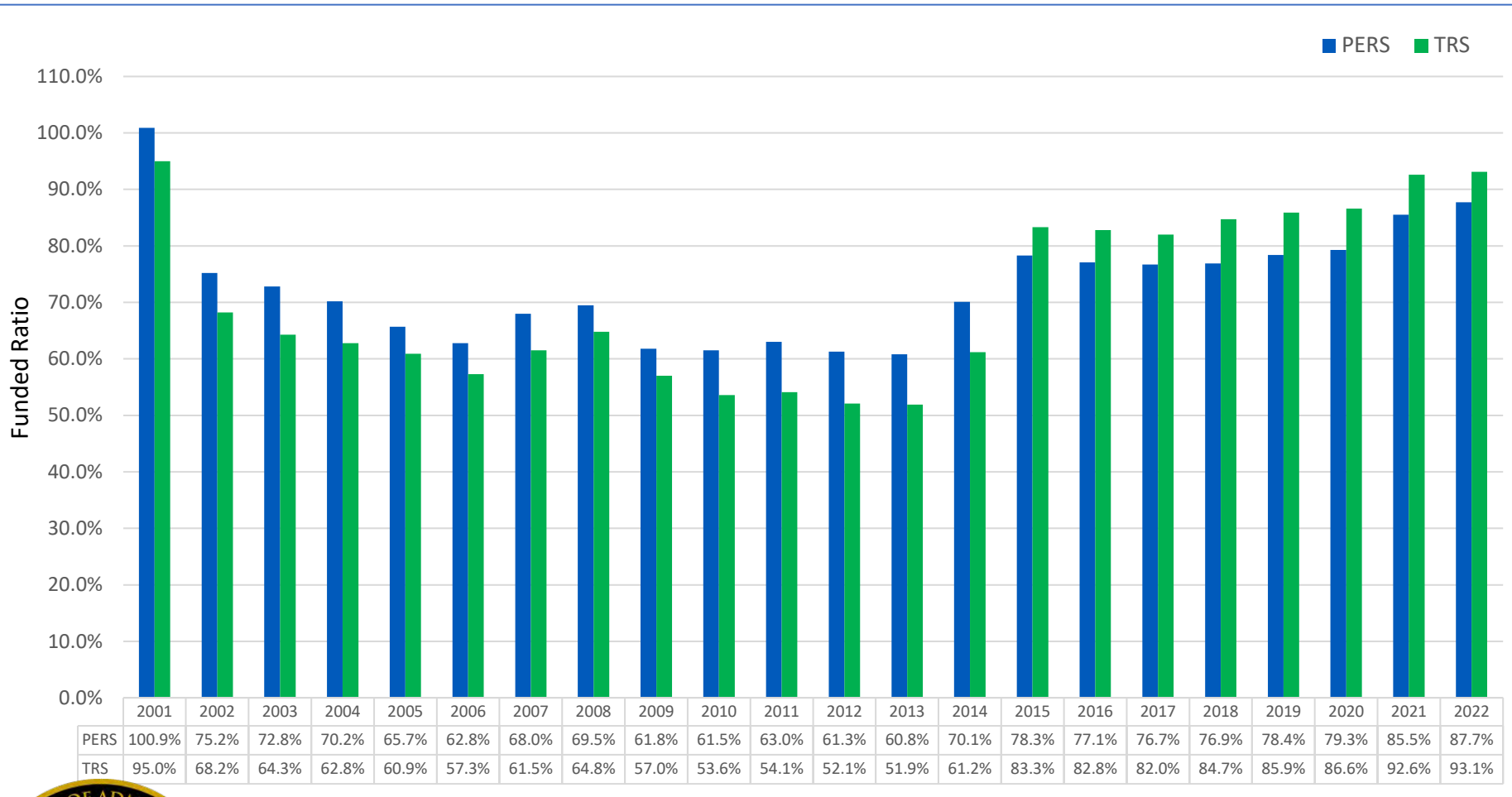
(Based on Actuarial Valuation Reports)



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Funded Ratio – Combined PERS/TRS

(Based on Actuarial Valuation Reports)



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

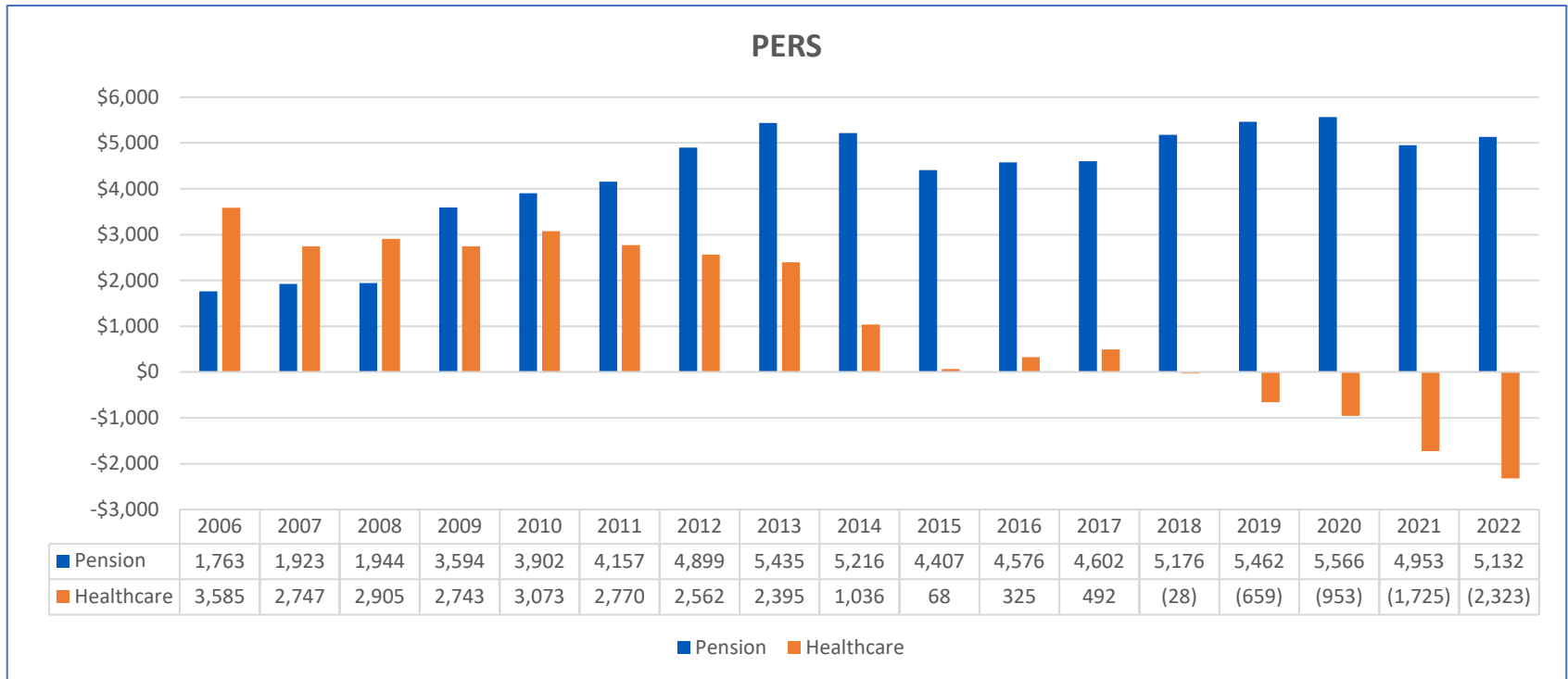
Correlation between Actual Rate of Return and Funded Ratio

Fiscal Year End 30-Jun	Assumed Actuarial Earnings Rate	Actual Rate of Return	Actuarial Funded Ratio	Actual Rate of Return	Actuarial Funded Ratio
		PERS		TRS	
2000	8.25%	10.16%	101.1%	10.25%	99.6%
2001	8.25%	-5.37%	100.9%	-5.44%	95.0%
2002	8.25%	-5.48%	75.2%	-5.49%	68.2%
2003	8.25%	3.67%	72.8%	3.68%	64.3%
2004	8.25%	15.08%	70.2%	15.09%	62.8%
2005	8.25%	8.95%	65.7%	9.01%	60.9%
2006	8.25%	11.74%	62.8%	11.78%	57.3%
2007	8.25%	18.93%	66.2%	18.97%	60.1%
2008	8.25%	-3.13%	69.5%	-3.12%	64.8%
2009	8.25%	-20.53%	61.8%	-20.67%	57.0%
2010	8.25%	11.39%	52.8%	11.58%	53.6%
2011	8.00%	21.18%	60.8%	21.36%	54.1%
2012	8.00%	0.46%	61.3%	0.51%	52.1%
2013	8.00%	12.50%	60.8%	12.59%	51.9%
2014	8.00%	18.56%	70.1%	18.56%	61.2%
2015	8.00%	3.29%	75.4%	3.30%	83.3%
2016	8.00%	-0.36%	77.1%	-0.36%	82.8%
2017	8.00%	13.35%	76.7%	13.36%	82.0%
2018	8.00%	9.61%	76.9%	9.62%	84.7%
2019	7.38%	6.40%	78.4%	6.39%	85.8%
2020	7.38%	3.83%	79.3%	3.82%	86.6%
2021	7.38%	27.62%	85.5%	27.65%	92.6%
2022	7.25%	-4.08%	87.7%	-4.10%	93.1%
	30-year average rate of return		7.79%		7.84%

Source: Funded Ratio - Actuarial Reports; Actual Rate of Returns - Department of Revenue, Investment Performance

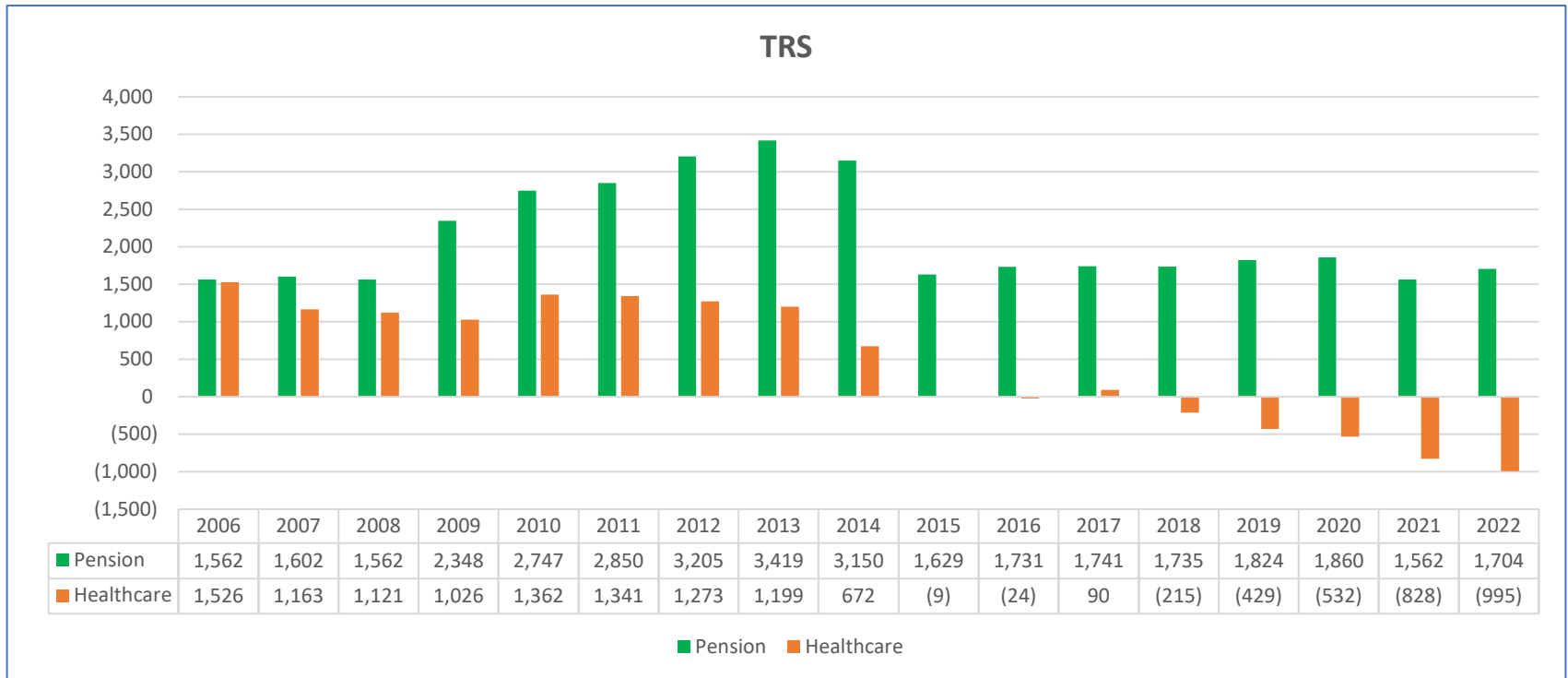


Unfunded Actuarial Liability – PERS (in \$millions)



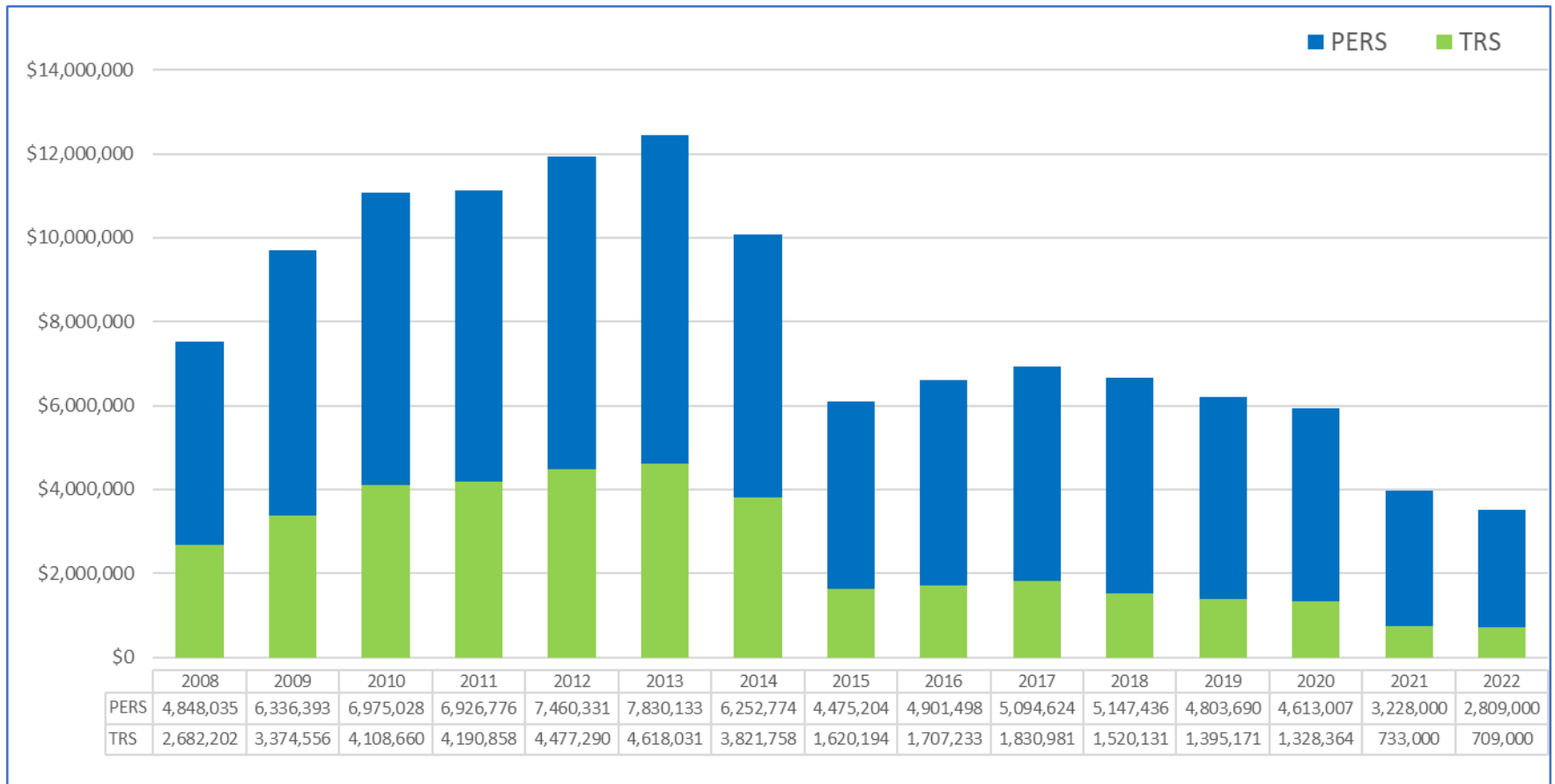
Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Unfunded Actuarial Liability – TRS (in \$millions)



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Unfunded Actuarial Liability – PERS / TRS (\$000's)



Source: Buck, Actuarial Valuation Reports as of June 30, 2021, and 2022 draft results for PERS and TRS DB

Additional State Contributions - History

FY	Legislation	PERS	TRS	Total
2006	Chapter 3, FSSLA 05 (SB 46), Sec 59(b)	\$ 18,426,923	\$ -	\$ 18,426,923
2007	Chapter 82, SLA 06 (SB 231), Sec 60(b)	18,581,921	-	18,581,921
2008	Chapter 30, SLA 07 (SB 53), Sec 55(e)	185,000,000	269,992,300	454,992,300
	Chapter 28, SLA 07 (HB95), Sec 15(a)			
2009	Chapter 27, SLA 08 (HB 310), Sec 13(b) & (a)	241,600,000	206,300,000	447,900,000
2010	Chapter 12, SLA 09 (HB 81), Sec 23(b) & (a)	107,953,000	173,462,000	281,415,000
2011	Chapter 41, SLA 10 (HB 300), Sec 29(b) & (a)	165,841,171	190,850,258	356,691,429
2012	Chapter 3, FSSLA 11 (HB 108), Sec 29(b) & (a)	242,609,397	234,517,333	477,126,730
2013	Chapter 15, SLA 12 (HB 284), Sec 27(a) & (b)	307,302,392	302,777,153	610,079,545
2014	Chapter 14, SLA 13 (HB 65), Sec 29(a) & (b)	312,472,952	316,847,291	629,320,243
2015	Chapter 18, SLA 14 (HB 119), Sec 48(a) & (b)	1,000,000,000	2,000,000,000	3,000,000,000
2016	Chapter 1, SSSLA 15 (HB 2001), Sec 10(a) & (b)	126,520,764	130,108,327	256,629,091
2017	Chapter 3, 4SSLA 16 (HB 256), Sec 28(a) & (b)	99,166,576	116,699,959	215,866,535
2018	Chapter 1, SSSLA 17 (HB 57), Sec 41(a) & (b)	72,719,000	111,757,000	184,476,000
	Chapter 17, SLA 18 (HB 286), Sec 25(a)			
2019	Chapter 17, SLA 18 (HB 286), Sec 25(b) & (c)	135,219,000	128,174,000	263,393,000
2020	Chapter 1, FSSLA 19 (HB 39), Sec 35(a) & (b)	159,055,000	141,129,000	300,184,000
2021	Chapter 8, SLA 20 (HB 205), Sec 41(a) & (b)	203,585,000	134,976,000	338,561,000
2022	Chapter 1, SSSLA 21 (HB 69), Sec 73(b) & (c)	97,699,500	142,665,000	240,364,500
2023	Chapter 11, SLA 22 (HB 281), Sec 80(a) & (b)	33,933,000	91,029,000	124,962,000
Total:		\$ 3,527,685,596	\$ 4,691,284,621	\$ 8,218,970,217



Source: Legislative Bills for the respective year

Additional State Contributions – Projected

Fiscal Year	PERS	TRS	Total
2024	\$ 37,942,000	\$ 98,766,000	\$ 136,708,000
2025	56,913,000	123,358,000	180,271,000
2026	58,752,000	124,423,000	183,175,000
2027	74,368,000	141,207,000	215,575,000
2028	79,391,000	146,299,000	225,690,000
2029	84,248,000	151,565,000	235,813,000
2030	89,188,000	156,883,000	246,071,000
2031	94,366,000	162,059,000	256,425,000
2032	99,642,000	167,535,000	267,177,000
2033	105,049,000	173,009,000	278,058,000
2034	110,012,000	178,655,000	288,667,000
2035	115,081,000	184,407,000	299,488,000
2036	120,075,000	190,095,000	310,170,000
2037	125,576,000	195,880,000	321,456,000
2038	130,577,000	201,852,000	332,429,000
2039	135,819,000	207,791,000	343,610,000
	\$ 1,516,999,000	\$ 2,603,784,000	\$ 4,120,783,000

Without HealthCare Normal Cost Contributions

Source: Buck, September 2022 ARMB Meeting Presentation



FY2024 Contribution Rates

Health Plan – Zero Normal Cost Impact on Contribution Rates

	PERS				TRS			
	FY24 PERS Total Payroll *		\$ 2,437,619,000		FY24 TRS Total Payroll		\$ 762,084,000	
	Preliminary	Contribution	Adopted	Contribution	Preliminary	Contribution	Adopted	Contribution
DB Pension Plan - Normal Cost	2.14%	52,165,000	2.14%	52,165,000	2.05%	15,623,000	2.05%	15,623,000
DB Pension Plan - Past Service Cost	16.33%	398,063,000	16.33%	398,063,000	16.44%	125,287,000	16.44%	125,287,000
DB Health Plan - Normal Cost	2.50%	60,940,000	0.00%	-	2.41%	18,366,000	0.00%	-
DCR Plan	6.63%	161,614,000	6.63%	161,614,000	7.03%	53,575,000	7.03%	53,575,000
	27.60%	672,782,000	25.10%	611,842,000	27.93%	212,851,000	25.52%	194,484,000
State Of Alaska Contributions	27.60%	334,978,000	25.10%	304,636,000				
Non-State Employer Contributions	22.00%	269,264,000	22.00%	269,264,000	12.56%	95,718,000	12.56%	95,718,000
Additional State Contributions	5.60%	68,540,000	3.10%	37,942,000	15.37%	117,132,000	12.96%	98,766,000

* PERS Non-State Employers Total Payroll:	\$	1,223,929,000
PERS State as an Employer Total Payroll:		<u>1,213,690,000</u>
FY24 PERS Total Payroll:	\$	2,437,619,000

Total Savings: **\$60,940,000 (PERS) + \$18,366,000 (TRS) = \$ 79,306,000**

(NOTE: some totals may not add due to rounding)



Source: ARM Board packet, September 2022 (information consolidated for presentation and some amounts may be off due to rounding)

HealthCare Trusts Funded Level

Fiscal Year	with NC Contributed	Without NC Contributed	with NC Contributed	Without NC Contributed
	PERS		TRS	
2023	134.9%	134.9%	140.7%	140.7%
2024	136.0%	136.0%	142.0%	142.0%
2025	137.6%	137.6%	143.9%	143.9%
2026	141.0%	140.3%	147.4%	146.8%
2027	139.6%	138.3%	146.2%	144.9%
2028	142.2%	140.2%	149.0%	147.2%
2029	145.1%	142.5%	152.3%	149.8%
2030	148.3%	145.1%	155.9%	152.9%
2031	151.9%	148.0%	160.0%	156.4%
2032	155.9%	151.4%	164.6%	160.5%
2033	160.4%	155.2%	169.8%	165.1%
2034	165.4%	159.6%	175.6%	170.3%
2035	171.0%	164.6%	182.2%	176.3%
2036	177.4%	170.2%	189.7%	183.0%
2037	184.7%	176.6%	198.1%	190.7%
2038	192.9%	184.0%	207.5%	199.3%
2039	202.3%	192.4%	218.2%	209.0%

NC = Normal Cost

Source: Buck Global



FY2024 Contribution Rates – Defined Benefit Plans

Defined Benefit Plans	PERS	TRS
Employee		
<ul style="list-style-type: none"> All Other Employees Peace Officer/Firefighter School District Alternate Option 	6.75% 7.50% 9.60%	8.65%
Employer (Rates capped by Alaska statute)	22.00%	12.56%
Additional State Contribution (for non-State employers)	3.10%	12.96%
Total Required Contributions for the Fiscal Year *	25.10%	25.52%

* The total contribution rates for PERS and TRS include the DCR contribution rates.



Source: Buck, September 1, 2022, letter as of June 30, 2022, roll-forward for PERS and TRS DB and DCR and 2021 DCR valuations

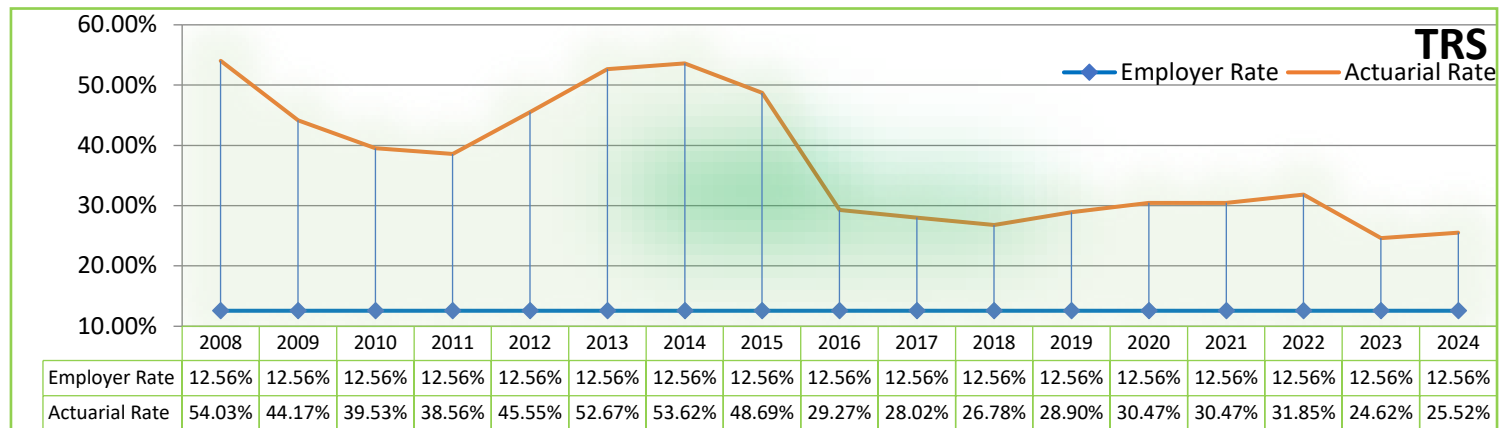
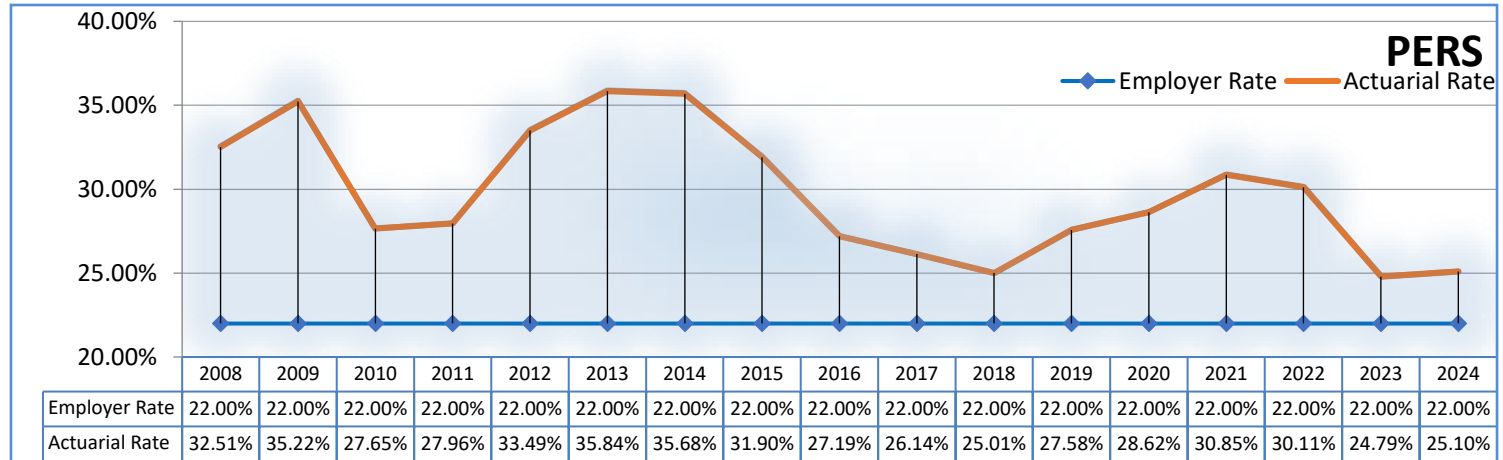
FY2024 Contribution Rates – Defined Contribution Plans

Defined Contribution Plans	PERS	TRS
Employee (to Investment Account)	8.00%	8.00%
Employer		
Investment Account	5.00%	7.00%
Health Care (Retiree Major Medical Plan)	1.01%	0.82%
Occupational Death & Disability		
• All Others	0.30%	0.08%
• Peace Officer/Firefighter	0.68%	N/A
Health Reimbursement Account (HRA) <i>(3% of all PERS/TRS average annual compensation)</i>	Flat dollar	Flat dollar
Excess from Employers' Contributions (22% / 12.56%)	To DB Plans – Unfunded Liability	



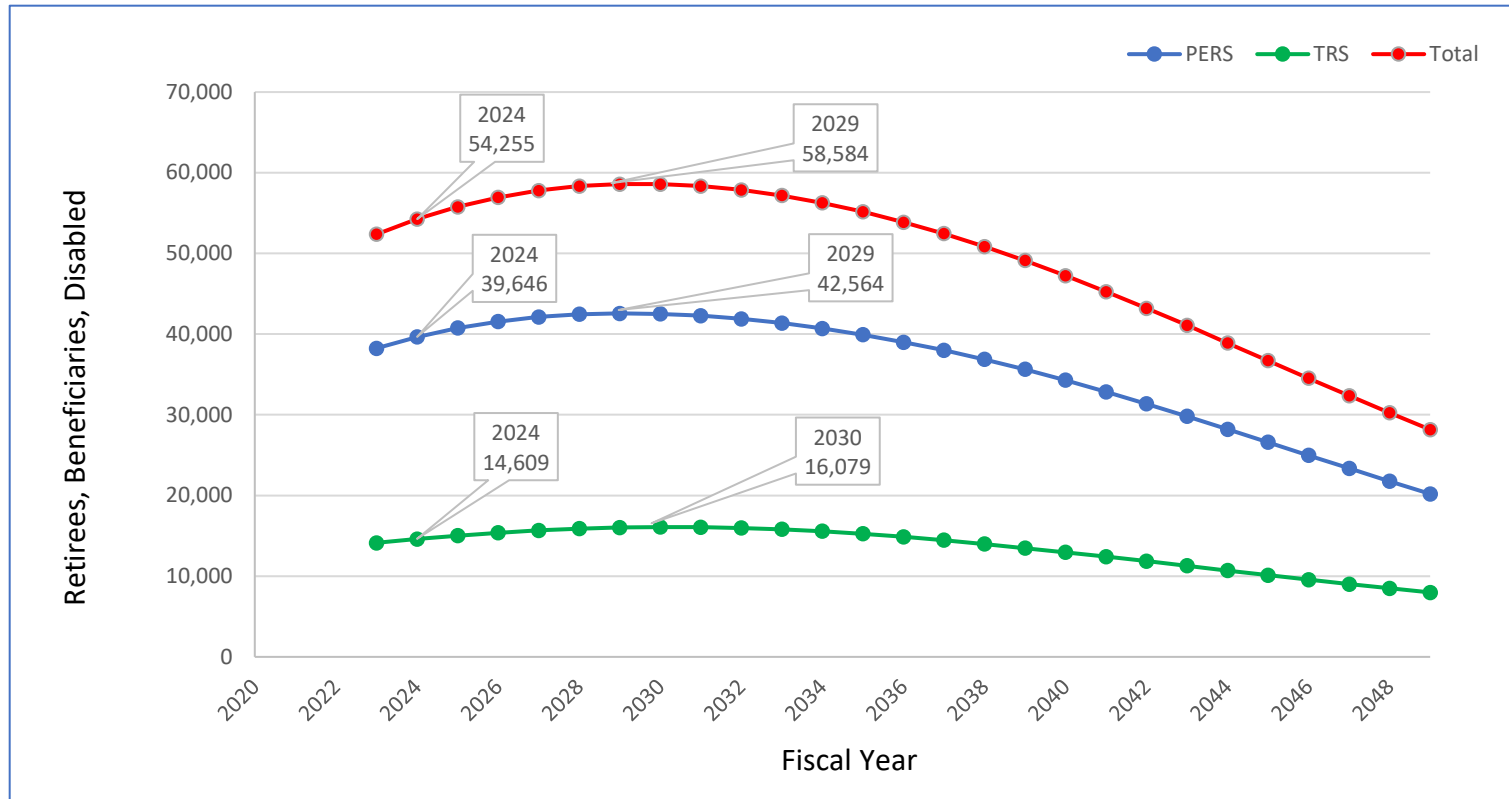
Source: Buck, September 1, 2022, letter as of June 30, 2022, roll-forward for PERS and TRS DB and DCR and 2021 DCR valuations

Contribution Rates – History



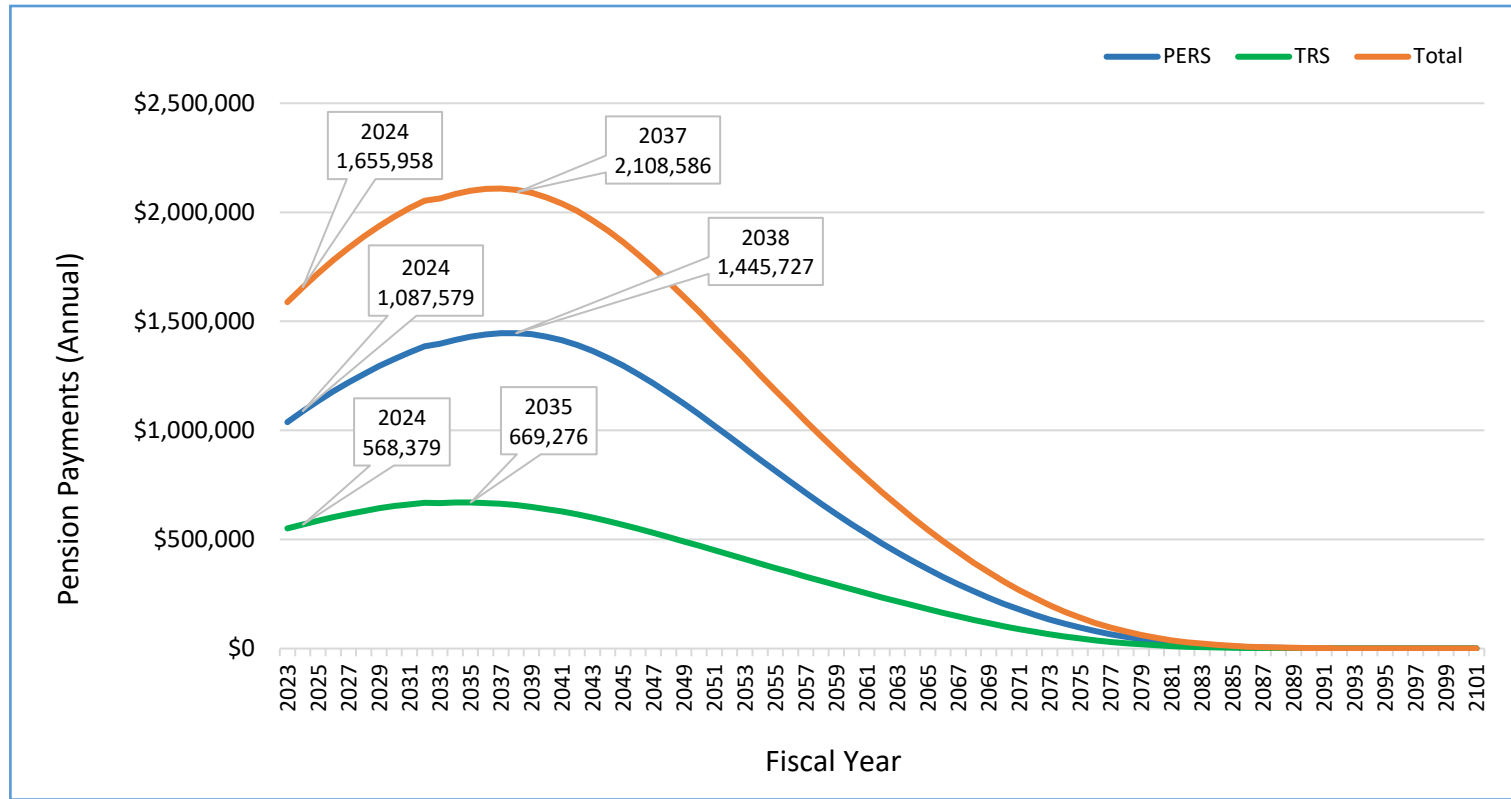
Source: June 30, 2021 - Board Adopted Rates Report (BUCK) [Rates shown include both DB and DCR Plan rates]

Projected Pension Benefit Recipients



Source: Buck - Supplemental Data

Projected Pension Benefits Payment (\$000's)



Source: Buck - Supplemental Data

AlaskaCare Employer Group Waiver Plan

- An Employer Group Waiver Plan (EGWP) is a group Medicare Part D prescription drug plan option.
- EGWP provides a direct subsidy which allows it to be considered when calculating the Other Post-Employment Benefits (OPEB) liability under both GASB & FASB accounting schemes.
- The implementation of EGWP reduced 6/30/18 healthcare liabilities by **\$959M**, which resulted in lower projected liabilities, lower projected contribution rates, and lower projected Additional State Contributions (\$711M for PERS, \$248M for TRS).



GASB = Governmental Accounting Standards Board
FASB = Financial Accounting Standards Board

An Employer Group Waiver Plan (EGWP) Subsidy

Types of Funding	\$ (Millions)			
	2019	2020	2021	2022 (Estimated*)
Direct Subsidy	\$ 1.30	\$ 0.04	\$ (2.64)	\$ (5.23)
Catastrophic Reinsurance*	28.80	20.76	25.98	35.57
Low Income Premiums Subsidy	18.20	0.22	0.22	0.22
Low Income Cost Sharing Subsidy*	0.20	1.10	1.10	1.11
Coverage Gap Discount*	1.00	36.26	39.75	44.02
TOTAL	\$ 49.50	\$ 58.38	\$ 64.41	\$ 75.70

* 2022 Amounts described above are estimates due to the dynamic nature of claims. The actual subsidy is subject to minor adjustments due to true-up.



Source: OptumRx

HealthCare Cost Trend Rates

Fiscal Year	Medical Pre-65	Medical Post-65	Rx / EGWP
2023	7.00%	5.50%	7.50%
2024	6.70%	5.50%	7.20%
2025	6.40%	5.40%	6.90%
2030	5.45%	5.30%	5.55%
2031 - 2038	5.30%	5.30%	5.30%
2039	5.25%	5.25%	5.25%
2050+	4.50%	4.50%	4.50%

Trend rates were updated with the June 30, 2022, actuarial valuation reports by the adoption of the ARM Board of the most recent experience study. Beginning in Fiscal Year 2039, trend rates were revised to reach an ultimate rate of 4.5% in fiscal 2050.

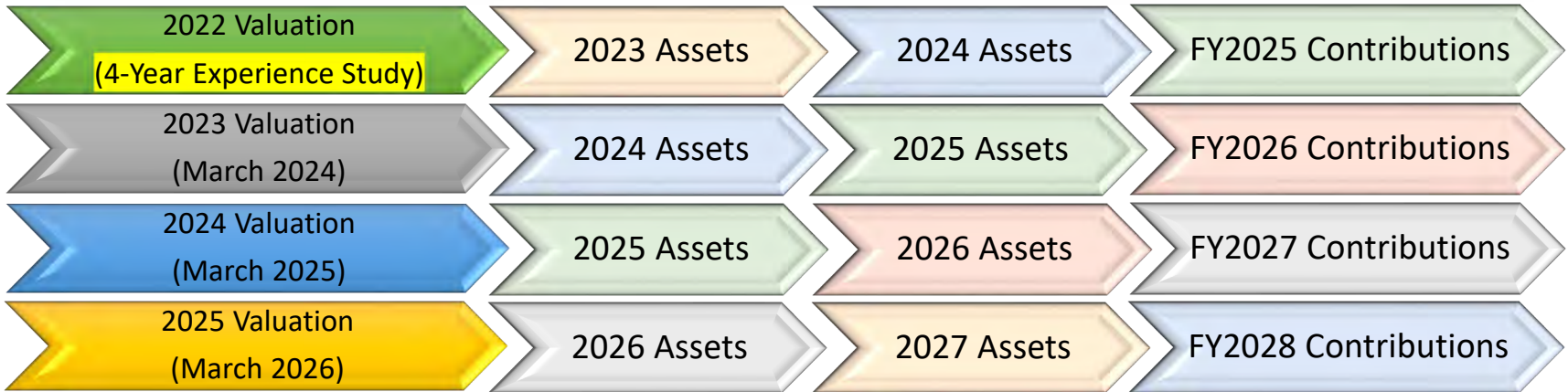
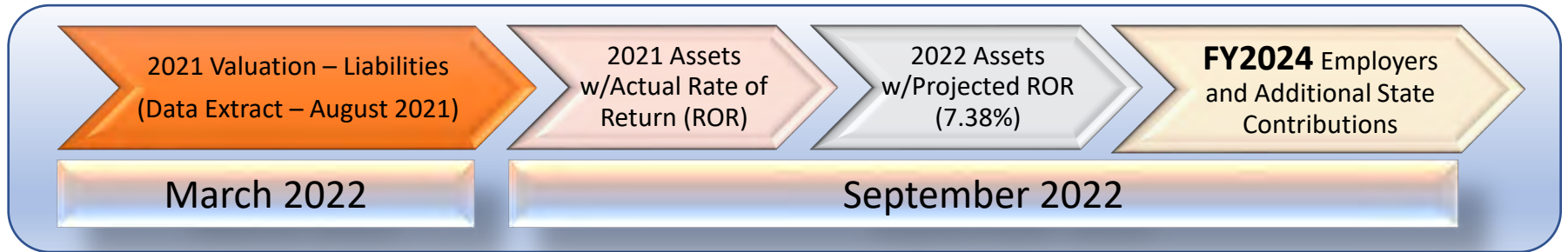


Source: Buck - Trend rates used in the June 30, 2022, valuation

Employers and Additional State Contributions

Process Timeline

Allocation of Projected Employer and Additional State Contributions with Liabilities "Rolled Forward" Two-Years, Assets "Rolled Forward" One-Year and Smoothed



Department of Administration
Championing improvement in the State's performance and results.



For more information, please contact Ken Truitt at Ken.Truitt@alaska.gov

State of Alaska

Department of Administration

Division of Retirement and Benefits

Presentation to the Senate Finance Committee

- Defined Benefit Versus Defined Contribution Comparison
 - Public Employees' Retirement System (PERS)
 - Teachers' Retirement System (TRS)
- Ajay Desai, Director
- Mindy Voigt, Sr. Pension Manager
- February 23, 2023



Defined Benefit v/s Defined Contributions

- **Defined Benefit (DB) plan**

- Is 'defined' in the sense that the “benefit” formula is defined.
- Employer contributions (Normal Cost and Past Service payment) will fluctuate annually based on the actuarial valuation.*
- Benefit calculated on set formulas such as the multiplier (percentage), salary history, and duration of employment.
- Provide a fixed, guaranteed benefit for employees at retirement based on the formula.
- Benefits can be paid as monthly payments for a lifetime.

- **Defined Contribution (DC) plan**

- Is 'defined' in the sense that the “contributions” are defined.
- Contributions are maintained in an individual account.
- These contributions are invested on the employee's behalf.
- Provide an account balance that will fluctuate due to the changes in the value of the investments. The employee will ultimately receive the balance in their account based on contributions plus or minus investment gains or losses.
- Benefits can be a lump sum, rollover to another retirement plan, or conversion to annuity payments.

* Actuarial valuation: A retirement plan estimates a plan's financial position at a specific point in time.



Chronology

- **PERS**

- **Defined Benefit Tiers**

- January 1961: Established
- July 1986: Tier II established
- July 1996: Tier III established

- **Defined Contribution Tier**

- July 2006: Tier IV established
- July 2008: Cost Share with 22% employer contribution rate

- **TRS**

- **Defined Benefit Tiers**

- March 1945: Established
- July 1990: Tier II established

- **Defined Contribution Tier**

- July 2006: Tier III established
- July 2008: Cost Share with 12.56% employer contribution rate



Contributions Rates

PERS: Defined Benefit Tier III	PERS: Defined Contribution Tier IV
<ul style="list-style-type: none"> ○ Employee – <ul style="list-style-type: none"> ○ 6.75% - All other ○ 7.50% - Peace Officer/Firefighter ○ 9.60% - School District Alternate Option 	<ul style="list-style-type: none"> ○ Employee - 8.00%
<ul style="list-style-type: none"> ○ Employer* – Normal Cost 	<ul style="list-style-type: none"> ○ Employer – 5.00%

TRS: Defined Benefit Tier II	TRS: Defined Contribution Tier III
<ul style="list-style-type: none"> ○ Employee – 8.65% 	<ul style="list-style-type: none"> ○ Employee - 8.00%
<ul style="list-style-type: none"> ○ Employer* – Normal Cost 	<ul style="list-style-type: none"> ○ Employer – 7.00%

Supplemental Annuity Plan (Supplemental Benefits System (SBS))
<ul style="list-style-type: none"> ○ Employee – 6.13%
<ul style="list-style-type: none"> ○ Employer – 6.13%

* Total employer contributions for PERS is 22% due to Cost-Share effective July 2008, and for TRS is 12.56%, including Normal and Past Service costs.



Comparison

- What are we comparing?
 - DB Plans provides fixed monthly benefits based on the pre-defined formulas, where the benefit does not fluctuate
 - DC Plan account balance will fluctuate due to the changes in the value of the investments

- Is it a true or fair comparison?
 - These comparisons are illustrated based on DC account balances calculated assuming the long-term average rate of returns and also assuming the average interest rate for annuity payouts
 - It may derive lower or higher account balances and possibly lower or higher converted annuity payments based on the actual rate of return and the prevailing interest rate



Formulas and Assumptions

- Defined Benefit Plan Formulas:

	PERS			TRS	
	Tier I	Tier II	Tier III	Tier I	Tier II
Normal Retirement Age	55	60	60	55	60
Highest Average Salary (All Others) (Peace Officer/Firefighters)	3 Years	3 Years	5 Years	3 Years	3 Years
Multipliers (All Others)	2.00% for the first 10 Years, Plus 2.25% for the years over 10 to 20, Plus 2.50% for the years over 20			2.00% for the first 20 years, Plus 2.50% for the years over 20	
(Peace Officer/Firefighters)	2.00% for the first 10 years, Plus 2.50% for the years over 10				

- Defined Contribution Plan Assumptions:

- Entry-Level Salary for a respective group
- 2.75% Annual Wage Increases for each year
- 7.00% Annual Rate of Return
- Average Life Expectancy of age 85
- 5.89% Annuity Payout Rate @ Retirement using the Periodic Payment option

Per Buck's suggestion for illustrative purposes: Used historical 10-year constant maturity U.S. Treasury yields. For the purposes of these illustrations, a conversion interest rate of 5.89% was used. The use of a different conversion interest rate would produce different results. As the conversion interest rate goes down, the annuity amount decreases (and vice versa).



PERS - Tier III and Tier IV Comparison

All Other Members

PERS - Tier III (DB) versus Tier IV (DC)						
All Other Members						
Entry salary:		\$57,949.00				
Wage Increase Rate:		2.75%				
			Tier III (DB)		Tier IV (DC)	
Employee Contributions:		6.75%		8.00%		
Employer Contributions:		Normal Cost		5.00%		
Annual Rate of return (ROR):				7.00%		
Normal Retirement Age:		60		60		
Average Life Expectancy:				85		
Annuity Payout Rate:				5.89%		
Annuity to be Paid For Years:				25		
All Other Members				Tier III (DB)		
A	B	C	D: Salary	Tier IV (DC)		
Total Service	Projected Last Salary	Total Annual Benefit	Replacement Ratio (C/B)	E: Projected Account Balance	F: Converted to Annuity	G: Salary Replacement Ratio (F/B)
5	64,591.19	6,122.51	9.48%	48,796.36	3,715.24	5.75%
10	73,974.57	14,023.88	18.96%	124,324.60	9,465.77	12.80%
15	84,721.10	25,095.60	29.62%	238,375.48	18,149.33	21.42%
20	97,028.81	39,088.19	40.29%	407,635.78	31,036.40	31.99%
25	111,124.52	57,933.33	52.13%	655,680.92	49,921.96	44.92%
30	127,267.95	81,428.93	63.98%	1,015,772.85	77,338.49	60.77%

Annual benefits for the DB calculations are based on the plan formula using projected salaries. While DC account balances are projected based on the 7% annual rate of return with a 5.89% annuity payout rate.



PERS - Tier III and Tier IV Comparison

Peace Officers/Firefighters

PERS - Tier III (DB) versus Tier IV (DC) Peace Officers/Firefighters						
Entry salary:		\$80,435.47				
Wage Increase Rate:		2.75%				
			Tier III (DB)		Tier IV (DC)	
Employee Contributions:		7.50%		8.00%		
Employer Contributions:		Normal Cost		5.00%		
Annual Rate of return (ROR):				7.00%		
Normal Retirement Age:		60		60		
Average Life Expectancy:				85		
Annuity Payout Rate:				5.89%		
Annuity to be Paid For Years:				25		
Peace Officers/Firefighters				Tier III (DB)		
A	B	C	D: Salary	Tier IV (DC)		
Total Service	Projected Last Salary	Total Annual Benefit	Replacement Ratio (C/B)	E: Projected Account Balance	F: Converted to Annuity	G: Salary Replacement Ratio (F/B)
5	89,655.08	8,727.70	9.73%	67,731.25	5,156.89	5.75%
10	102,679.58	19,991.20	19.47%	172,567.38	13,138.86	12.80%
15	117,596.18	37,205.00	31.64%	330,874.45	25,191.98	21.42%
20	134,679.78	58,998.31	43.81%	565,814.35	43,079.74	31.99%
25	154,245.16	86,338.42	55.97%	910,110.67	69,293.63	44.92%
30	176,652.87	120,376.98	68.14%	1,409,932.30	107,348.84	60.77%

Annual benefits for the DB calculations are based on the plan formula using projected salaries. While DC account balances are projected based on the 7% annual rate of return with a 5.89% annuity payout rate.



TRS - Tier II and Tier III Comparison

Teachers

TRS - Tier II (DB) versus Tier III (DC)						
Teachers						
Entry salary:		\$59,581.00				
Wage Increase Rate:		2.75%				
			Tier II (DB)		Tier III (DC)	
Employee Contributions:		8.65%		8.00%		
Employer Contributions:		Normal Cost		7.00%		
Annual Rate of return (ROR):				7.00%		
Normal Retirement Age:		60		60		
Average Life Expectancy:				85		
Annuity Payout Rate:				5.89%		
Annuity to be Paid For Years:				25		
Teachers				Tier II (DB)		
A	B	C	D: Salary	Tier III (DC)		
Total Service	Projected Last Salary	Total Annual Benefit	Replacement Ratio (C/B)	E: Projected Account Balance	F: Converted to Annuity	G: Salary Replacement Ratio (F/B)
5	66,410.25	6,464.87	9.73%	57,889.15	4,407.54	6.64%
10	76,057.89	14,808.09	19.47%	147,491.44	11,229.64	14.76%
15	87,107.07	25,438.96	29.20%	282,794.74	21,531.31	24.72%
20	99,761.41	38,846.09	38.94%	483,595.27	36,819.78	36.91%
25	114,254.08	58,392.32	51.11%	777,861.54	59,224.50	51.84%
30	130,852.15	82,797.83	63.28%	1,205,053.56	91,749.87	70.12%

Annual benefits for the DB calculations are based on the plan formula using projected salaries. While DC account balances are projected based on the 7% annual rate of return with a 5.89% annuity payout rate.



Actual Plan Data (as of 2/1/2023)

- **1st Group: Comparable Salaries**
 - Closest match with the projected wage increases with 2.75% at the respective year of comparison
- **2nd Group: All Salaries**
 - All comparable salaries plus all salaries higher than hypothetical projected salaries
- **3rd Group: Account Balances higher than the projected balances**
 - Actual account balances for those that are equal to or higher than the projected with the 7.00% Rate of Return

Note: For all groups above, the member's minimum account balance must equal or exceed the account balance projected with a 0.0% Annual Rate of Return.



PERS - Tier III and Tier IV Comparison

All Other Members

(From Slide# 7)

Hypothetical Salaries			V/S	Actual Salaries as of 2022					
PERS All Other	DB Plan	DC Plan	Actual Plan Data (as of 2/1/2023)						
		(Projected ROR=7%)	Comparable Salaries		All Salaries		RoR >= 7% Projection		
Total Service	A: Salary Replacement Ratio	B: Salary Replacement Ratio	Members	C: Salary Replacement Ratio	Members	D: Salary Replacement Ratio	Members	E: Salary Replacement Ratio	
5	9.48%	5.75%	23	5.29%	296	5.27%	48	6.44%	
6	11.37%	7.05%	25	6.53%	480	6.22%	53	8.46%	
7	13.27%	8.40%	28	7.65%	445	7.39%	56	9.22%	
8	15.17%	9.81%	24	9.34%	448	8.73%	59	11.46%	
9	17.06%	11.27%	21	9.71%	419	9.91%	56	12.42%	
10	18.96%	12.80%	28	11.68%	402	11.06%	56	13.97%	
11	21.09%	14.38%	10	13.58%	324	12.84%	47	16.21%	
12	23.22%	16.04%	18	13.96%	303	14.25%	55	17.63%	
13	25.36%	17.76%	12	16.40%	215	15.80%	42	19.28%	
14	27.49%	19.55%	10	16.69%	214	16.65%	27	21.20%	
15	29.62%	21.42%	10	19.22%	207	17.96%	20	23.55%	
16	31.75%	23.37%	5	20.11%	138	18.67%	8	25.84%	
17	33.89%	25.39%	0		10	20.98%	1	25.99%	
Total Actual Members:>			214		3,901		528		



Additional details for the analysis are shown in the appendix (Slides 21 and 22)

PERS - Tier III and Tier IV Comparison

Peace Officers/Firefighters

(From Slide# 8)

Hypothetical Salaries			V/S	Actual Salaries as of 2022					
PERS PO/FF	DB Plan	DC Plan	Actual Plan Data (as of 2/1/2023)						
		(Projected ROR=7%)	Comparable Salaries		All Salaries		RoR >= 7% Projection		
Total Service	A: Salary Replacement Ratio	B: Salary Replacement Ratio	Members	C: Salary Replacement Ratio	Members	D: Salary Replacement Ratio	Members	E: Salary Replacement Ratio	
5	9.73%	5.75%	1	4.92%	48	4.90%	1	5.80%	
6	11.68%	7.05%	3	6.16%	87	5.72%	3	7.71%	
7	13.63%	8.40%	2	6.95%	81	6.58%	1	8.69%	
8	15.58%	9.81%	1	7.81%	75	8.08%	7	10.54%	
9	17.52%	11.27%	2	9.80%	67	8.98%	2	11.80%	
10	19.47%	12.80%	4	10.27%	55	10.09%	3	14.49%	
11	21.90%	14.38%	5	12.06%	56	12.21%	8	16.41%	
12	24.34%	16.04%	3	15.14%	51	14.17%	12	17.32%	
13	26.77%	17.76%	1	14.31%	22	14.24%	1	18.12%	
14	29.20%	19.55%	1	18.39%	31	15.19%	2	19.76%	
15	31.64%	21.42%	1	19.08%	65	16.87%	5	22.29%	
16	34.07%	23.37%	2	19.17%	31	16.99%	2	24.78%	
17	36.51%	25.39%	0		3	18.91%	0		
Total Actual Members:>			26		672		47		



Additional details for the analysis are shown in the appendix (Slides 23 and 24)

TRS - Tier II and Tier III Comparison

Teachers

(From Slide# 9)

Hypothetical Salaries			V/S	Actual Salaries as of 2022					
TRS	DB Plan	DC Plan (Projected ROR=7%)		Actual Plan Data (as of 2/1/2023)					
	A: Salary Replacement Ratio	B: Salary Replacement Ratio		Comparable Salaries		All Salaries		RoR >= 7% Projection	
Total Service				Members	C: Salary Replacement Ratio	Members	D: Salary Replacement Ratio	Members	E: Salary Replacement Ratio
5	9.73%	6.64%		2	6.28%	35	5.77%	2	7.44%
6	11.68%	8.13%		14	6.93%	226	6.66%	14	9.22%
7	13.63%	9.69%		28	8.18%	214	7.93%	7	10.92%
8	15.58%	11.31%		21	9.52%	252	9.49%	19	12.45%
9	17.52%	13.00%		18	11.22%	198	10.76%	8	14.21%
10	19.47%	14.76%		25	13.21%	196	12.48%	10	15.91%
11	21.42%	16.60%		22	15.03%	152	14.05%	10	18.12%
12	23.36%	18.51%		15	17.03%	153	15.90%	13	19.58%
13	25.31%	20.49%		8	19.05%	124	17.64%	8	22.46%
14	27.26%	22.56%		16	20.16%	149	19.25%	9	26.26%
15	29.20%	24.72%		15	19.59%	120	19.78%	3	27.09%
16	31.15%	26.96%		19	21.99%	109	21.08%	1	27.36%
17	33.10%	29.30%		12	23.70%	60	22.30%	1	29.89%
Total Actual Members:>				215		1,988		105	



Additional details for the analysis are shown in the appendix (Slides 25 and 26)

Supplemental Annuity Plan

(Supplemental Benefits System (SBS)) - All Other Members

Entry salary:	\$57,949.00	Employee Contributions:	6.13%	Annual Rate of return:	7.00%
Wage Increase Rate:	2.75%	Employer Contributions:	6.13%	Annuity Payout Rate:	5.89%

Hypothetical Salaries	
PERS All Other	SBS (Projected ROR=7%)
	A: Salary Replacement Ratio
Total Service	
5	5.42%
6	6.65%
7	7.92%
8	9.25%
9	10.63%
10	12.07%
11	13.57%
12	15.13%
13	16.75%
14	18.44%
15	20.20%
16	22.04%
17	23.95%

V/S

Actual Salaries as of 2022					
Actual Plan Data (as of 2/1/2023)					
Comparable Salaries		All Salaries		RoR >= 7% Projection	
Members	B: Salary Replacement Ratio	Members	C: Salary Replacement Ratio	Members	D: Salary Replacement Ratio
11	5.25%	170	5.12%	22	6.90%
16	6.71%	248	6.15%	34	9.07%
15	7.39%	232	7.25%	26	11.39%
9	9.89%	249	8.18%	28	11.40%
10	9.99%	253	9.40%	21	13.76%
18	12.12%	260	10.55%	26	15.66%
7	15.19%	217	12.28%	24	17.75%
11	12.92%	209	13.35%	23	17.55%
10	15.22%	145	14.44%	13	19.07%
5	15.22%	136	15.66%	11	22.60%
3	19.29%	125	16.64%	5	24.05%
3	19.42%	82	17.75%	2	24.82%
0		6	18.29%	0	
Total Actual Members:>		2,332		235	

Total Actual Members:>



Supplemental Annuity Plan

(Supplemental Benefits System (SBS)) - Peace Officers/Firefighters

Entry salary:	\$80,435.47	Employee Contributions:	6.13%	Annual Rate of return:	7.00%
Wage Increase Rate:	2.75%	Employer Contributions:	6.13%	Annuity Payout Rate:	5.89%

Hypothetical Salaries	
PERS PO/FF	SBS (Projected ROR=7%)
	A: Salary Replacement Ratio
Total Service	
5	5.42%
6	6.65%
7	7.92%
8	9.25%
9	10.63%
10	12.07%
11	13.57%
12	15.13%
13	16.75%
14	18.44%
15	20.20%
16	22.04%

V/S

Actual Salaries as of 2022					
Actual Plan Data (as of 2/1/2023)					
Comparable Salaries		All Salaries		RoR >= 7% Projection	
	B: Salary Replacement Ratio		C: Salary Replacement Ratio		D: Salary Replacement Ratio
Members	Ratio	Members	Ratio	Members	Ratio
1	5.13%	6	4.75%	1	6.75%
1	6.55%	20	5.16%	1	8.00%
1	6.39%	26	5.65%	0	0.00%
0		24	7.36%	1	10.59%
0		30	7.91%	1	11.41%
4	8.92%	29	9.34%	1	13.75%
4	10.46%	27	9.79%	0	
0		22	11.74%	1	17.94%
1	12.40%	13	12.98%	0	
0		20	12.27%	0	
0		28	13.55%	0	
2	17.04%	20	15.08%	0	
Total Actual Members:>		265		6	



PERS - Tier III and Tier IV Comparison

All Other Members – with Increased Employer Contribution Rates

All Other Members

Entry-Level Hypothetical Salary:	\$57,949.00
Wage Increase Rate:	2.75%
Employee Contributions:	8.00%
Employer Contributions (ER):	5.00%
Annual Rate of return:	7.00%
Normal Retirement Age:	60
Average Life Expectancy:	85
Annuity Payout Rate:	5.89%
Annuity to be Paid For Years:	25.00

6.00%

7.00%

A Total Service	Tier III (DB)		Tier IV (DC)	
	B Projected Last Salary	C: Salary Replacement Ratio (C/B)	D: Projected Account Balance	E: Salary Replacement Ratio
5	64,591.19	9.48%	48,796.36	5.75%
10	73,974.57	18.96%	124,324.60	12.80%
15	84,721.10	29.62%	238,375.48	21.42%
20	97,028.81	40.29%	407,635.78	31.99%
25	111,124.52	52.13%	655,680.92	44.92%
30	127,267.95	63.98%	1,015,772.85	60.77%

w/6% ER Contribution Rate	
F: Projected Account Balance	G: Salary Replacement Ratio
52,549.93	6.19%
133,888.03	13.78%
256,712.05	23.07%
438,992.38	34.45%
706,117.92	48.38%
1,093,909.23	65.44%

w/7% ER Contribution Rate	
H: Projected Account Balance	I: Salary Replacement Ratio
56,303.50	6.64%
143,451.46	14.76%
275,048.63	24.72%
470,348.98	36.91%
756,554.91	51.84%
1,172,045.60	70.12%



PERS - Tier III and Tier IV Comparison

Peace Officers/Firefighters – with Increased Employer Contribution Rates

Peace Officers/Firefighters

Entry-Level Hypothetical Salary:	\$80,435.47
Wage Increase Rate:	2.75%
Employee Contributions:	8.00%
Employer Contributions (ER):	5.00%
Annual Rate of return:	7.00%
Normal Retirement Age:	60
Average Life Expectancy:	85
Annuity Payout Rate:	5.89%
Annuity to be Paid For Years:	25.00

6.00%

7.00%

A Total Service	Tier III (DB)		Tier IV (DC)	
	B Projected Last Salary	C: Salary Replacement Ratio (C/B)	D: Projected Account Balance	F: Salary Replacement Ratio
5	89,655.08	9.73%	67,731.25	5.75%
10	102,679.58	19.47%	172,567.38	12.80%
15	117,596.18	31.64%	330,874.45	21.42%
20	134,679.78	43.81%	565,814.35	31.99%
25	154,245.16	55.97%	910,110.67	44.92%
30	176,652.87	68.14%	1,409,932.30	60.77%

w/6% ER Contribution Rate	
E: Projected Account Balance	G: Salary Replacement Ratio
72,941.35	6.19%
185,841.80	13.78%
356,326.33	23.07%
609,338.53	34.45%
980,119.18	48.38%
1,518,388.63	65.44%

w/7% ER Contribution Rate	
E: Projected Account Balance	G: Salary Replacement Ratio
78,151.45	6.64%
199,116.21	14.76%
381,778.21	24.72%
652,862.71	36.91%
1,050,127.69	51.84%
1,626,844.96	70.12%



TRS - Tier II and Tier III Comparison

Teachers – with Increased Employer Contribution Rates

Teachers

Entry-Level Hypothetical Salary:	\$59,581.00
Wage Increase Rate:	2.75%
Employee Contributions:	8.00%
Employer Contributions (ER):	7.00%
Annual Rate of return:	7.00%
Normal Retirement Age:	60
Average Life Expectancy:	85
Annuity Payout Rate:	5.89%
Annuity to be Paid For Years:	25.00

8.00%

9.00%

A Total Service	Tier II (DB)		Tier III (DC)	
	B Projected Last Salary	C: Salary Replacement Ratio (C/B)	D: Projected Account Balance	F: Salary Replacement Ratio
5	66,410.25	9.73%	57,889.15	6.64%
10	76,057.89	19.47%	147,491.44	14.76%
15	87,107.07	29.20%	282,794.74	24.72%
20	99,761.41	38.94%	483,595.27	36.91%
25	114,254.08	51.11%	777,861.54	51.84%
30	130,852.15	63.28%	1,205,053.56	70.12%

w/8% ER Contribution Rate	
E: Projected Account Balance	G: Salary Replacement Ratio
61,748.43	7.08%
157,324.20	15.75%
301,647.72	26.37%
515,834.96	39.37%
829,718.97	55.29%
1,285,390.47	74.79%

w/9% ER Contribution Rate	
E: Projected Account Balance	G: Salary Replacement Ratio
65,607.71	7.52%
167,156.96	16.73%
320,500.70	28.01%
548,074.64	41.83%
881,576.41	58.75%
1,365,727.37	79.47%



Department of Administration
Championing improvement in the State's performance and results.



For more information, please contact Ken Truitt at Ken.Truitt@alaska.gov

Appendix

PERS - Tier III and Tier IV Comparison

All Other Members

All Other Members			Tier III (DB)	Tier IV (DC)			Actual Data: Actual Salary Comparable to the Projected Salary				
A Total Service	B Projected Last Salary	C Total Annual Benefit	D: Salary Replacement Ratio (C/B)	E: Projected Account Balance	F Converted to Annuity	G: Salary Replacement Ratio (F/B)	H Comparable Members	I Average Salary	J: Average Account Balance	K Converted to Annuity	L: Salary Replacement Ratio (K/I)
5	64,591.19	6,122.51	9.48%	48,796.36	3,715.24	5.75%	23	65,116.01	45,272.45	3,446.93	5.29%
6	66,367.45	7,549.05	11.37%	61,443.82	4,678.18	7.05%	25	67,048.29	57,465.66	4,375.30	6.53%
7	68,192.55	9,049.42	13.27%	75,230.47	5,727.87	8.40%	28	68,874.04	69,154.37	5,265.25	7.65%
8	70,067.84	10,626.61	15.17%	90,243.04	6,870.89	9.81%	24	70,540.70	86,541.24	6,589.04	9.34%
9	71,994.71	12,283.69	17.06%	106,574.52	8,114.33	11.27%	21	72,641.54	92,598.37	7,050.22	9.71%
10	73,974.57	14,023.88	18.96%	124,324.60	9,465.77	12.80%	28	74,436.68	114,198.07	8,694.77	11.68%
11	76,008.87	16,030.61	21.09%	143,600.15	10,933.37	14.38%	10	76,765.33	136,959.90	10,427.80	13.58%
12	78,099.11	18,137.11	23.22%	164,515.75	12,525.83	16.04%	18	78,435.55	143,810.75	10,949.40	13.96%
13	80,246.84	20,347.34	25.36%	187,194.18	14,252.51	17.76%	12	80,806.76	173,991.22	13,247.27	16.40%
14	82,453.62	22,665.41	27.49%	211,767.08	16,123.43	19.55%	10	83,100.55	182,251.30	13,876.17	16.69%
15	84,721.10	25,095.60	29.62%	238,375.48	18,149.33	21.42%	10	85,371.71	215,363.03	16,397.22	19.22%
16	87,050.93	27,642.30	31.75%	267,170.54	20,341.72	23.37%	5	87,888.48	232,295.65	17,686.43	20.11%
17	89,444.83	30,310.09	33.89%	298,314.26	22,712.93	25.39%	214				
18	91,904.56	33,103.70	36.02%	331,980.18	25,276.17	27.50%					
19	94,431.94	36,028.04	38.15%	368,354.28	28,045.60	29.70%					
20	97,028.81	39,088.19	40.29%	407,635.78	31,036.40	31.99%					
21	99,697.11	42,525.65	42.65%	450,038.16	34,264.82	34.37%					
22	102,438.78	46,122.61	45.02%	495,790.06	37,748.26	36.85%					
23	105,255.84	49,885.25	47.39%	545,136.45	41,505.37	39.43%					
24	108,150.38	53,819.95	49.76%	598,339.72	45,556.14	42.12%					
25	111,124.52	57,933.33	52.13%	655,680.92	49,921.96	44.92%					
26	114,180.44	62,232.24	54.50%	717,461.09	54,625.75	47.84%					
27	117,320.40	66,723.79	56.87%	784,002.63	59,692.07	50.88%					
28	120,546.71	71,415.31	59.24%	855,650.86	65,147.19	54.04%					
29	123,861.75	76,314.40	61.61%	932,775.59	71,019.28	57.34%					
30	127,267.95	81,428.93	63.98%	1,015,772.85	77,338.49	60.77%					

Actual Plan Data Criteria:

Actual Account Balance equal to or greater than the account balance projected with a 0.0% Rate of Return.



Additional details for the analysis are summarized in slides 7 and 11

PERS - Tier III and Tier IV Comparison

All Other Members

All Other Members			Tier III (DB)	Tier IV (DC)			Actual Data: All Salary Ranges					ROR >= Projected 7%		
A	B	C	D: Salary Replacement Ratio	E: Projected Account Balance	F: Converted to Annuity	G: Salary Replacement Ratio	H: Comparable Members	I: Average Salary	J: Average Account Balance	K: Converted to Annuity	L: Salary Replacement Ratio	M: Comparable Members	N: Salary Replacement Ratio	
5	64,591.19	6,122.51	9.48%	48,796.36	3,715.24	5.75%	296	86,414.84	59,613.98	4,538.86	5.27%	48	6.44%	
6	66,367.45	7,549.05	11.37%	61,443.82	4,678.18	7.05%	480	92,209.97	74,896.62	5,702.45	6.22%	53	8.46%	
7	68,192.55	9,049.42	13.27%	75,230.47	5,727.87	8.40%	445	95,402.85	92,105.37	7,012.68	7.39%	56	9.22%	
8	70,067.84	10,626.61	15.17%	90,243.04	6,870.89	9.81%	448	93,472.85	106,670.37	8,121.62	8.73%	59	11.46%	
9	71,994.71	12,283.69	17.06%	106,574.52	8,114.33	11.27%	419	99,908.16	128,763.72	9,803.76	9.91%	56	12.42%	
10	73,974.57	14,023.88	18.96%	124,324.60	9,465.77	12.80%	402	98,959.12	142,854.59	10,876.60	11.06%	56	13.97%	
11	76,008.87	16,030.61	21.09%	143,600.15	10,933.37	14.38%	324	104,268.99	175,366.40	13,351.97	12.84%	47	16.21%	
12	78,099.11	18,137.11	23.22%	164,515.75	12,525.83	16.04%	303	104,150.46	194,166.25	14,783.35	14.25%	55	17.63%	
13	80,246.84	20,347.34	25.36%	187,194.18	14,252.51	17.76%	215	105,463.68	217,306.63	16,545.20	15.80%	42	19.28%	
14	82,453.62	22,665.41	27.49%	211,767.08	16,123.43	19.55%	214	106,397.85	232,111.54	17,672.41	16.65%	27	21.20%	
15	84,721.10	25,095.60	29.62%	238,375.48	18,149.33	21.42%	207	110,570.63	259,354.83	19,746.65	17.96%	20	23.55%	
16	87,050.93	27,642.30	31.75%	267,170.54	20,341.72	23.37%	138	117,612.90	284,519.83	21,662.65	18.67%	8	25.84%	
17	89,444.83	30,310.09	33.89%	298,314.26	22,712.93	25.39%	10	101,900.74	281,277.86	21,415.82	20.98%	1	25.99%	
							3,901							



Additional details for the analysis are summarized in slides 7 and 11

PERS - Tier III and Tier IV Comparison

Peace Officers/Firefighters

Peace Officers/Firefighters			Tier III (DB)	Tier IV (DC)			Actual Data: Actual Salary Comparable to the Projected Salary				
A Total Service	B Projected Last Salary	C Total Annual Benefit	D: Salary Replacement Ratio (C/B)	E: Projected Account Balance	F Converted to Annuity	G: Salary Replacement Ratio (F/B)	H Comparable Members	I Average Salary	J: Average Account Balance	K Converted to Annuity	L: Salary Replacement Ratio (K/I)
5	89,655.08	8,727.70	9.73%	67,731.25	5,156.89	5.75%	1	89,909.98	58,058.31	4,420.42	4.92%
6	92,120.60	10,761.25	11.68%	85,286.42	6,493.50	7.05%	3	93,163.80	75,325.80	5,735.12	6.16%
7	94,653.92	12,900.05	13.63%	104,422.82	7,950.50	8.40%	2	94,597.90	86,349.39	6,574.43	6.95%
8	97,256.90	15,148.34	15.58%	125,260.86	9,537.06	9.81%	1	98,699.44	101,292.61	7,712.17	7.81%
9	99,931.46	17,510.54	17.52%	147,929.58	11,263.00	11.27%	2	101,241.49	130,348.56	9,924.42	9.80%
10	102,679.58	19,991.20	19.47%	172,567.38	13,138.86	12.80%	4	102,958.36	138,919.46	10,576.99	10.27%
11	105,503.27	23,108.57	21.90%	199,322.61	15,175.94	14.38%	5	105,963.81	167,905.74	12,783.94	12.06%
12	108,404.61	26,382.29	24.34%	228,354.27	17,386.34	16.04%	3	108,569.74	215,881.34	16,436.68	15.14%
13	111,385.73	29,818.58	26.77%	259,832.82	19,783.04	17.76%	1	111,108.26	208,873.02	15,903.09	14.31%
14	114,448.84	33,423.92	29.20%	293,940.95	22,379.95	19.55%	1	115,343.86	278,555.62	21,208.55	18.39%
15	117,596.18	37,205.00	31.64%	330,874.45	25,191.98	21.42%	1	117,846.64	295,382.17	22,489.68	19.08%
16	120,830.08	41,168.76	34.07%	370,843.13	28,235.10	23.37%	2	121,830.88	306,719.17	23,352.86	19.17%
17	124,152.91	45,322.40	36.51%	414,071.81	31,526.43	25.39%	26				
18	127,567.11	49,673.35	38.94%	460,801.43	35,084.31	27.50%					
19	131,075.21	54,229.32	41.37%	511,290.09	38,928.39	29.70%					
20	134,679.78	58,998.31	43.81%	565,814.35	43,079.74	31.99%					
21	138,383.47	63,988.59	46.24%	624,670.50	47,560.90	34.37%					
22	142,189.01	69,208.71	48.67%	688,175.92	52,396.05	36.85%					
23	146,099.21	74,667.55	51.11%	756,670.64	57,611.07	39.43%					
24	150,116.94	80,374.28	53.54%	830,518.85	63,233.70	42.12%					
25	154,245.16	86,338.42	55.97%	910,110.67	69,293.63	44.92%					
26	158,486.90	92,569.80	58.41%	995,863.94	75,822.67	47.84%					
27	162,845.29	99,078.61	60.84%	1,088,226.20	82,854.91	50.88%					
28	167,323.53	105,875.41	63.28%	1,187,676.74	90,426.84	54.04%					
29	171,924.93	112,971.09	65.71%	1,294,728.87	98,577.53	57.34%					
30	176,652.87	120,376.98	68.14%	1,409,932.30	107,348.84	60.77%					

Actual Plan Data Criteria:
Actual Account Balance equal to or greater than the account balance projected with a 0.0% Rate of Return.



Additional details for the analysis are summarized in slides 8 and 12

PERS - Tier III and Tier IV Comparison

Peace Officers/Firefighters

Peace Officers/Firefighters			Tier III (DB)	Tier IV (DC)			Actual Data: All Salary Ranges					ROR >= Projected 7%	
A Total Service	B Projected Last Salary	C Total Annual Benefit	D: Salary Replacement Ratio	E Account Balance	F Converted to Annuity	G: Salary Replacement Ratio	H Comparable Members	I Average Salary	J: Average Account Balance	K Converted to Annuity	L: Salary Replacement Ratio	M Comparable Members	N: Salary Replacement Ratio
5	89,655.08	8,727.70	9.73%	67,731.25	5,156.89	5.75%	48	115,478.99	74,024.35	5,636.04	4.90%	1	5.80%
6	92,120.60	10,761.25	11.68%	85,286.42	6,493.50	7.05%	87	118,316.34	88,222.44	6,717.04	5.72%	3	7.71%
7	94,653.92	12,900.05	13.63%	104,422.82	7,950.50	8.40%	81	122,608.58	105,023.55	7,996.24	6.58%	1	8.69%
8	97,256.90	15,148.34	15.58%	125,260.86	9,537.06	9.81%	75	129,587.02	136,467.98	10,390.34	8.08%	7	10.54%
9	99,931.46	17,510.54	17.52%	147,929.58	11,263.00	11.27%	67	127,405.47	149,720.98	11,399.39	8.98%	2	11.80%
10	102,679.58	19,991.20	19.47%	172,567.38	13,138.86	12.80%	55	130,833.91	171,910.68	13,088.86	10.09%	3	14.49%
11	105,503.27	23,108.57	21.90%	199,322.61	15,175.94	14.38%	56	129,195.96	205,239.91	15,626.47	12.21%	8	16.41%
12	108,404.61	26,382.29	24.34%	228,354.27	17,386.34	16.04%	51	138,898.84	256,271.47	19,511.89	14.17%	12	17.32%
13	111,385.73	29,818.58	26.77%	259,832.82	19,783.04	17.76%	22	151,077.68	276,238.01	21,032.09	14.24%	1	18.12%
14	114,448.84	33,423.92	29.20%	293,940.95	22,379.95	19.55%	31	148,877.99	295,138.42	22,471.13	15.19%	2	19.76%
15	117,596.18	37,205.00	31.64%	330,874.45	25,191.98	21.42%	65	156,287.95	342,925.07	26,109.49	16.87%	5	22.29%
16	120,830.08	41,168.76	34.07%	370,843.13	28,235.10	23.37%	31	148,240.38	324,642.92	24,717.53	16.99%	2	24.78%
17	124,152.91	45,322.40	36.51%	414,071.81	31,526.43	25.39%	3	131,905.02	327,295.60	24,919.50	18.91%	0	

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Additional details for the analysis are summarized in slides 8 and 12

TRS - Tier II and Tier III Comparison

Teachers

Teachers			Tier II (DB)	Tier III (DC)			Actual Data: Actual Salary Comparable to the Projected Salary				
A Total Service	B Projected Last Salary	C Total Annual Benefit	D: Salary Replacement Ratio (C/B)	E: Projected Account Balance	F Converted to Annuity	G: Salary Replacement Ratio (F/B)	H Comparable Members	I Average Salary	J: Average Account Balance	K Converted to Annuity	L: Salary Replacement Ratio (K/I)
5	66,410.25	6,464.87	9.73%	57,889.15	4,407.54	6.64%	2	67,157.76	55,408.61	4,218.68	6.28%
6	68,236.53	7,971.19	11.68%	72,893.36	5,549.92	8.13%	14	68,877.75	62,652.48	4,770.21	6.93%
7	70,113.04	9,555.46	13.63%	89,249.03	6,795.21	9.69%	28	70,390.90	75,638.05	5,758.90	8.18%
8	72,041.14	11,220.84	15.58%	107,059.07	8,151.22	11.31%	21	72,252.65	90,321.24	6,876.84	9.52%
9	74,022.28	12,970.59	17.52%	126,433.78	9,626.36	13.00%	18	74,560.38	109,932.02	8,369.96	11.22%
10	76,057.89	14,808.09	19.47%	147,491.44	11,229.64	14.76%	25	76,769.50	133,191.49	10,140.88	13.21%
11	78,149.48	16,736.84	21.42%	170,358.83	12,970.71	16.60%	22	78,559.57	155,162.03	11,813.66	15.03%
12	80,298.59	18,760.48	23.36%	195,171.87	14,859.91	18.51%	15	80,927.67	181,008.57	13,781.56	17.03%
13	82,506.80	20,882.76	25.31%	222,076.24	16,908.35	20.49%	8	83,126.52	207,835.54	15,824.10	19.05%
14	84,775.74	23,107.57	27.26%	251,228.09	19,127.90	22.56%	16	85,364.73	225,955.31	17,203.69	20.16%
15	87,107.07	25,438.96	29.20%	282,794.74	21,531.31	24.72%	15	87,587.85	225,317.97	17,155.17	19.59%
16	89,502.52	27,881.10	31.15%	316,955.52	24,132.23	26.96%	19	89,983.12	259,874.96	19,786.25	21.99%
17	91,963.84	30,438.32	33.10%	353,902.61	26,945.29	29.30%	12	92,161.56	286,894.59	21,843.46	23.70%
18	94,492.84	33,115.10	35.05%	393,841.89	29,986.17	31.73%	215				
19	97,091.39	35,916.09	36.99%	436,993.99	33,271.67	34.27%	<div style="border: 1px solid black; padding: 10px;"> <p><u>Actual Plan Data Criteria:</u></p> <p>Actual Account Balance equal to or greater than the account balance projected with a 0.0% Rate of Return.</p> </div>				
20	99,761.41	38,846.09	38.94%	483,595.27	36,819.78	36.91%					
21	102,504.85	42,409.00	41.37%	533,898.97	40,649.78	39.66%					
22	105,323.73	46,138.50	43.81%	588,176.36	44,782.33	42.52%					
23	108,220.13	50,041.05	46.24%	646,718.04	49,239.55	45.50%					
24	111,196.19	54,123.34	48.67%	709,835.29	54,045.14	48.60%					
25	114,254.08	58,392.32	51.11%	777,861.54	59,224.50	51.84%					
26	117,396.07	62,855.16	53.54%	851,153.91	64,804.80	55.20%					
27	120,624.46	67,519.30	55.97%	930,094.91	70,815.18	58.71%					
28	123,941.63	72,392.43	58.41%	1,015,094.19	77,286.82	62.36%					
29	127,350.03	77,482.53	60.84%	1,106,590.46	84,253.12	66.16%					
30	130,852.15	82,797.83	63.28%	1,205,053.56	91,749.87	70.12%					



Additional details for the analysis are summarized in slides 9 and 13

TRS - Tier II and Tier III Comparison

Teachers

Teachers				Tier II (DB)			Tier III (DC)			Actual Data: All Salary Ranges					ROR >= Projected 7%	
A	B	C	D: Salary	E: Projected	F	G: Salary	H	I	J: Average	K	L: Salary	M	N: Salary			
Total Service	Projected Last Salary	Total Annual Benefit	Replacement Ratio	Account Balance	Converted to Annuity	Replacement Ratio	Comparable Members	Average Salary	Account Balance	Converted to Annuity	Replacement Ratio	Comparable Members	Replacement Ratio			
5	66,410.25	6,464.87	9.73%	57,889.15	4,407.54	6.64%	35	84,208.71	63,492.15	4,834.14	5.77%	2	7.44%			
6	68,236.53	7,971.19	11.68%	72,893.36	5,549.92	8.13%	226	83,043.33	72,303.66	5,505.03	6.66%	14	9.22%			
7	70,113.04	9,555.46	13.63%	89,249.03	6,795.21	9.69%	214	84,637.56	87,684.64	6,676.10	7.93%	7	10.92%			
8	72,041.14	11,220.84	15.58%	107,059.07	8,151.22	11.31%	252	84,093.64	104,430.29	7,951.07	9.49%	19	12.45%			
9	74,022.28	12,970.59	17.52%	126,433.78	9,626.36	13.00%	198	87,075.97	122,543.49	9,330.17	10.76%	8	14.21%			
10	76,057.89	14,808.09	19.47%	147,491.44	11,229.64	14.76%	196	87,773.49	143,249.68	10,906.68	12.48%	10	15.91%			
11	78,149.48	16,736.84	21.42%	170,358.83	12,970.71	16.60%	152	91,943.96	168,132.69	12,801.22	14.05%	10	18.12%			
12	80,298.59	18,760.48	23.36%	195,171.87	14,859.91	18.51%	153	93,419.83	194,301.48	14,793.65	15.90%	13	19.58%			
13	82,506.80	20,882.76	25.31%	222,076.24	16,908.35	20.49%	124	96,379.65	222,552.92	16,944.64	17.64%	8	22.46%			
14	84,775.74	23,107.57	27.26%	251,228.09	19,127.90	22.56%	149	97,361.41	244,602.21	18,623.42	19.25%	9	26.26%			
15	87,107.07	25,438.96	29.20%	282,794.74	21,531.31	24.72%	120	98,655.00	255,222.50	19,432.02	19.78%	3	27.09%			
16	89,502.52	27,881.10	31.15%	316,955.52	24,132.23	26.96%	109	100,986.20	278,865.59	21,232.15	21.08%	1	27.36%			
17	91,963.84	30,438.32	33.10%	353,902.61	26,945.29	29.30%	60	105,492.42	306,805.64	23,359.44	22.30%	1	29.89%			

1,988



Additional details for the analysis are summarized in slides 9 and 13

Supplemental Annuity Plan

(Supplemental Benefits System (SBS)) - All Other Members

SBS Annuity Plan - All Other Members			
A Total Service	B Projected Last Salary	E: Projected SBS Balance	F Converted to Annuity
5	64,591.19	46,018.72	3,503.75
6	66,367.45	57,946.25	4,411.89
7	68,192.55	70,948.12	5,401.82
8	70,067.84	85,106.13	6,479.78
9	71,994.71	100,507.97	7,652.43
10	73,974.57	117,247.66	8,926.95
11	76,008.87	135,425.99	10,311.01
12	78,099.11	155,151.01	11,812.82
13	80,246.84	176,538.52	13,441.22
14	82,453.62	199,712.64	15,205.64
15	84,721.10	224,806.41	17,116.22
16	87,050.93	251,962.37	19,183.81
17	89,444.83	281,333.29	21,420.04
18	91,904.56	313,082.85	23,837.37
19	94,431.94	347,386.42	26,449.16
20	97,028.81	384,431.90	29,269.72
21	99,697.11	424,420.60	32,314.36
22	102,438.78	467,568.16	35,599.51
23	105,255.84	514,105.61	39,142.76
24	108,150.38	564,280.38	42,962.95
25	111,124.52	618,357.55	47,080.25
26	114,180.44	676,620.99	51,516.29
27	117,320.40	739,374.79	56,294.21
28	120,546.71	806,944.58	61,438.81
29	123,861.75	879,679.13	66,976.64
30	127,267.95	957,951.94	72,936.15

G: Salary Replacement Ratio	Actual Data: Actual Salary Comparable to the Projected Salary				
	H Comparable Members	I Average Salary	J Average SBS Balance	K Converted to Annuity	L: Salary Replacement Ratio
5.42%	11	\$65,273.07	\$44,969.90	\$3,423.90	5.25%
6.65%	16	\$66,886.78	\$58,957.79	\$4,488.90	6.71%
7.92%	15	\$69,001.20	\$66,957.80	\$5,098.00	7.39%
9.25%	9	\$70,549.73	\$91,574.56	\$6,972.27	9.89%
10.63%	10	\$72,641.42	\$95,315.85	\$7,257.12	9.99%
12.07%	18	\$74,444.51	\$118,547.36	\$9,025.91	12.12%
13.57%	7	\$76,640.11	\$152,970.99	\$11,646.84	15.19%
15.13%	11	\$78,351.18	\$132,969.15	\$10,123.95	12.92%
16.75%	10	\$80,737.44	\$161,331.32	\$12,283.38	15.22%
18.44%	5	\$82,829.85	\$165,606.17	\$12,608.85	15.22%
20.20%	3	\$85,349.72	\$215,963.37	\$16,442.93	19.29%
22.04%	3	\$87,983.41	\$224,545.08	\$17,096.32	19.42%
23.95%	118				
25.94%					
28.01%					
30.17%					
32.41%					
34.75%					
37.19%					
39.73%					
42.37%					
45.12%					
47.98%					
50.97%					
54.07%					
57.31%					



Supplemental Annuity Plan

(Supplemental Benefits System (SBS)) - All Other Members

SBS Annuity Plan - All Other Members				G: Salary Replacement Ratio	H	I	J: Average Account Balance	K	L: Salary Replacement Ratio	M	N: Salary Replacement Ratio
A	B	E	F		Comparable Members					Comparable Members	Comparable Members
Total Service	Projected Last Salary	Account Balance	Converted to Annuity			Average Salary	Converted to Annuity				
5	64,591.19	46,018.72	3,503.75	5.42%	170	86,878.15	58,017.13	4,417.28	5.12%	22	6.90%
6	66,367.45	57,946.25	4,411.89	6.65%	248	89,918.57	71,563.30	5,448.66	6.15%	34	9.07%
7	68,192.55	70,948.12	5,401.82	7.92%	232	97,083.92	91,064.39	6,933.42	7.25%	26	11.39%
8	70,067.84	85,106.13	6,479.78	9.25%	249	95,198.64	101,250.47	7,708.97	8.18%	28	11.40%
9	71,994.71	100,507.97	7,652.43	10.63%	253	99,608.11	120,069.46	9,141.80	9.40%	21	13.76%
10	73,974.57	117,247.66	8,926.95	12.07%	260	100,944.28	136,761.38	10,412.68	10.55%	26	15.66%
11	76,008.87	135,425.99	10,311.01	13.57%	217	105,245.81	166,470.09	12,674.63	12.28%	24	17.75%
12	78,099.11	155,151.01	11,812.82	15.13%	209	104,540.30	182,170.66	13,870.03	13.35%	23	17.55%
13	80,246.84	176,538.52	13,441.22	16.75%	145	106,606.25	200,277.80	15,248.67	14.44%	13	19.07%
14	82,453.62	199,712.64	15,205.64	18.44%	136	107,853.91	220,778.08	16,809.51	15.66%	11	22.60%
15	84,721.10	224,806.41	17,116.22	20.20%	125	112,748.37	243,892.19	18,569.36	16.64%	5	24.05%
16	87,050.93	251,962.37	19,183.81	22.04%	82	119,791.64	271,592.89	20,678.43	17.75%	2	24.82%
17	89,444.83	281,333.29	21,420.04	23.95%	6	101,254.32	241,888.92	18,416.84	18.29%	0	
					2,332						



Supplemental Annuity Plan

(Supplemental Benefits System (SBS)) – Peace Officers/Firefighters

SBS Annuity Plan - Peace Officers/Firefighters			
A Total Service	B Projected Last Salary	E SBS Balance	F Converted to Annuity
5	89,655.08	63,875.78	4,863.35
6	92,120.60	80,431.65	6,123.87
7	94,653.92	98,478.76	7,497.93
8	97,256.90	118,130.62	8,994.18
9	99,931.46	139,508.98	10,621.88
10	102,679.58	162,744.32	12,390.96
11	105,503.27	187,976.55	14,312.08
12	108,404.61	215,355.64	16,396.66
13	111,385.73	245,042.34	18,656.93
14	114,448.84	277,208.93	21,106.02
15	117,596.18	312,040.06	23,757.98
16	120,830.08	349,733.59	26,627.87
17	124,152.91	390,501.57	29,731.85
18	127,567.11	434,571.19	33,087.20
19	131,075.21	482,185.88	36,712.47
20	134,679.78	533,606.46	40,627.51
21	138,383.47	589,112.33	44,853.59
22	142,189.01	649,002.83	49,413.51
23	146,099.21	713,598.62	54,331.67
24	150,116.94	783,243.16	59,634.24
25	154,245.16	858,304.37	65,349.22
26	158,486.90	939,176.30	71,506.61
27	162,845.29	1,026,281.02	78,138.56
28	167,323.53	1,120,070.52	85,279.46
29	171,924.93	1,221,028.92	92,966.19
30	176,652.87	1,329,674.62	101,238.21

Actual Data: Actual Salary Comparable to the Projected Salary					
G: Salary Replacement Ratio	H Comparable Members	I Average Salary	J Average SBS Balance	K Converted to Annuity	L: Salary Replacement Ratio
5.42%	1	\$89,909.98	\$60,522.63	\$4,608.05	5.13%
6.65%	1	\$92,752.10	\$79,745.98	\$6,071.67	6.55%
7.92%	1	\$94,672.02	\$79,418.01	\$6,046.70	6.39%
9.25%					
10.63%					
12.07%	4	\$102,958.36	\$120,647.82	\$9,185.83	8.92%
13.57%	4	\$106,071.36	\$145,720.18	\$11,094.78	10.46%
15.13%					
16.75%	1	\$111,108.26	\$180,979.90	\$13,779.37	12.40%
18.44%					
20.20%					
22.04%	2	\$121,830.88	\$272,692.89	\$20,762.18	17.04%
23.95%	14				
25.94%					
28.01%					
30.17%					
32.41%					
34.75%					
37.19%					
39.73%					
42.37%					
45.12%					
47.98%					
50.97%					
54.07%					
57.31%					



Supplemental Annuity Plan

(Supplemental Benefits System (SBS)) – Peace Officers/Firefighters

SBS Annuity Plan - Peace Officers/Firefighters				Actual Data: All Salary Ranges						ROR >= Projected 7%	
A Total Service	B Projected Last Salary	E Account Balance	F Converted to Annuity	G: Salary Replacement Ratio	H Comparable Members	I Average Salary	J: Average Account Balance	K Converted to Annuity	L: Salary Replacement Ratio	M Comparable Members	N: Salary Replacement Ratio
5	89,655.08	63,875.78	4,863.35	5.42%	6	115,618.66	72,664.51	5,532.50	4.75%	1	6.75%
6	92,120.60	80,431.65	6,123.87	6.65%	20	130,755.22	86,158.17	6,559.88	5.16%	1	8.00%
7	94,653.92	98,478.76	7,497.93	7.92%	26	127,982.19	93,597.80	7,126.31	5.65%	0	
8	97,256.90	118,130.62	8,994.18	9.25%	24	128,762.85	124,050.47	9,444.90	7.36%	1	10.59%
9	99,931.46	139,508.98	10,621.88	10.63%	30	128,317.79	132,015.88	10,051.37	7.91%	1	11.41%
10	102,679.58	162,744.32	12,390.96	12.07%	29	128,674.66	156,564.62	11,920.45	9.34%	1	13.75%
11	105,503.27	187,976.55	14,312.08	13.57%	27	128,026.02	161,797.96	12,318.91	9.79%	0	
12	108,404.61	215,355.64	16,396.66	15.13%	22	146,163.32	224,440.67	17,088.37	11.74%	1	17.94%
13	111,385.73	245,042.34	18,656.93	16.75%	13	151,128.43	255,758.26	19,472.82	12.98%	0	
14	114,448.84	277,208.93	21,106.02	18.44%	20	155,287.49	243,869.14	18,567.61	12.27%	0	
15	117,596.18	312,040.06	23,757.98	20.20%	28	162,010.36	286,762.58	21,833.41	13.55%	0	
16	120,830.08	349,733.59	26,627.87	22.04%	20	150,469.49	291,832.85	22,219.45	15.08%	0	
17	124,152.91	390,501.57	29,731.85	23.95%	2	128,600.34	309,171.23	23,539.55	18.30%	0	

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**Charter of the Defined Contribution Plan Committee
of the Board of Trustees of
the Alaska Retirement Management Board (ARMB)**

I. Committee Purpose.

The Committee has the authority to research, review and recommend policies and procedures that it believes may be beneficial to the members of the retirement systems, or that represent best practices, or that result in efficient administration of the defined contribution plan for public employee members and teachers. The Committee may request assistance from staff at the Departments of Revenue and Administration, and through the board chair, from the state actuary. The Committee makes recommendations to the board; it does not have authority to act on behalf of the board.

II. Committee Members.

The Committee consists of at least three Trustees, who have expressed a willingness to serve on the Committee and have been duly appointed by the Chair.

III. Committee Meetings.

The Committee shall meet as frequently as circumstances dictate. The Committee Chair shall prepare and/or approve an agenda in advance of each meeting. The Committee shall maintain minutes of Committee meetings and periodically report to the ARMB on significant results of the Committee's activities.

IV. Committee Responsibilities and Duties.

The Committee shall carry out the following responsibilities:

1. Review and assess the adequacy of this Charter at least annually and submit recommended changes to it to the Board of Trustees for approval.
2. In consultation with staff, the chief investment officer, the director of the division of retirement and benefits, consultants and other experts, consider and review such defined contribution plan proposals or policies as may from time to time come before it and make appropriate recommendations for action to the board of trustees.
3. Periodically perform self-assessment of the Committee's performance.