

How ASRS employees deliver service with



PROFESSIONALISM

"We promote, strive for and expect individuals, teams, and divisions to possess professional qualities and skills to lead the organization"

- Friendly, respectful and courteous
- Proactive and responsive
- Good communicator / active listener
- Trusted contributor / teammate
- Personally accountable
- Subject matter expert
- Critical thinker
- Honest, fair, non-judgmental
- Adaptable to change
- Adhere to the Code of Conduct

RESULTS

"We treasure the achievements of individuals, teams, divisions and the agency that energize the organization"

- Completes projects
- Attains individual accomplishments
- Meets goals and objectives
- Satisfies customers
- Produces quality work products
- Manages risks successful

IMPROVEMENT

"We appreciate individuals, teams or divisions who drive the agency forward with new, innovative ideas and solutions"

- Promotes new ideas
- Enhances morale
- Enhances outcomes and performance
- Improves relationships
- Solves problems
- Increases efficiency effectiveness or reduces costs

DIVERSITY

"We recognize that utilizing different talents, strengths and points of view, strengthens the agency and helps propel outcomes greater than the sum of individual contributor"

- Encourages the free flow of ideas and opinions
- Treats all people with dignity and respect
- Works effectively with dissimilar individuals
- Recognizes and promotes new skills in others

EXCELLENCE

"We celebrate individuals, teams and divisions who exceed expectations and deliver service with a PRIDE that permeates the organization"

- Surpasses expectations
- Engenders a positive public image
- Celebrates /rewards accomplishments and contributions of others
- Embraces change in a manner which inspires others
- Promotes teamwork /collaboration through communication
- Accepts personal responsibility and challenges with enthusiasm



ARIZONA STATE RETIREMENT SYSTEM



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

AGENDA

NOTICE OF COMBINED PUBLIC MEETING AND POSSIBLE EXECUTIVE SESSION OF THE ARIZONA STATE RETIREMENT SYSTEM BOARD

3300 North Central Avenue, 10th Floor Board Room
Phoenix, AZ 85012

January 31, 2020
8:30 a.m.

Pursuant to A.R.S. § 38-431.02(F), notice is hereby given to the Trustees of the Arizona State Retirement System (ASRS) Board and to the general public that the ASRS Board will hold a meeting open to the public on Friday, January 31, 2020, beginning at 8:30 a.m., in the 10th Floor Board Room of the ASRS offices at 3300 N. Central Avenue, Phoenix, Arizona 85012. Trustees of the Board may attend either in person or by telephone conference call.

The Chair may take public comment during any agenda item. If any member of the public wishes to speak to a particular agenda item, they should complete a "Request To Speak" form indicating the item and provide it to the Board Administrator.

Pursuant to A.R.S. § 38-431.03(A)(3), the ASRS Board of Trustees may vote to go into executive session, which will not be open to the public, for the purpose of obtaining legal advice on any item on the Agenda.

This meeting will be teleconferenced to the ASRS Tucson office at 4400 East Broadway Boulevard, Suite 200, Tucson, Arizona 85711. The conference call to Tucson will be disconnected after 15 minutes if there are no attendees in the Tucson audience.

The Agenda for the meeting is as follows:

1. Call to Order; Roll Call; Opening Remarks..... Mr. Jim Hillyard
Chair
2. Approval of the Minutes of the November 15, 2019 Public Meeting of the ASRS Board (*estimated time: 1 minute*) Mr. Jim Hillyard
3. Presentation of the 2019 Annual PRIDE Recognition Award Recipients: Professionalism, Results, Improvement, Diversity, Excellence (*estimated time: 15 minutes*) Mr. Paul Matson
Director
..... Mr. Anthony Guarino
Deputy Director and Chief Operations Officer
4. Presentation, Discussion, and Appropriate Action Regarding the ASRS 2020 Legislative Initiatives and Legislative Update (*estimated time: 15 minutes*) Mr. Paul Matson
..... Ms. Jessica Thomas
Government Relations Officer

5. Presentation, Discussion, and Appropriate Action Regarding the ASRS Investment Program Update

- a. ASRS Fund Positioning
- b. IMD Investment House Views
- c. IMD Projects, and Asset Class Committee (ACC) Activities
(estimated time: 20 minutes) Mr. Paul Matson
..... Mr. Karl Polen
Chief Investment Officer

6. Presentation, Discussion, and Appropriate Action Regarding the Director's Report as well as Current Events

- a. 2020 Operations Report
- b. 2020 Budget and Staffing Reports
- c. 2020 Cash Flow Statements
- d. 2020 Appeals Report
- e. 2020 Employers Reporting
(estimated time: 5 minutes) Mr. Paul Matson
..... Mr. Anthony Guarino

7. Presentation and Discussion Regarding Informational Updates from Prior and Upcoming Committee Meetings (estimated time: 15 minutes)

- a. Operations, Audit and Legislative Committee (OALC) Mr. Clark Partridge, Chair
..... Mr. Anthony Guarino
The next OALC Meeting will be held on April 8, 2020.
- b. Investment Committee (IC) Mr. Michael Lofton, Chair
..... Mr. Karl Polen
The next IC Meeting is scheduled for March 16, 2020.
- c. Appeals Committee (AC)..... Mr. Michael Miller, Chair
..... Mr. Anthony Guarino
The next AC Meeting is scheduled for February 11, 2020.

8. Board Requests for Future Agenda Items (estimated time: 1 minute)..... Mr. Jim Hillyard

9. Call to the Public..... Mr. Jim Hillyard

Those wishing to address the ASRS Board are required to complete a Request to Speak form before the meeting indicating their desire to speak. Request to Speak forms are available at the sign-in desk and should be given to the Board Administrator. Trustees of the Board are prohibited by A.R.S. § 38-431.01(H) from discussing or taking legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action. As a result of public comment, the Board may direct staff to study and/or reschedule the matter for discussion and decision at a later date.

10. The next regular public ASRS Board meeting is scheduled for Friday, March 29, 2020, at 8:30 a.m., at 3300 N. Central Avenue, in the 10th Floor Board Room, Phoenix, Arizona.

The Board will take a 15-minute recess while the meeting moves to the 14th floor conference room, where the balance of the meeting will take place.

Regarding the following agenda item, pursuant to A.R.S. § 38-431.03(A)(2), notice is hereby given to Trustees of the ASRS Board and the general public that the ASRS Board may vote to go into executive session, which will not be open to the public, for the purpose of discussion or consideration of records exempt by law from public inspection.

11. Presentation, Discussion, and Appropriate Action Regarding ASRS Strategic Plan Updates
(estimated time: 60 minutes) Mr. Paul Matson
..... Mr. Anthony Guarino
..... Ms. Sara Orozco
..... Manager, Strategic Planning and Analysis Team
..... All ASRS Division Assistant Directors
12. Presentation, Discussion, and Appropriate Action Regarding the Board Governance Evaluations
(estimated time: 20 minutes) Mr. Jim Hillyard
- a. Trustees' 2019 Self-Evaluation
 - b. Board 2019 Self-Evaluation
 - c. Key issues in 2019
 - d. Focus areas for 2020

13. Adjournment of the ASRS Board.

A copy of the agenda background material provided to Board Trustees (with the exception of material relating to possible executive sessions) is available for public inspection at the ASRS offices located at 3300 North Central Avenue, 14th Floor, Phoenix, Arizona and 4400 East Broadway Boulevard, Suite 200, Tucson, Arizona. The agenda is subject to revision up to 24 hours prior to meeting. These materials are also available on the ASRS website (<https://www.azasrs.gov/content/board-and-committee-meetings>) approximately 48 hours prior to the meeting.

Persons with disabilities may request a reasonable accommodation such as a sign language interpreter or alternate formats of this document by contacting Tracy Darmer, ADA Coordinator at (602) 240-5378 in Phoenix, at (520) 239-3100, ext. 5378 in Tucson, or 1-800-621-3778, ext. 5378 outside metro Phoenix or Tucson. Requests should be made as early as possible to allow time to arrange the accommodations.

Dated January 24, 2020

ARIZONA STATE RETIREMENT SYSTEM

Signed Copy on File
Joyce Williams
Board Administrator

Signed Copy on File
Paul Matson
Director

Agenda Item #2



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MINUTES PUBLIC MEETING ARIZONA STATE RETIREMENT SYSTEM BOARD

Friday, November 15, 2019
8:30 a.m.

The Arizona State Retirement System (ASRS) Board met in the 10th Floor Board Room of the ASRS Office, 3300 N. Central Avenue, Phoenix, Arizona 85012.

Mr. Jim Hillyard, Chair of the ASRS Board, called the meeting to order at 8:32 a.m.

The meeting was teleconferenced to the ASRS office at 4400 E. Broadway, Tucson, Arizona, 85711.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Jim Hillyard, Chair
Mr. Clark Partridge, Vice-chair
Mr. Rene Guillen (Via teleconference)
Mr. Michael Lofton (Via teleconference)
Mr. Tom Manos
Mr. Michael Miller

Excused: Mr. Kevin McCarthy

Two vacant positions.

A quorum was present for the purpose of conducting business.

2. Approval of the Minutes of the September 27, 2019 Public Meeting of the ASRS Board

Motion: Mr. Tom Manos moved to approve the minutes of the September 27, 2019 Public Meeting of the ASRS Board. Mr. Michael Miller seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

3. Presentation, Discussion, and Appropriate Action Regarding the ASRS Actuarial Valuations

a. The Pension Plan and Health Insurance Valuation

Mr. Paul Matson, Director, summarized the purposes of actuarial valuations and also addressed the Board regarding a clarification to a motion made during the September 27, 2019 Board meeting. The Board had moved to migrate from a 30 year to a 25 year amortization schedule, and today's motion will clarify that the valuation for June 20, 2019 is to be included in the new 25 year schedule.

Mr. Ryan Falls and Mr. Paul Wood of Gabriel, Roeder, Smith and Company (GRS) addressed the Board and summarized the results of the 2019 ASRS valuations. They presented charts summarizing the contribution rates and the funded status. The resulting Plan contribution rate is 12.04% for both the employee and employer, which includes both pension as well as health benefit supplement rates. This represents an increase from the fiscal year 2019 contribution rate of 11.94%. The actuarial value of assets funded status of the Plan as of June 30, 2019 is 72.3%. The market value of assets funded status of the Plan as of June 30, 2019 is 74.0%.

b. The System Valuation

GRS provided information regarding accrued liabilities, market value of assets and funded status for the System. The resulting funded status of the System as of June 30, 2019 is 75.5%.

c. The Long Term Disability (LTD) Valuation

GRS addressed the Board regarding the ASRS LTD Valuation. The resulting contribution rate is 0.18% with the experience study changes phased in, which results in a 0.01% increase from the fiscal year 2020 rate. The actuarial value of assets funded status of the LTD Plan as of June 30, 2019 is 74.8%. The market value of assets funded status of the LTD Plan as of June 30, 2019 is 73.5%.

d. Actuary's Recommendation Regarding 13th Checks for Retired System Members

Based on the results, GRS recommended there will be no addition to the 13th check or supplemental credit balances.

Mr. Falls, Mr. Wood, and Mr. Matson answered questions and provided background on this discussion item.

Motion: Mr. Clark Partridge moved to accept the Actuarial Valuation of the Plan and Health Benefit Supplement program as presented with the resulting contribution rate of 12.04% for each employee and employer and the Alternate Contribution Rate of 10.21% for fiscal year 2020/2021. Mr. Michael Lofton seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

Motion: Mr. Tom Manos moved to clarify that the motion at the September 27, 2019 ASRS Board meeting with respect to the migration to a 25 year amortization period for future experience that impacts new actuarial accrued unfunded liabilities for the pension fund was to begin with any such experience for the year ended June 30, 2019 and therefore is to be included in the June 30, 2019 actuarial valuation. Mr. Michael Miller seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

Motion: Mr. Michael Miller moved to accept the Actuarial Valuation of the System as presented. Mr. Tom Manos seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

Motion: Mr. Clark Partridge moved to accept the Actuarial Valuation of the Long-Term Disability Program as presented with the resulting contribution rate of 0.18% for each employee and employer for fiscal year 2020/2021. Mr. Rene Guillen seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

Motion: Mr. Tom Manos moved to accept the Actuary's recommendation to not provide an increase to the 13th check for Retired System members and no additions to the Supplemental Credit balances of non-retired System members. Mr. Michael Miller seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved

Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

4. Presentation, Discussion, and Appropriate Action Regarding the ASRS' Comprehensive Annual Financial Report (CAFR) for Fiscal Year 2019

Mr. Jason Ostroski, CPA, CliftonLarsonAllen Principal, introduced himself to the Board and spoke on behalf of CliftonLarsonAllen, LLP, the ASRS' external auditor. Mr. Ostroski presented an unmodified Independent Auditor's Opinion for the fiscal year ending June 30, 2019, on the ASRS financial statements that collectively comprise the ASRS' financial statements in the CAFR. Regarding the Independent Auditors' Report on Internal Controls, Mr. Ostroski reported there were no material weaknesses or significant deficiencies identified during the audit. Mr. Ostroski further noted that there were no additions to the requirements and standards of GASB 74. Additionally, Mr. Ostroski noted that the accounting estimates which are focused on alternative investments and actuarial information including the pension and the health plans were determined to be reasonable in relation to the financial statements as a whole.

Mr. Ostroski congratulated the Financial Services Division, noting that even with the challenges of the implementation of the new disbursements system as well as new additions to the team, they enjoyed a very smooth audit and had no issues in dealing with management.

Further, Mr. Ostroski reported no uncorrected misstatements or corrected misstatements, therefore no adjusted journal entries were reported during the audit.

5. Presentation, Discussion, and Appropriate Action Regarding the ASRS 2020 Proposed Legislative Agenda

Ms. Jessica Thomas, Government Relations Officer and Rules Writer, presented three recommended statute amendments to be placed on the 2020 ASRS Legislative Agenda. Ms. Thomas reviewed the following recommendations in detail:

- Amend A.R.S. §§ 38-782(A) and 38-783(F) to clarify how the ASRS may implement a self-insurance program by utilizing the HBS fund for reserves as needed.
- Amend A.R.S. § 38-738 to indicate that the Employer must request a credit and return the employee portion to the employee. Also, amend the statute to indicate that a CNW cannot be completed after death of the member.
- Amend A.R.S. § 38-775 to indicate that the ASRS will treat non-retired members who die after the federally mandated Required Minimum Distribution (RMD) date as if they had retired with a straight life annuity on their RMD date and will distribute survivor benefits accordingly.

Ms. Thomas and Mr. Matson answered questions and provided background on this discussion item.

Motion: Mr. Michael Miller moved to approve the proposed 2020 ASRS Legislative Agenda. Mr. Clark Partridge seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

6. Presentation, Discussion, and Appropriate Action Regarding the ASRS 2020 Proposed Regulatory Agenda and Update on ASRS Rulemaking activities

Ms. Thomas reviewed the outstanding rulemaking activities from the 2018 and 2019 Regulatory Agenda with the Board as follows:

- 2018 Regulatory Agenda
 - 2 A.A.C. 8, Article 5, and 2 A.A.C. 8, Article 7, has been completed and became effective March 18, 2019.
 - 2 A.A.C. 8, Article 1, R2-8-126, the filing has been postponed. Although staff has completed the draft language, the filing has been postponed pending completion of two additional rulemakings on the 2019 Regulatory Agenda that are closely related to this rule. This is to eliminate multiple submissions of the same rule. All recommended amendments will be contained in one submission.
- 2019 Regulatory Agenda
 - 2 A.A.C. 8, Article 1, R2-8-122; 2 A.A.C. 8, Article 1, R2-8-115; and 2 A.A.C. 8, Article 1, R2-8-120 are expected to be completed and filed by the end of the calendar year.

Ms. Thomas proceeded to review the proposed 2020 Regulatory Agenda. Five rulemakings have been identified, most of which correspond with legislation passed this year as follows:

- 2 A.A.C. 8, Article 9 (Compensation) – may consider resurrecting some of the rules that were expired in 2018 to now correspond with the new definition of compensation
- 2 A.A.C. 8, Article 1, R2-8-121 (new rule) – Non-participating Employer Invoices
- 2 A.A.C. 8, Article 1, R2-8-116 – Alternate Rate Contribution Rate Credits
- 2 A.A.C. 8, Article 3, (Long Term Disability) – codify in rule how the ASRS is applying the new statutory definition going forward
- 2 A.A.C. 8, Article 1, R2-8-119 (new rule) – Liability invoices under A.R.S. § 38-748
- 2 A.A.C. 8, Articles 1, 2, 4 and 5 – 5 Year Rule Review report for 2020 is required to be submitted to the Governor’s Regulatory Review Council

Motion: Mr. Clark Partridge moved to approve the proposed 2020 ASRS Regulatory Agenda. Mr. Tom Manos seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

7. Presentation, Discussion and Appropriate Action Regarding the ASRS Biennial Audit Plan for Fiscal Years (FYs) 2020/2021

Mr. Clark Partridge, Chair of the OALC, introduced Mr. Harold Mackey, Chief Internal Auditor, who presented the proposed ASRS Audit Plan for FY 2019 to the Board.

Mr. Mackey introduced the Plan and cited the goal of enhancing risk management within the Agency. Mr. Mackey then described the process used by IAD that was used to identify the top 10 risk categories that directly connected to the Strategic Plan.

Mr. Mackey summarized the rest of the Audit Plan and highlighted the sections which detailed the risk categories and auditable areas that were identified, as well as noting administration and staffing requirements that will be needed to complete the Audit Plan. Mr. Mackey also noted the approval of external auditors CliftonLarsonAllen, Clearwater, and RiskSense.

Mr. Mackey responded to questions from the Committee.

Motion: Mr. Tom Manos moved to approve the ASRS Audit Plan for FYs 2020/2021 as presented. Mr. Michael Miller seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

8. Presentation, Discussion, and Appropriate Action Regarding the ASRS Investment Program Updates

Mr. Karl Polen, Chief Investment Officer, reported that total fund year-to-date returns through October 30, 2019 are approximately 2.5%.

The preliminary results for period ended September 30, 2019:

- Total fund returns of 4.9%, 9%, 7.2% and 9.1% beat their benchmarks by 1%, 2%, 1.7% and 1.2% for the one-, three-, five- and ten-year periods respectively.
- For the five-year period, the dollar value added was approximately \$2.1 billion, and for the ten-year period, \$4.3 billion was added.
- Equity returns beat their benchmarks in aggregate by 90 bps, with private equity returns of 13% outperforming its benchmark by 7.6%.
- Credit program returns of 8.9% outperformed their benchmark by 2.3%, primarily attributable to the private debt program, which outperformed its benchmark by 2.7%, adding nearly \$150 million for the one-year and \$700 million for the five-year periods ended September 30, 2019.
- Real Estate one-year returns of 8.1% exceeded its benchmark by 3.6%, attributable to the separate account program.
- The core bond program had returns of 10.2% for the one-year, underperforming the benchmark by 9 bps.

9. Presentation, Discussion, and Appropriate Action Regarding the ASRS Strategic Communications Initiatives

Mr. Matson introduced Ms. Sara Orozco, Manager, Strategic Planning and Analysis, and Ms. Pamela Foust, Manager, Strategic Communications.

Ms. Foust provided the Board with background for the thorough analysis of ASRS communications performed by Strategic Communications. She described the Brand Team Initiative, a ten-month long, eight-member, multi-divisional team whose purpose was to identify the ASRS' core differentiators and key messages, defining and conveying them in meaningful, consistent ways for ASRS' stakeholders. The Team explored the impressions that ASRS members have of the ASRS and used that information to create a new visual brand mark and brand position statement. The new ASRS visual brand was presented in video form to the Trustees, and Ms. Foust gave a detailed explanation of that logo and brand position statement, "Your money. Your future. Secured for your lifetime." Ms. Foust went on to explain how this new image would be used on Agency materials going forward.

Ms. Foust then explained how the Brand Team identified the need to reevaluate the way the ASRS communicates with our members. The Team began by identifying five member types, or personas,

which represent members at different stages of their careers and relationships with the ASRS. This exercise presented opportunities to craft targeted messaging and improve customer service to those personas.

Next, Ms. Foust reviewed the strategic goal of the Strategic Communications Team, which is to communicate in a way that informs, educates and fosters trust and confidence among members and stakeholders. Ms. Foust also shared with the Trustees the key performance indicators used to measure progress toward achieving the strategic goal.

Finally, Ms. Foust concluded her presentation with a review of Communications Initiatives for Fiscal Years 2020/2022.

Trustees thanked Ms. Foust and Ms. Orozco for the information and engaged in a dialogue about improving communications with members, as well as member perception of the ASRS. Trustees also look forward to a future update on how the targeted messaging is working.

10. Presentation and Discussion Regarding Fiduciary Education

Mr. Matson introduced Ms. Cassie Adams, Assistant Attorney General, to the Board. She began her work with the ASRS on June 3, 2019, and has focused on appeals, statutory interpretation, and oversight of ASRS' external legal representation. Additionally, Ms. Adams has been assigned by the Attorney General's office as the state representative for deferred compensation committee.

Ms. Adams provided brief presentations regarding Trustee fiduciary responsibility as well as basics on Arizona's Open Meeting Law.

11. Presentation, Discussion, and Appropriate Action Regarding the Director's Report as well as Current Events

Mr. Matson had no further comments for the Trustees.

12. Presentation, Discussion, and Appropriate Action Regarding Board Self Evaluation Material Distribution

Mr. Hillyard announced to the members of the Board they were provided a packet with Board Evaluation information and requested they be submitted to Ms. Joyce Williams prior to December 20, 2019.

13. Presentation and Discussion Regarding Informational Updates from Prior and Upcoming Committee Meetings

a. Operations, Audit and Legislative Committee (OALC)

Mr. Clark Partridge announced the next OALC meeting will be held on January 8, 2020.

b. Investment Committee (IC)

Mr. Michael Lofton announced the next regularly scheduled IC meeting is to be held on December 16, 2019.

c. Appeals Committee (AC)

Mr. Michael Miller announced the next AC meeting is scheduled to be held on December 10, 2019.

14. Board Requests for Future Agenda Items

Mr. Manos requested a future update on the progress of the specific communications initiatives that were discussed during today's meeting.

15. Call to the Public

Mr. Joe Geusic addressed the Board and expressed his perspective on contribution rates.

16. The next regular ASRS Board meeting is scheduled for Friday, January 31, 2020 at 8:30 a.m., at 3300 N. Central Avenue, 10th Floor Board Room, Phoenix, Arizona.

Mr. Jim Hillyard noted the next Board meeting is scheduled for Friday, January 31, 2020 at 8:30 a.m.

17. Adjournment of the ASRS Board

Motion: Mr. Clark Partridge moved to adjourn the November 15, 2019 public meeting of the Board at 11:10 a.m. Mr. Tom Manos seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – excused
Mr. Michael Miller – approved

Respectfully Submitted by:

Joyce Williams
Board Administrator
ARIZONA STATE RETIREMENT SYSTEM

Agenda Item #3



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MEMORANDUM

TO: Mr. Jim Hillyard, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director

DATE: January 2, 2020

RE: **Agenda Item #3:** Presentation of the 2019 Annual PRIDE Recognition Award Recipients: Professionalism, Results, Improvement, Diversity, Excellence

The ASRS employee recognition program recognizes employees who exemplify various PRIDE values (Professionalism, Results, Improvement, Diversity, Excellence) throughout the year.

The nominees were nominated by their peers because they exemplify one or more PRIDE qualities.

Chosen from the nominees as winners for the 2019 ASRS PRIDE Recognition Awards are:

Quarter 1:

Individual – Susan Webner for Professionalism
Team – In-house Disbursements Team for Improvement

Quarter 2:

Individual – Jeffrey Hoffman for Excellence
Team – Payroll Manager Team for Improvement

Quarter 3:

Individual – Rich Nacinovich for Professionalism
Team – Contribution Accounting/TSD Incredibles Team for Improvement

Quarter 4:

Individual – Ryan Guerra for Professionalism
Team – Work Environment Team for Diversity

We invite the Board to join ASRS staff in recognizing the award recipients.

Recipients for the 2019 ASRS PRIDE Recognition Awards

First Quarter:

Susan Webner – Professionalism

Susan is a member of the ASD team. She is currently a co-product owner for a TSD project for asset/inventory. Feedback is that she is inclusive of all stakeholders and considers all the ideas that are presented; she has assumed many of the assignments, completed them on time, and has executed them well; she is looking for improvements in the processes with a goal of excellence in customer service. This is just one of the many assignments she is involved in at this time. Additionally, she has assumed responsibility for coordinating and planning all of the New Employee Orientation meetings and training; she prepares the welcome bags and notebooks for the on-boarding of new employees and ensures everyone knows where to be and what is expected of each participant. Susan is the go-to-person for the ASRS for SECC, Rideshare, ASEDRA, use of the ASRS vehicle, updates for COOP contacts, Tuition Assistance just to name a few of her responsibilities. She provides support to a variety of teams in a multitude of activities and assignments. She demonstrates a professional attitude in the courteous delivery of outstanding customer service and continuously looks for improvements to current processes in an effort to eliminate redundant and unneeded steps every time she is called upon to undertake an assignment. She is results-oriented in all of her work and ensures that deadlines and promises are kept.

In-house Benefits Disbursement Project Team (Members: Noaman Ahmed, Meskel Assefa, Randy Braunm, Andrew Bruner, Valerie Burkett, Quinn Guiteras, Matthew Herman, Jim Herr, Erin Higbee, Ted Kistner, Sarah Korish, Harold Mackey, John Maczko, Molly Mahai, Rich Nacinovich, Brenda Palmer, Jeremy Pond, Srinivasa Puppalla, Penny Sims, Ivan Sykes, Rama Tripuraneni, Mary Unnewehr, Carrie Waith, Sandy Wang, Tom Williamson) – Improvement

This nomination is for the In-House Benefit Disbursement Project team that successfully implemented a three year project to bring disbursement services, previously performed by our custodial bank, in-house to ASRS operations. The disbursement services, including payment of third party vendor payments, Health Benefit Subsidy payments, generation of 1099 and 1042's, and tax reporting compliance to the State and IRS were previously processed by State Street Bank. This huge accomplishment will result in savings to the ASRS of \$1 million per year in reduced banking fees. Further, by bringing the process in-house, the ASRS is able to reduce the risk related to the exposure of member data that was needed to be sent to the custodial bank and adds additional processing time for disbursement through a reduced cutoff period.

The processing of pension and new retiree payrolls is the single most important service that the ASRS performs for its members. The In-House Benefit Disbursement Project partnered with Bank of America to fulfill the requirements of this project. In addition to the three years of development, a complex, tedious and lengthy eight month testing phase was necessary to ensure all aspects of testing were complete and accurate including user acceptance testing, penny testing, parallel testing and regression testing. A detailed communication and response plan was put in place detailing all activities prior and subsequent to implementation. The implementation was virtually flawless with no payment related issues encountered, ensuring all member payments were made accurately and on time. The In-House Benefit Disbursement Project involved coordination and management of activities and people from all divisions of the ASRS as well as coordination with numerous Bank of America resources.

This project has been one of the biggest achievements of the agency in the last ten years, second in significance to the seven-year Information Technology Plan.

Second Quarter:

Jeffrey Hoffman – Excellence

Nomination #1: I have worked with Jeff since he was a temp for the agency and have always been very impressed with his results driven work ethic. Jeff has helped me as well as the rest of FSD with many issues throughout the time he has been employed and deserves to be recognized for his excellence.

Nomination #2: Jeff has been a consistent strong resource to have in TSD. His professionalism is displayed on a daily basis as he goes above and beyond, assisting various departments. With every issue that occurs he is quick to respond, very knowledgeable, and displays a refreshing, patient attitude. It is well-known that he has a heavy workload, yet he always presents himself as willing and ready to help. His attitude makes him very approachable and easy to rely on when technical issues are impacting our ability to work. This agency has been made more knowledgeable and more efficient by having Jeff as a TSD resource. I often hear the same sentiment echoed throughout the FSD floor; that he truly is an outstanding employee.

Payroll Manager Project Team (Members: Srinivasa Attaluri, Trent Kendall, Sunitha Surendra & Rama Tripuraneni) – Improvement

The Unusual Suspects scrum team was assigned to the Benefits Accounting portion of the Oracle Modernization project. The 3 PERIS screens responsible for starting the payroll were included in this scope. As everyone knows, running the payroll is one of the most stressful and most important things our agency does. The old PERIS screens for starting the payroll were woefully inadequate: nothing was automated, and every step within the payroll was manual. This meant that each month one of the dba's in TSD had to run through a word document containing over 40 steps that had to be followed precisely to ensure the payroll was a success. A single mistake would cause significant problems. Each step took an undetermined amount of time and there was no communication when a step was complete. The only way to know if a step had finished was to be sitting at a computer screen and waiting. So the person running the steps would need to be available all night, watching their screen so that when the step finished the next step could start. This could occur at 6pm or 2am.

The basic scope of all Oracle Modernization projects was to take the existing PERIS functionality and move it into POL using java. In this case it was clear this would not be a good use of time and we would end up with a system with all of the same pain points. So the team used their own free time to come up with an entirely new concept to manage the payroll, estimate the effort to implement it, and present the solution to SMT. Thankfully the senior managers were very supportive of the idea and they approved 3,500 hours to complete the work. The team created a system that would run through each of the payroll steps consistently and dependably without human intervention. It would only stop if there was a processing error that required human intervention. A notification system was added so that any person could be notified if any step was a success or a failure. The basic screen is public so any ASRS employee can see the current status of the payroll. Some steps of the payroll involved a human comparing numerical values to ensure they were within a specific range, those comparisons were automated. All payroll reports were rewritten so that most of the data scenarios that require the payroll to stop can now be identified before payroll begins. This means the payroll will not need to stop because the business can fix the issues early. The second time the payroll manager was used for the pension payroll it finished in record time and the dba's were able to sleep through the night. The first time it was used to run the new ret payroll it nearly set a new record for completion time. The framework created by the payroll manager will also be used to modernize the fiscal year end process, the month end process and the 13th check process. The payroll manager has eliminated the need for a few TSD resources to stay up all night fixing issues twice a month and several business users do not need to stay late for payroll runs.

Third Quarter:

Rich Nacinovich – Professionalism

I am nominating Rich Nacinovich, Network and Operations Manager in TSD for a Professionalism and Excellence Pride Award. Rich started at the ASRS in October of 2016; however he has been a state employee for over 20 years. His professionalism and excellence was very apparent in the early days and in the years since, he has grown the Network and Operations Team into an exceptional and engaged group. With his leadership, his team has completed the PC Refresh project with Windows 10, overhauled our backup strategy, and streamlined our deployment process. Through his persistence, his team participated in the P3 project several months before release to ensure they could support the operation in production. He brings his best every day and provides exceptional support to his team. Additionally, his approach and interaction with everyone at every level displays a level of emotional intelligence that is exceptional and hard to find. He is a tremendous asset to the ASRS and we are lucky to have him.

Contribution Accounting/TSD Incredibles Team (Members: Manuel Burboa, Teresa Donohue, Felix Guerrero, Marcia Kumamoto, Krystal Mungia-Olivarez, Tina Ren, Bridgette Schwarz, & Jeannie Willetto) – Improvement

The TSD Incredibles and Contribution Accounting team provided remarkable results during the development and implementation of the Oracle Modernization Contribution Accounting (OMCA) project. Not only did they meet the objectives set forth, they improved the overall product for day-to-day use; as well as the transparency of payment details on member accounts throughout the agency. They were able to bring the OMCA project under budget and before the estimated deadline. The OMCA Project accomplished the following enhancements as part of the POL development, which made the daily work of CA more efficient and eliminated many manual processes:

- * The viewing of retirement contributions and service purchase deductions was made more accessible and straightforward for other departments. A user is able to view 100 transactions on 1 screen and do a search and sort by ER number
- * The viewing of retirement batches and deposits by deposit date and reporting unit was improved and allows for quick links to go between batches and associated deposits easily.
- * The daily posting of retirement credits to take the place of the monthly credit posting process, eliminating a manual batch process
- * Ledger maintenance is now a work flow enabled process which has increased accuracy. Some of the maintenance has been automated to improve usability of the application
- * The ability to revise deposits in POL and systematically create ledger transactions has eliminated the manual process that CA staff used to do with multiple Excel workbooks and ledger maintenance.
- * The creation of new Jasper deposit reports for retirement and ACR now includes the breakdown for HBS and eliminates the manual processing previously associated with this data.

The CA team was always present at the daily scrum meetings and always available for UAT. The team utilized Sprint UAT, which proved effective in identifying issues and missed requirements early, so that changes could be made prior to release UAT to ensure the system would meet the needs of the users when deployed to production. The Incredibles team always had staff members to work in conjunction with UAT and was very responsive in test scenarios. The bugs identified in Sprint UAT and release UAT were fixed and deployed quickly to allow for additional testing and accuracy of the fix. Questions and concerns from users were explained thoroughly, allowing the user to test more efficiently. The Incredibles team was also able to suggest comprehensive scenarios and anomalies for testing to ensure an effective product. They were proactive in identifying work efficiencies that CA staff had not identified that often lead to better performance. The team truly demonstrated PRIDE values on a daily basis and shared the ideas of each user, promoting morale in a setting that lead to a highly quality work product.

Fourth Quarter:

Ryan Guerra – Professionalism

I am nominating Ryan Guerra for a PRIDE award for Professionalism/Improvement. When looking for advice/sounding board, he stops whatever he is doing and gives his full attention. He listens intently and nods so you can tell he is following along and understanding what is trying to be conveyed. He offers a thoughtful, articulate, and positive response. At first it was thought to be an “act”, there was no way he can be this positive. But it’s not an act; every response he has provided during our discussions has been an agency first mentality, expressing how changes are for the best and how our members are going to benefit from them. Each and every time he has ended our talks with “We are a team, we are in this together. If you need anything just let me know.” I always leave our meetings in a better frame of mind with a different outlook on situations from when the conversation began. His positivity is contagious and is an essential quality to possess while the agency navigates through times of growth and expansion. This is how I feel Ryan displays the Professionalism portion of the PRIDE values. He adapts to change, is a good communicator/active listener, and trusted teammate/contributor.

Ryan also plays a major role in enhancing the morale of the Call Center. Every morning he comes out of his office and says good morning to each and every BA in the Call Center. He greets them with a fist bump and a smile. It may seem like something small but it is greatly missed when he is not here to do it. If there is a time in-between calls he will have a brief conversation with them as well. He can find almost anything to relate to someone about or offer a point of a view on a particular subject. The Benefit Advisors on his team feel appreciated and welcomed (he can often be heard inviting BA’s, regardless of age or gender, to play basketball after work or offering to set up an after work volleyball game to be more inclusive). By making the effort to acknowledge the many employees in MAC and building relationships outside of work is how Ryan demonstrates the Improvement portion of the PRIDE values.

Work Environment Team (Members: Melanie Alexander, Lola Avila, Nate Brengle, Katie Daigneault, Janet Fuentes, Joy Fuentes, Jana George, Jeniffer Gomez-Pabon, Cincy Gould, Randi Gray, Chris Gustafson, JenaLee Hopkins, Jennifer Johnson, Marina Keith, Donna McNally, Michael Moreno, Krystal Mungia-Olivarez, Richard Musto, Kyle Patton, Angelica Torres & Mary Unnewehr) – Diversity

The Work Environment (WE) Team is a cross-functional group of volunteers whose objective is to “develop a dynamic team environment by creating, designing and implementing programs and activities to enhance the work environment, support the PRIDE values, and promote spirit and unity within the ASRS.”

In 2019, the WE Team created an ambitious Calendar of Events which included three (3) major employee events – the Spring Picnic, Summer Event (i.e. Spirit Week), and Winter Festival. To fund these events, the team coordinated seven (7) food sales, six (6) casual day sales, and two (2) Silent Auctions. The calendar also included four (4) onsite and off-site charity activities. This calendar was substantially busier than most years as the Summer Event was three (3) days instead of one, the Silent Auction was held twice instead of once, and the food sales and charity activities each increased by one.

Members of the WE Team learn valuable project management and leadership skills. The events they plan are detailed and complex, and takes months of planning and coordination.

In addition to the fun employee activities, the WE Team hears all Bright Ideas before they go to the SMT. They ask questions, make suggestions, and prepare employees for meeting with the SMT. This year, they heard 15 Bright Ideas.

WE Team members volunteer their time, over and above their work responsibilities, to enhance the employee experience at the ASRS and make it a great place to work. The WE Team deserves recognition for their 2019 accomplishments, as well as their ongoing dedication to providing employee activities and programs which benefit ALL ASRS employees.

I am proud to nominate the Work Environment (WE) Team for DIVERSITY because this diverse team encourages the free flow of ideas and opinions (e.g. Bright Idea Program), treats people with dignity and respect, works effectively with dissimilar individuals, and promotes new skills in others (through project management and workgroup leader opportunities).

Agenda Item #4



ARIZONA STATE RETIREMENT SYSTEM

3300 NORTH CENTRAL AVENUE • PO BOX 33910 • PHOENIX, AZ 85067-3910 • PHONE (602) 240-2000
4400 EAST BROADWAY BOULEVARD • SUITE 200 • TUCSON, AZ 85711-3554 • PHONE (520) 239-3100
TOLL FREE OUTSIDE METRO PHOENIX AND TUCSON 1 (800) 621-3778

Paul Matson
Director

TO: Mr. Jim Hillyard, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director
Ms. Jessica Thomas, Government Relations Officer

DATE: January 16, 2020

RE: **AGENDA ITEM #4:** Presentation, Discussion and Appropriate Action Regarding the 2020 Legislative Initiatives and Legislative Update

Purpose:

To provide a brief update on the status of each initiative listed on the 2020 Legislative Agenda; to propose an additional piece of legislation related to A.R.S. § 38-751 - Nonparticipatory employer liability; and to apprise the Board of any additional legislative items related to the ASRS that may have arisen.

Recommendation:

Recommend approval of the additional 2020 ASRS legislative initiative related to A.R.S. § 38-751 as presented.

Background:

2020 Legislative Agenda

The 2020 Legislative Session began on January 13, 2020. All the initiatives listed on the ASRS 2020 Legislative Agenda are making their way through the legislative process in their respective chambers.

A.R.S. § 38-751 - Non-Participating Employer Liability

In 2018, the ASRS pursued legislation amending A.R.S. § 38-751 related to nonparticipatory employer liability that was passed and effective in August 2018. In consideration of the application of this legislation ASRS staff discussed whether subsections (A)(2) and (J) would achieve their intended objectives.

A.R.S. § 38-751(A)(2) establishes a threshold of when a reduction in contributing employees results in an Employer being deemed as no longer participating in the ASRS for purposes of this statute. However, upon further analysis and legal input regarding the statutory language, ASRS staff believes the language is not clear, does not achieve its intended purpose of covering the payment of the unfunded actuarial accrued liability related to the outsourced positions, and may have unintended consequences.

A.R.S. § 38-751(J) indicates that once an employer is deemed nonparticipatory pursuant to this statute, the employer is not eligible to enroll new employees in the ASRS after their nonparticipation date. Upon further analysis, ASRS staff do not believe this is beneficial to the ASRS, the employer, or future employees. There is no harm to the ASRS by allowing an employer to enroll new employees in the ASRS, and disallowing such enrollment would result in a permanent reduction in ASRS membership.

Based on the information above, ASRS staff is recommending that the ASRS pursue legislation in the 2020 session to repeal subsection (A)(2) and (J) from A.R.S. § 38-751.

Attachment: A.R.S. § 38-751 Redlined Version

38-751. Nonparticipatory employer liability allocation; exemption; definitions

A. ASRS shall establish a separate fund for an employer other than a charter school that is:

~~1.~~ No longer participating in ASRS as a result of any of the following:

~~(a)~~ 1. The character of the employer changes from a public entity to a private entity.

~~(b)~~ 2. An employer, other than this state, dissolves.

~~(c)~~ 3. Through legislative action, the employer is no longer enrolling new employees in ASRS or no longer contributing to ASRS on behalf of current employees or groups of employees who otherwise would be eligible for ASRS membership.

~~2. Based on the number of contributing employees as of August 3, 2018 both of the following apply:~~

~~(a) Considered to employ a minimum of fifty employees as of one year preceding the employer's nonparticipation date.~~

~~(b) Is no longer participating in ASRS as a result of reducing the number of actively contributing employees by thirty percent or more over a three-year period or by fifty percent or more over any period of time by filling a position ordinarily filled by an employee of the employer with an employee who is not otherwise actively contributing, unless the employee participates in another Arizona retirement plan specified in article 3, 4 or 6 of this chapter, or an optional retirement plan specified in title 15, chapter 12, article 3.~~

~~B. Subsection A, paragraph 2 of this section does not apply to this state unless the reduction of actively contributing employees is the result of hiring one or more leased employees.~~

C. For a nonparticipating employer described in subsection A of this section, ASRS shall allocate an actuarial accrued liability and a designated asset amount to the nonparticipating employer's separate fund as of the nonparticipation date, which shall be calculated as follows:

1. The actuarial accrued liability shall equal the sum of the plan employer actuarial accrued liability and the LTD program employer actuarial accrued liability. Actuarial accrued liability shall be calculated based on the same actuarial assumptions and methods as the actuarial valuation performed immediately preceding the nonparticipating employer's nonparticipation date.

2. The designated asset amount shall equal the sum of the following:

(a) The plan employer actuarial accrued liability multiplied by the plan funded percentage.

(b) The LTD program employer actuarial accrued liability multiplied by the LTD program funded percentage.

D. All monies and securities transferred to the nonparticipating employer's separate fund shall be credited to that fund. A record of the market value and the cost value of such transferred contributions shall be maintained for actuarial and investment purposes. ASRS shall make all decisions regarding the nonparticipating employer's separate fund.

E. After establishing the nonparticipating employer's separate fund, the fund shall be adjusted for all of the following:

1. All contributions made by employees of the nonparticipating employer.
2. All contributions made by the nonparticipating employer.
3. All plan, LTD program and any other benefits paid to the nonparticipating employer's members who are active, inactive, retired or on long-term disability.
4. All plan, LTD program and any other benefits paid to the survivors of the nonparticipating employer's members.
5. The applicable share of the investment gains and losses.
6. Expenses associated with the administration of the nonparticipating employer's separate fund, including any administrative, development, actuarial, legal, custodial and investment management costs associated with the fund. These expenses shall be paid directly by the nonparticipating employer or included in the employer's liability for the purposes of determining the employer's contribution rate.

F. After establishing the nonparticipating employer's separate fund, the nonparticipating employer and any employees of that employer who are enrolled in ASRS shall continue to have contribution requirements to the nonparticipating employer's separate fund. The contribution requirements shall be calculated as follows:

1. All employees of the nonparticipating employer who are enrolled in ASRS shall continue to make contributions through payroll deductions based on the contribution rate determined for the employees of participating employers of ASRS pursuant to section 38-736.

2. The nonparticipating employer shall continue to make contributions through lump sum payments in accordance with section 38-735, equal to the sum of:

- (a) Contributions owed through payroll deductions based on the contribution rate determined for participating employers pursuant to section 38-737.

- (b) The amount required to amortize the past service funding requirement in the nonparticipating employer's separate fund over a period that is determined by the board and consistent with generally accepted actuarial standards. In determining the past service funding period, the board shall seek to improve the funded status whenever the nonparticipating employer's separate fund is less than one hundred percent funded.

G. The ASRS actuary shall determine the actuarial assumptions used to determine the contribution requirements for the nonparticipating employer under subsection F of this section. Notwithstanding section 38-737, the contribution for the nonparticipating employer may not be determined as a percentage of compensation due to the anticipated decline of compensation for employees of the nonparticipating employer participating in ASRS. The nonparticipating employer shall certify on each payroll the amount to be contributed and shall remit that amount to ASRS at a rate that is consistent with the rate paid by the participating employers. Each fiscal year, amounts that are not remitted

through payroll contributions pursuant to this section shall be invoiced to the employer and shall be paid within the same fiscal year the nonparticipating employer is invoiced.

H. This section does not permit an employer to alter the irrevocable agreement approved by the board under section 38-729.

I. For the purposes of calculating an employer's liability under this section, members who are active, inactive, retired or on long-term disability are considered employees of the nonparticipating employer if the member's most recent employer was the nonparticipating employer as of the nonparticipation date.

~~J. An employer that is no longer participating pursuant to this section is not eligible to participate in ASRS after the employer's nonparticipation date.~~

~~K. J.~~ This section does not apply to an employer whose existence was terminated by legislative action or otherwise became a nonparticipating employer as described in subsection A of this section on or before January 1, 2013.

~~L. K.~~ For the purposes of this section:

1. "LTD program" means the program established by article 2.1 of this chapter.
2. "LTD program employer actuarial accrued liability" means the actuarial accrued liability for the employer's active and inactive members and the open LTD program claims for the employees of the employer as of the nonparticipation date.
3. "LTD program funded percentage" means the total market value of LTD program assets divided by the total LTD program actuarial accrued liabilities, as of the actuarial valuation performed immediately preceding the nonparticipation date. If the percentage is greater than one hundred percent, the LTD program funded percentage is one hundred percent.
4. "Nonparticipation date" means the date on which the employer is no longer participating in ASRS.
5. "Plan" means the retirement plan established by this article.
6. "Plan employer actuarial accrued liability" means the plan's actuarial accrued liability for all benefits provided under this article, including benefits established in section 38-783, for the employer's active, inactive or retired members as of the actuarial valuation performed immediately preceding the nonparticipation date.
7. "Plan funded percentage" means the plan's total market value of assets divided by the plan's actuarial accrued liability for all benefits provided under this article, including benefits established in section 38-783, for all active, inactive or retired members as of the actuarial valuation performed immediately preceding the nonparticipation date. If the percentage is greater than one hundred percent, the plan funded percentage is one hundred percent.

Agenda Item #5

CIO Board Report

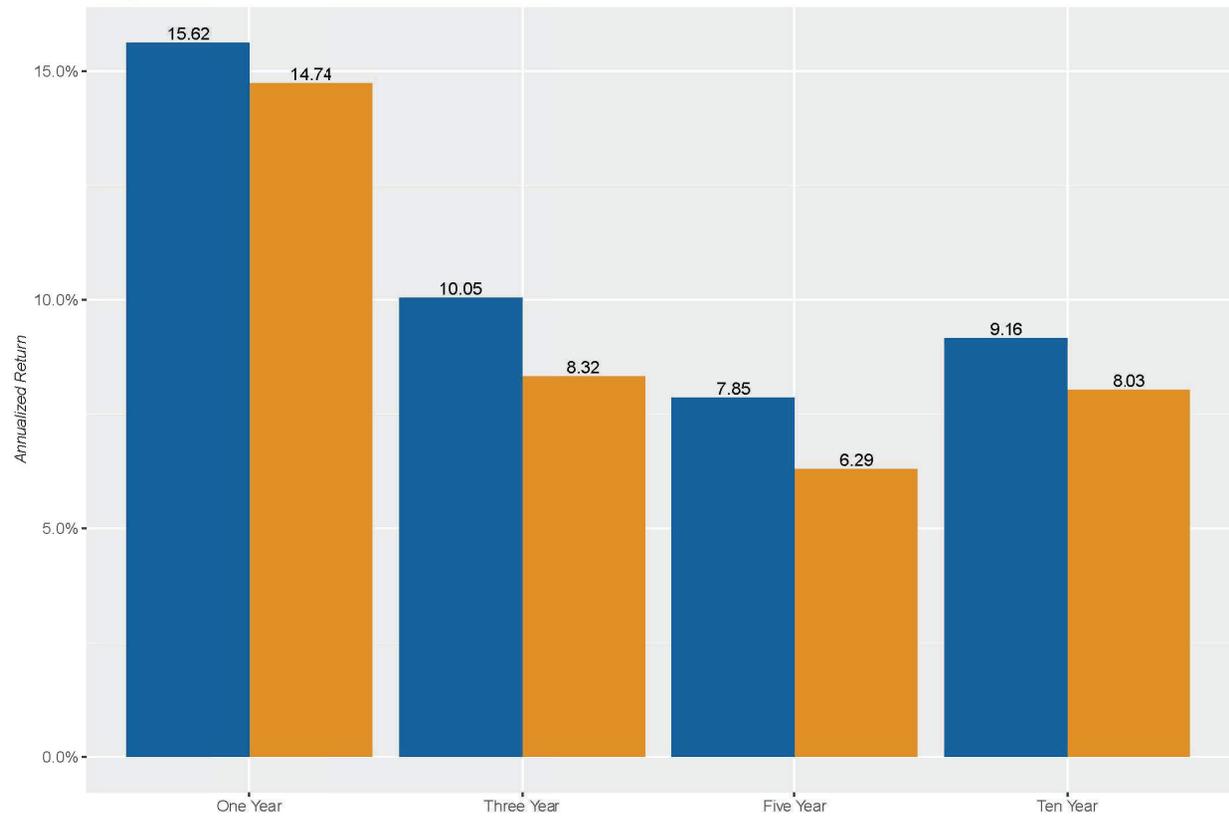
Arizona State Retirement System

January 31, 2020

December 31, 2019 Estimated

Total Fund Estimated Returns for the period ended 12/31/2019

Total Fund and Strategic Asset Allocation Benchmark
Trailing Period Returns



Fiscal Year to Date

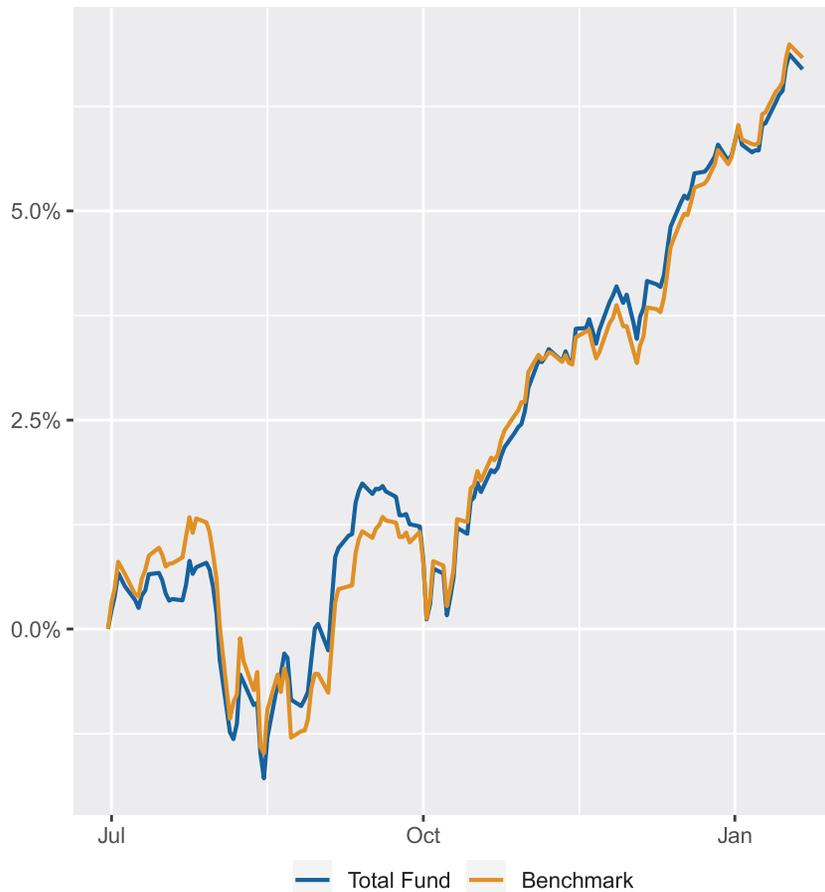
December 31, 2019 Estimated
Fiscal Year to Date
Quarterly Performance
Quarterly Performance
Equity
Private Equity
Real Estate
Credit
MSCI Risk Report

Summary
Total Fund Attribution
Decomposition of Equity Excess Return

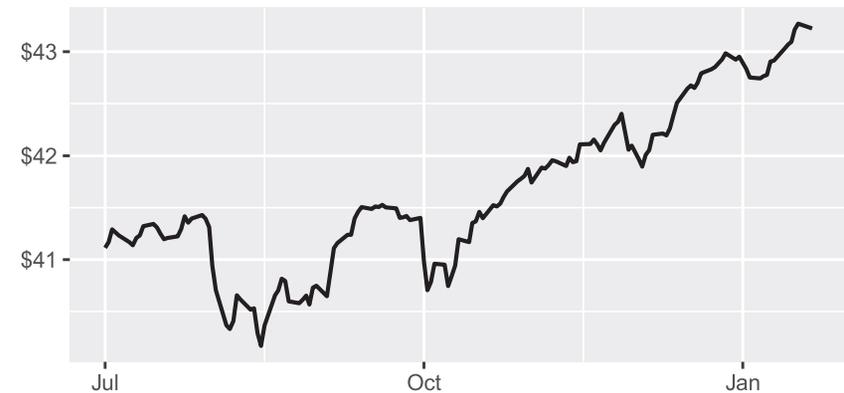
Summary

Total Fund Fiscal Year to Date through 1/21/2020

Return Fiscal Year to Date

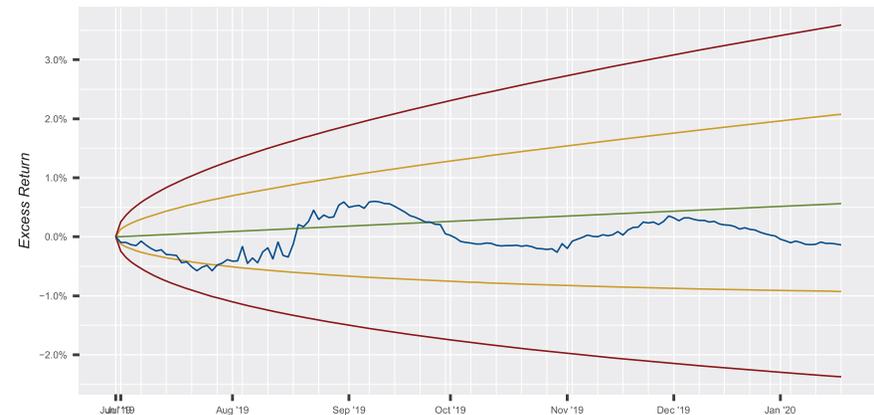


Total Fund Market Value (Billions)



Total Fund Performance versus Expectations

100 Basis Points Expected Excess Return with 200 Basis Points Tracking Error



Total Fund Current Positioning through 1/21/2020

Total Fund Positioning

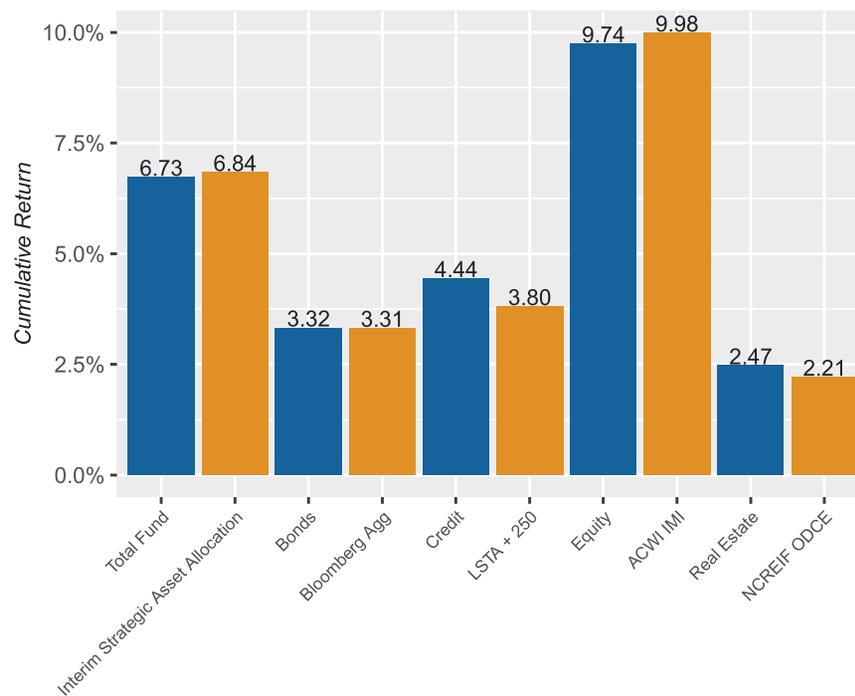
| | NAV w/ Notional (\$ mm) | NAV Exposure (%) | Target (%) | Active Weight (%) | Active Weight (\$ mm) |
|-------------|-------------------------|------------------|------------|-------------------|-----------------------|
| Cash | 539.3 | 1.2 | 0.0 | 1.2 | 539.3 |
| Bonds | 4295.9 | 9.9 | 10.8 | -0.9 | -372.2 |
| Credit | 8102.0 | 18.7 | 19.2 | -0.5 | -196.8 |
| Equity | 23583.1 | 54.6 | 54.5 | 0.1 | 26.4 |
| Real Estate | 6717.2 | 15.5 | 15.5 | 0.0 | 17.6 |
| Other | 0.4 | 0.0 | 0.0 | 0.0 | 0.4 |
| Total Fund | 43223.2 | 100.0 | 100.0 | 0.0 | 0.0 |

Total Fund Attribution

Fiscal Year to Date Total Fund Returns & Dollar Value Add through 1/21/2020

Asset Class and Benchmark

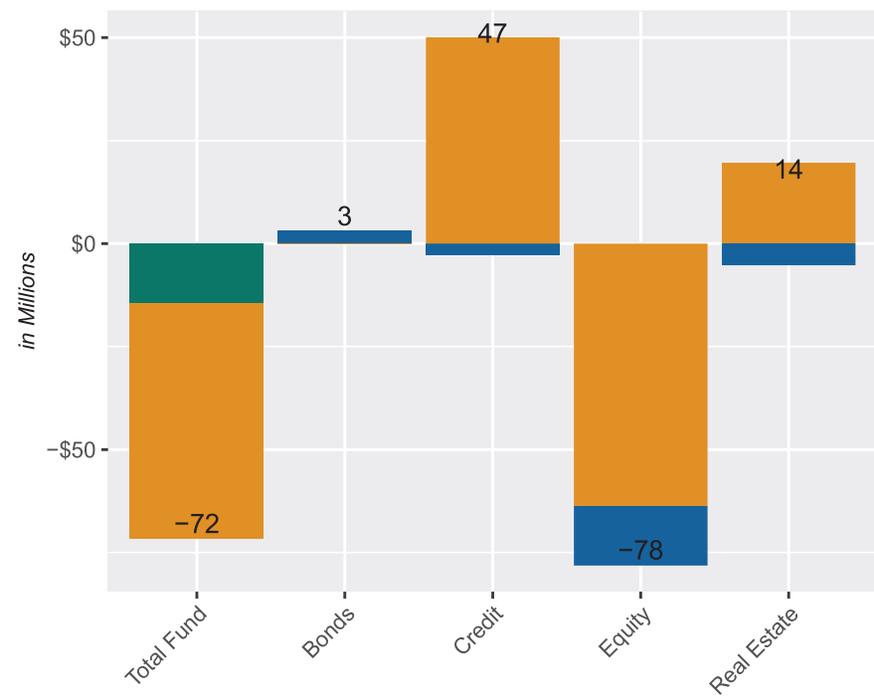
Fiscal Year to Date



Asset Class Benchmark

Dollar Value Add

Fiscal Year to Date Dollar Value Add

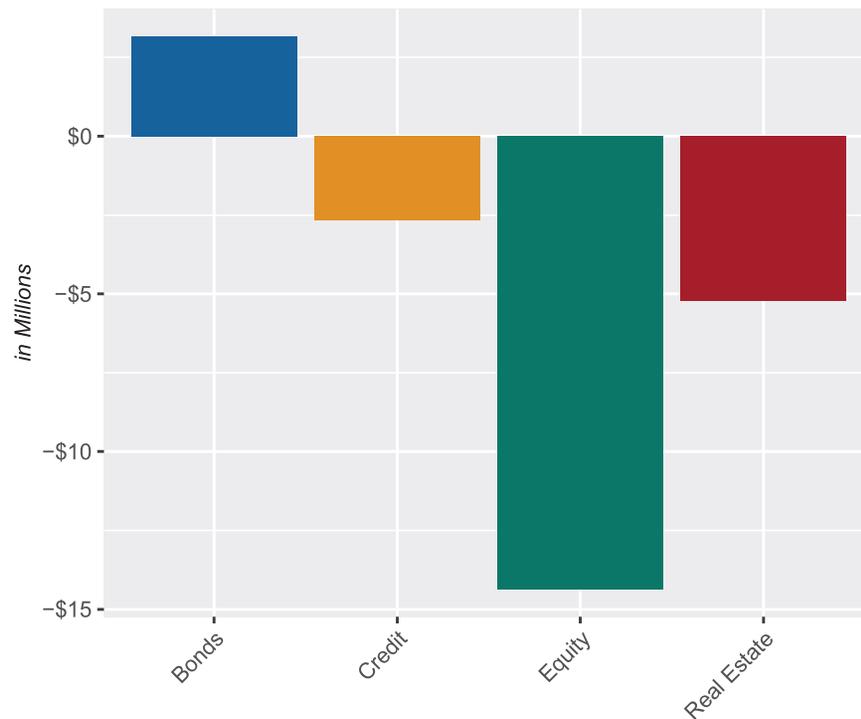


Allocation Excess Return Residual

Fiscal Year to Date Allocation Effect and Excess Return by Asset Class through 1/21/2020

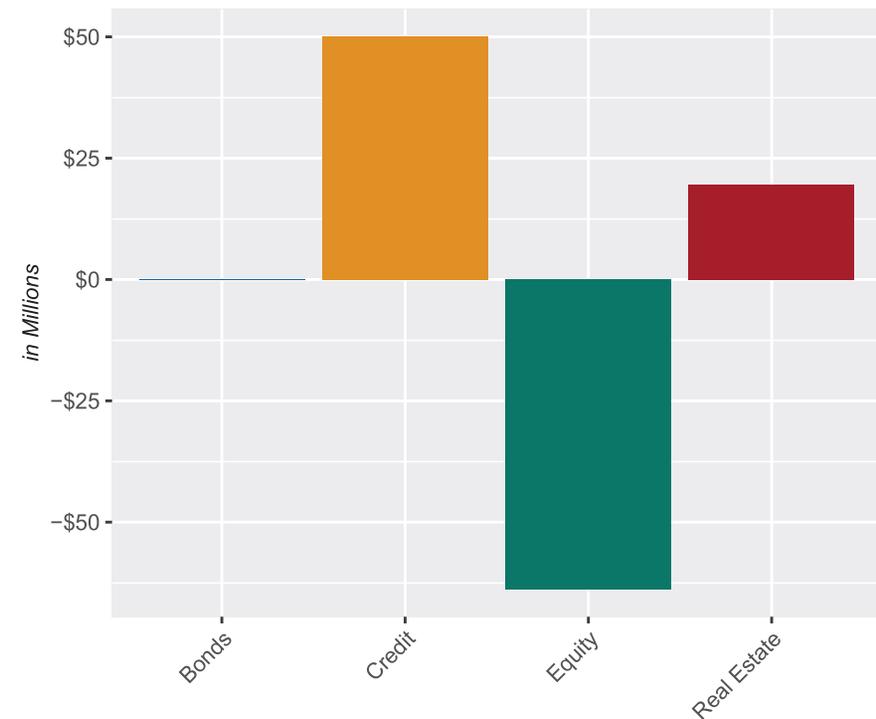
Allocation Effect by Asset Class

Relative to Strategic Asset Allocation Benchmark



Excess Return by Asset Class

Relative to Benchmark

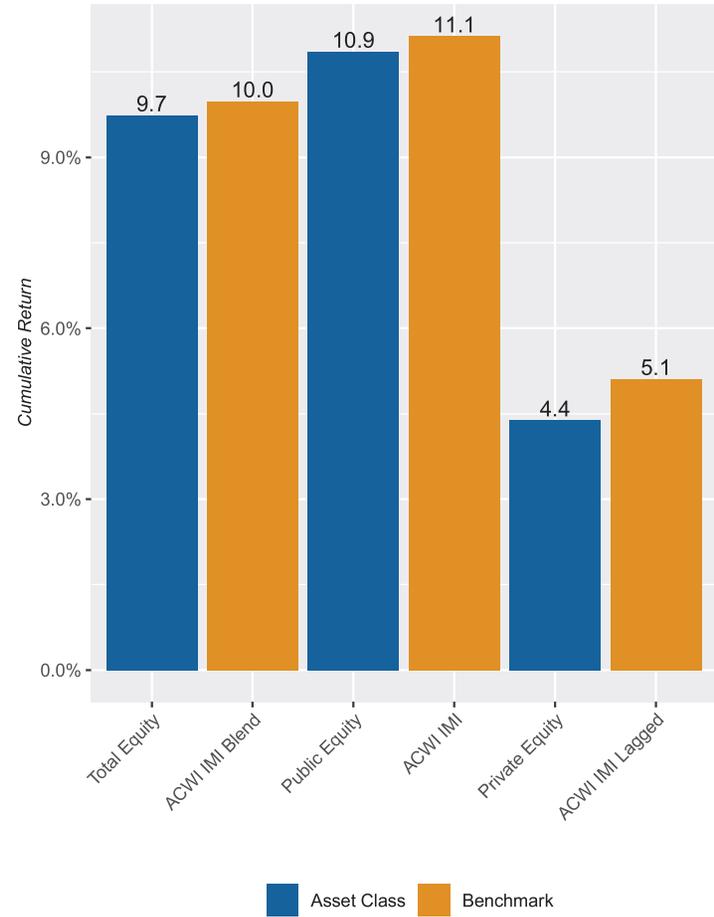


■ Bonds
 ■ Credit
 ■ Equity
 ■ Real Estate

Total Equity & Dollar Value Add through 1/21/2020

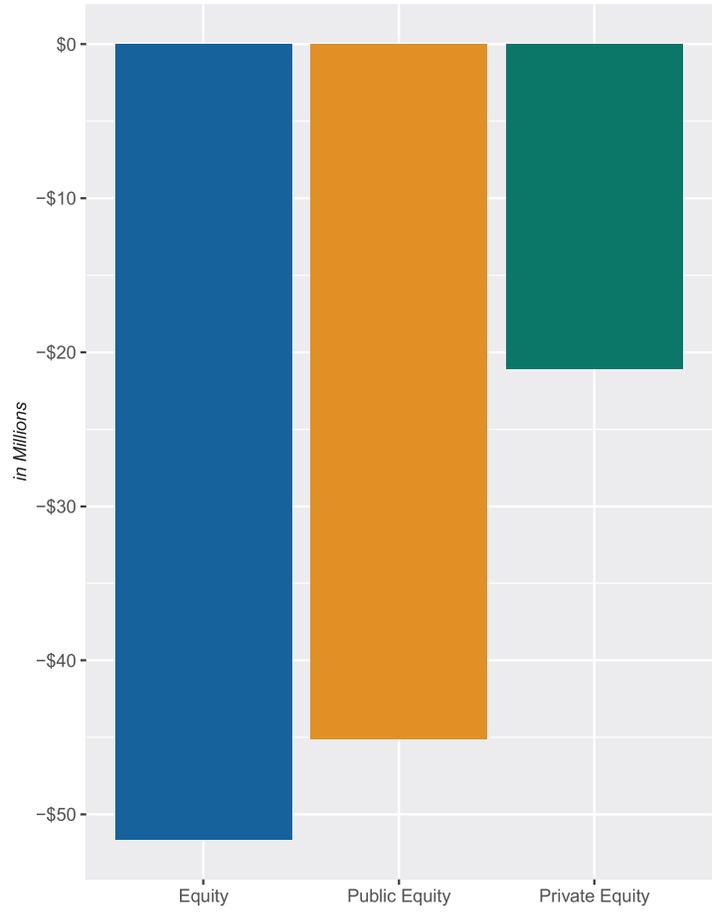
Total Equity and Benchmark

Fiscal Year to Date



Total Equity Dollar Value Add

Fiscal Year to Date Dollar Value Add

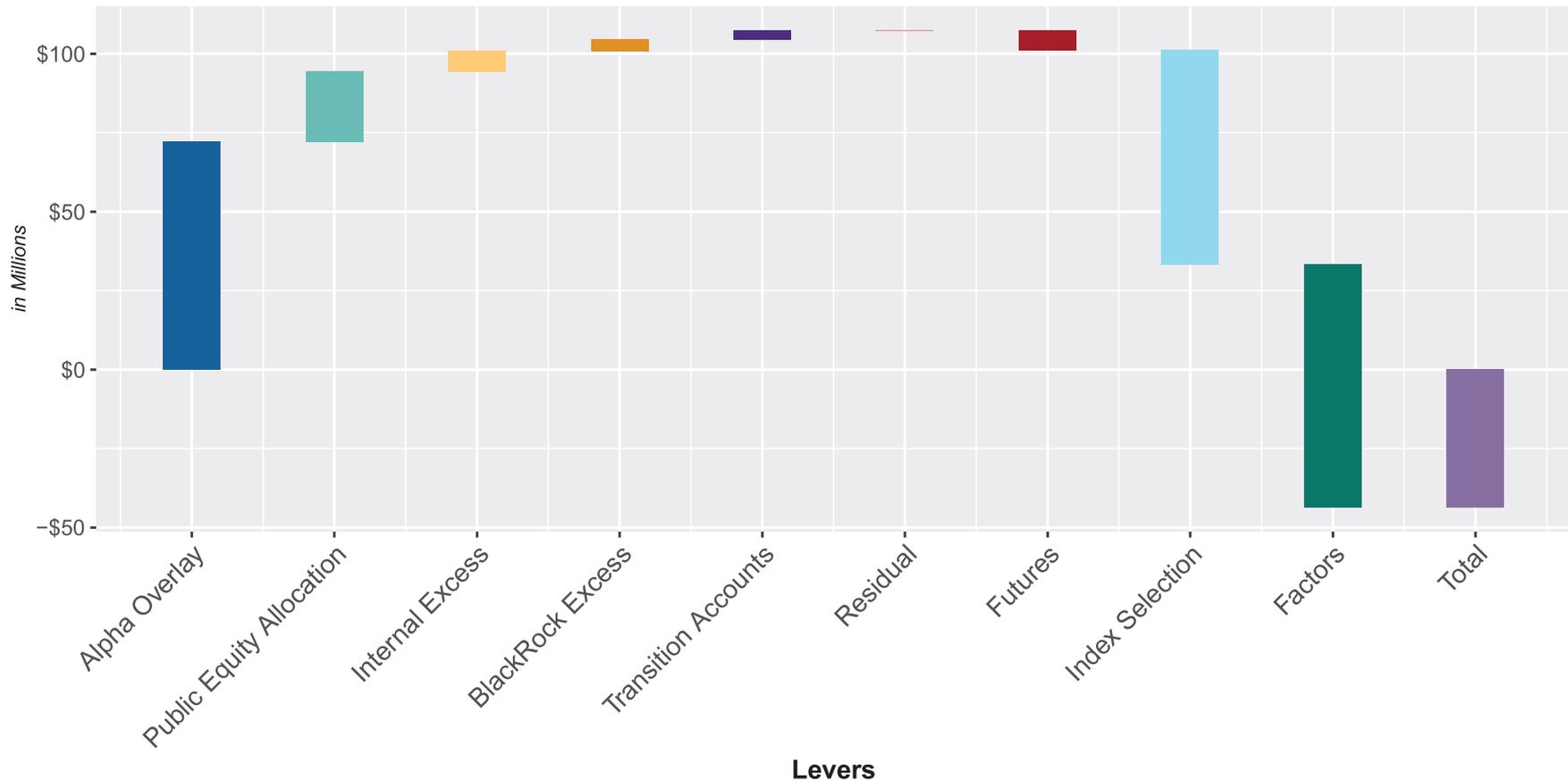


Decomposition of Equity Excess Return

Public Equity Levers through 1/21/2020

Public Equity Dollar Value Add

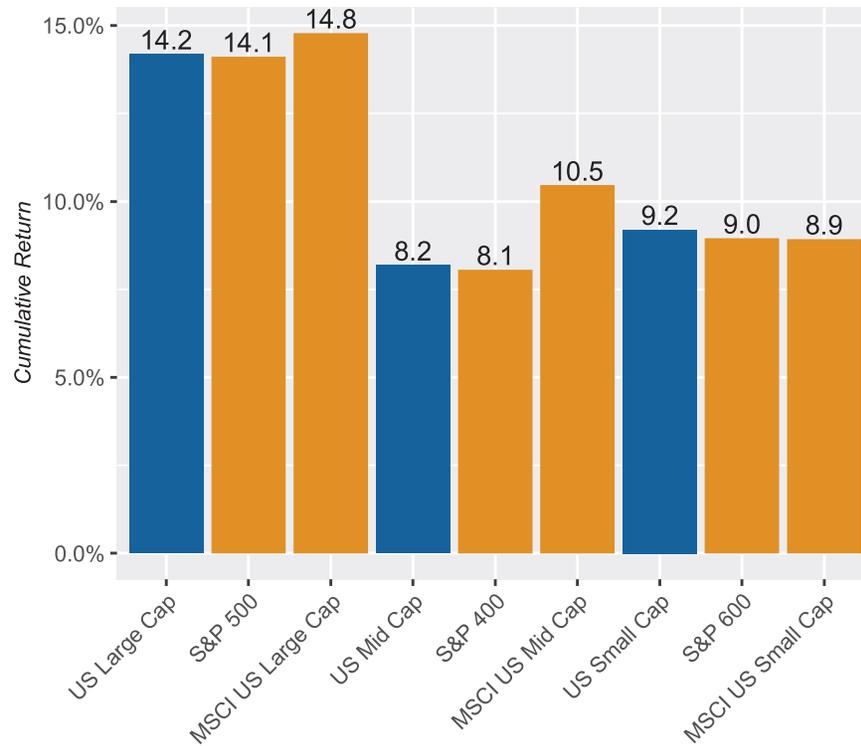
Fiscal Year to Date Dollar Value Add



Internally Managed Portfolios through 1/21/2020

Internal Portfolios and Benchmarks

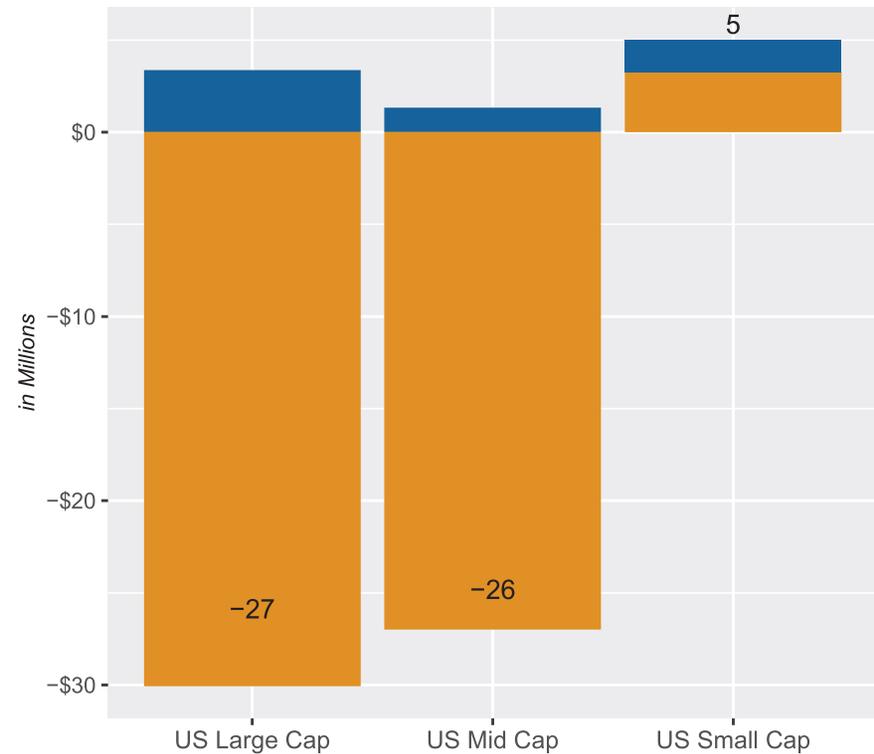
Fiscal Year to Date Returns



Portfolio Benchmark

Internal Portfolio Dollar Value Add

Fiscal Year to Date Dollar Value Add

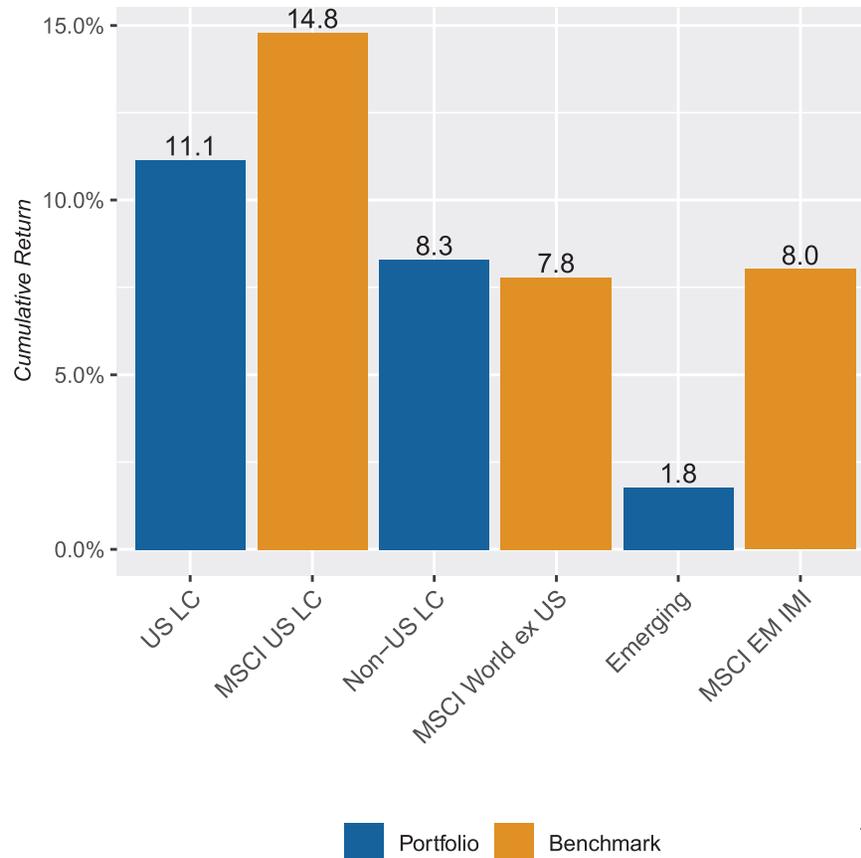


Excess Index Selection

Factor Portfolios through 1/21/2020

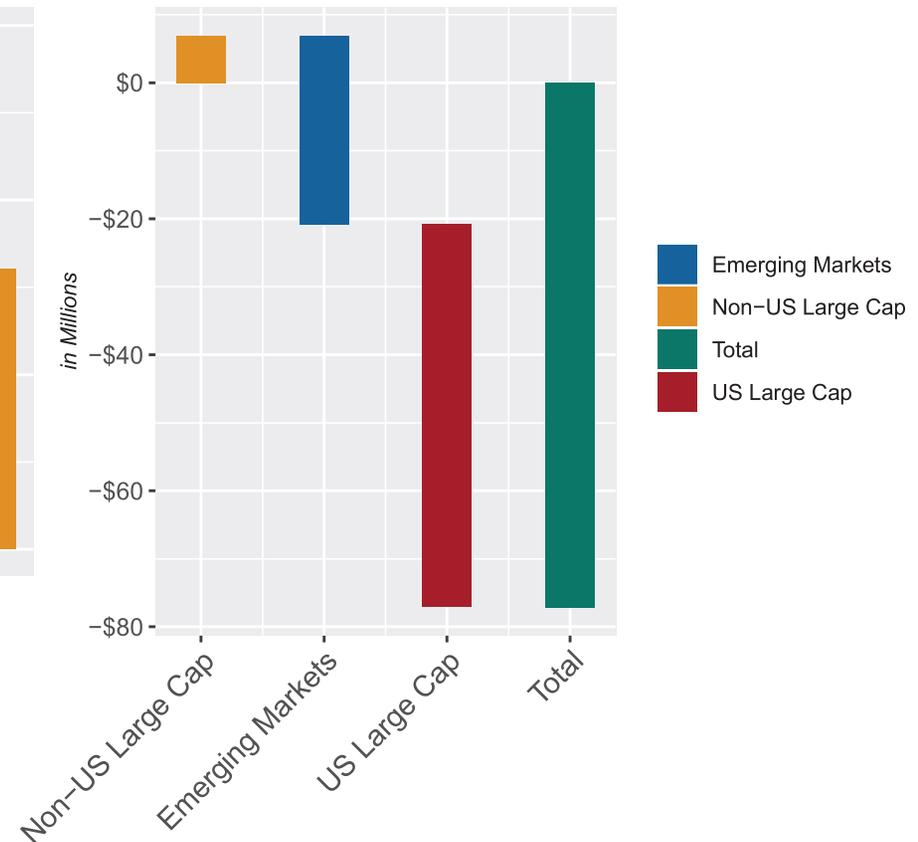
Factor Portfolios and Benchmark

Fiscal Year to Date



Factor Portfolio Dollar Value Add

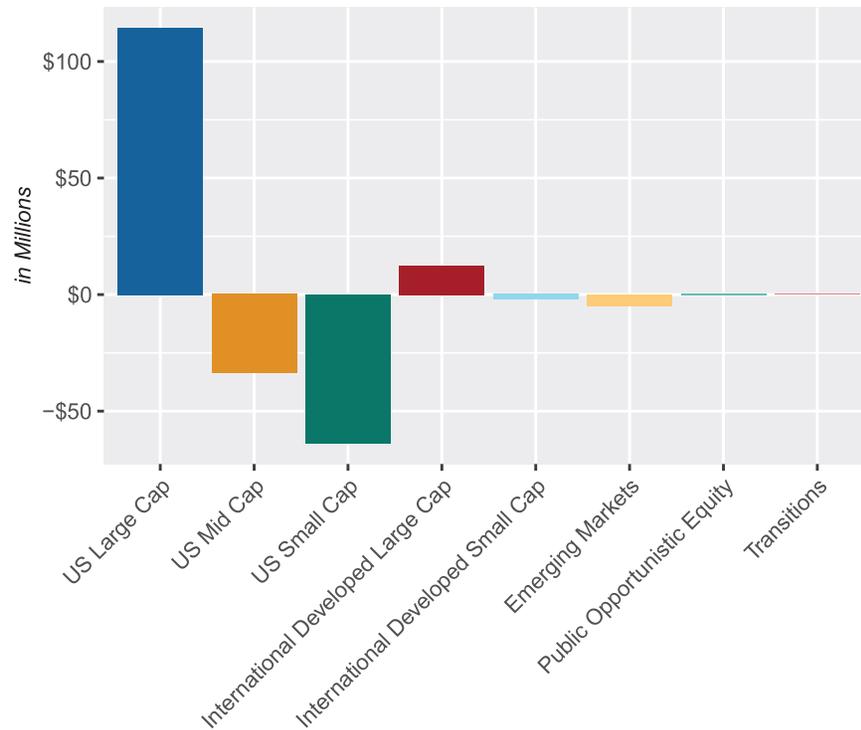
Fiscal Year to Date Dollar Value Add



Public Equity Allocation through 1/21/2020

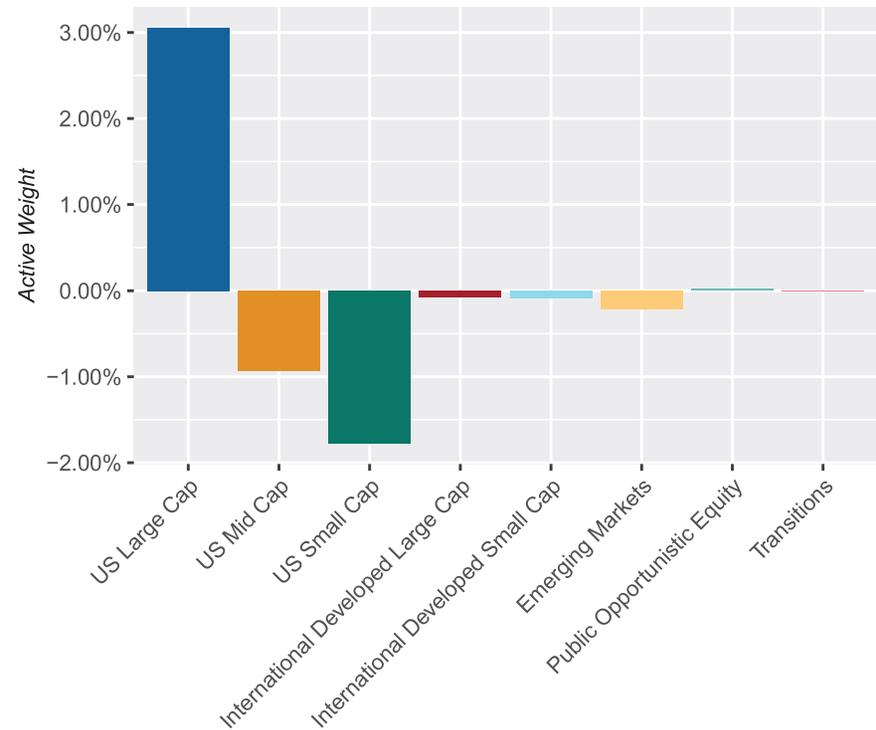
Allocation Effect by ACWI Subcomponents

Relative to ACWI IMI



Composite Average Active Weights

Relative to ACWI IMI



Quarterly Performance

December 31, 2019 Estimated
Fiscal Year to Date
Quarterly Performance
Quarterly Performance
Equity
Private Equity
Real Estate
Credit
MSCI Risk Report

External Reports

External Reports

State Street Performance Summary for the period ended September 30, 2019

ARIZONA STATE RETIREMENT SYSTEM
 Investment Management Division
 Sep-30-2019
 Net Returns
 Final

ASRS Performance Summary



| | Benchmark | Market Value (\$mil.) | 1 Mth | 3 Mth | FYTD | 1 Year | 3 Year | 5 Year | ITD | Inception Date |
|-------------------------|--|-----------------------|-------|-------|-------|--------|--------|--------|-------|----------------|
| TOTAL PLAN | INTERIM SAA POLICY | 41,401 | 1.16 | 1.23 | 1.23 | 4.89 | 9.13 | 7.17 | 9.63 | 07-01-1975 |
| Excess | | | -0.54 | 0.06 | 0.06 | 1.07 | 1.99 | 1.72 | 0.42 | |
| TOTAL EQUITY | LEGACY Total Equity BM | 22,248 | 2.17 | 0.58 | 0.58 | 2.30 | 10.21 | 7.66 | 9.31 | 07-01-2013 |
| Excess | | | -0.74 | 0.06 | 0.06 | 0.91 | -0.13 | 0.07 | -0.03 | |
| US EQUITY | COMBINED DOMESTIC EQUITY INDEX | 10,118 | 2.77 | 1.45 | 1.45 | 2.18 | 11.92 | 10.13 | 11.18 | 07-01-1975 |
| Excess | | | 0.99 | 0.22 | 0.22 | -0.83 | -1.08 | -0.81 | -0.15 | |
| INTERNATIONAL EQUITY | INTERNATIONAL EQUITY INDEX | 8,023 | 2.60 | -1.71 | -1.71 | -2.20 | 6.28 | 3.19 | 5.83 | 04-01-1987 |
| Excess | | | 0.05 | 0.00 | 0.00 | -0.35 | 0.01 | -0.10 | 0.24 | |
| PRIVATE EQUITY | MSCI ACWI IMI w/USA GROSS (NET) LAGGED | 4,107 | -0.05 | 3.04 | 3.04 | 12.83 | 14.99 | 11.75 | 7.73 | 09-01-2007 |
| INTEREST RATE SENSITIVE | BBG BARC Agg (Dly) | 4,254 | -0.53 | 2.31 | 2.31 | 10.21 | 3.00 | 3.66 | 7.88 | 07-01-1975 |
| Excess | | | 0.00 | 0.04 | 0.04 | -0.09 | 0.08 | 0.28 | | |
| CREDIT | LEGACY Total Credit BM | 8,114 | -0.02 | 2.35 | 2.35 | 8.21 | 9.93 | 7.65 | 7.56 | 07-01-2013 |
| Excess | | | -0.47 | 0.05 | 0.05 | 1.65 | 2.51 | 2.57 | | |
| PRIVATE DEBT | S&P LEVERAGED LOAN INDEX LAGGED + 250BPS | 5,684 | -0.02 | 2.30 | 2.30 | 8.65 | 10.70 | 10.02 | 11.76 | 10-01-2012 |
| Excess | | | -0.47 | -0.01 | -0.01 | 2.09 | 2.84 | 3.75 | 4.69 | |
| DISTRESSED DEBT | S&P LEVERAGED LOAN INDEX LAGGED + 250BPS | 1,757 | -0.00 | 2.77 | 2.77 | 7.93 | | | 9.21 | 07-01-2018 |
| Excess | | | -0.45 | 0.46 | 0.46 | 1.37 | | | 2.89 | |
| OTHER CREDIT | S&P LEVERAGED LOAN INDEX LAGGED + 250BPS | 671 | 0.00 | 1.10 | 1.10 | 8.85 | | | 11.96 | 07-01-2018 |
| Excess | | | -0.45 | -1.20 | -1.20 | 2.29 | | | 5.64 | |
| REAL ESTATE | Custom ASRS ODCE (Net) | 6,297 | 0.37 | 1.55 | 1.55 | 7.66 | 8.52 | 10.92 | 6.48 | 12-01-2005 |
| CASH | CASH CUSTOM INDEX | 488 | 0.25 | 1.25 | 1.25 | 2.76 | 6.30 | 3.00 | 4.03 | 04-01-1990 |
| Excess | | | 0.08 | 0.68 | 0.68 | 0.37 | 0.35 | -0.66 | 0.68 | |
| OTHER | ICE BofA US 3-Month Treasury Bill | 0 | 28.34 | 14.16 | 14.16 | 13.20 | 8.70 | 2.97 | 4.37 | 07-01-2013 |
| Excess | | | 28.16 | 13.60 | 13.60 | 10.82 | 7.16 | 1.99 | 3.58 | |

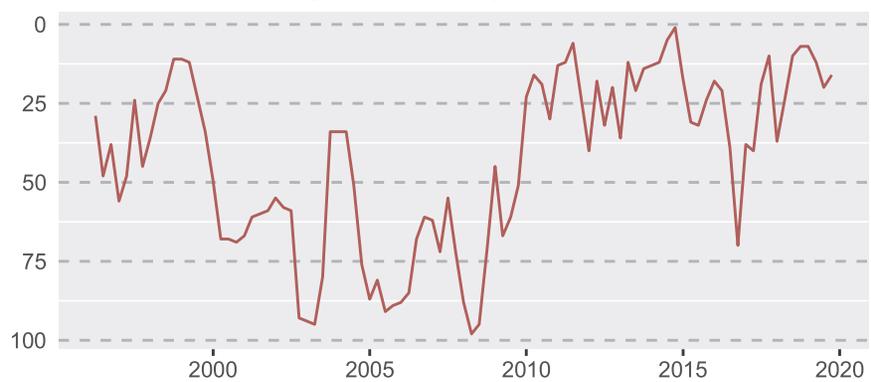
ASRS Returns Compared to Public Fund Universe for the period ended September 30, 2019

UNIVERSE COMPARISON

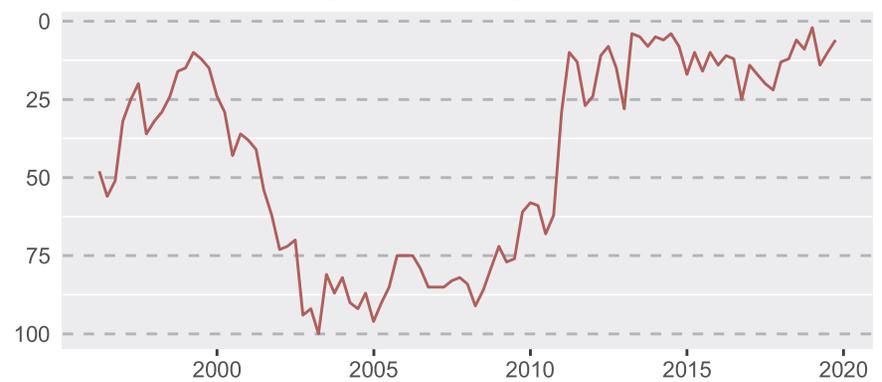


Total Fund Rolling Percentile Rankings for the period ended 9/30/2019

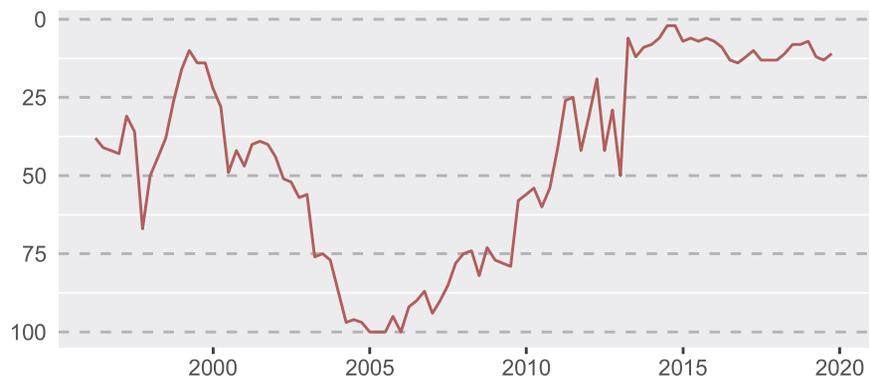
Total Fund One Year Rolling Percentile Rankings



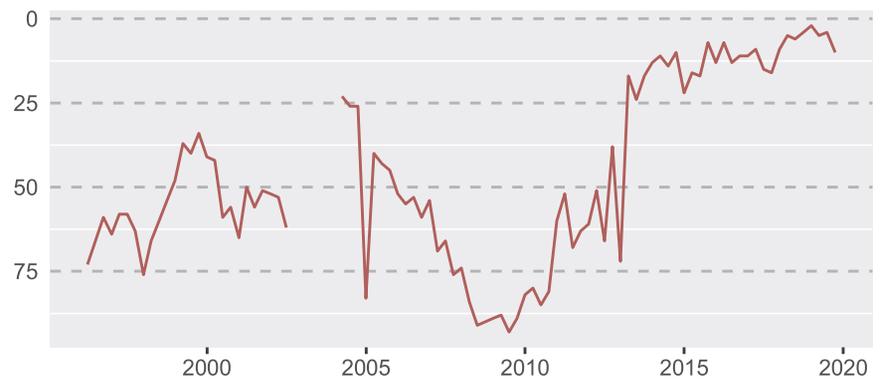
Total Fund Three Year Rolling Percentile Rankings



Total Fund Five Year Rolling Percentile Rankings



Total Fund Ten Year Rolling Percentile Rankings



Annual returns for years ended September 30

ASRS Asset Class Net Returns
 1-Year Returns ending September 30

| | | | | | |
|-----------------------------------|--|-----------------------------------|------------------------------------|---------------------------------------|---------------------------------------|
| RE SMA 27.9 | RE SMA 17.8 | US Equity 15.5 | Emerging Marke: Equity 23.7 | US Equity 16.7 | Core Bonds 10.2 |
| Private Equity 17.0 | Real Estate 13.6 | Emerging Market Equity 14.8 | non-US Developed Equity 19.5 | Private Equity 15.9 | Private Debt 9.0 |
| US Equity 16.7 | Private Debt 8.8 | RE SMA 13.0 | Public Equity 19.0 | Private Debt 11.0 | Credit 8.6 |
| Real Estate 15.2 | Private Equity 5.2 | Public Equity 11.7 | US Equity 17.6 | Credit 10.3 | Private Equity 8.6 |
| Dist Debt 12.9 | Credit 4.9 | Private Equity 11.3 | RE SMA 14.5 | Public Equity 9.4 | Dist Debt 8.0 |
| Public Equity 11.6 | Core Bonds 3.2 | Real Estate 11.1 | Total Fund 14.0 | Total Fund 8.7 | RE SMA 7.5 |
| Credit 11.6 | US Equity 0.1 | Private Debt 10.8 | Dist Debt 12.3 | Dist Debt 8.5 | Real Estate 6.4 |
| Private Debt 11.6 | Total Fund -0.2 | Total Fund 9.0 | Private Equity 12.0 | Real Estate 8.2 | Total Fund 4.9 |
| Total Fund 10.8 | Dist Debt -0.5 | Credit 8.3 | Credit 11.4 | RE SMA 8.1 | US Equity 2.3 |
| Emerging Market Equity 6.7 | Public Equity -4.0 | non-US Developed Equity 6.2 | Private Debt 11.2 | non-US Developed Equity 3.3 | Public Equity 0.2 |
| Core Bonds 4.0 | non-US Developed Equity -7.4 | Core Bonds 6.1 | Real Estate 10.9 | Core Bonds -1.1 | non-US Developed Equity -1.4 |
| non-US Developed Equity 3.8 | Emerging Marke t Equity -20.0 | Dist Debt 2.4 | Core Bonds 0.2 | Emerging Marke t Equity -1.9 | Emerging Marke t Equity -3.4 |
| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |

- Asset Class:
- Core Bonds
 - Credit
 - Dist Debt
 - Emerging Market Equity
 - non-US Developed Equity
 - Private Debt
 - Private Equity
 - Public Equity
 - RE SMA
 - Real Estate
 - Total Fund
 - US Equity

Annual excess returns for years ended September 30

ASRS Asset Class Excess Returns
 1-Year Excess Returns ending September 30

| | | | | | |
|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| RE SMA 17.1 | Private Debt 5.2 | RE SMA 2.8 | RE SMA 7.5 | Private Equity 8.9 | Private Equity 8.1 |
| Private Equity 13.2 | RE SMA 4.9 | Private Debt 2.0 | Dist Debt 4.3 | Private Debt 3.2 | RE SMA 3.4 |
| Private Debt 5.1 | Private Equity 4.4 | Total Fund 1.3 | Real Estate 4.2 | Credit 2.4 | Private Debt 3.3 |
| Dist Debt 4.9 | Real Estate 1.6 | Real Estate 1.3 | Credit 3.5 | Total Fund 1.3 | Credit 2.9 |
| Credit 4.5 | Total Fund 1.3 | Core Bonds 0.9 | Private Debt 3.3 | Real Estate 1.3 | Real Estate 2.3 |
| Real Estate 4.4 | non-US Developed Equity 1.3 | Credit -0.2 | Total Fund 3.2 | RE SMA 1.4 | Dist Debt 2.3 |
| Emerging Market Equity 2.4 | Core Bonds 0.3 | US Equity -0.3 | Emerging Marke: Equity 1.2 | Dist Debt 0.3 | Total Fund 1.1 |
| Total Fund 1.2 | Public Equity 0.1 | non-US Developed Equity -0.3 | non-US Developed Equity 0.4 | non-US Developed Equity 0.3 | Core Bonds -0.1 |
| Public Equity 0.3 | Credit -0.5 | Public Equity -0.9 | Core Bonds 0.2 | Core Bonds 0.2 | non-US Developed Equity -0.4 |
| US Equity 0.3 | US Equity -0.5 | Emerging Market Equity -1.9 | Public Equity -0.6 | Public Equity -0.7 | Public Equity -0.6 |
| Core Bonds 0.0 | Emerging Market Equity -0.7 | Private Equity -4.1 | US Equity -1.2 | Emerging Market Equity -0.7 | US Equity -0.8 |
| non-US Developed Equity -0.5 | Dist Debt -8.5 | Dist Debt -5.6 | Private Equity -8.2 | US Equity -1.2 | Emerging Market Equity -1.0 |
| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |

- Asset Class:
- Core Bonds
 - Credit
 - Dist Debt
 - Emerging Market Equity
 - non-US Developed Equity
 - Private Debt
 - Private Equity
 - Public Equity
 - RE SMA
 - Real Estate
 - Total Fund
 - US Equity

ASRS Goals Met for the period ended September 30, 2019

ASRS INVESTMENT OBJECTIVES

Goal #4: Design, implement, and maintain an investment management program that maximizes rates of return for acceptable of levels of risk.

- a) Develop, approve and implement an Asset Allocation program that is expected to achieve a 20-year rolling average annual return at or above the actuarial assumed return
Goal met: Yes
- b) Achieve a total fund net return in the top quartile of the peer universe
Goal met: Yes
- c) Achieve a 1 year total fund net return greater than the Strategic Asset Allocation Benchmark
Goal met: Yes
- d) Achieve a 3-year total fund net return greater than the Strategic Asset Allocation Benchmark
Goal met: Yes
- e) Achieve 1 year asset class net returns greater than the respective Asset Allocation Benchmarks
Goal met: Partial
- f) Achieve 3 year asset class net returns greater than the respective Asset Allocation Benchmarks
Goal met: Yes
- g) Sufficient cash will be maintained to meet all payment requirements
Goal met: Yes

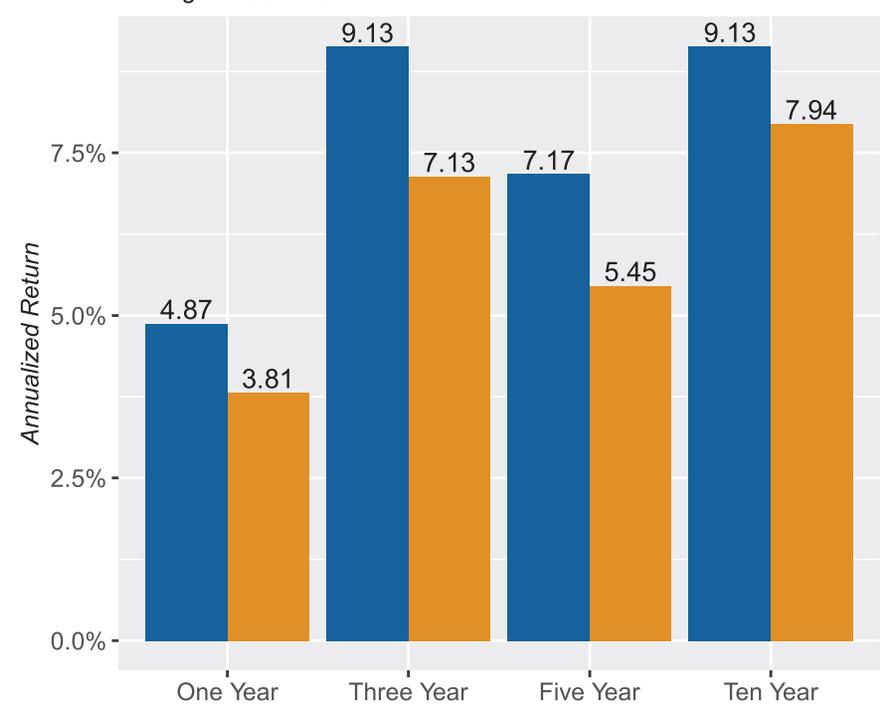
Quarterly Performance

Total Fund

Trailing Returns & Dollar Value Add for the period ended 9/30/2019

Total Fund and Strategic Asset Allocation Benchmark

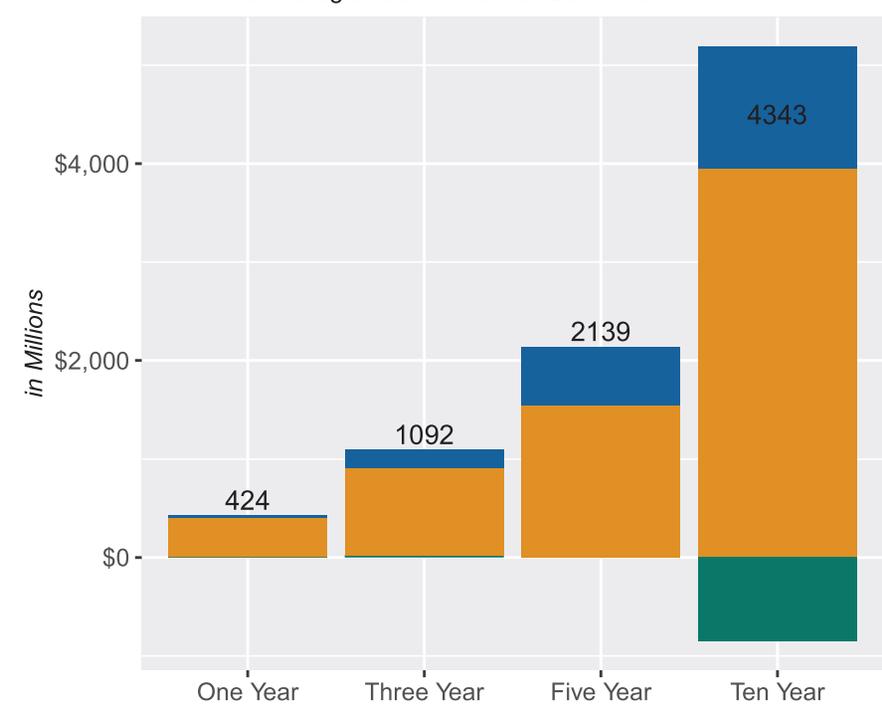
Trailing Period Returns



■ Total Fund ■ Strategic Asset Allocation Benchmark

Total Fund Dollar Value Add

Relative to Strategic Asset Allocation Benchmark

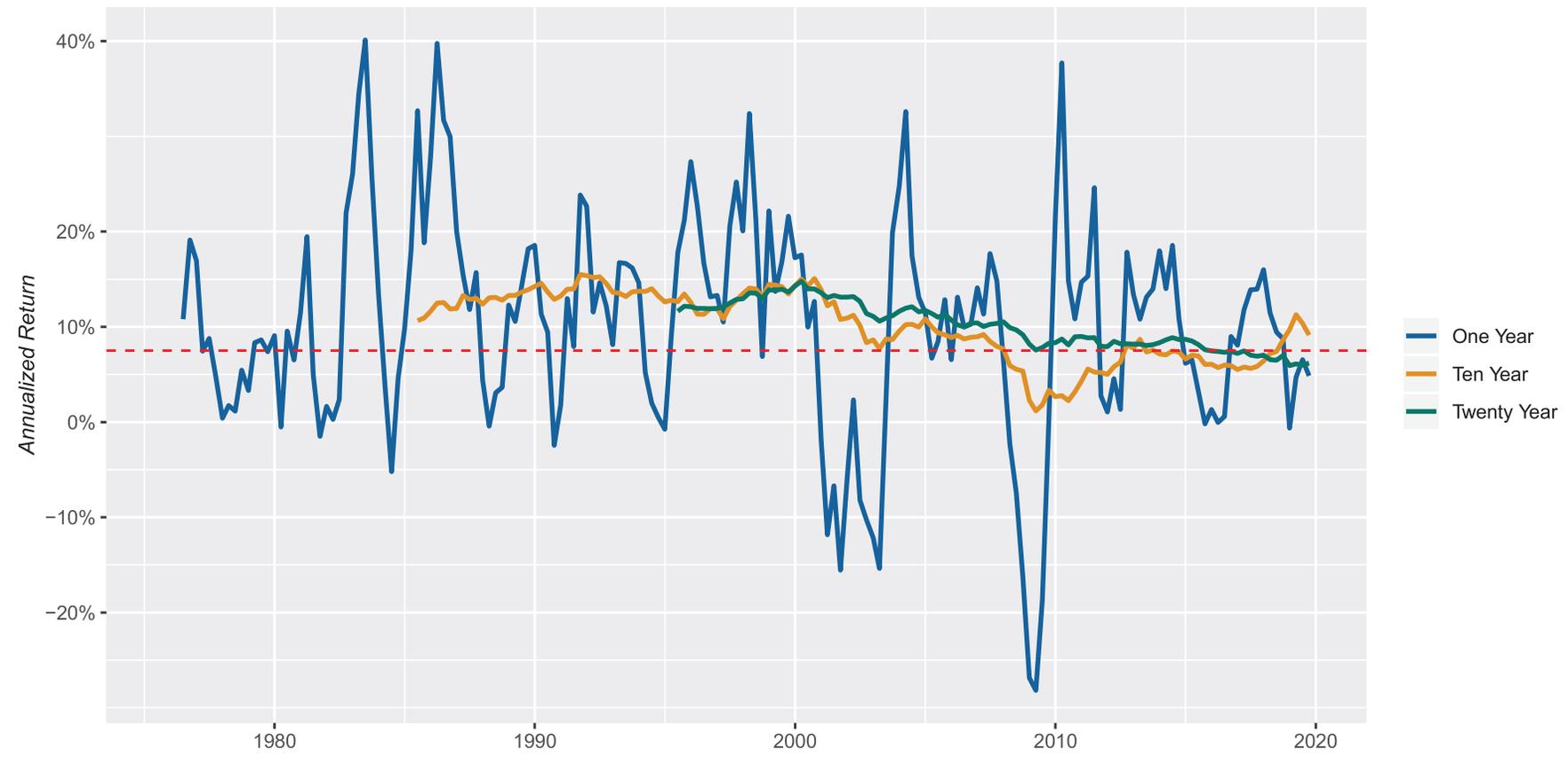


■ Allocation ■ Excess Return ■ Residual

Total Fund Returns for the period ended 9/30/2019

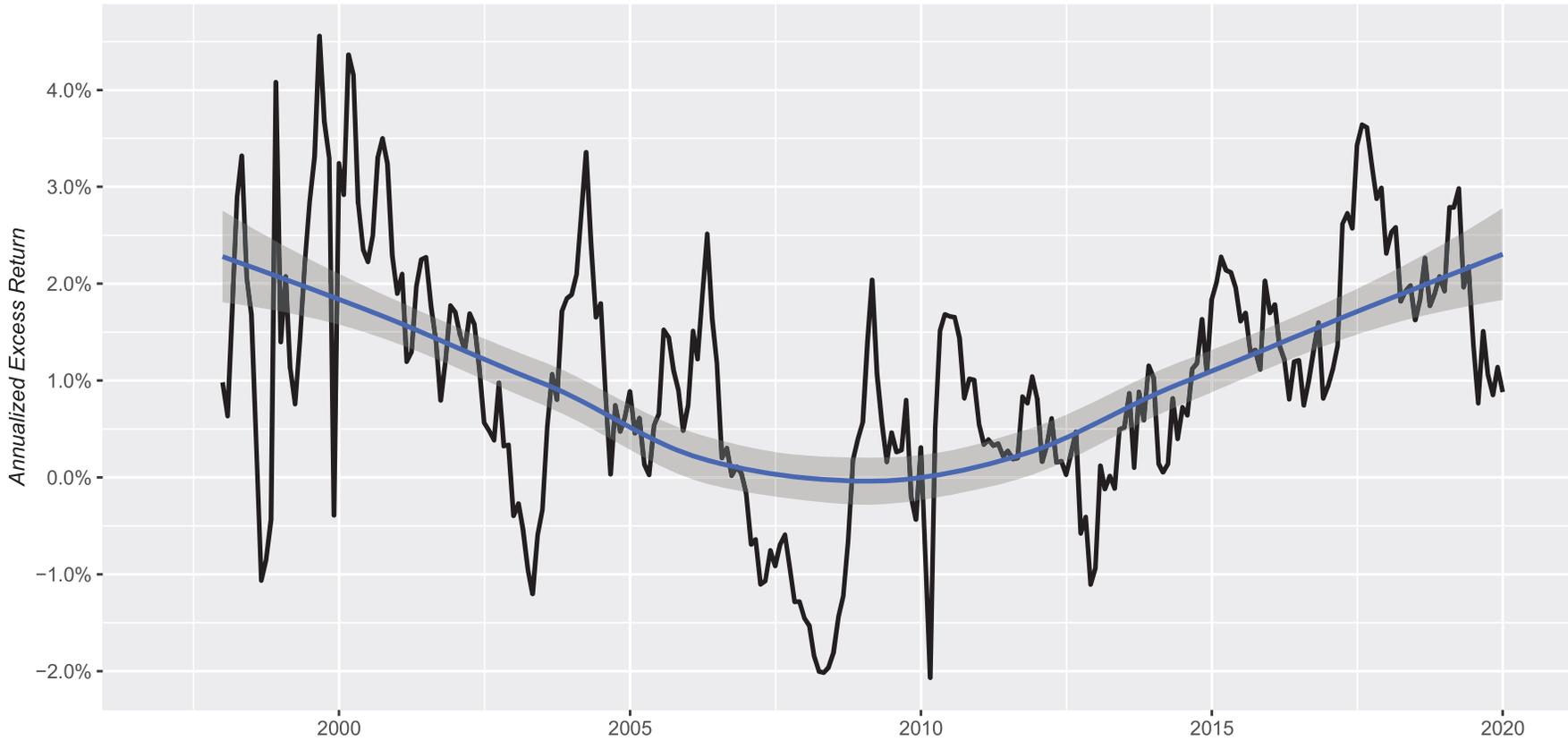
Total Fund Rolling Returns

Trailing Period Returns



Total Fund Rolling 1 Year Excess Return for the period ended 9/30/2019

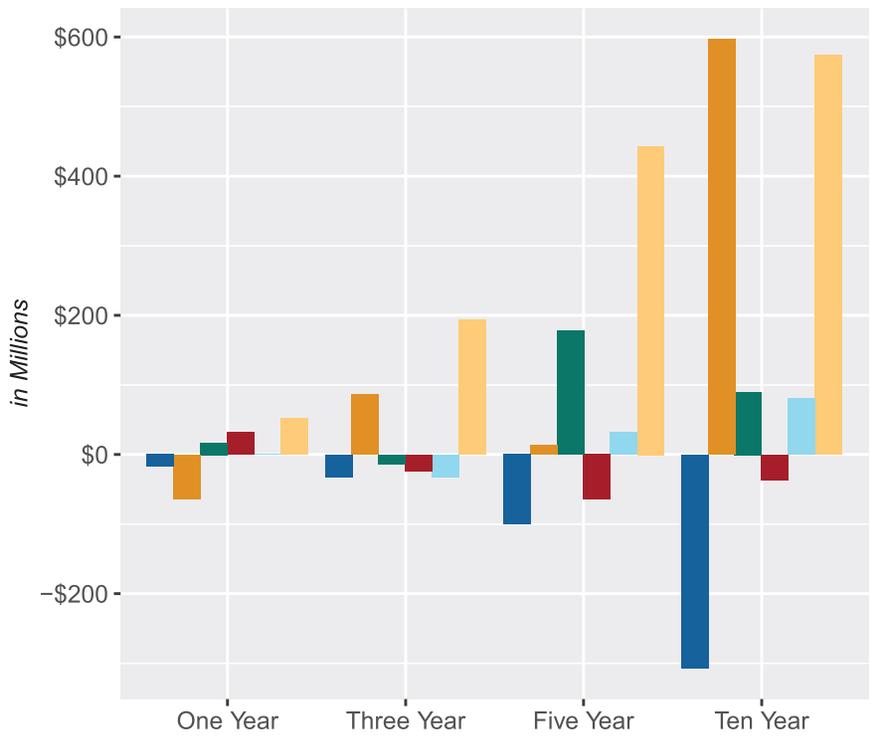
Total Fund Rolling 1 Year Excess



Allocation Effect for the period ended 9/30/2019

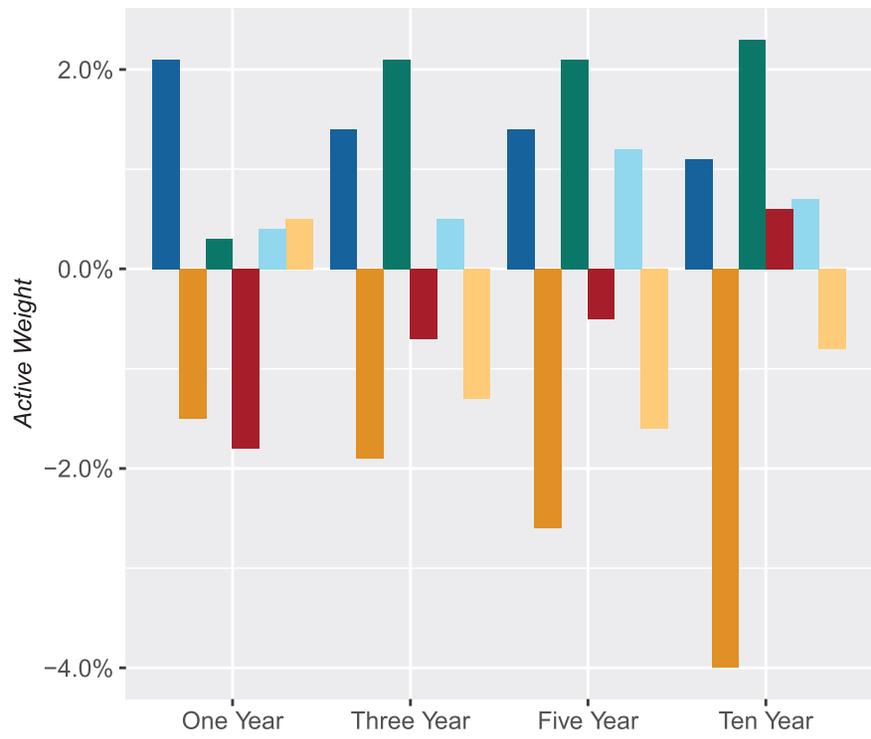
Allocation Effect by Asset Class

Relative to Strategic Asset Allocation Benchmark



Asset Class Average Active Weights

Relative to Strategic Asset Allocation Policy

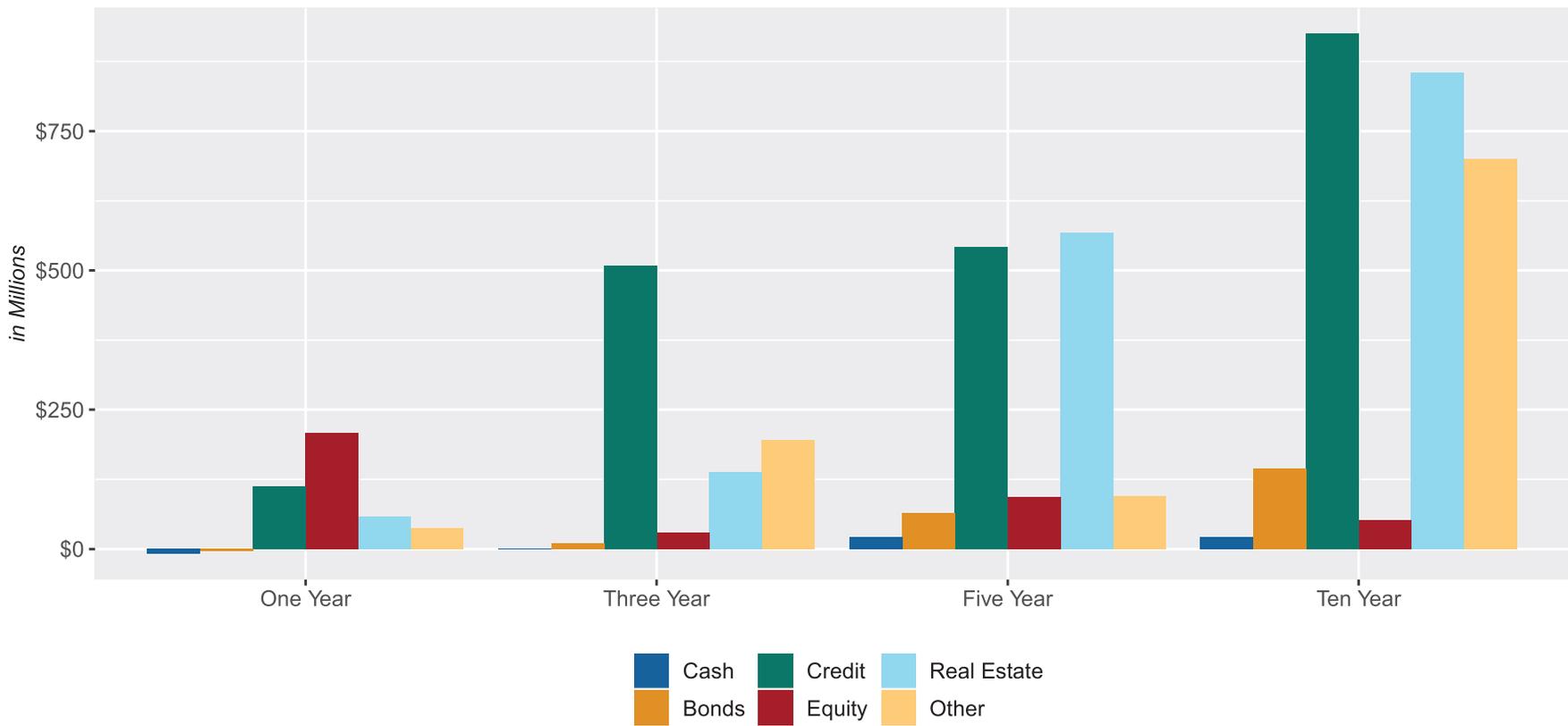


| | | |
|---|---|--|
| ■ Cash | ■ Credit | ■ Real Estate |
| ■ Bonds | ■ Equity | ■ Other |

Excess Return by Asset Class for the period ended 9/30/2019

Excess Return by Asset Class

Relative to Strategic Asset Allocation Benchmark



Equity

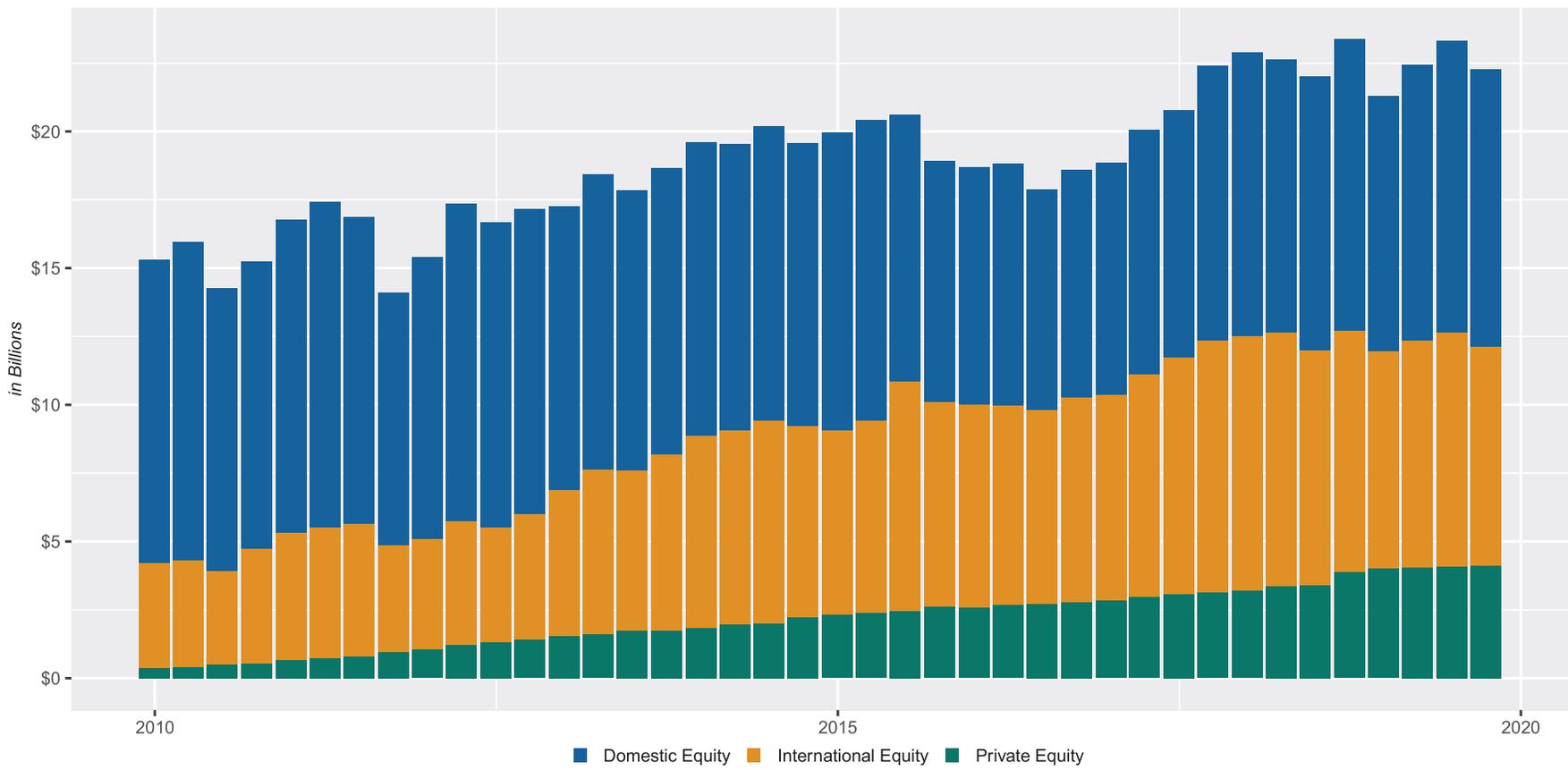
Total Equities for the period ended 9/30/2019

Returns for the period ended 9/30/2019

| Composite | Quarter | One Year | Three Year | Five Year |
|----------------------|---------|----------|------------|-----------|
| Equity | 0.58% | 2.28% | 10.2% | 7.65% |
| Benchmark | 0.52% | 1.37% | 10.33% | 7.57% |
| Excess | 0.06% | 0.9% | -0.13% | 0.08% |
| Public Equity | 0.03% | 0.16% | 9.24% | 6.93% |
| Benchmark | -0.1% | 0.8% | 9.88% | 7.44% |
| Excess | 0.12% | -0.64% | -0.64% | -0.51% |
| US Equity | 1.45% | 2.26% | 11.95% | 10.15% |
| Benchmark | 1.23% | 3.01% | 12.99% | 10.94% |
| Excess | 0.22% | -0.75% | -1.05% | -0.79% |
| International Equity | -1.71% | -2.28% | 6.25% | 3.17% |
| Benchmark | -1.72% | -1.85% | 6.27% | 3.29% |
| Excess | 0.01% | -0.43% | -0.02% | -0.12% |
| Private Equity | 3.28% | 12.85% | 14.82% | 11.6% |
| Benchmark | 3.12% | 5.26% | 12.43% | 7.4% |
| Excess | 0.16% | 7.58% | 2.38% | 4.2% |

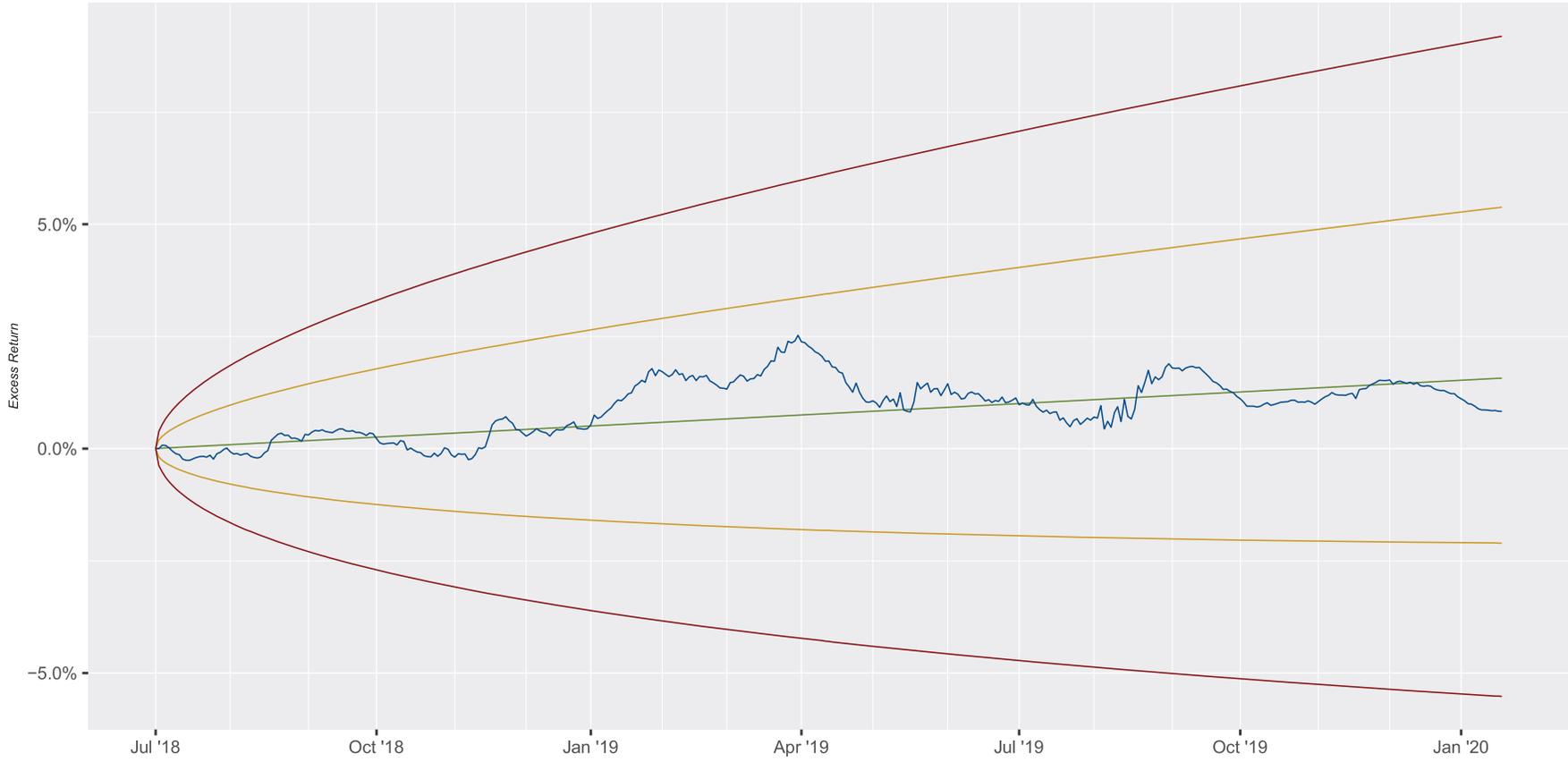
Total Equity Market Values for the period ended 9/30/2019

Market Values

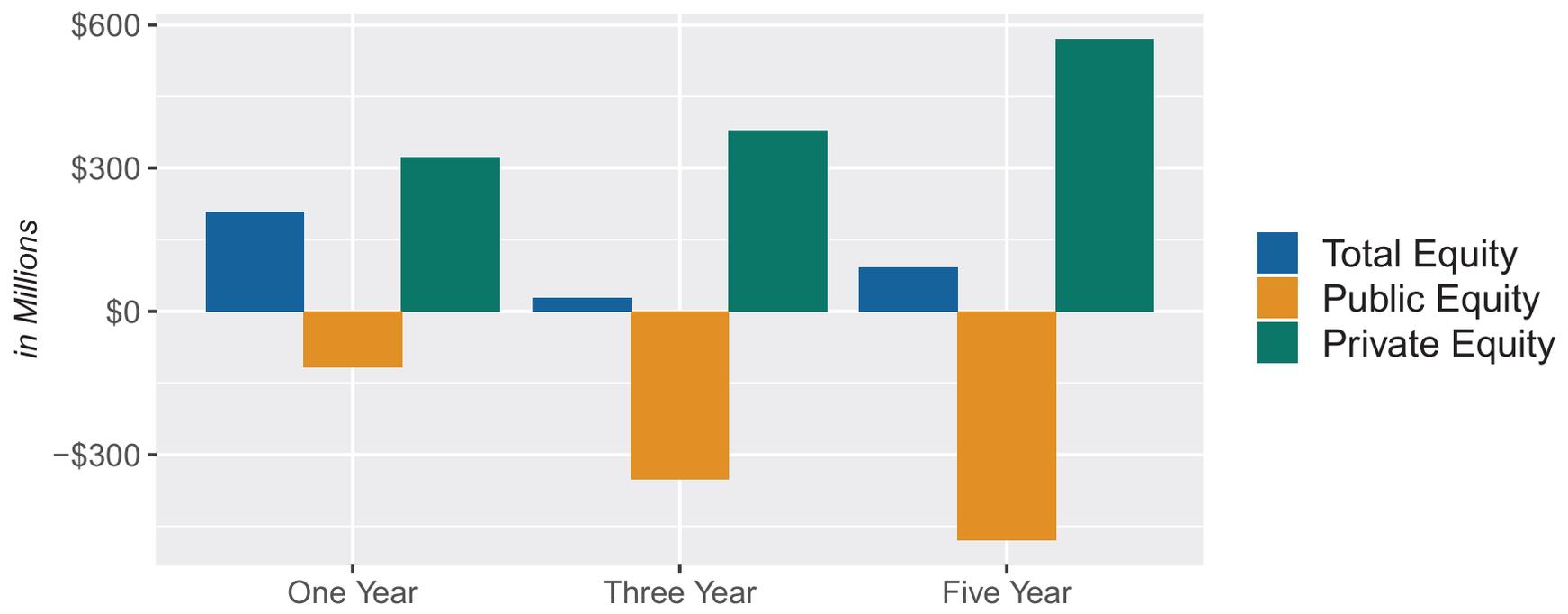


Total Equity Performance for the period ended 9/30/2019

Total Equity Portfolio Performance versus Expectations
100 Basis Points Expected Excess Return with 300 Basis Points Tracking Error



Total Equity Dollar Value Add for the period ended 9/30/2019

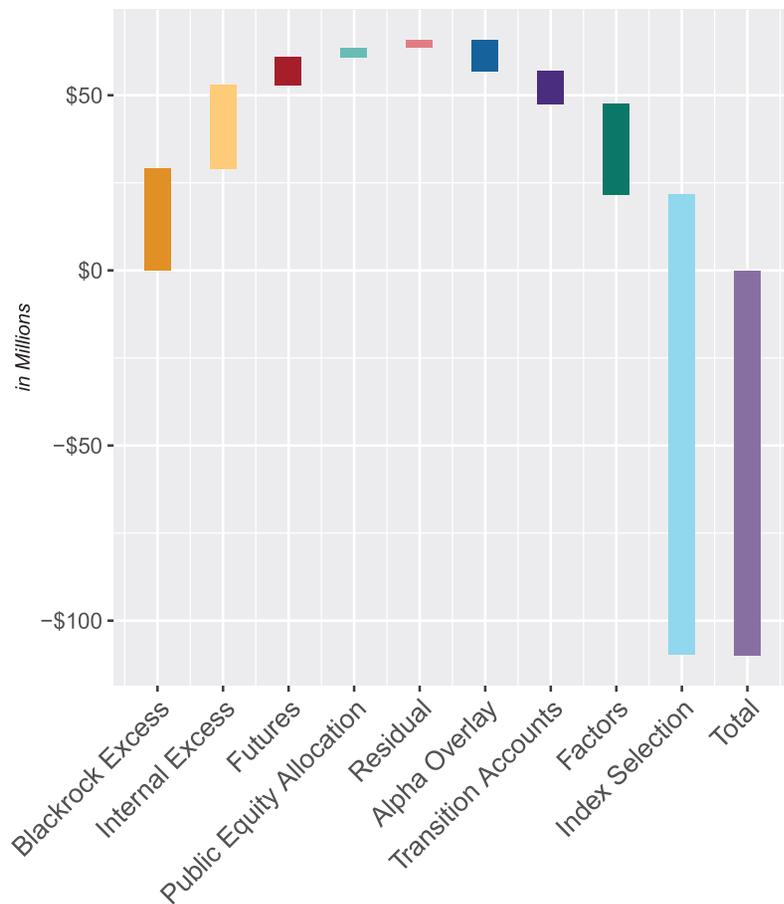


Public Equity

Public Equity “Levers” for the period ended 9/30/2019

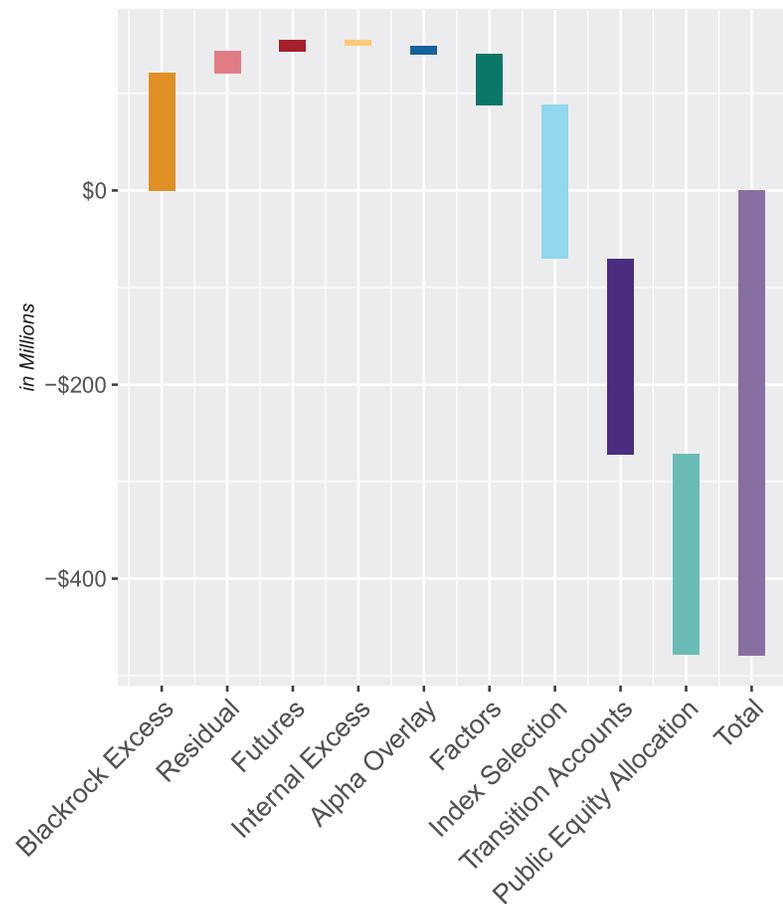
Public Equity Dollar Value Add

One Year



Public Equity Dollar Value Add

Trailing 5 Years



Private Equity

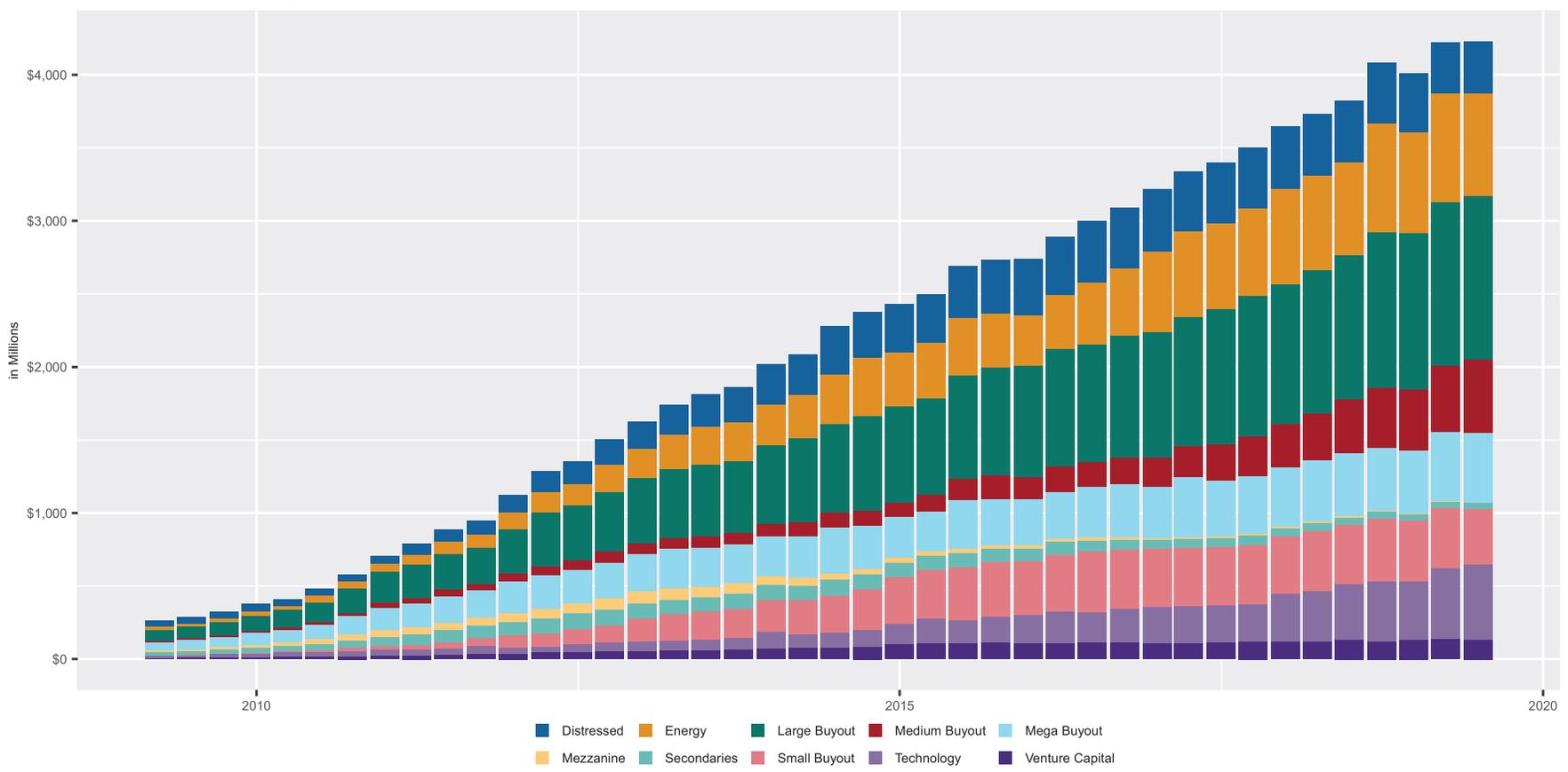
Private Equity Performance Overview & Allocation for the period ended 6/30/2019

Private Equity Internal Rate of Return

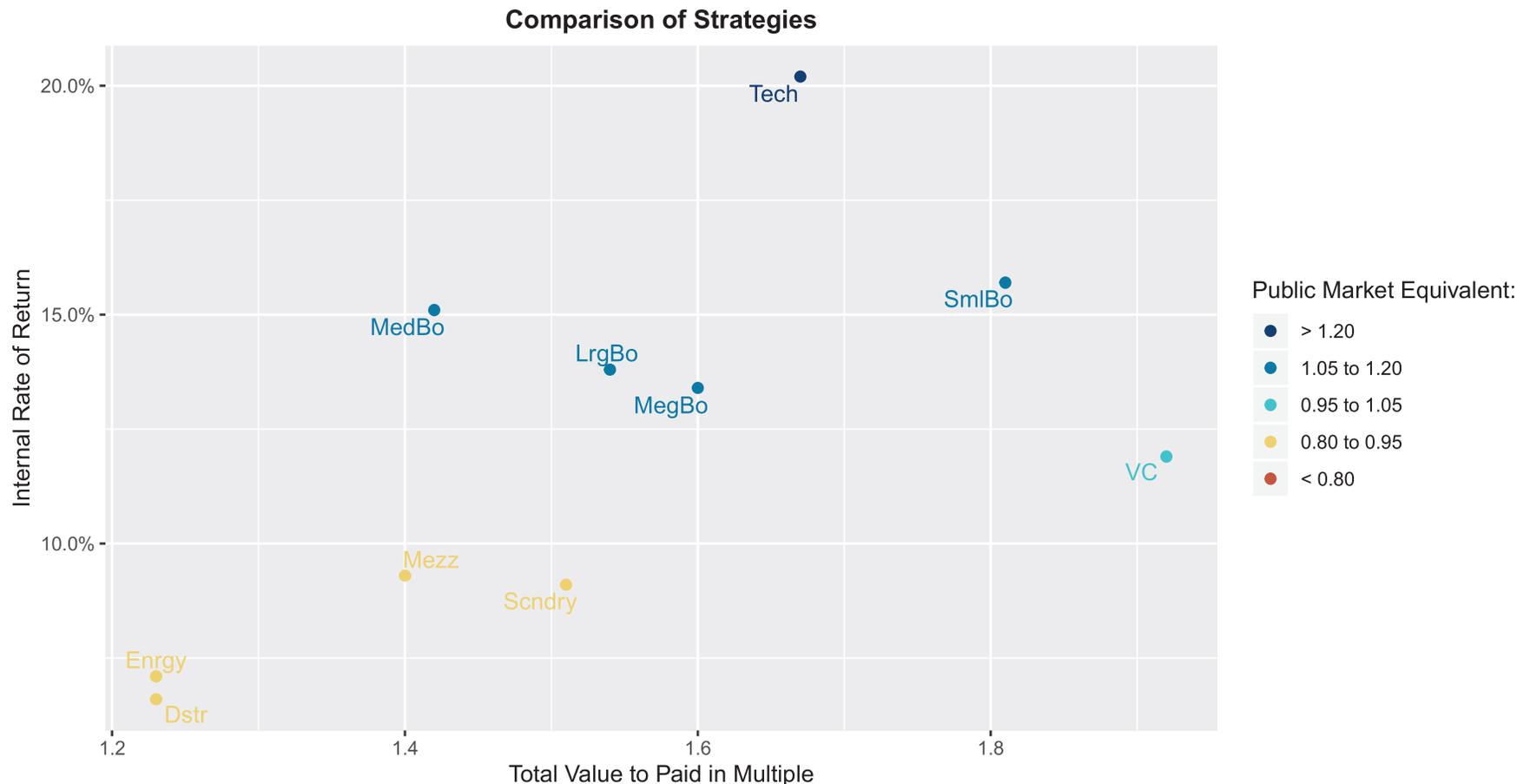
| Category | Quarter | One Year | Three Year | Five Year | Ten Year | Inception |
|-----------------|---------|----------|------------|-----------|----------|-----------|
| Private Equity | 3.3% | 12.8% | 14.8% | 11.6% | 13.6% | 12.5% |
| Benchmark | 3.1% | 5.3% | 12.4% | 7.4% | 11.9% | 11.2% |
| Excess | 0.2% | 7.6% | 2.4% | 4.2% | 1.8% | 1.2% |
| Burgiss | 3.1% | 5.3% | 12.4% | 7.4% | 11.9% | 11.2% |
| Burgiss Excess | 0.4% | 3.1% | 1.2% | 0.5% | 1.1% | 0% |
| Distressed | 2.5% | -5.4% | 3.2% | 1.5% | 6.8% | 6.6% |
| Energy | -3.6% | 1.4% | 8.4% | 2.8% | 7.5% | 7.1% |
| Large Buyout | 6% | 15.6% | 16.2% | 12.7% | 14.9% | 13.8% |
| Medium Buyout | 3% | 16% | 16.3% | 18.5% | 16.5% | 15.1% |
| Mega Buyout | 3.2% | 11.5% | 18.6% | 14% | 15.7% | 13.4% |
| Mezzanine | 3.2% | -11.8% | 5.9% | 8.4% | 9.9% | 9.3% |
| Secondaries | -4% | -0.3% | 6.9% | 4% | 11.4% | 9.1% |
| Small Buyout | 5.4% | 26.5% | 21.6% | 20.3% | 16.9% | 15.7% |
| Technology | 6.9% | 31.4% | 24.5% | 22.7% | 22.1% | 20.2% |
| Venture Capital | 5.2% | 17% | 15.5% | 15.1% | 13% | 11.9% |

Private Equity Decomposition for the period ended 6/30/2019

Net Asset Value by Strategy



Private Equity Performance by Category for the period ended 6/30/2019



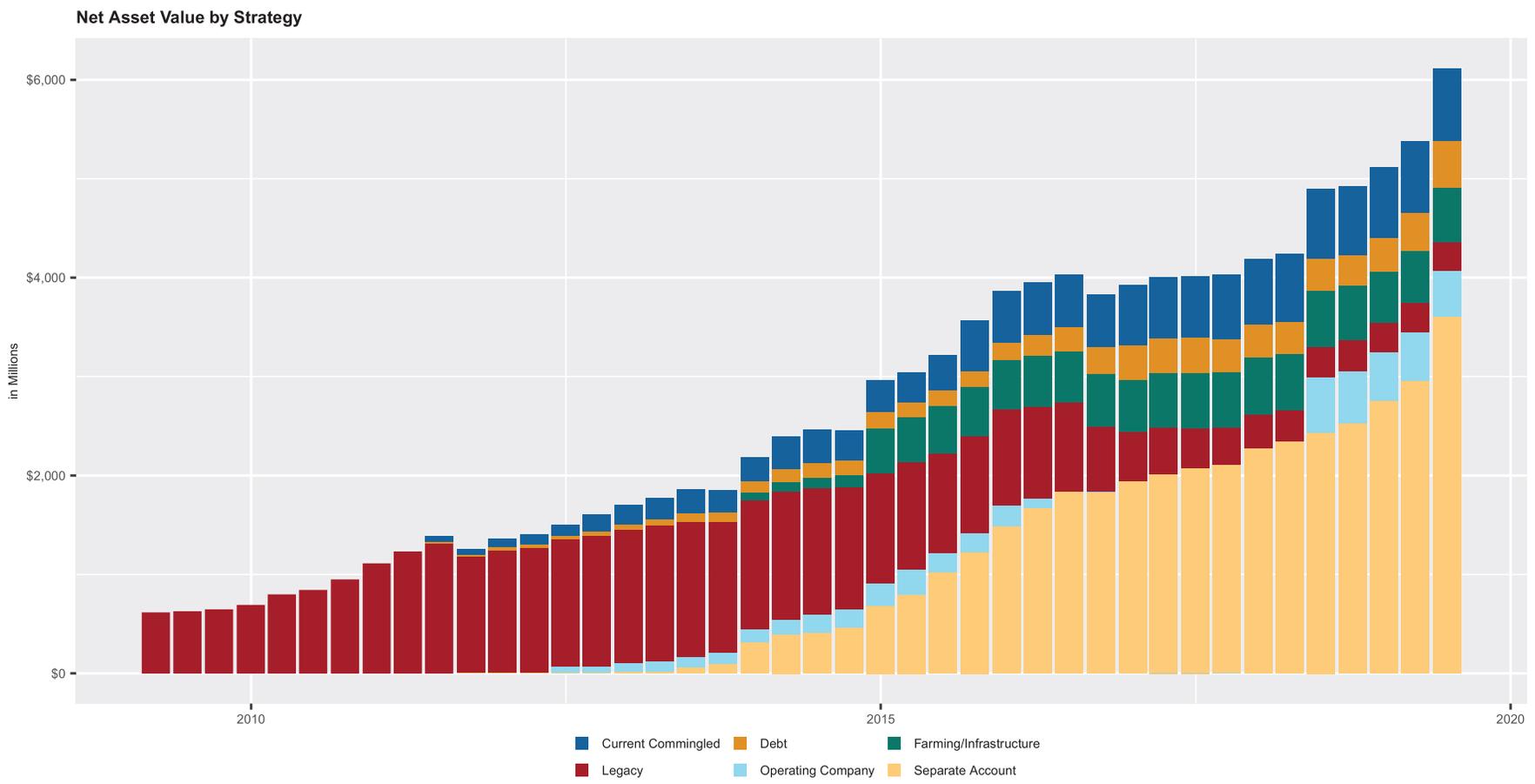
Real Estate

Real Estate Performance Overview & Allocation for the period ended 6/30/2019

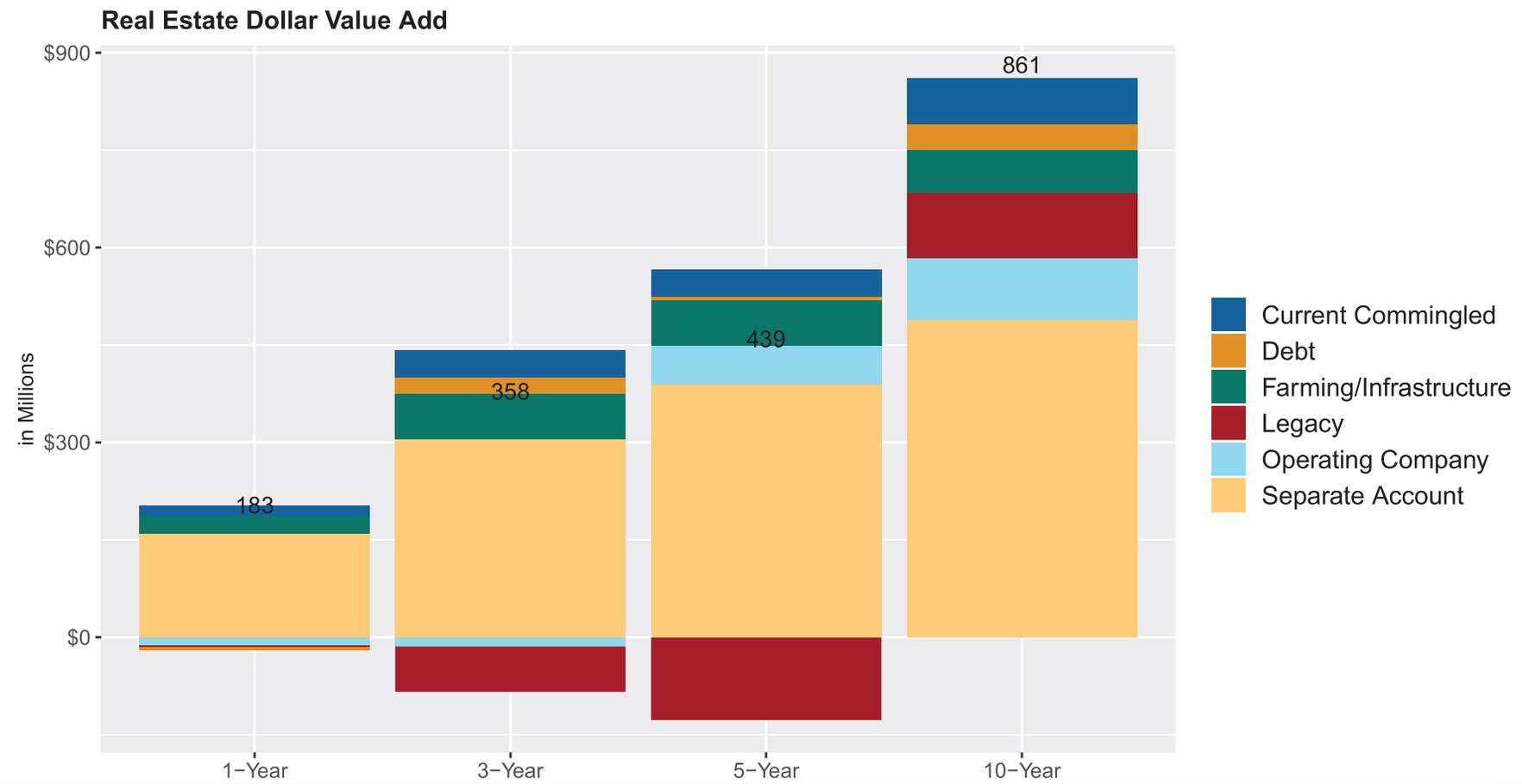
Real Estate Internal Rate of Return

| Category | Quarter | One Year | Three Year | Five Year | Ten Year | Inception |
|------------------------|---------|----------|------------|-----------|----------|-----------|
| Real Estate | 1.8% | 8.1% | 8.8% | 10.2% | 11.5% | 8.7% |
| Benchmark | 1.2% | 4.4% | 6.1% | 8.1% | 8.9% | 6.8% |
| Excess | 0.61% | 3.7% | 2.6% | 2% | 2.6% | 1.9% |
| Separate Account | 2.41% | 10.5% | 10.6% | 12% | 13.1% | 13.1% |
| Operating Company | -1.59% | 1.8% | 2.7% | 13.2% | 15.2% | 15.2% |
| Farming/Infrastructure | 2.38% | 9.9% | 9.7% | 8.1% | 7.9% | 7.9% |
| Legacy | 1.48% | 3.6% | 1.4% | 7.5% | 11.1% | 5.8% |
| Current Commingled | 1.52% | 6.6% | 8.4% | 9.9% | 11% | 11% |
| Debt | 1.17% | 3.2% | 8.9% | 8.6% | 11.3% | 11.3% |

Real Estate Net Asset Value by Strategy for the period ended 6/30/2019

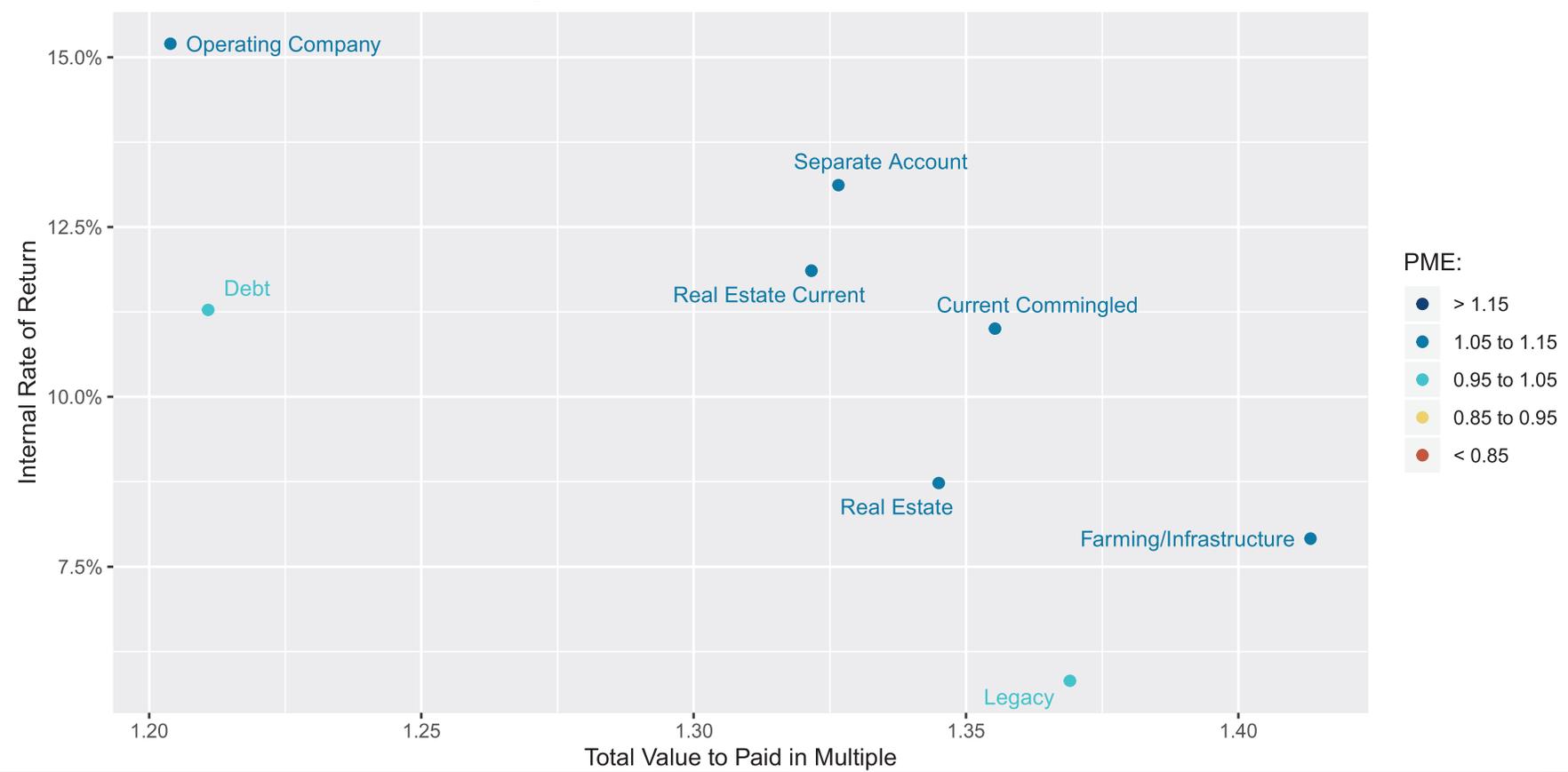


Real Estate Dollar Value Add for the period ended 6/30/2019



Real Estate Performance Summary for the period ended 6/30/2019

Comparison of Real Estate Strategies



Credit

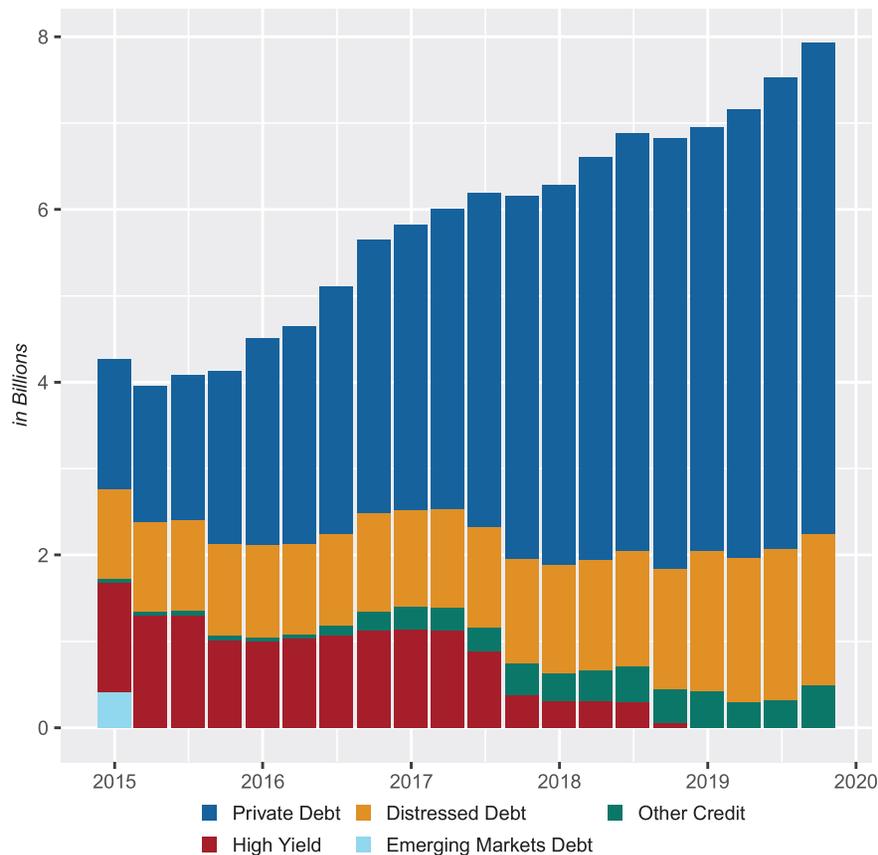
Total Credit for the period ended 9/30/2019

Credit Internal Rate of Return

| | Quarter | One Year | Three Year | Five Year |
|--|---------|----------|------------|-----------|
| Total Credit (TWR) | 2.35 | 8.21 | 9.93 | 7.65 |
| Blended Benchmark | 2.31 | 6.57 | 7.42 | 5.08 |
| Total Credit Excess | 0.04 | 1.65 | 2.51 | 2.57 |
| Private Debt (IRR) | 2.39 | 9.26 | 10.79 | 10.31 |
| S&P/LSTA Leveraged Loan + 250 Basis Points | 2.30 | 6.58 | 7.68 | 6.87 |
| Private Debt Excess | 0.09 | 2.68 | 3.11 | 3.44 |
| Distressed Debt (IRR) | 2.76 | 8.26 | 10.87 | 6.36 |
| Fixed 8% Return/LSTA Blend | 2.28 | 6.50 | 7.24 | 7.53 |
| Distressed Debt Excess | 0.48 | 1.76 | 3.63 | -1.17 |
| Other Credit (IRR) | 1.40 | 6.19 | 8.10 | 7.69 |
| Fixed 8% Return/LSTA Blend | 2.32 | 6.71 | 7.27 | 7.37 |
| Other Credit Excess | -0.92 | -0.52 | 0.83 | 0.32 |

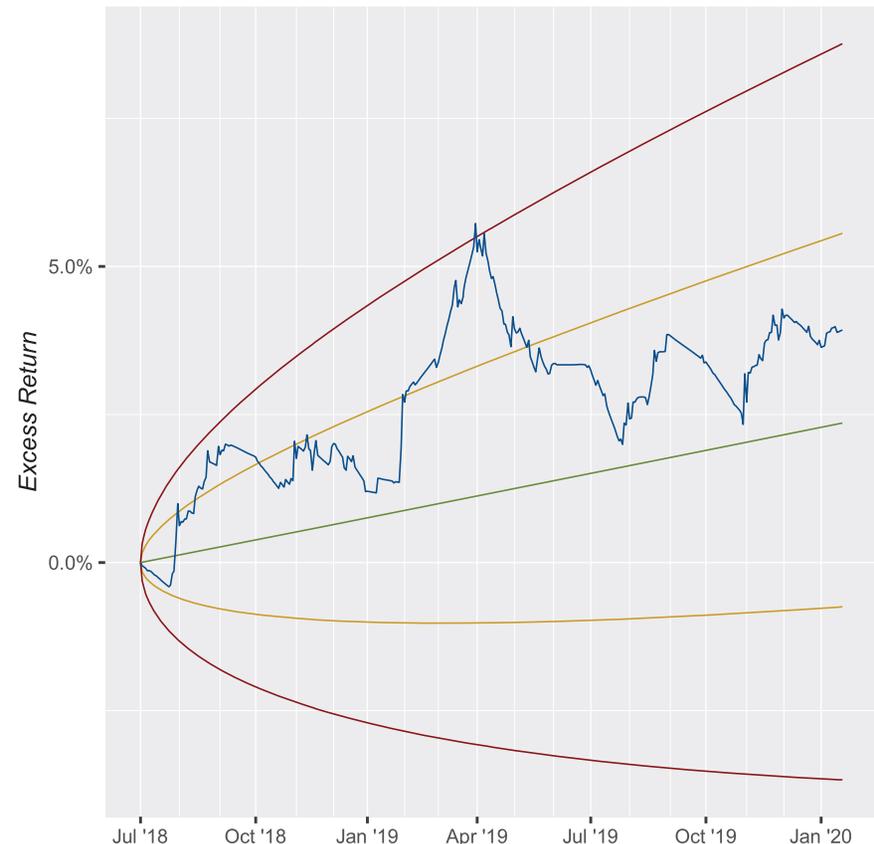
Credit Market Values and Performance for the period ended 9/30/2019

Total Credit Market Values



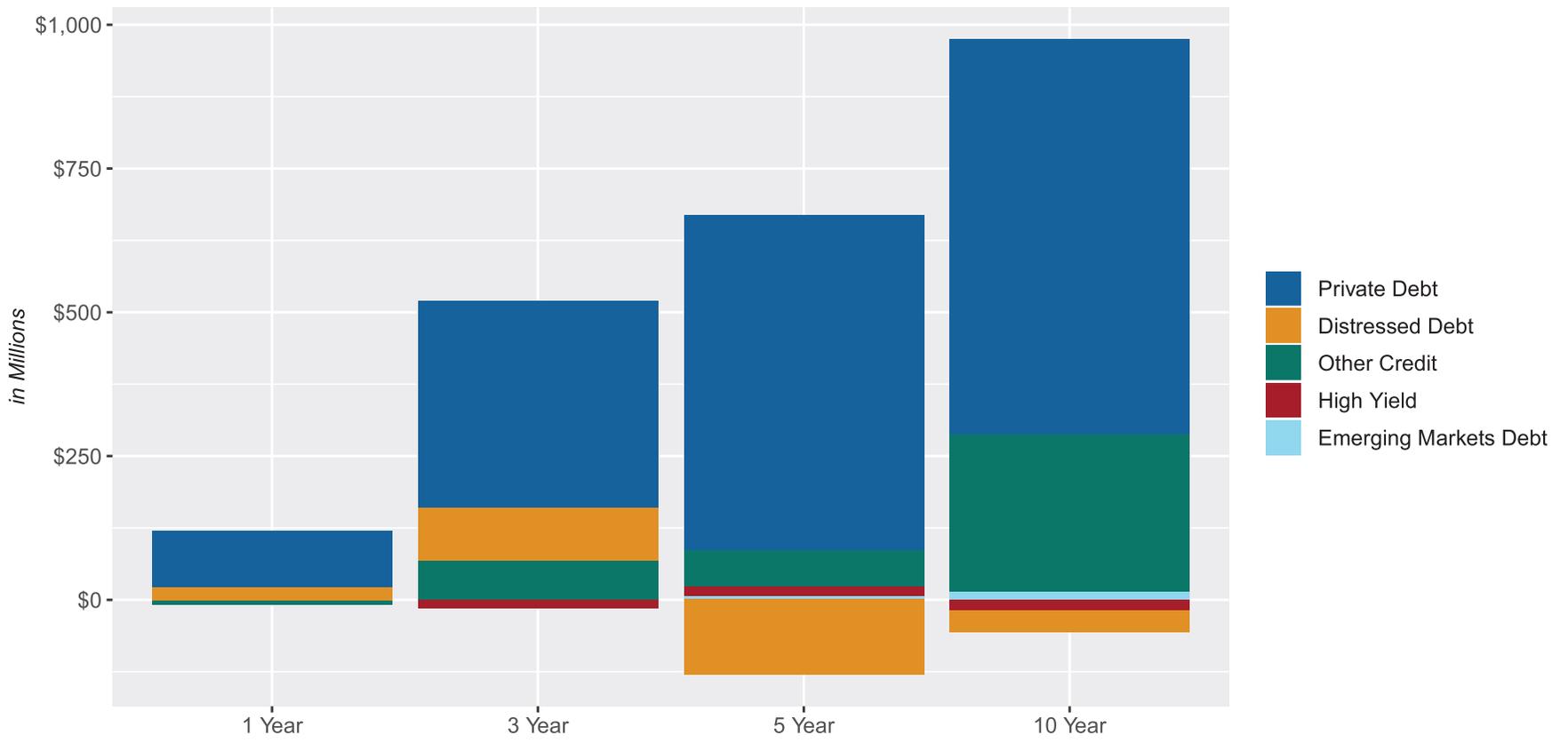
Total Credit Portfolio Performance versus Expectations

150 Basis Points Expected Excess Return with 250 Basis Points Tracking Error



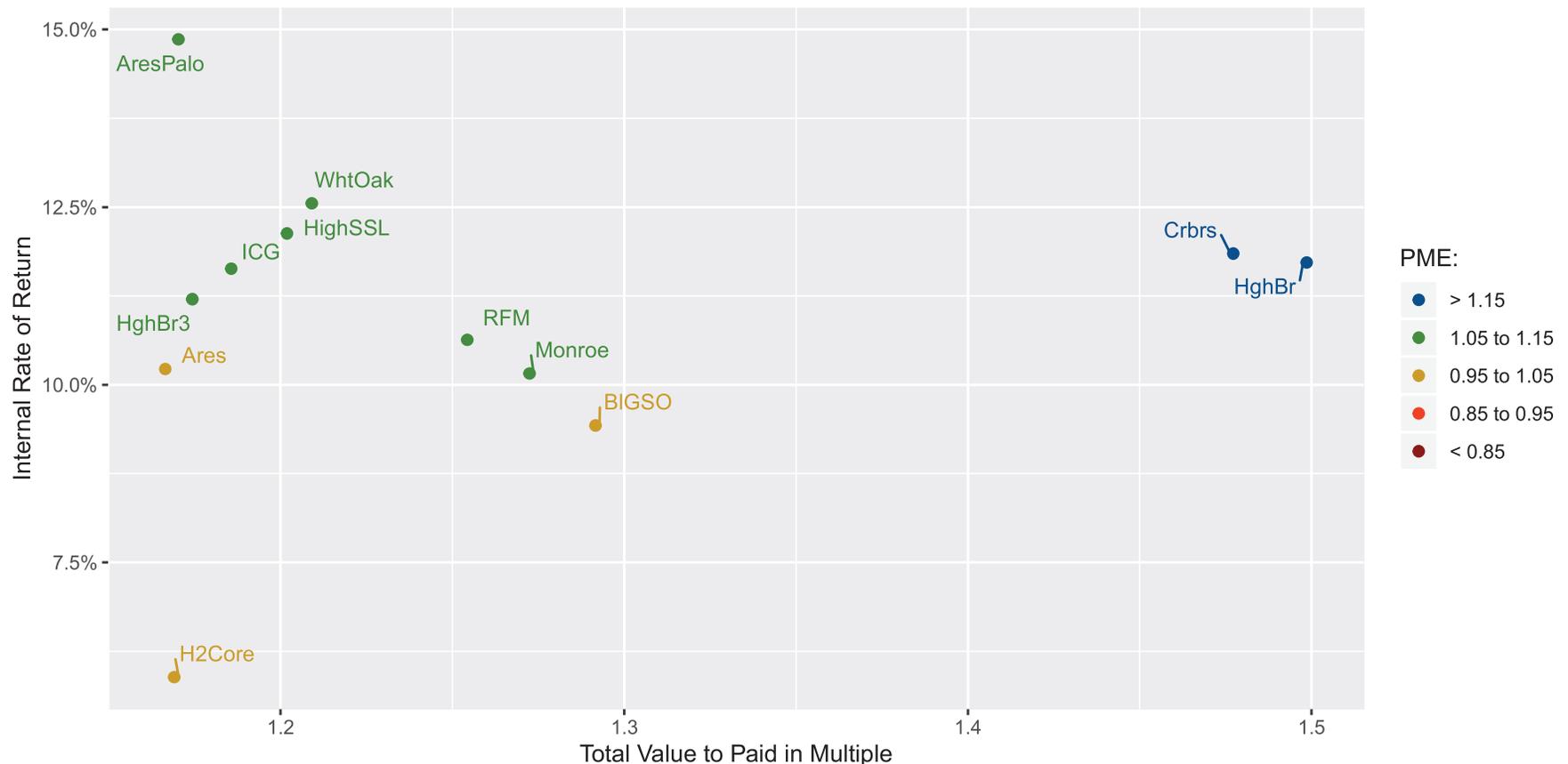
Credit Dollar Value Add for the period ended 6/30/2019

Credit Dollar Value Add versus Benchmark



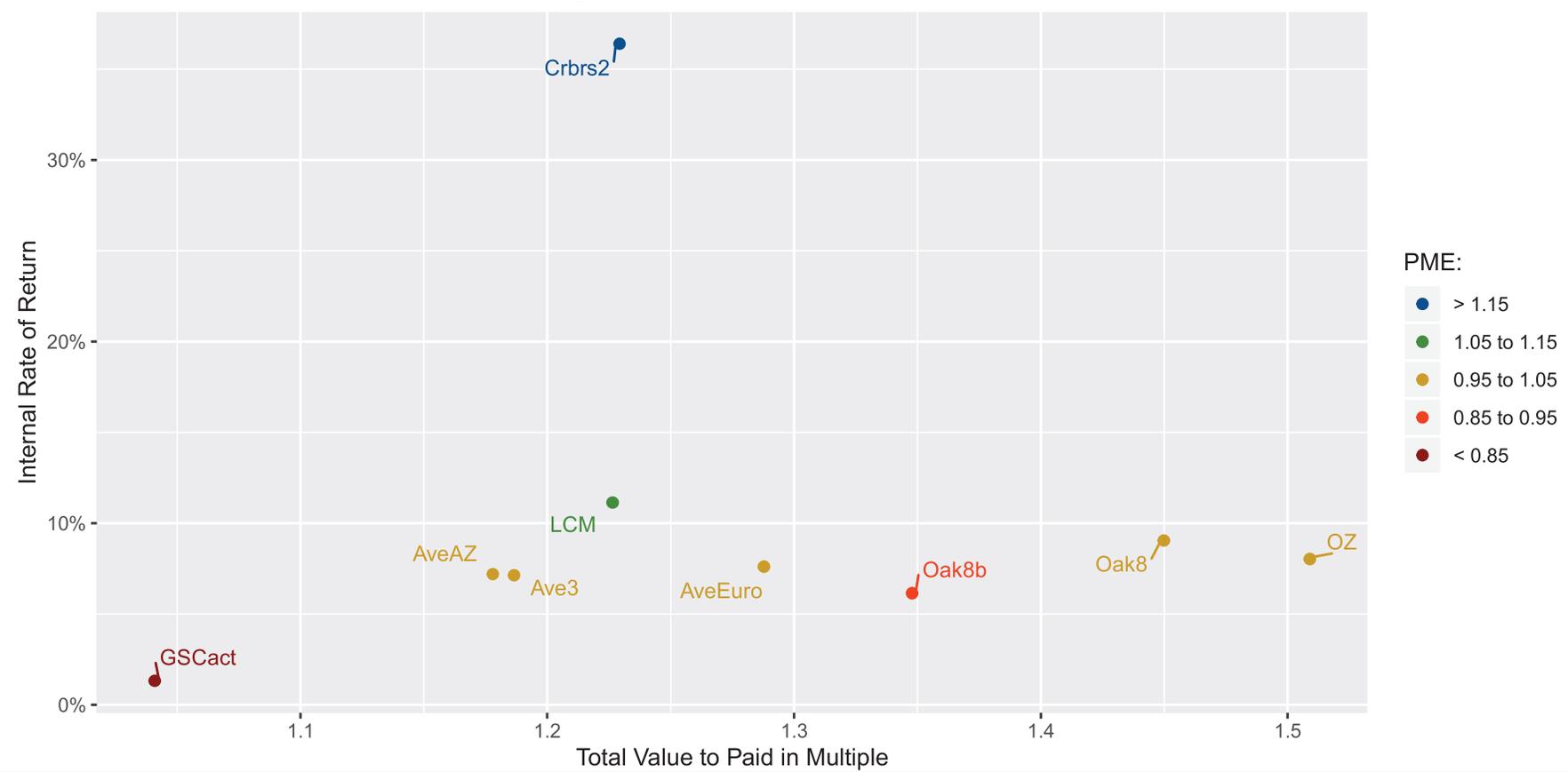
Private Debt: Total Value to Paid in Multiple & Public Market Equivalent for the period ended 6/30/2019

Comparison of Private Debt Strategies

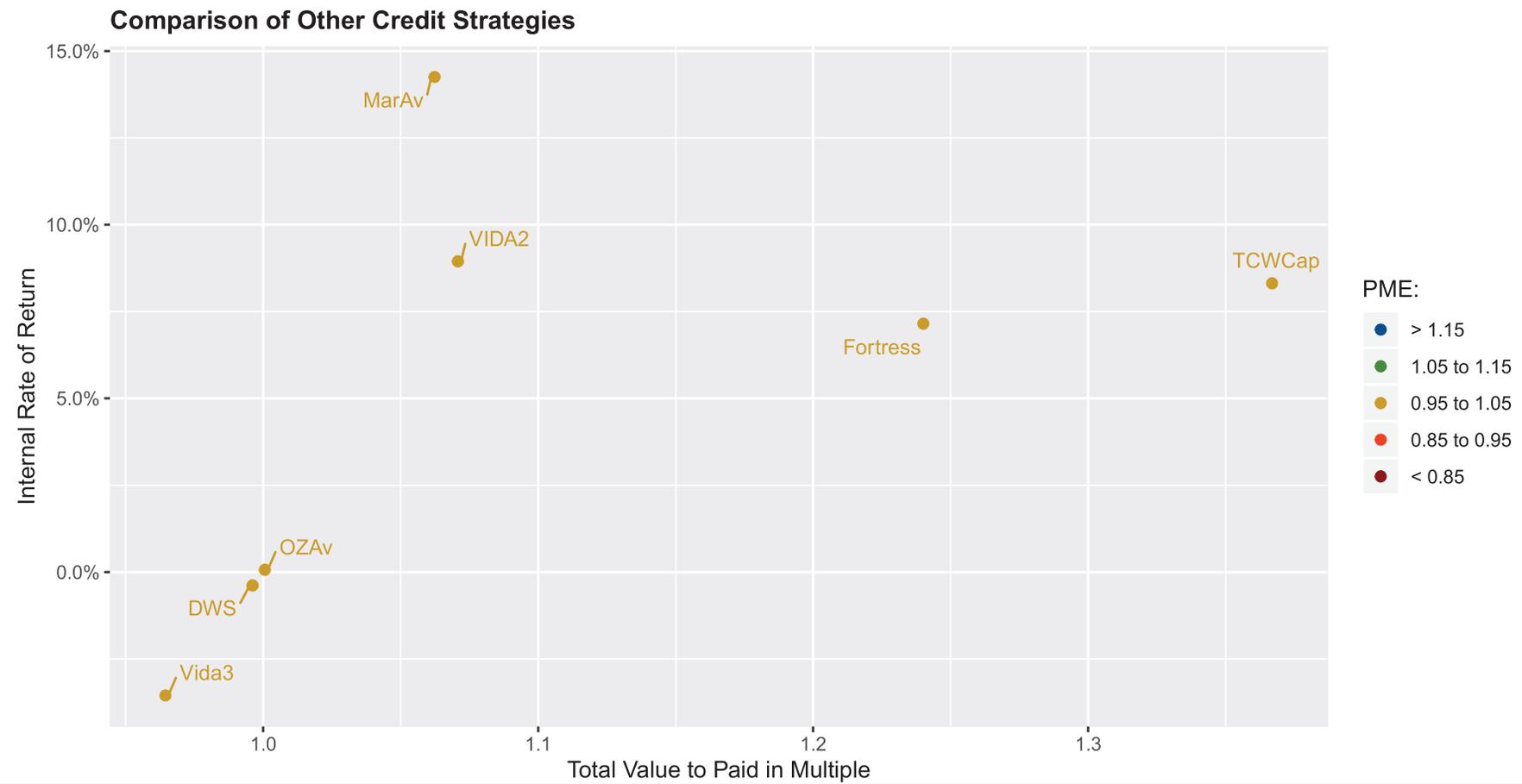


Distressed Debt: Total Value to Paid in Multiple & Public Market Equivalent for the period ended 6/30/2019

Comparison of Distressed Debt Strategies



Other Credit: Total Value to Paid in Multiple & Public Market Equivalent for the period ended 6/30/2019



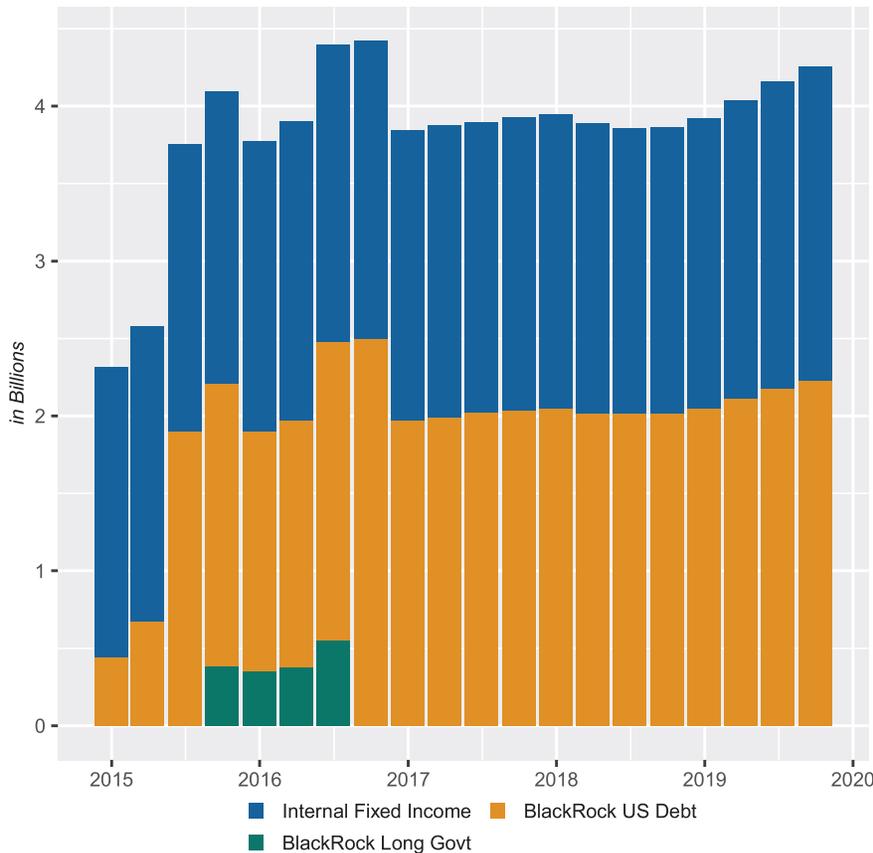
Core Fixed Income for the period ended 9/30/2019

Annualized Time-Weighted Returns

| | Quarter | One Year | Three Year | Five Year |
|------------------------------|---------|----------|------------|-----------|
| Core Bond Composite | 2.31 | 10.21 | 3.00 | 3.66 |
| Barclay's Aggregate | 2.27 | 10.30 | 2.92 | 3.38 |
| Core Composite Excess | 0.04 | -0.09 | 0.08 | 0.28 |
| Internal Fixed Income | 2.35 | 10.05 | 3.01 | 3.51 |
| Barclay's Aggregate | 2.27 | 10.30 | 2.92 | 3.38 |
| Internal Fixed Income Excess | 0.08 | -0.24 | 0.08 | 0.14 |
| BlackRock US Debt Fund | 2.27 | 10.35 | 3.01 | 3.47 |
| Barclay's Aggregate | 2.27 | 10.30 | 2.92 | 3.38 |
| BlackRock Excess | 0.00 | 0.06 | 0.08 | 0.09 |

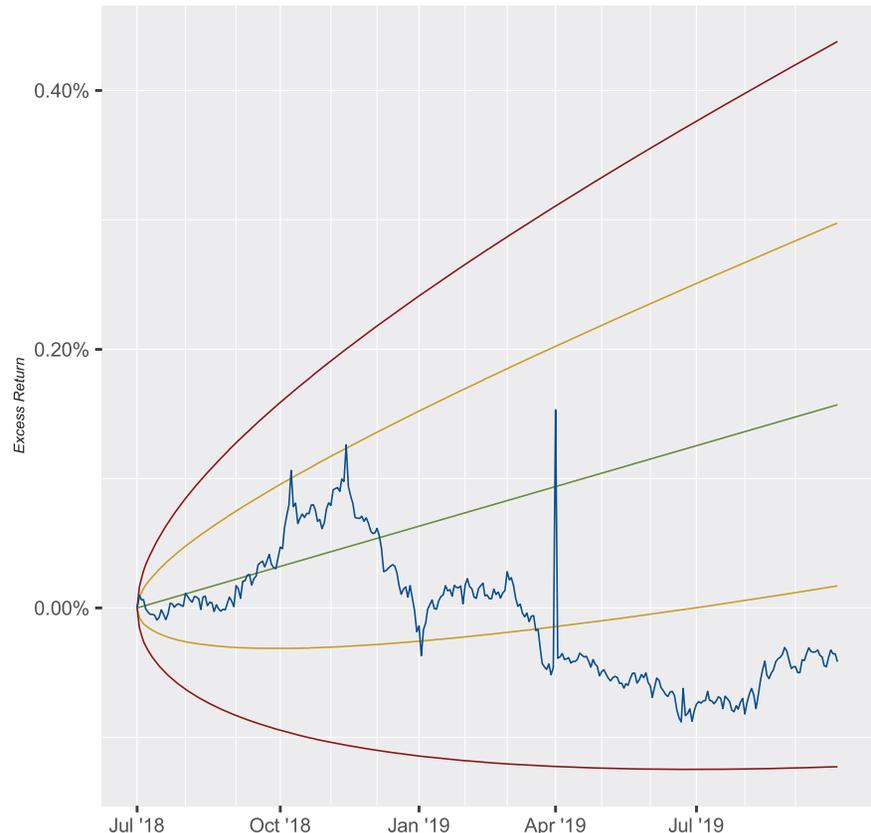
Core Fixed Income Decomposition for the period ended 9/30/2019

Core Bonds Market Values



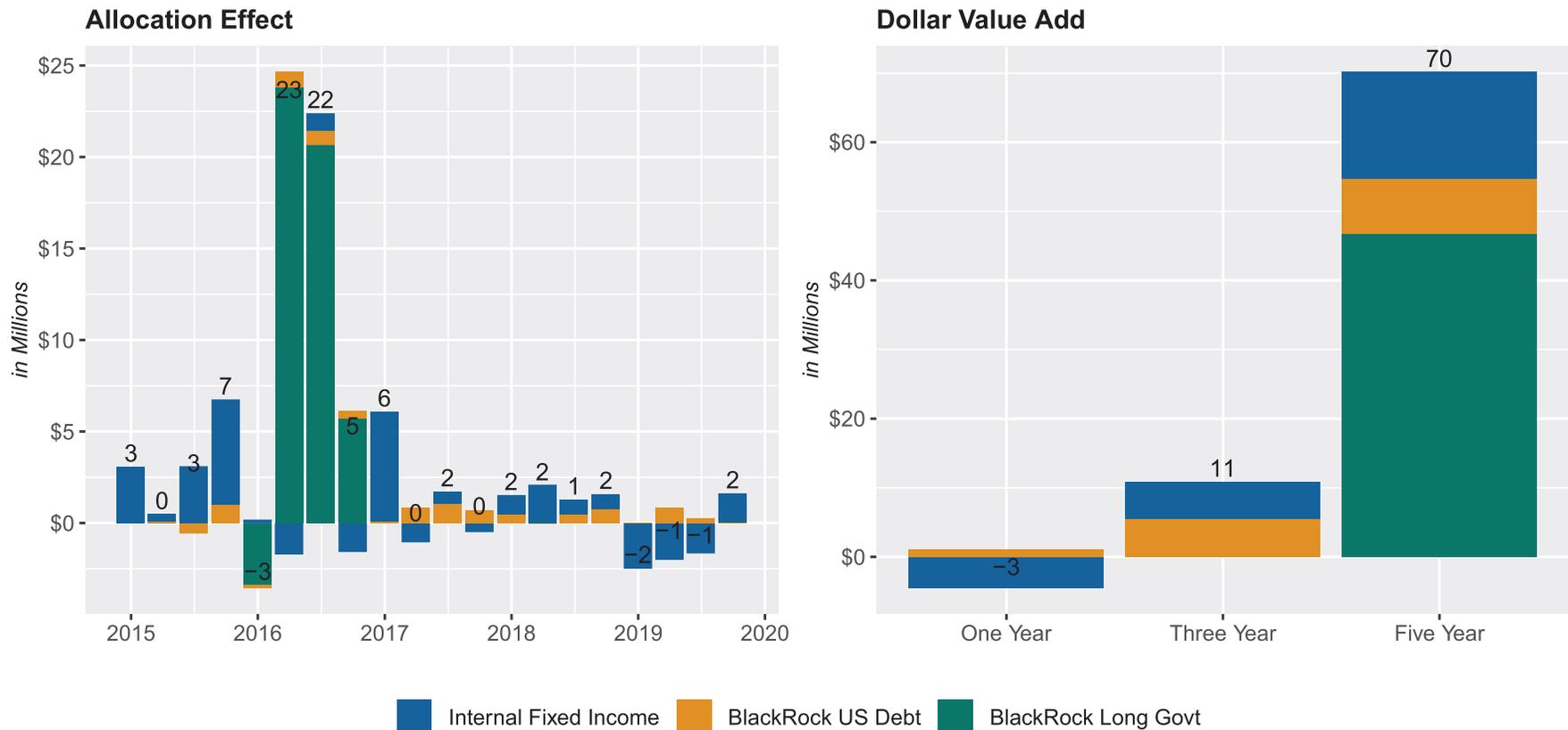
Core Bond Performance versus Expectations

12.5 Basis Points Expected Excess Return with 12.5 Basis Points Tracking Error



Core Fixed Income Dollar Value Added for the period ended 9/30/2019

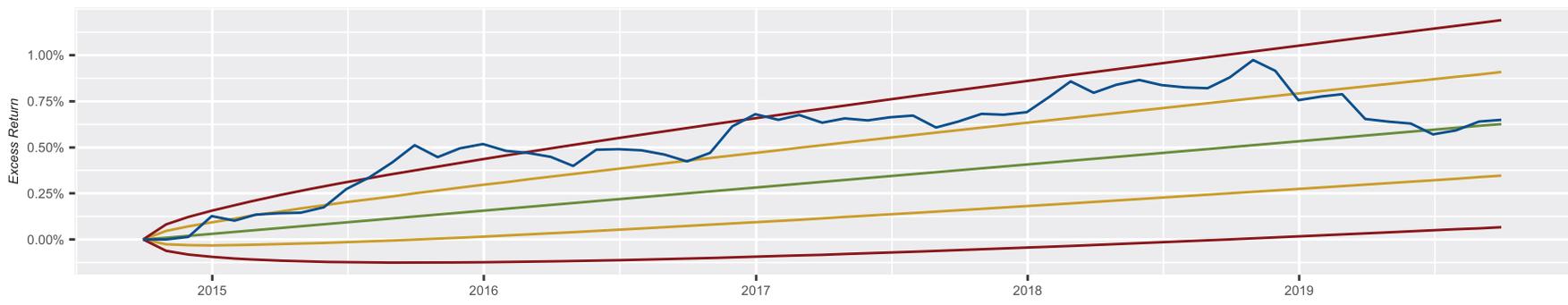
Core Fixed Income Dollar Value Added
 Relative to Barclay's Aggregate Benchmark



Core Fixed Income Performance for the period ended 9/30/2019

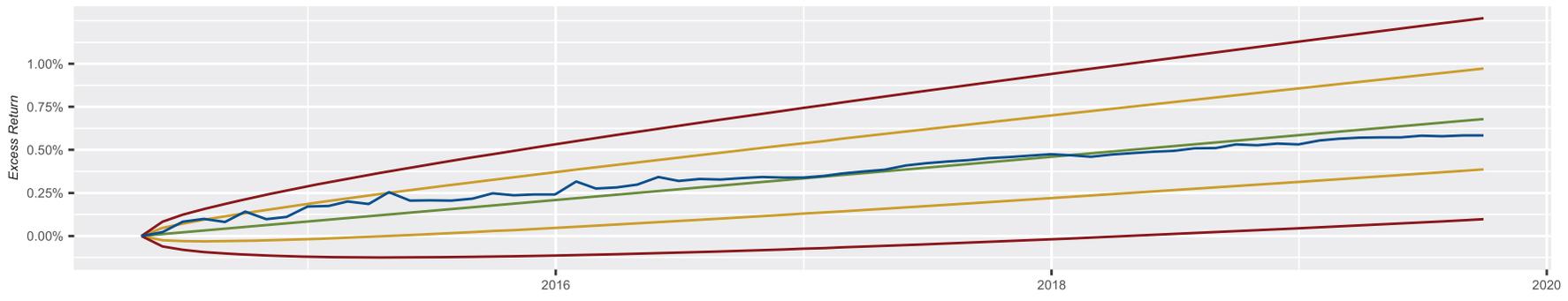
Internal Fixed Income Portfolio Performance versus Expectations

12.5 Basis Points Expected Excess Return with 12.5 Basis Points Expected Tracking Error



Blackrock US Debt Portfolio Performance versus Expectations

12.5 Basis Points Expected Excess Return with 12.5 Basis Points Expected Tracking Error

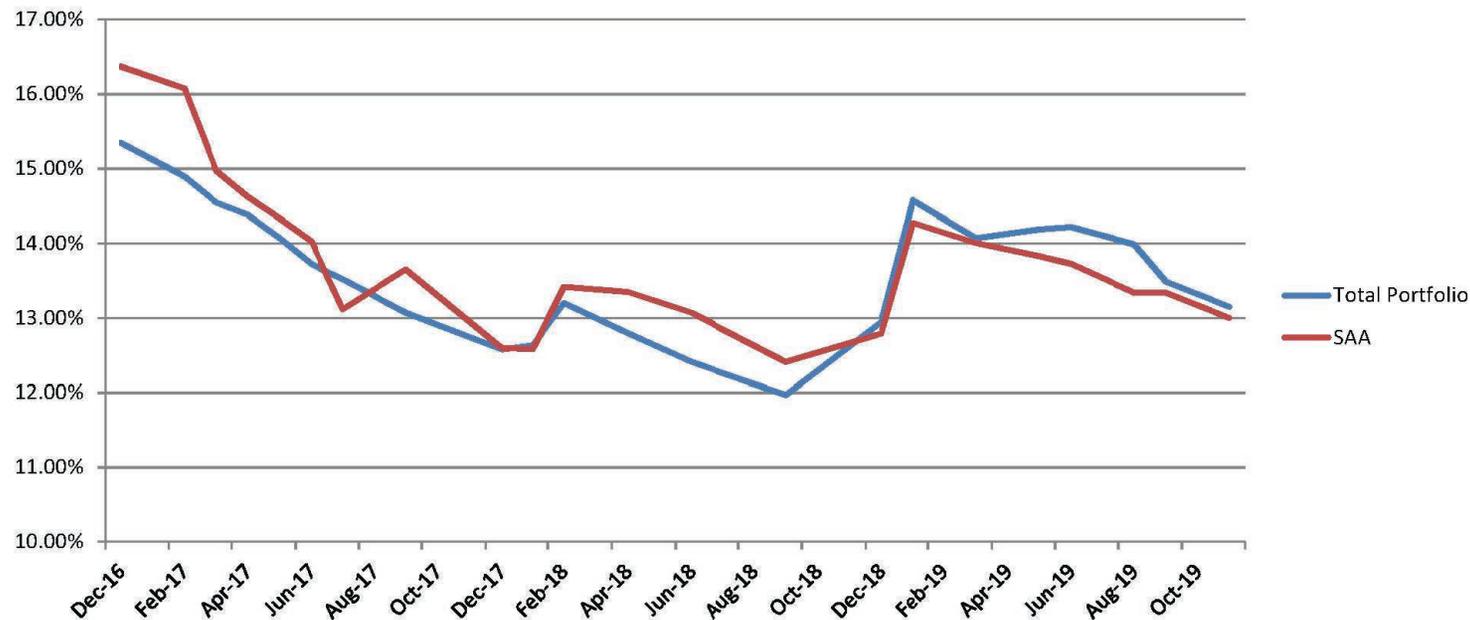


MSCI Risk Report

Total Portfolio Value-at-Risk at 11/30/2019

▀ Total Portfolio Value-At-Risk (VAR)

As of November 30th, 2019 Total VaR for ASRS Portfolio was 13.15%, indicating that there is a 5% chance that portfolio could lose ~\$5.34B in a given year. Note that a 5% event is expected to occur every 20 years



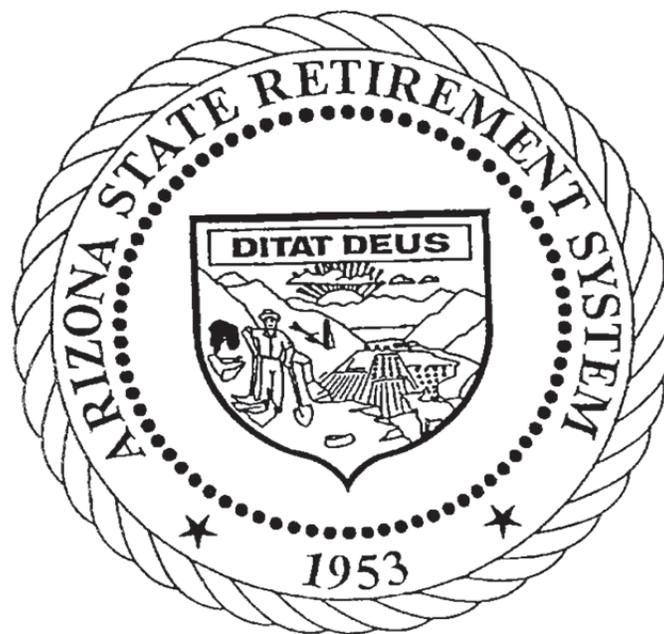
Agenda Item #6

Director's Report:

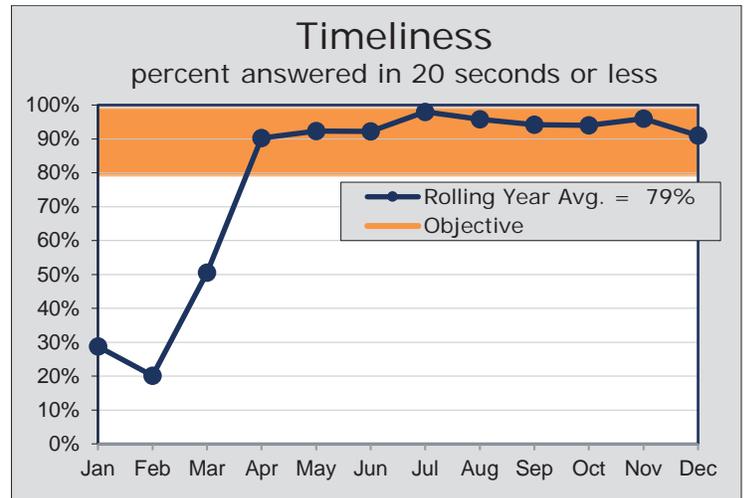
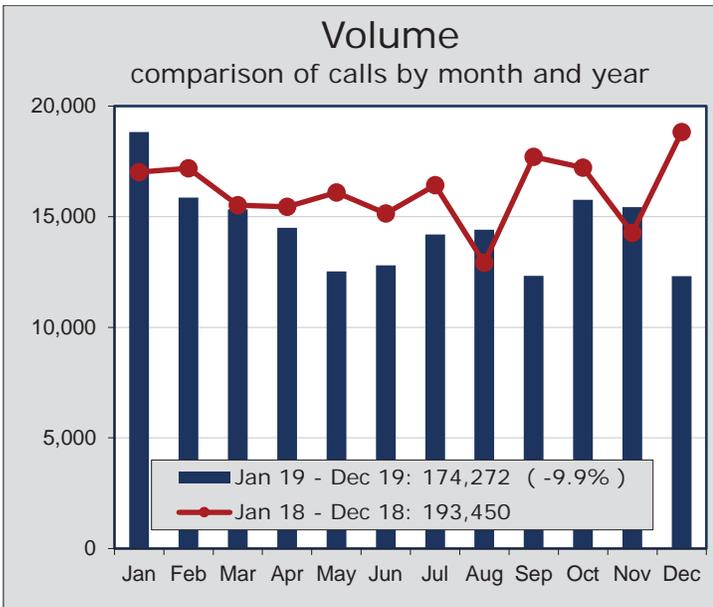
- 8a - Operations Report**
- 8b - Budget & Staffing Reports**
- 8c - Cash Flow Statements**
- 8d - Appeals Report**
- 8e - Employers Reporting**

Agenda Item #6a

Director's Report Operations Report

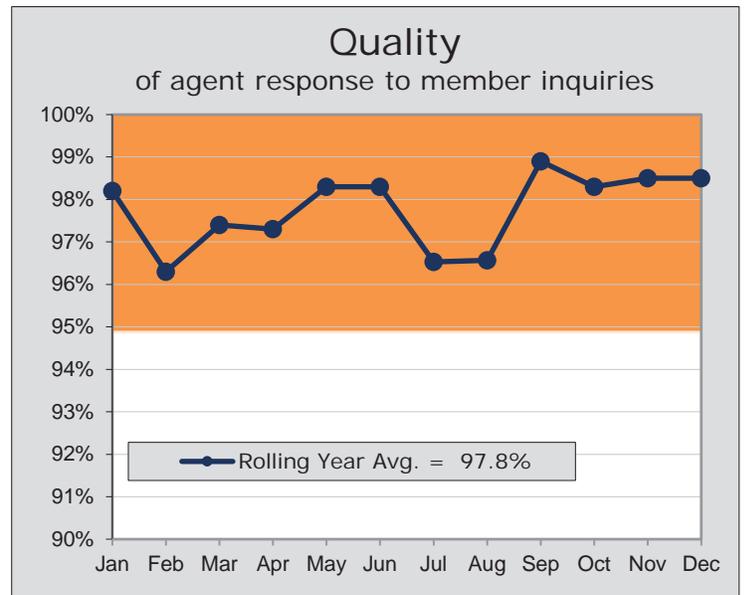
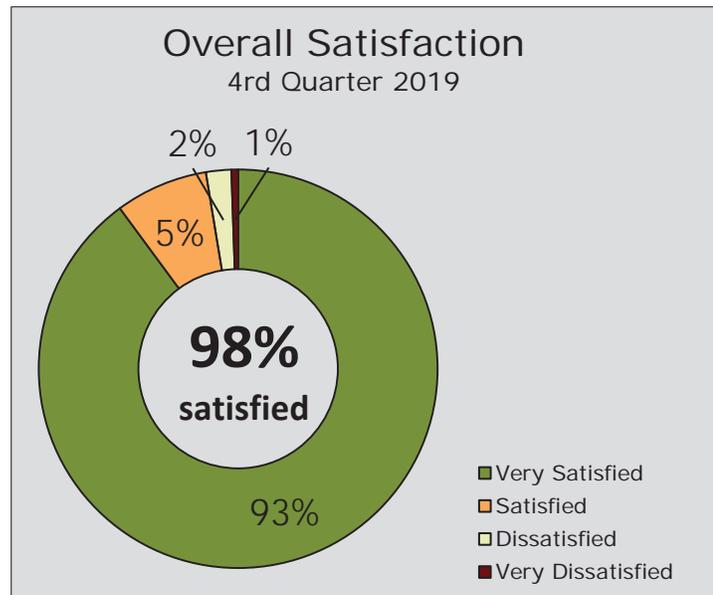
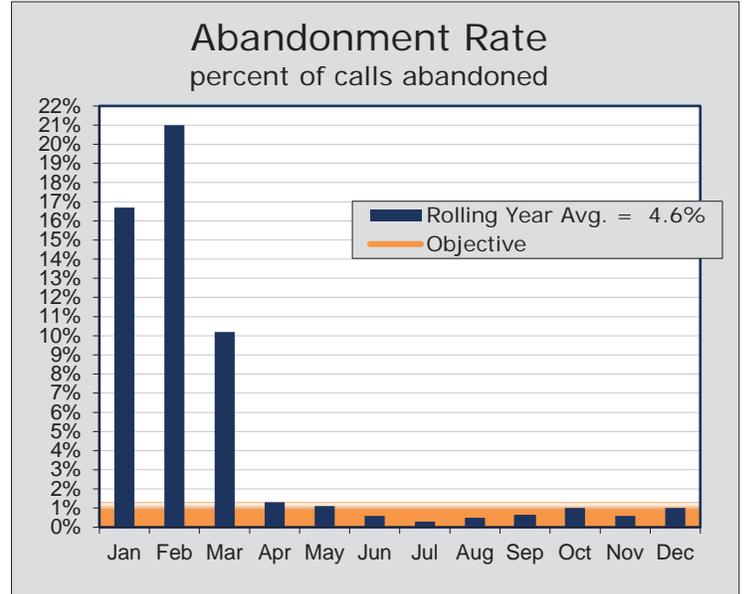
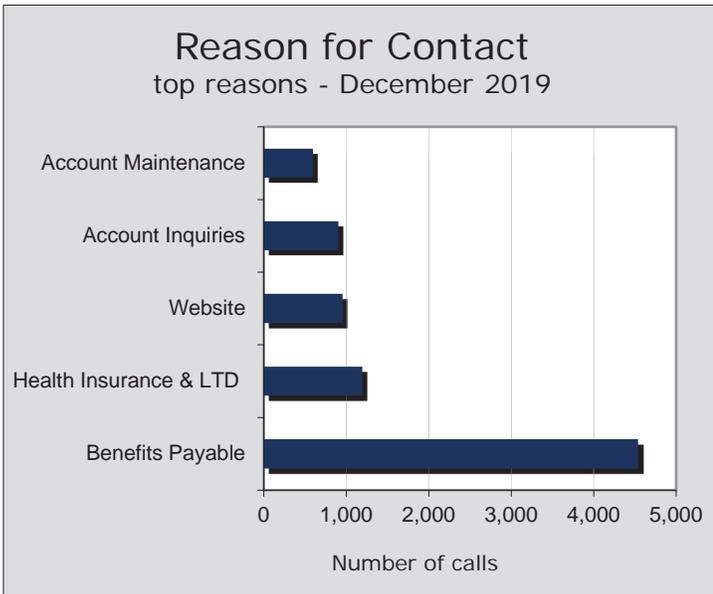


Member Advisory Center: Phone

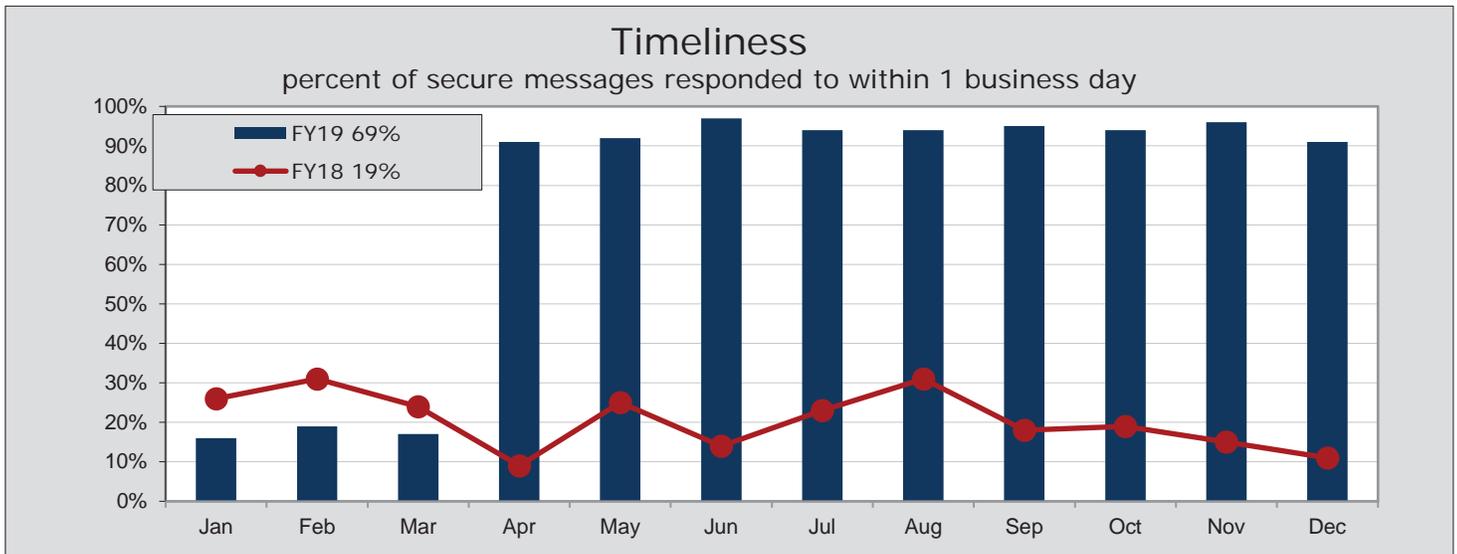
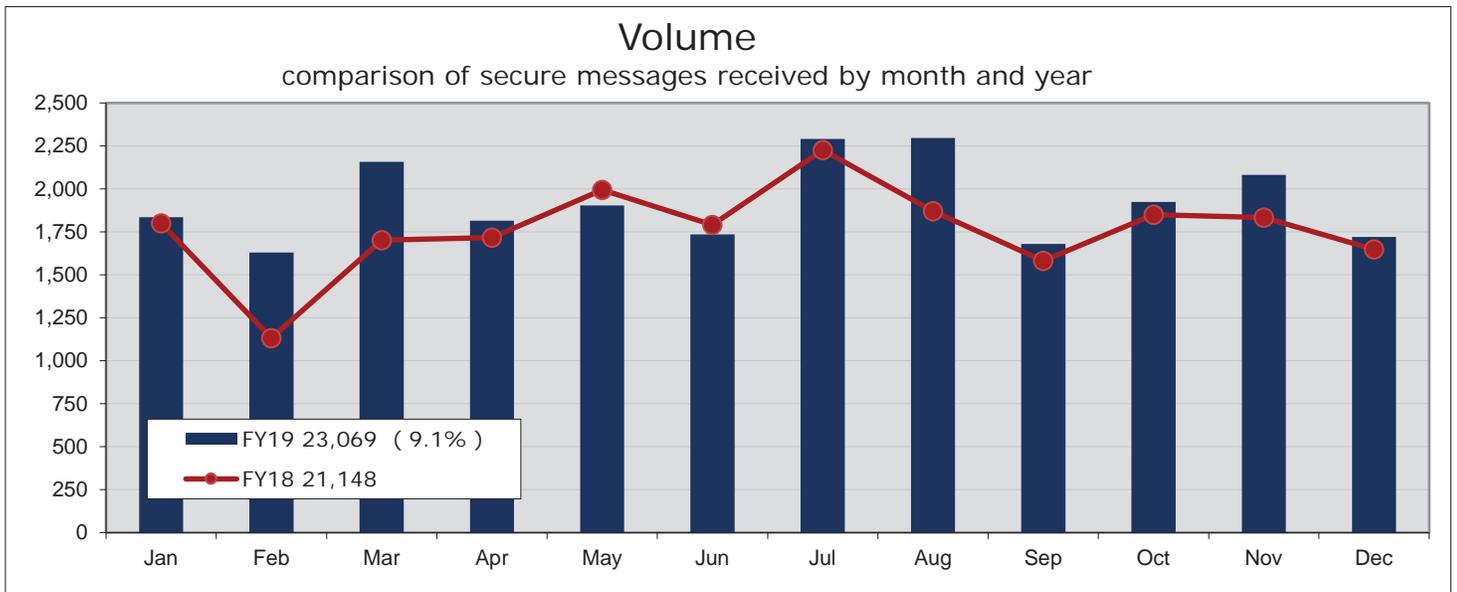


Timeliness (average wait time in seconds)

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|
| Value | 330 | 430 | 193 | 12 | 7 | 15 | 2 | 5 | 6 | 15 | 9 | 2 |



Member Secure Messages (MSM)

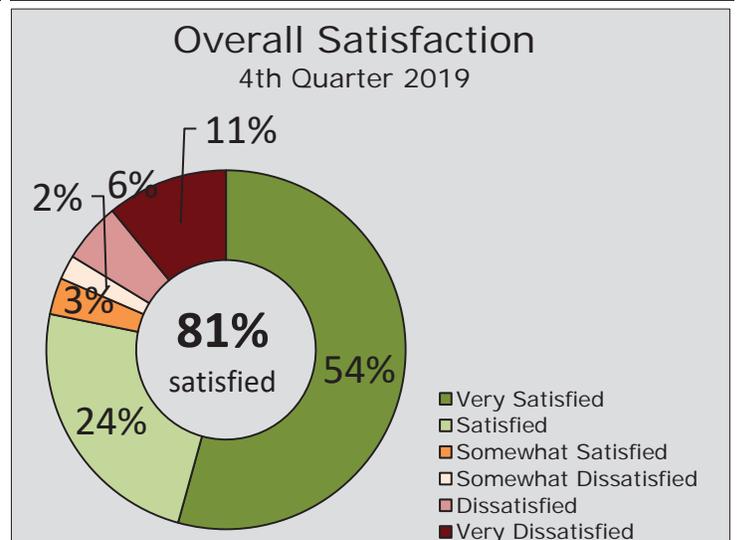
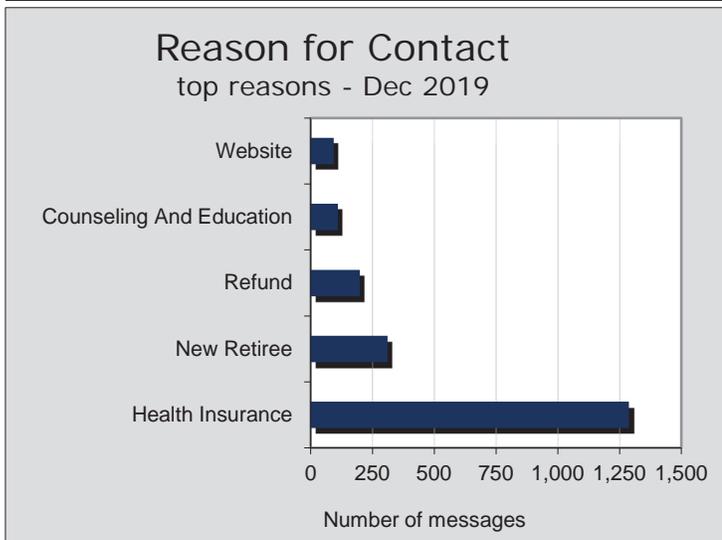


Timeliness (average response in days)

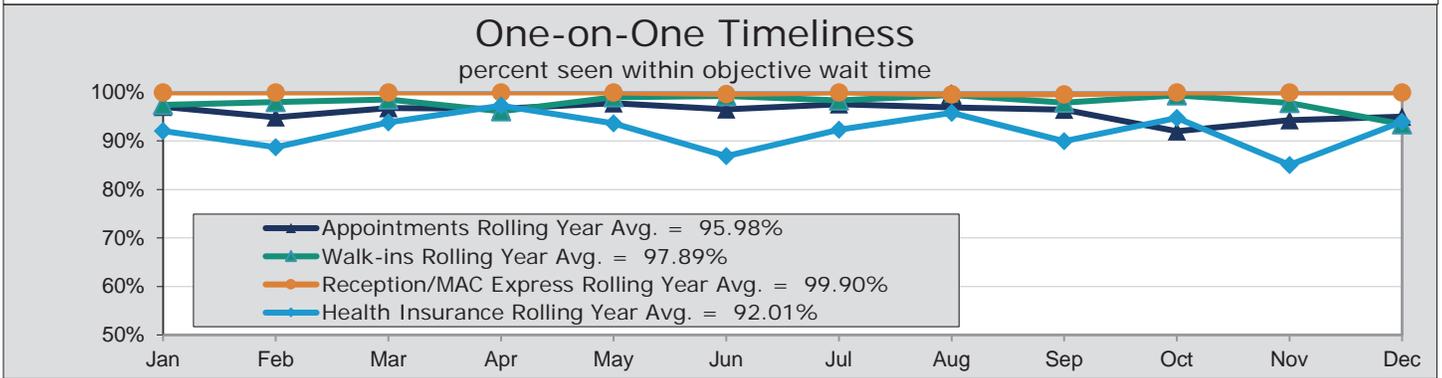
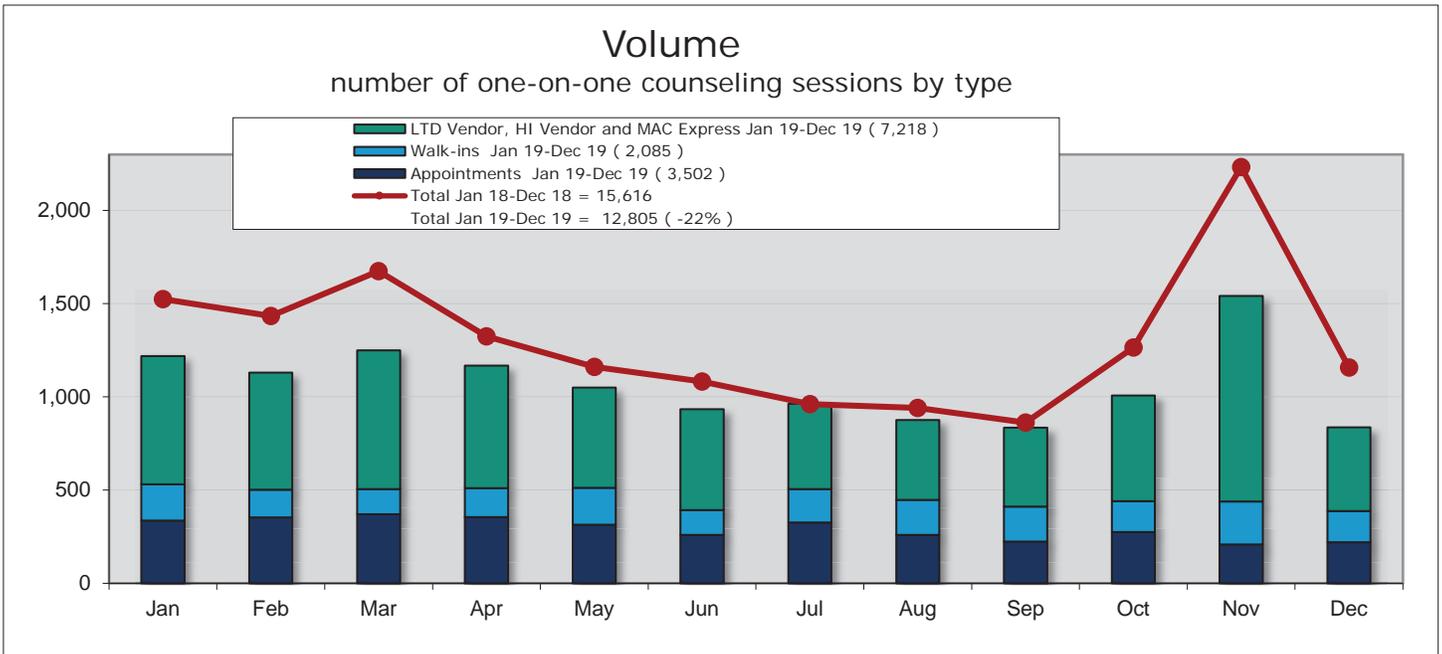
| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3.0 | 2.7 | 2.5 | 1.4 | 1.1 | 1.0 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |

Timeliness (service level)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 16% | 19% | 17% | 91% | 92% | 97% | 94% | 94% | 95% | 94% | 96% | 91% |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

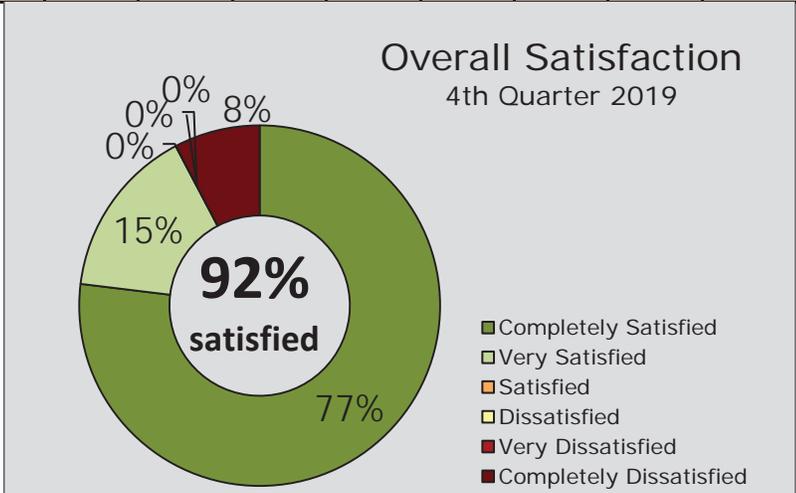
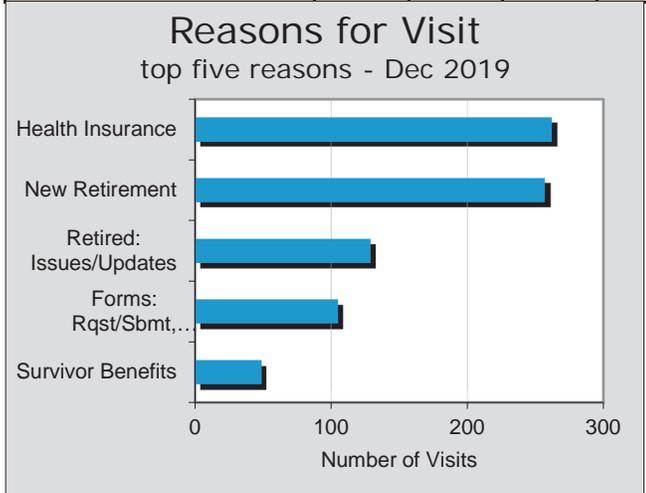


One-on-One Counseling



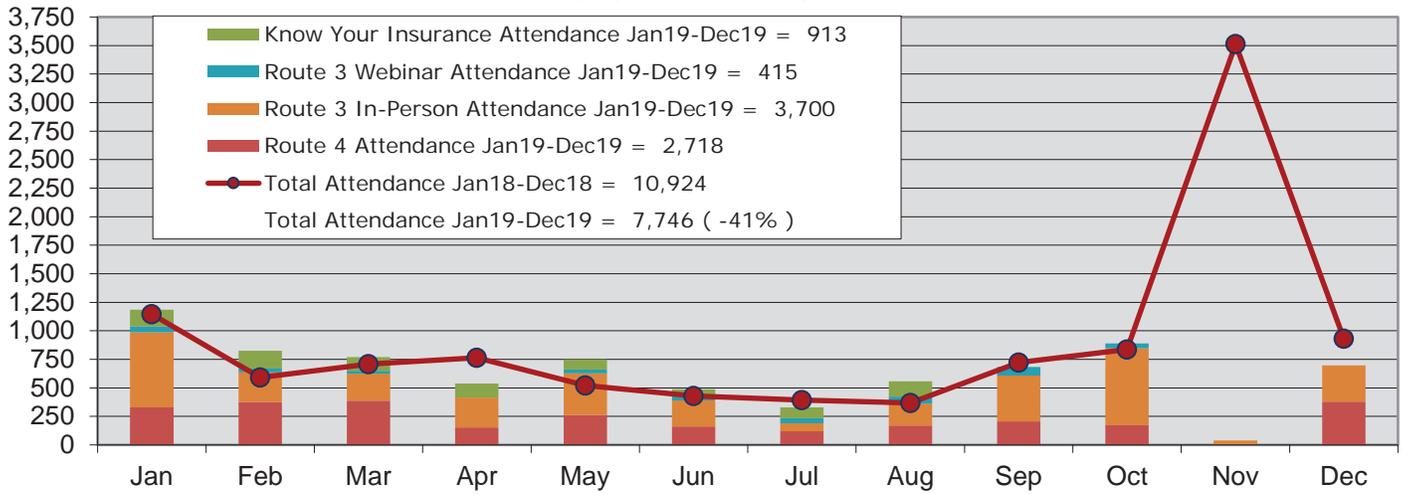
Timeliness (average wait time in minutes)

| | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
|-----------------------|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| Appointments | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Walk-Ins | 7 | 7 | 6 | 6 | 5 | 4 | 6 | 4 | 5 | 2 | 5 | 6 |
| Reception/MAC Express | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Health Insurance | 6 | 6 | 5 | 4 | 5 | 7 | 4 | 0 | 5 | 6 | 8 | 7 |
| LTD Vendor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Outreach Education and Benefit Estimates

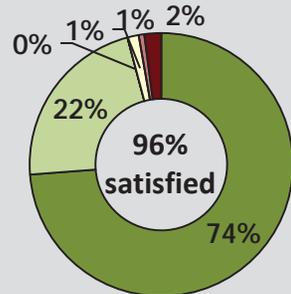
Total Meeting Attendees by type of meeting



Member Satisfaction

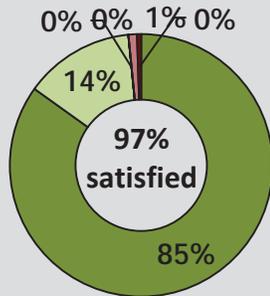
Route 3 4th Quarter 2019

- Very Satisfied
- Satisfied
- Somewhat Satisfied
- Somewhat Dissatisfied
- Dissatisfied
- Very Dissatisfied



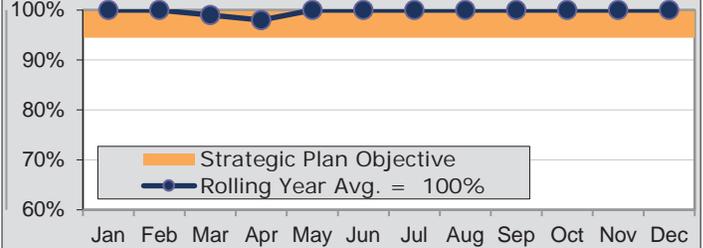
Route 4 4th Quarter 2019

- Very Satisfied
- Satisfied
- Somewhat Satisfied
- Somewhat Dissatisfied
- Dissatisfied
- Very Dissatisfied



Benefit Estimate Timeliness

percent completed within 3 business days

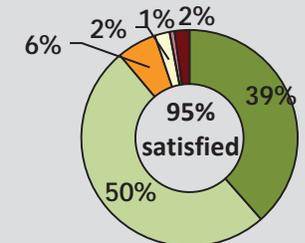


Benefit Estimate Timeliness (average TAT in days)

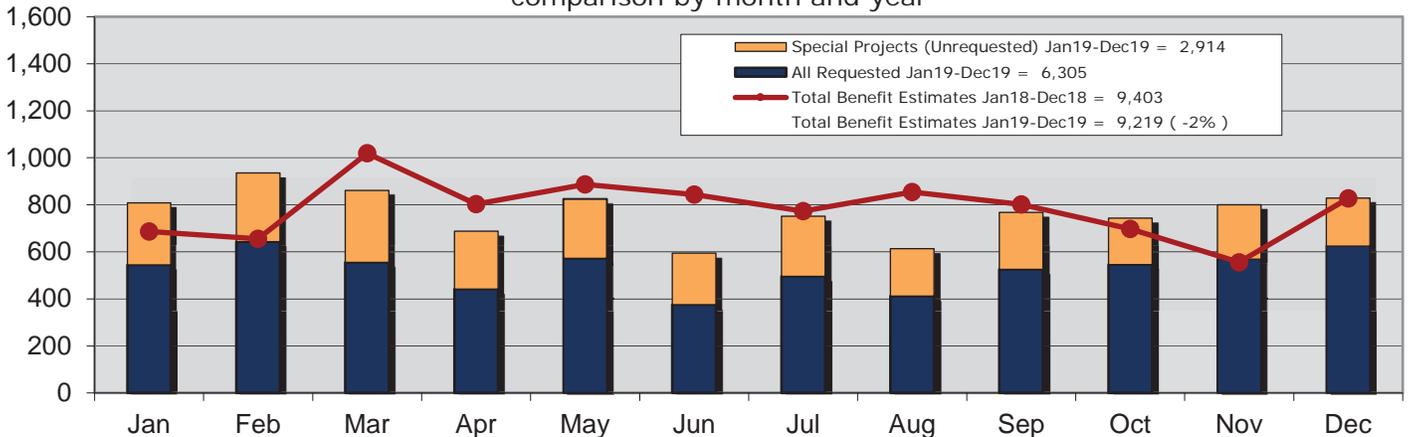
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |

Benefit Estimates 4th Quarter 2019

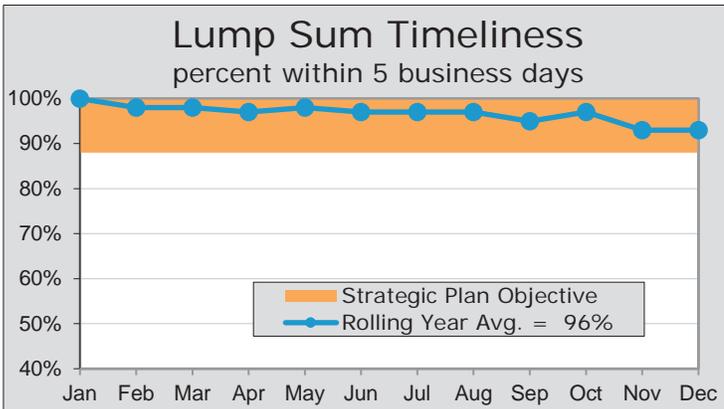
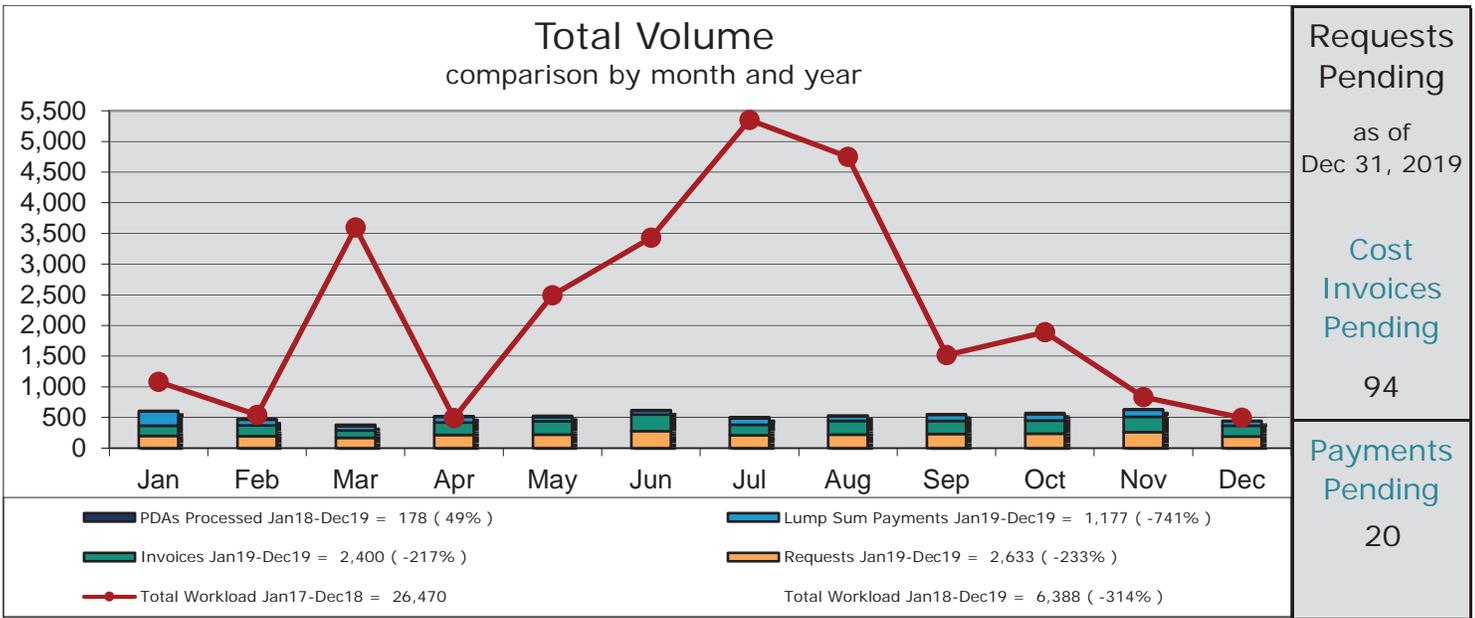
- Very Satisfied
- Satisfied
- Somewhat Satisfied
- Somewhat Dissatisfied
- Dissatisfied
- Very Dissatisfied



Benefit Estimate Volume comparison by month and year

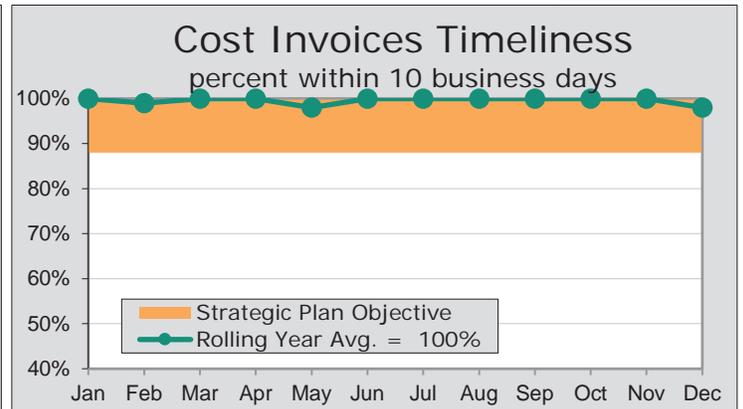


Service Purchase



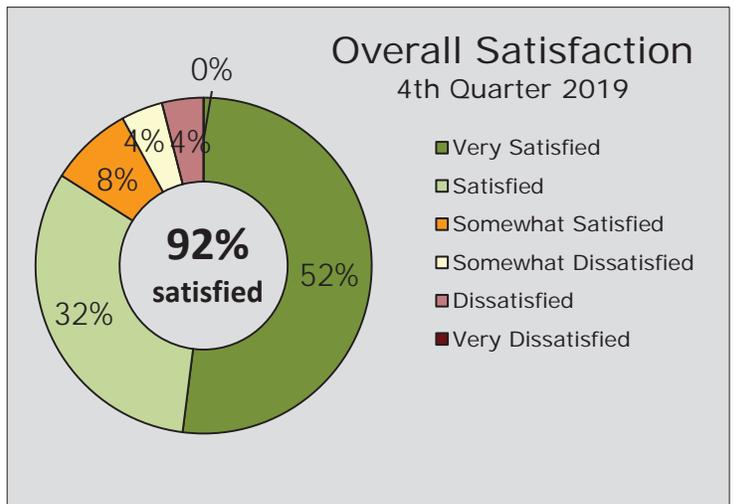
Timeliness (average turnaround time in business days)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 1 |
| Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |

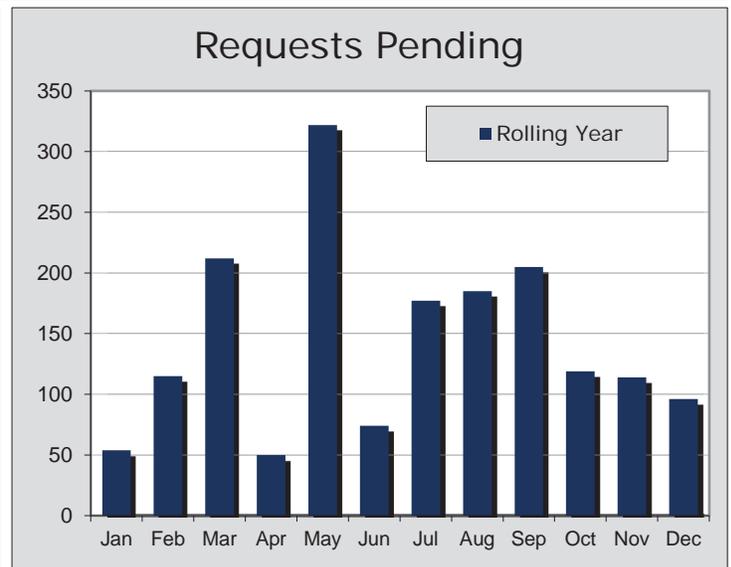
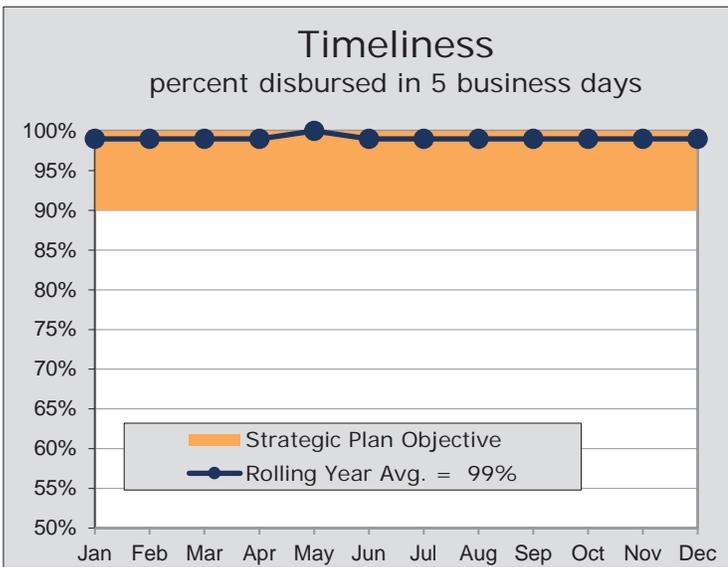
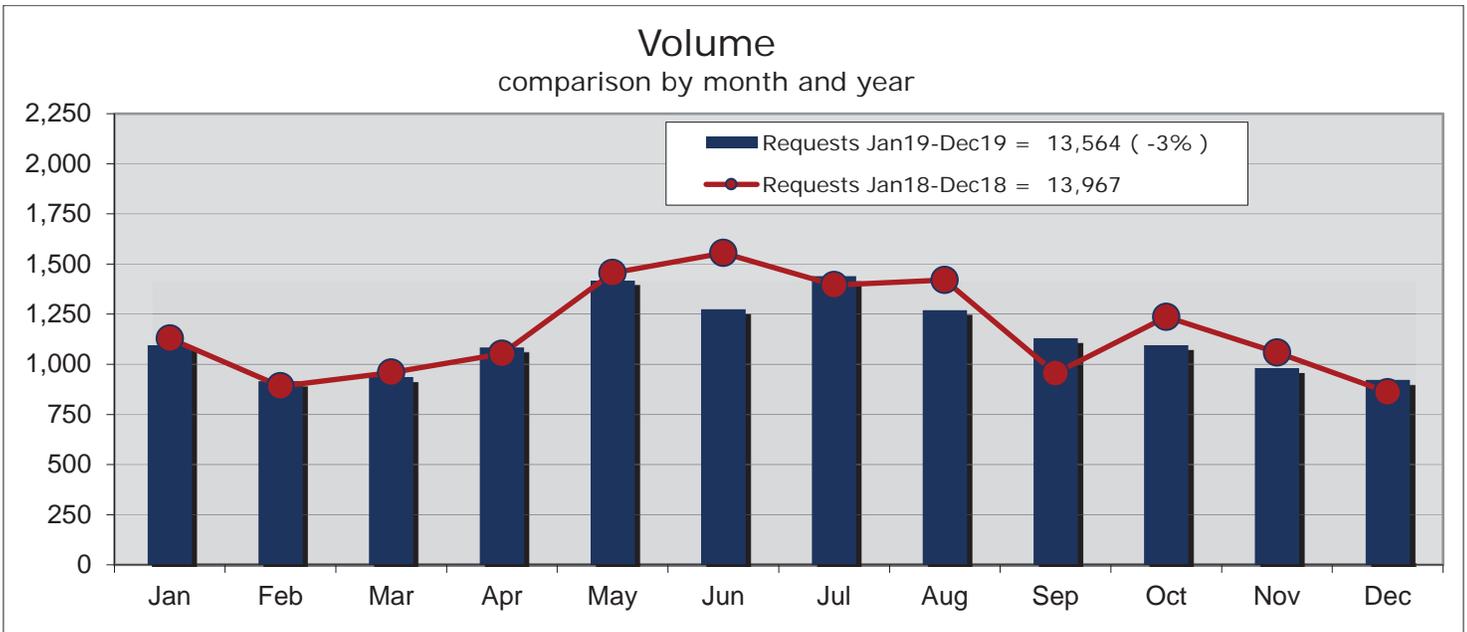


Timeliness (average turnaround time in business days)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| 2 | 3 | 4 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 |
| Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |

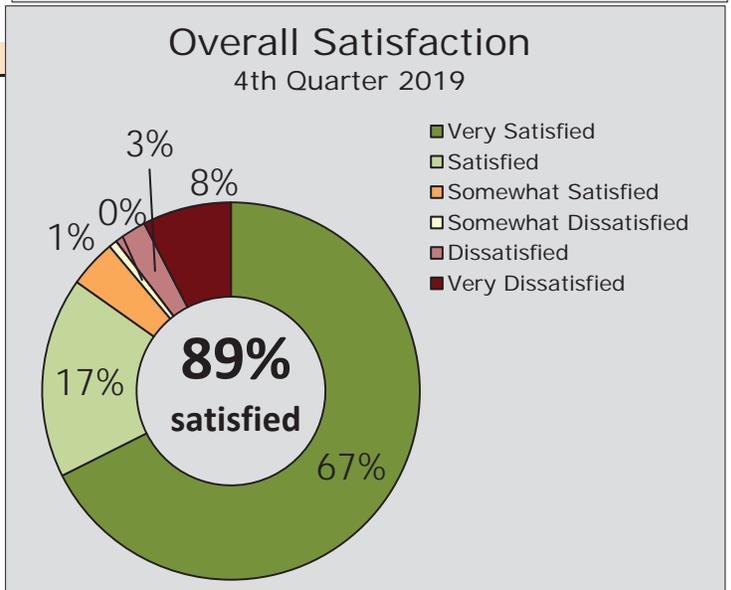


Refunds



Timeliness (average turnaround time in business days)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|------|-----|------|-----|-----|-----|
| 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sept | Oct | Nov | Dec |

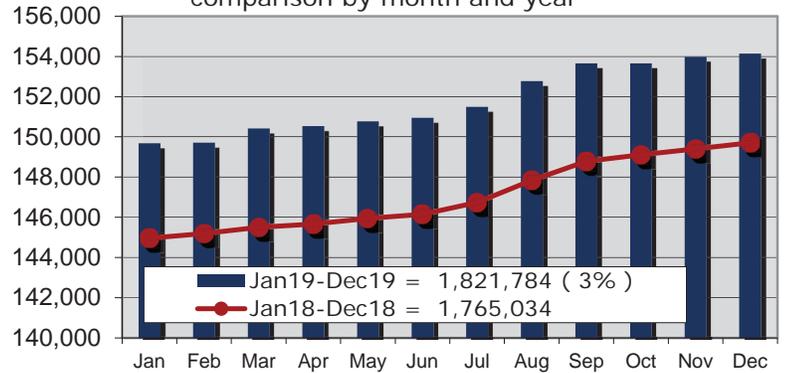


New Retiree and Pension Payroll

First Payment Volume comparison by month and year



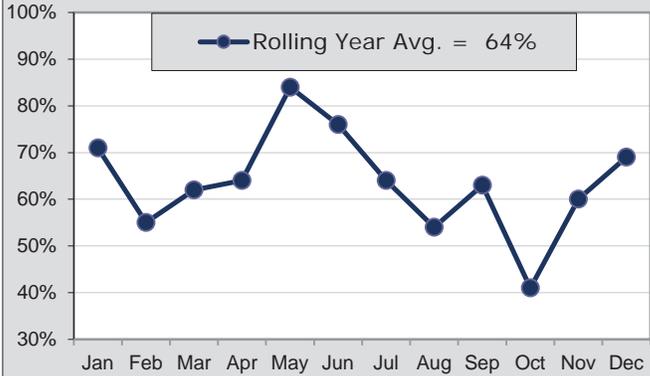
Pension Volume comparison by month and year



Pension Payment (percent disbursed by 1st of the month)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Jan |

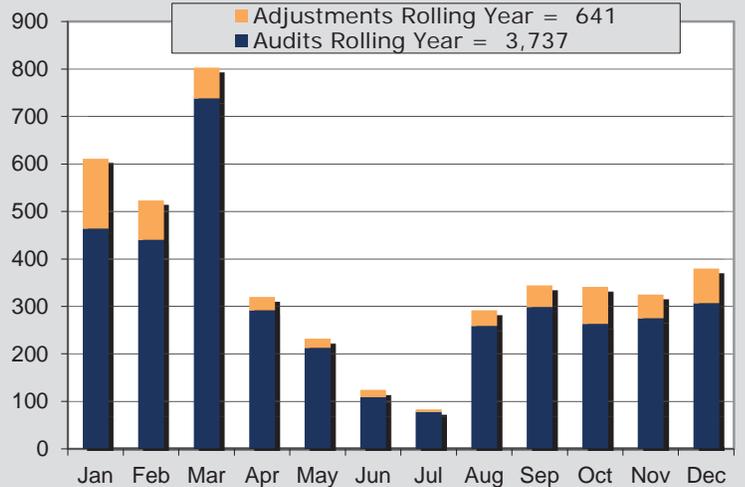
First Payment Timeliness percent disbursed in 10 business days



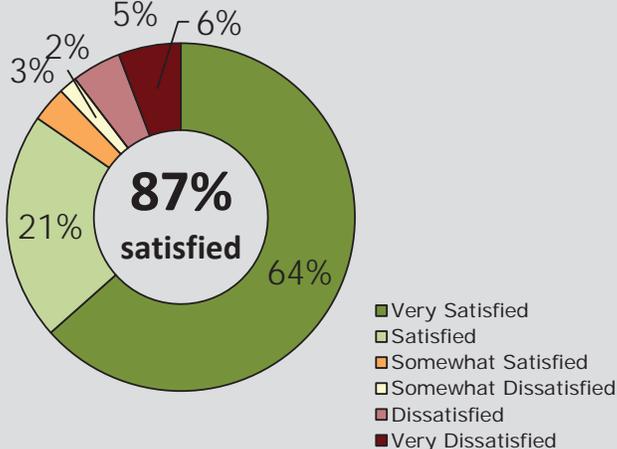
First Payment Timeliness (average turnaround time in days)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| 11 | 14 | 15 | 14 | 9 | 12 | 12 | 15 | 12 | 13 | 11 | 9 |
| Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |

Audits & Adjustments comparison by month and year



Overall Satisfaction 4th Quarter 2019



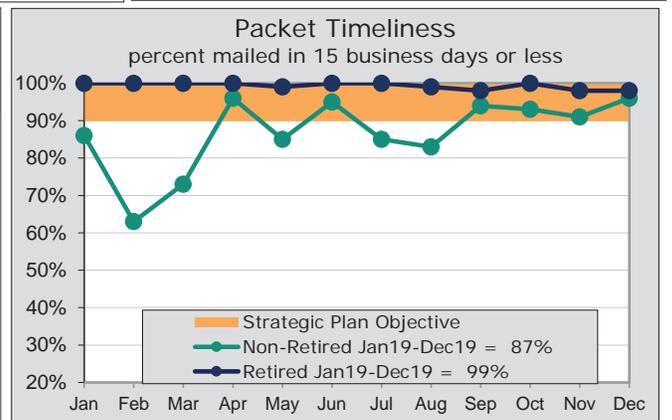
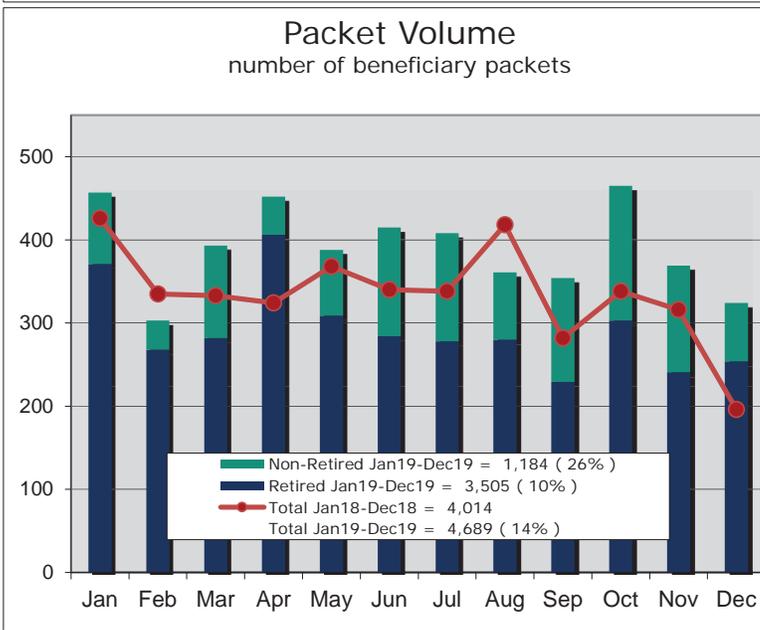
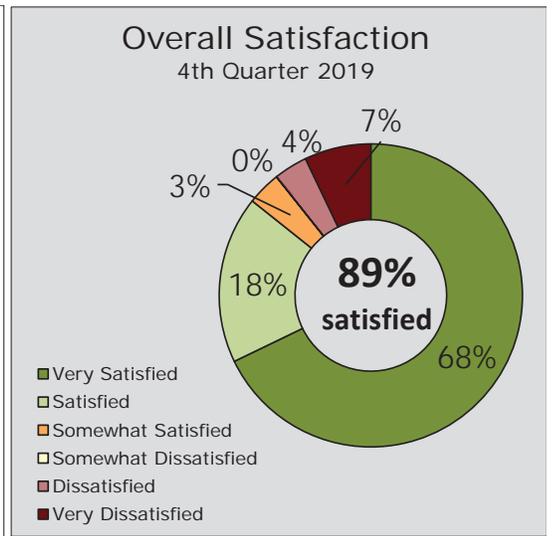
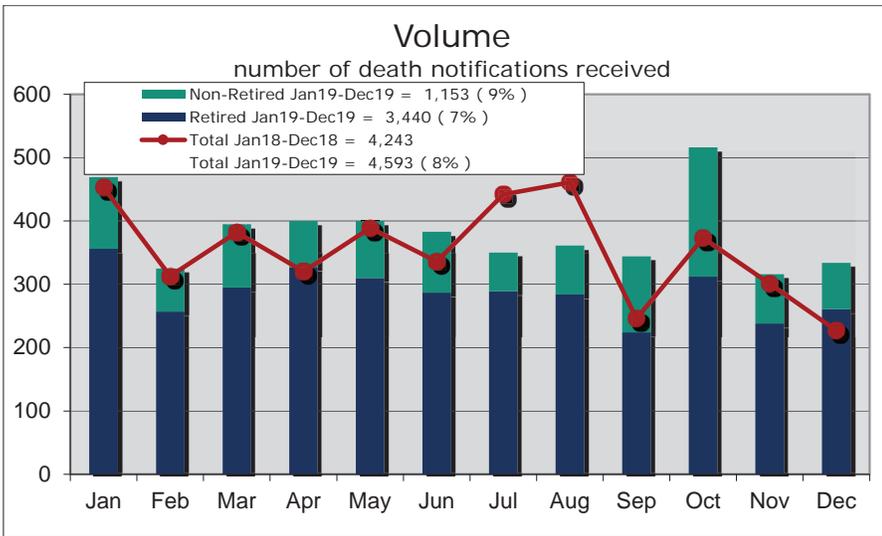
Adjustments Timeliness Percent completed prior to payroll



Adjustments Timeliness (average turnaround time in days)

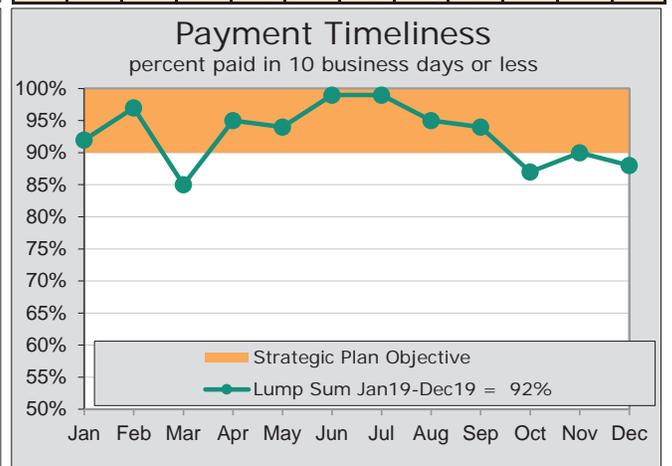
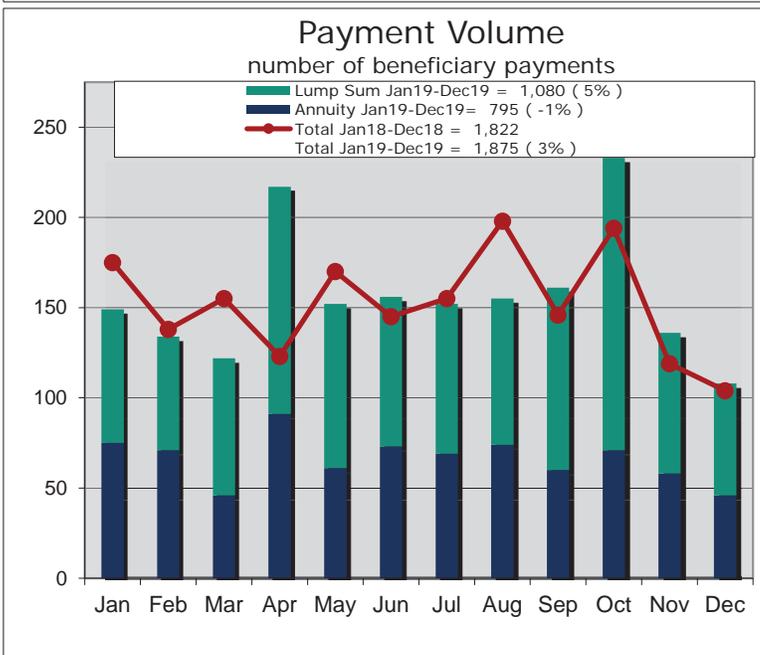
| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| 4 | 5 | 5 | 5 | 5 | 4 | 6 | 10 | 9 | 8 | 6 | 12 |
| Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |

Survivor Benefits



Packet Timeliness (average TAT in days)

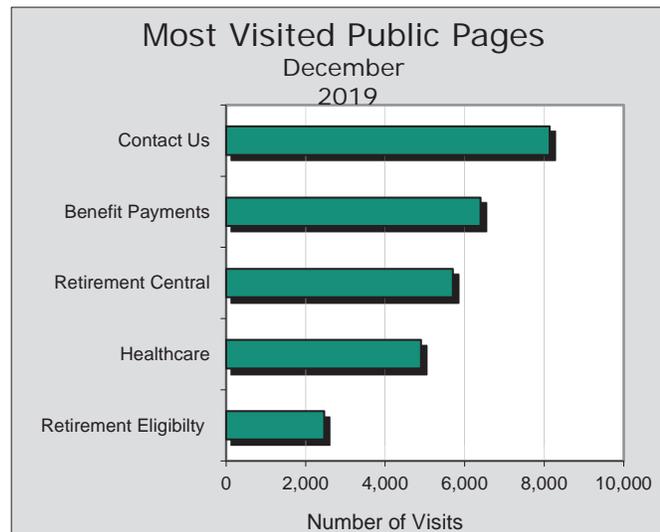
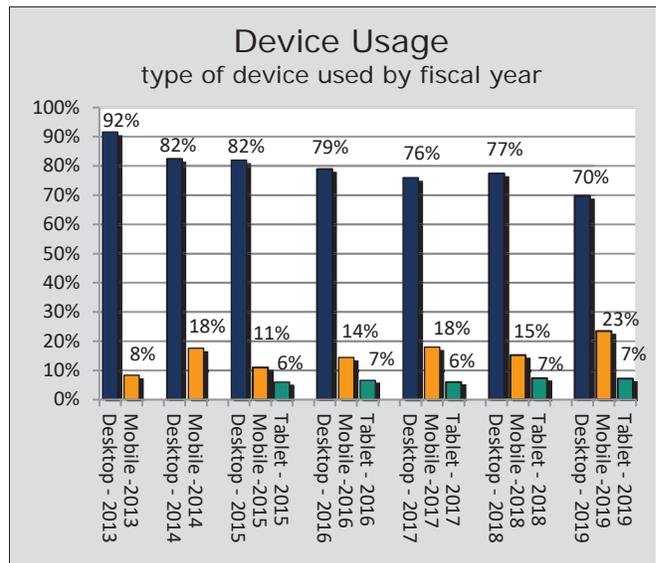
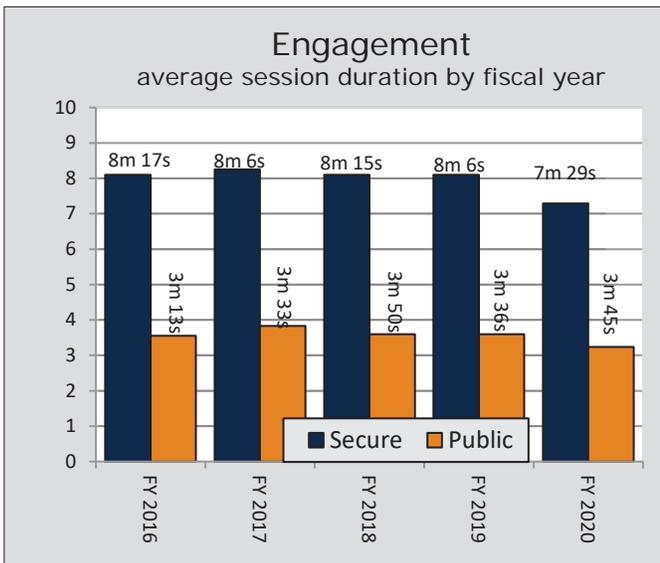
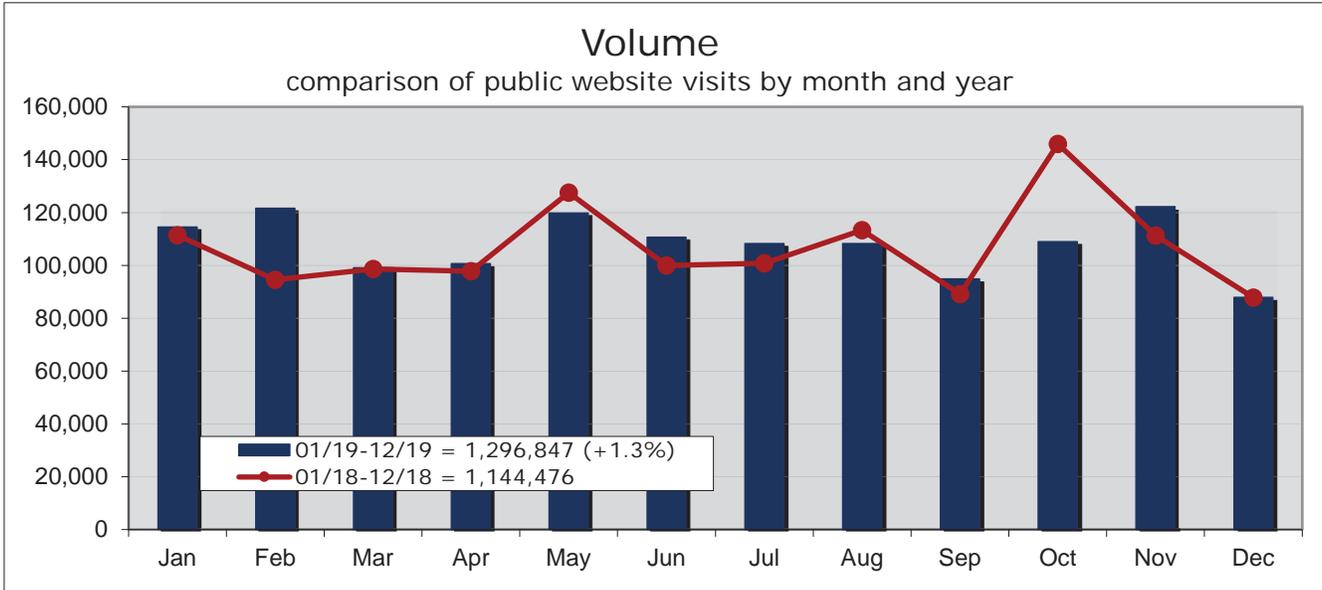
| Month | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
|-------------|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| Non Retired | 6 | 8 | 7 | 4 | 8 | 4 | 6 | 7 | 5 | 7 | 6 | 5 |
| Retired | 1 | 2 | 2 | 2 | 3 | 1 | 2 | 3 | 2 | 1 | 2 | 2 |



Payment Timeliness (average TAT in days)

| Month | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
|-----------------------------------|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|-----|
| Lump Sum (Non-Retired) | 4 | 3 | 2 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 8 |
| Annuity (Retired and Non-Retired) | 3 | 2 | 1 | 4 | 4 | 2 | 3 | 3 | 2 | 4 | 2 | 2 |

Public Website: www.azasrs.gov

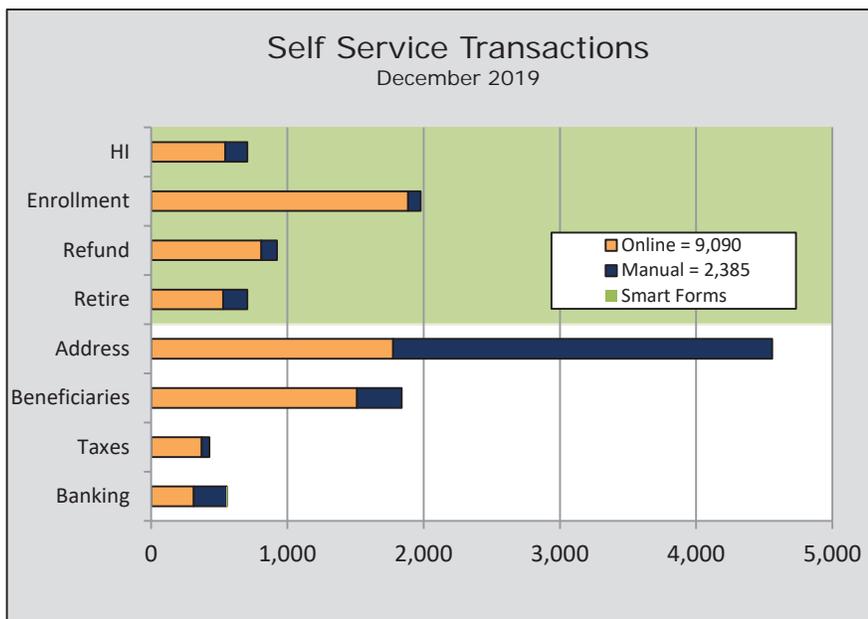
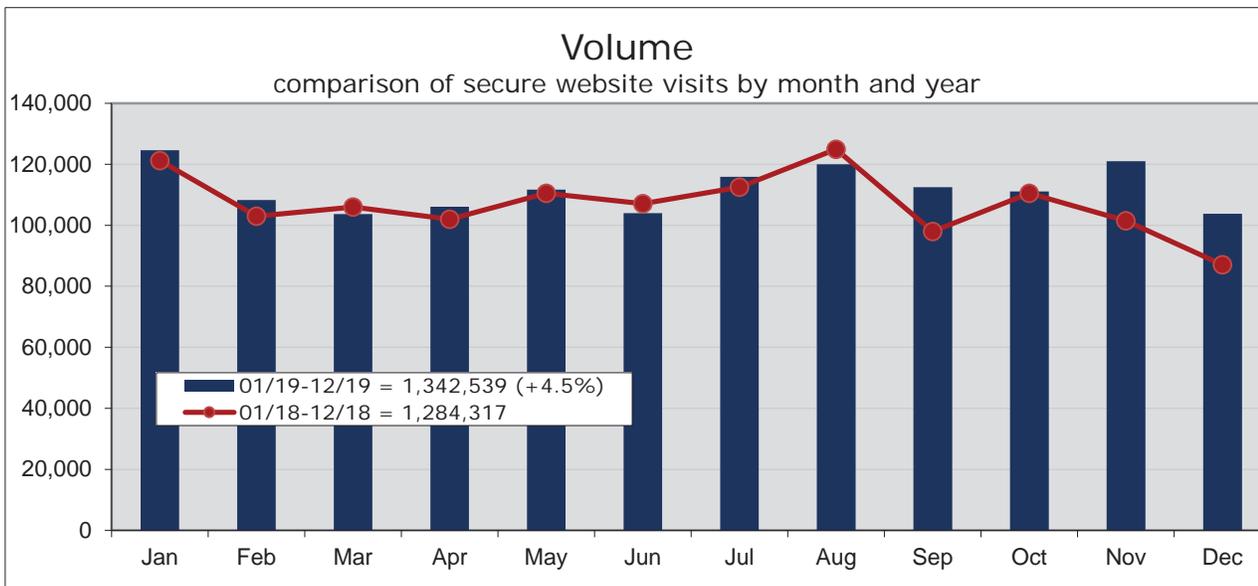


Social Media December 2019

facebook Followers: 2823 (+.36%)

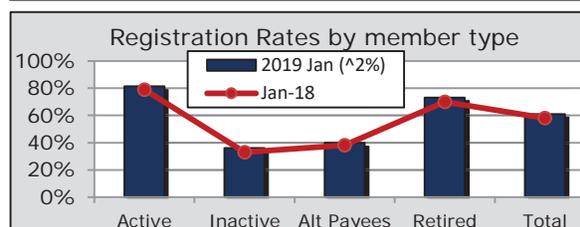
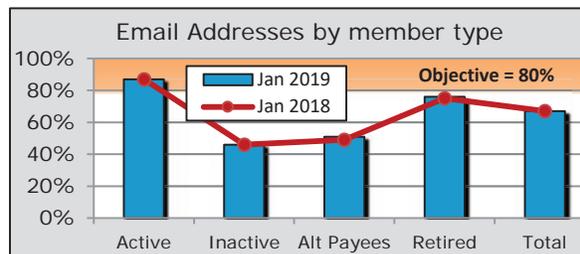
twitter Followers: 633 (+3%)

Secure Website: secure.azasrs.gov



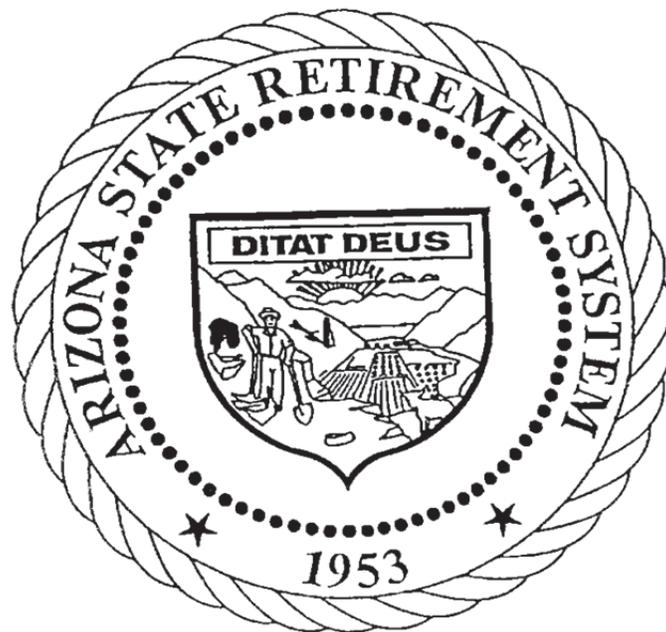
Historical Comparison of Online Usage

| | This month | 12mo Min | 12mo Max | 12mo Avg | Objective |
|---------------------|------------|----------|----------|----------|------------|
| HI | 77% | 65% | 81% | 68% | 75% |
| Enroll | 95% | 92% | 98% | 95% | 99% |
| Ref | 88% | 80% | 90% | 85% | 90% |
| Ret | 75% | 67% | 79% | 74% | 90% |
| Add | 75% | 70% | 89% | 79% | 75% |
| Bene | 82% | 53% | 87% | 81% | 75% |
| Tax | 87% | 55% | 93% | 80% | 75% |
| DD | 57% | 42% | 66% | 57% | 75% |
| Total online | | | | | |
| | | | | | 66% |



Agenda Item #6b

Director's Report Budget & Staffing Reports



FY 2020 ASRS Budget Report Administrative Expenses

(Expenditures at December 31, 2019)

| | Base Administrative Budget | | | Obj by 6/30/2020: -3.00% | Administrative Projects Budget | | | | | | | Obj YOY: -1.50% | |
|--|-------------------------------|-------------------------------------|---|--------------------------|-------------------------------------|---|---|---|---|---|--|---|-----------------------------|
| | Base Operating Appropriations | Long Term Disability Appropriations | Pension Payroll, Rent, and Actuarial Fees Continuous Appropriations | Current: -3.40% | Base Administrative Budget Subtotal | Technology Services Projected Unspent Base Appropriations | Technology Technical Debt Sprints Projected Unspent Base Appropriations | Automation Upgrades and Oracle Modernization Special Line Item Appropriations | Benefits Disbursement Continuous Appropriations | Information Protection Security Continuous Appropriations | Manual Disbursements Continuous Appropriations | Benefits Self-Insurance Continuous Appropriations | Administrative Budget Total |
| Personal Services (PS) | | | | | | | | | | | | | |
| Salaries and wages | 5,377,500 | | 636,000 | | 6,013,500 | | | 365,200 | 65,500 | 19,100 | 20,000 | | 6,483,300 |
| Variable Compensation Strategies Plan | 65,500 | | - | | 65,500 | | | | | | | | 65,500 |
| Investment Incentive Compensation Plan | 636,000 | | - | | 636,000 | | | | | | | | 636,000 |
| Total PS | 6,079,000 | - | 636,000 | | 6,715,000 | - | - | 365,200 | 65,500 | 19,100 | 20,000 | - | 7,184,800 |
| Employee Related Expenses (ERE) | | | | | | | | | | | | | |
| Employer costs - benefits, taxes, charges | 2,279,400 | | 212,400 | | 2,491,800 | | | 112,600 | 20,400 | 6,200 | 6,200 | | 2,637,200 |
| Total ERE | 2,279,400 | - | 212,400 | | 2,491,800 | - | - | 112,600 | 20,400 | 6,200 | 6,200 | - | 2,637,200 |
| Professional and Outside Services (P&O) | | | | | | | | | | | | | |
| LTD Program administration | | 558,600 | | | 558,600 | | | | | | | | 558,600 |
| Pension payroll disbursement processing | | | 7,000 | | 7,000 | | | | | | | | 7,000 |
| IT Software Development | 532,100 | | 67,700 | | 599,800 | 39,800 | 26,200 | 229,400 | 82,800 | 19,100 | 16,300 | | 1,013,400 |
| Actuarial services | | | 45,000 | | 45,000 | | | | | | | | 45,000 |
| Benefits consulting services | | | 57,300 | | 57,300 | | | | | | | 27,600 | 84,900 |
| IT security professional services | | | 61,000 | | 61,000 | | | | | | | | 61,000 |
| Legal fees | 270,700 | | | | 270,700 | | | | | | | 38,600 | 309,300 |
| Other outside services | 14,400 | | | | 14,400 | | | | | | | | 14,400 |
| Total P&O | 817,200 | 558,600 | 238,000 | | 1,613,800 | 39,800 | 26,200 | 229,400 | 82,800 | 19,100 | 16,300 | 66,200 | 2,093,600 |
| Travel | | | | | | | | | | | | | |
| In-state | 11,100 | | | | 11,100 | | | | | | | | 11,100 |
| Out-of-state | 14,900 | | | | 14,900 | | | | | | | | 14,900 |
| Total Travel | 26,000 | - | - | | 26,000 | - | - | - | - | - | - | - | 26,000 |
| Other Operating Expenditures | | | | | | | | | | | | | |
| Office rent | | | 742,700 | | 742,700 | | | | | | | | 742,700 |
| Software licenses and support | 584,800 | | | | 584,800 | | | | | | | | 584,800 |
| Telecommunications | 102,300 | | | | 102,300 | | | | | | | | 102,300 |
| Risk management insurance premiums | 149,300 | | | | 149,300 | | | | | | | | 149,300 |
| Newsletter printing and mailing | 141,600 | | | | 141,600 | | | | | | | | 141,600 |
| Dues, subscriptions, publications | 46,200 | | 54,200 | | 100,400 | 42,700 | | | | | | | 143,100 |
| Postage and delivery | 4,300 | | 71,400 | | 75,700 | | | | | | | | 75,700 |
| Education, training and conferences | 17,600 | | | | 17,600 | | | | | | | | 17,600 |
| Equipment repair and maintenance | 15,100 | | | | 15,100 | | | | | | | | 15,100 |
| Other operating supplies and external printing | 44,800 | | 100 | | 44,900 | | | | | | | | 44,900 |
| Total Other Operating Expenditures | 1,106,000 | - | 868,400 | | 1,974,400 | 42,700 | - | - | - | - | - | - | 2,017,100 |
| Equipment | | | | | | | | | | | | | |
| Furniture purchases/replacement | 3,100 | | | | 3,100 | | | | | | | | 3,100 |
| Network, server, PC and devices | 4,800 | | | | 4,800 | | | | | | | | 4,800 |
| Total Equipment | 7,900 | - | - | | 7,900 | - | - | - | - | - | - | - | 7,900 |
| TOTAL | \$ 10,315,500 | \$ 558,600 | \$ 1,954,800 | | \$ 12,828,900 | \$ 82,500 | \$ 26,200 | \$ 707,200 | \$ 168,700 | \$ 44,400 | \$ 42,500 | \$ 66,200 | \$ 13,966,600 |
| APPROPRIATED / BUDGETED AMOUNTS | \$ 22,394,000 | \$ 1,800,000 | \$ 4,594,900 | | \$ 28,788,900 | \$ - | \$ - | \$ 1,261,000 | \$ 216,300 | \$ 333,800 | \$ 383,700 | \$ 409,500 | \$ 31,393,200 |
| FY 2020 PROJECTED UNSPENT | \$ 935,700 | \$ 300,000 | \$ - | | \$ 1,235,700 | \$ (226,500) | \$ (43,200) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 966,000 |
| % EXPENDED YTD | 46.1% | 31.0% | 42.5% | | 44.6% | | | 56.1% | 78.0% | 13.3% | 11.1% | 16.2% | 44.5% |
| % OF FISCAL YEAR ELAPSED | 50.0% | | | | | | | | | | | | |

FY 2020 ASRS Budget Report Investment Expenses

(Expenditures as of December 31, 2019)

| | EXPENDED YTD | ESTIMATED EXPENSES | ESTIMATED EXPENSES AS % OF TOTAL AUM | ESTIMATED EXPENSES PER MEMBER |
|---|-----------------------|-----------------------|--------------------------------------|-------------------------------|
| Investment Management Expenses | | | | |
| Internal Investment Management | | | | |
| Salaries and benefits | \$ 763,600 | \$ 1,529,800 | | |
| Investment Incentive Compensation Plan (ICP) ¹ | \$ 256,900 | \$ 256,900 | | |
| Travel, education and training, rent, and other operational expenses | \$ 72,400 | \$ 215,100 | | |
| Public Markets | | | | |
| External investment management fees | \$ 65,000 | \$ 4,416,200 | | |
| Transactional and other fees ² | \$ 1,339,900 | \$ 5,000,000 | | |
| Private Markets | | | | |
| Private Equity management fees | \$ 23,932,000 | \$ 56,371,000 | | |
| Private Equity performance incentive and other fees ³ | \$ 33,310,900 | \$ 33,310,900 | | |
| Real Estate management fees | \$ 4,371,000 | \$ 10,561,100 | | |
| Real Estate performance incentive and other fees ³ | \$ 13,004,000 | \$ 13,004,000 | | |
| Private Credit management fees | \$ 8,582,600 | \$ 24,622,000 | | |
| Private Credit performance incentive and other fees ³ | \$ 10,034,800 | \$ 10,034,800 | | |
| Custodial Banking, Security Lending and Master Cash STIF Fees | \$ 1,213,700 | \$ 4,030,500 | | |
| Investment Management Expenses Subtotal | \$ 96,946,800 | \$ 163,352,300 | 0.39% | \$ 268.58 |
| Investment Related Consulting, Legal and Information Services Expenses | | | | |
| Investment Consulting Services | \$ 2,450,500 | \$ 5,342,300 | | |
| Investment Related Legal Services | \$ 1,858,400 | \$ 4,240,000 | | |
| Investment Electronic Information Services | \$ 912,100 | \$ 3,254,000 | | |
| External Financial Consulting Services | \$ 66,000 | \$ 120,000 | | |
| Services Expenses Subtotal | \$ 5,287,000 | \$ 12,956,300 | 0.03% | \$ 21.30 |
| Total Investment Expenses | \$ 102,233,800 | \$ 176,308,600 | 0.42% | \$ 289.88 |

¹ The ICP is paid with base operating budget appropriated dollars.

² Fees for investment managers employing an overlay strategy are not projected and are only reported, on a cash basis, when identified and paid.

³ Due to the nature of the investments and contingent variables, estimated annual performance incentive and other certain fees and expenses that are contractually agreed upon are not projected and are only reported, on a cash flow basis, when identified and paid. Amounts in the Estimated Expenses column are equal to the actual Expended YTD.

| FY 2020 ASRS Budget Report Total Administrative and Investment Expenses | EXPENDED YTD | ESTIMATED EXPENSES | ESTIMATED EXPENSES AS % OF TOTAL AUM | ESTIMATED EXPENSES PER MEMBER |
|---|-----------------------|-----------------------|--------------------------------------|-------------------------------|
| Administrative Expenses | | | | |
| (from Page 1 - Appropriated/Budgeted Amounts excluding ICP and Projected Unspent) | \$ 13,709,700 | \$ 30,427,200 | 0.07% | \$ 50.03 |
| Investment Expenses (including ICP)¹ | \$ 102,233,800 | \$ 176,308,600 | 0.42% | \$ 289.88 |
| Total Expenses | \$ 115,943,500 | \$ 206,735,800 | 0.49% | \$ 339.91 |
| ASRS Estimated Total Market Value of Assets Under Management (AUM) as of September 30, 2019 | | | | \$ 41,401,365,000 |
| ASRS Total Membership as of June 30, 2019 | | | | 608,200 |

Fiscal Year 2020
Budget Report Summary
(As of December 31, 2019)

The Arizona State Retirement System (ASRS) administrative and investment costs are expended in accordance with Arizona Revised Statutes (A.R.S.). The ASRS utilizes both appropriated and continuously appropriated funds. Column amounts represent the expenditures in each category to date. Information on the total appropriated and estimated planned annual expenses is also included as a guide to the rate of spend during the fiscal year. Reported expenditures include 13 pay periods (50% of the annual payrolls) in FY 2020.

Appropriations

Columns labeled as *appropriations* represent **funds** that have been approved by the Legislature and the ASRS Board for fiscal year July 1, 2019 through June 30, 2020, and include:

1. **Base operating budget** – funds for administrative salaries and employee benefits, supplies, equipment and ongoing costs associated with member information and financial systems for the ASRS.
2. **Long Term Disability (LTD) Program** – funds for the administration costs of the LTD program.
3. **Technology Services Improvements project** – funds to implement a DevOps methodology and setting up the required infrastructure to achieve operational efficiency. ASRS will utilize dollars that are projected to be unspent from the base operating budget.
4. **Technology Technical Debt Sprints** – funds to complete additional solutions for previous software development projects to increase agility. ASRS will utilize dollars that are projected to be unspent from the base operating budget.
5. **Automation upgrades and Oracle Modernization project** – funds for the Oracle Forms and Reports Modernization project. Amounts appropriated in FYs 2015 to 2017 are non-lapsing, and the ASRS has the ability to utilize the unspent portion of the funds to complete the project.

Continuous Appropriations

Columns labeled as *continuous appropriations* represent funds that, in accordance with A.R.S. § 38-721(C), are continuously appropriated in the amount deemed necessary by the Board and include:

1. **Administrative costs**
 - *Pension Payroll* - funds for costs associated with administering retiree pension benefits and disbursements, including the Data, Transactional and Network Security Program, third-party fees, postage, benefit-related consulting fees, and the ASRS Benefits Disbursement, Information Protection Security, and Manual Disbursements projects to support the security program. (Note: The Risk Mitigation Project has been determined to be unnecessary in FY 2020 and has been removed from the report.)
 - *Rent* – funds for rent required as tenants for occupancy at 3300 N Central Avenue in Phoenix and in the leased office space in Tucson.
 - *Actuarial fees* – funds for actuarial services related to plan design, benefits, administration and valuations and the one-time expenses related to activities to prepare the transition to self-insured health, pharmacy, and dental benefit plans.
2. **Investment management and related consulting fees necessary to meet the Board's investment objectives**
 - *Internal investment management* – funds for ASRS Investment Management Division (IMD) staff salaries and employee benefits, travel, education and training, rent, and other operational costs. However, the Investment Incentive Compensation Plan (ICP) is paid with base operating budget appropriations.
 - *External investment management* – funds for:
 - Public Markets investment management fees and transactional and other fees, which include foreign taxes and commissions on derivatives and other incidental costs.
 - Private Markets investment management fees and performance incentive and carried interest fees, which are only paid if earned - upon successful performance of the manager after other return criteria are met – or incurred, and other contractually agreed-upon fees and expenses.
 - *Consulting fees* – funds for investment-related consulting and legal fees, electronic information services and subscriptions, custodial administrative and investment services fees, and external auditing service fees. In order to gain insight into portfolios, investment performance, compliance, and investment opportunities, the ASRS utilizes supplemental, coordinated services of external professionals and data platforms.

The investment continuous appropriations budget report includes projected expenditures for the current fiscal year. Actual expenditures are reported monthly and estimated annual expenses are reviewed and adjusted quarterly. The ASRS Estimated Total Market Value of Assets under Management (AUM) and ASRS Total Membership values are updated as period ending amounts are finalized.

**Arizona State Retirement System
Staffing Report
(December 31, 2019)**

| ASRS by Division | 241 Full Time Equivalents (FTEs) | New Hires | New Exits | Vacancies | Vacancy Rate |
|--|--|-------------|-------------|--------------|-----------------|
| Director's Office/ Public Affairs/ Information Security (DIR)/ Leg. Liaison | 21 | 0.0 | 1.0 | 2.0 | 9.52% |
| Administrative Services Division (ASD) | 12 | 0.0 | 1.0 | 1.25 | 10.42% |
| Financial Services (FSD) | 71 | 0.0 | 1.0 | 7.75 | 10.92% |
| Technology Services (TSD) | 57 | 0.0 | 0.0 | 4.00 | 7.02% |
| Internal Audit (IAD) | 3 | 0.0 | 0.0 | 0.00 | 0.00% |
| Investment Management (IMD) | 11 | 0.0 | 0.0 | 1.00 | 9.09% |
| Member Services (MSD) | 66 | 0.0 | 1.0 | 5.50 | 8.33% |
| | 241 | 0.00 | 4.00 | 21.50 | 8.92% |

| Turnover | Hires | Exits | Total Exits (Last 12 Months) | Annualized Turnover % |
|----------|-------|-------|---------------------------------|--------------------------|
| | 0.00 | 4.00 | 27.5 | 12.20% |

| | |
|--|-------|
| <u>Turnover benchmarks:</u> | |
| AZ State Personnel System 2019: | 18.1% |
| BLS - State/Local 2018: | 19.2% |
| Compdata – West/Not-for-profit 2018: | 19.2% |
| Milliman AZ Comp. Survey 2019 - Gov't: | 12.6% |

Recruitments

Under recruitment:

- MSD: Health and Disability Plan Manager, MSD: Retirement Advisor Supervisor, and TSD: Release Management Coordinator

Internal hires (transferred/promoted from within the ASRS):

- None

External hires (new to the ASRS):

- None

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|--|--|-----------------|----------|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| MSD | MAC (Call Center) | ●○○○ | |
| MSD | Member Education | ●○○○ | |
| MSD | E-mail and Written Correspondence | ●○○○ | |
| MSD | Phoenix: Appointments/Walk-ins/Outreach | ●○○○ | |
| MSD | Tucson: Appointments/Walk-ins/Outreach | ●○○○ | |
| MSD | Benefit Estimates | ●○○○ | |
| MSD | Employer Relations | ●○○○ | |
| MSD | Health Insurance/LTD Benefits Administration and Communication | ●○○○ | |
| FSD | Service Purchase Processing | ●○○○ | |
| FSD | Monthly Pension Payroll Processing | ●○○○ | |
| FSD | New Retiree Processing | ●○○○ | |

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|--|--|-----------------|---|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| FSD | Survivor Benefit Processing | ●○○○ | |
| FSD | Records Management (data processing/imaging) | ●○○○ | |
| FSD | Mailroom and Printing | ●○○○ | |
| FSD | LTD/Health Benefit Supplement Processing | ●○○○ | |
| FSD | Transfer Processing | ●○○○ | |
| FSD | General Accounting | ●○○○ | |
| FSD | Contribution Collections and Posting | ●○○○ | |
| TSD | Network Support | ●○○○ | |
| TSD | Application Development Team | ○○●○ | Due to turnover and absences, the ability to meet business needs is impacted. Notable impacts are realized in FileNet development and DevOps. |
| IMD | Investment Management | ●○○○ | |

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|--|-------------------------------|-----------------|---|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| DIR | Board/Executive Staff Support | ● ○ ○ ○ | |
| DIR | Information Security | ● ○ ○ ○ | |
| DIR | Strategic Planning/Analysis | ● ○ ○ ○ | |
| DIR | Strategic Communications | ○ ● ○ ○ | Greater than normal risk will remain until all the Communications Web Admin role is filled and trained. |
| DIR | Public Affairs | ● ○ ○ ○ | |
| DIR | Rule Writing | ● ○ ○ ○ | |
| DIR | Legislative Relations | ● ○ ○ ○ | |
| DIR | Defined Contributions Plans | ● ○ ○ ○ | |
| IA | Internal Audit | ● ○ ○ ○ | |
| ASD | Human Resources | ● ○ ○ ○ | |
| ASD | Training and Development | ● ○ ○ ○ | |
| ASD | Contracts and Procurement | ● ○ ○ ○ | |

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|--|------------------------|-----------------|----------|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| ASD | Facilities Management | ● ○ ○ | |
| ASD | Budget Administration | ● ○ ○ | |

ASRS Out of State Travel Expenditures Paid Out 4th Quarter 2019

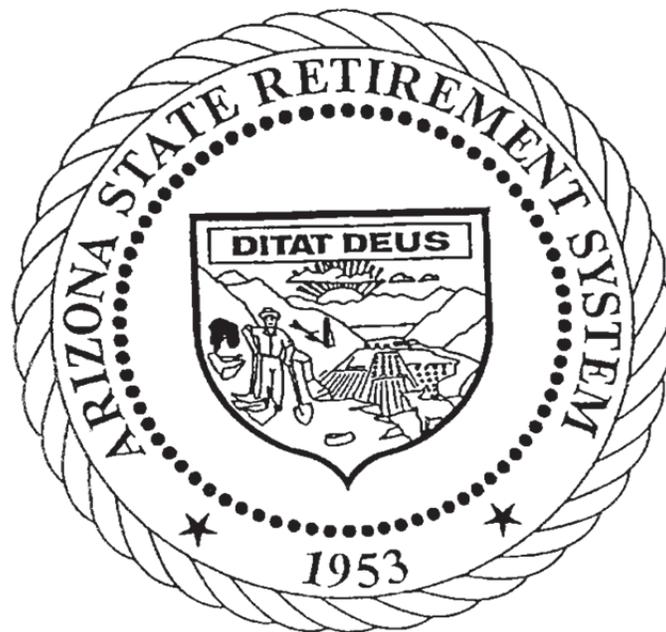
*Numbers are Unaudited

| <u>Date</u> | <u>Purpose</u> | <u>Location</u> | <u>Attendee</u> | <u>Cost</u> |
|----------------------|--|---------------------------|------------------------|--------------------|
| October 12-27, 2019 | Private equity due diligence meetings | New York, NY | Samer Ghaddar | \$1,046.13 |
| October 15-20, 2019 | Avenue Europe LPAC, HPS Investor Conf., and due diligence | New York, NY | John Doran | \$188.37 |
| October 20-23, 2019 | 2019 P2F2 Conference | Salt Lake City, UT | Erin Higbee | \$1,236.53 |
| October 20-23, 2019 | 2019 P2F2 Conference | Salt Lake City, UT | Erica Syring | \$1,234.92 |
| October 20-23, 2019 | 2019 P2F2 Conference | Salt Lake City, UT | Hong Mayhew | \$1,194.63 |
| October 20-23, 2019 | 2019 P2F2 Conference | Salt Lake City, UT | James Samolowicz | \$1,220.53 |
| October 23-24, 2019 | RCLCO Real Estate Annual Conference | Los Angeles/San Diego, CA | Al Alaimo | \$115.79 |
| October 8-11, 2019 | PPHRO Roundtable | Boston, MA | Jana George | \$2,374.29 |
| October 23-30, 2019 | Q-Group Fall Conference and Due Diligence | Los Angeles/San Diego, CA | Karl Polen | \$1,605.52 |
| November 2-17, 2019 | Private equity due diligence meetings | New York, NY | Samer Ghaddar | \$1,043.97 |
| November 5-8, 2019 | SALGBA Public Sector Healthcare Roundtable | Washington, DC | Russ Levine | \$2,185.81 |
| November 4-6, 2019 | AIM Conference | San Francisco, CA | Maria (Lupita) Breland | \$985.99 |
| November 6-7, 2019 | MCR Meetings/Property Tours | Denver, CO | Karl Polen | \$38.08 |
| November 18-21, 2019 | Meetings w/Ventas, Related, Seavest, Legal Business Svcs | New York, NY | Karl Polen | \$262.49 |
| November 18-20, 2019 | Melodeon AZ LBS Feeder Fund LP/Board Meeting for Legal Business Services | New York, NY | Al Alaimo | \$189.29 |
| November 19-21, 2019 | 2019 Info-Tech LIVE Conference | Los Vegas, NV | Molly Mahai | \$1,336.30 |
| November 19-21, 2019 | 2019 Info-Tech LIVE Conference | Los Vegas, NV | Dave King | \$1,336.30 |
| | | | | |
| | | | | |
| | | | | |
| | | | Total: | \$17,594.94 |

*Final amounts may vary due to adjustments in per diem and reimbursements.

Agenda Item #6c

Director's Report Cash Flow Statements



ARIZONA STATE RETIREMENT SYSTEM
COMBINED STATEMENT OF CHANGES IN TOTAL FUND CASH
FOR THE MONTH ENDED NOVEMBER 30, 2019

| | Retirement Plan Fund | Retirement System Fund | Health Benefit Supplement Fund | Long-Term Disability Fund | Current Period November | Fiscal 2020 YTD November | Fiscal 2019 YTD November |
|--|----------------------------|------------------------------|--------------------------------------|---------------------------------|----------------------------|-----------------------------------|-----------------------------------|
| ADDITIONS | | | | | | | |
| Contributions | | | | | | | |
| Member contributions | \$ 101,039,554 | \$ - | \$ - | \$ 1,439,591 | \$ 102,479,145 | \$ 497,190,177 | \$ 469,880,482 |
| Employer contributions | 97,053,053 | - | 4,147,774 | 1,439,568 | 102,640,395 | 498,029,164 | 470,580,790 |
| Alternative contributions (ACR) | 2,760,880 | - | 13,451 | 18,786 | 2,793,117 | 12,781,407 | 12,754,005 |
| Transfers from other plans | 344,468 | - | - | - | 344,468 | 815,175 | 449,802 |
| Purchased service | 1,340,644 | - | 1,453 | 854 | 1,342,952 | 7,497,975 | 9,344,227 |
| TOTAL CONTRIBUTIONS | 202,538,600 | - | 4,162,679 | 2,898,798 | 209,600,077 | 1,016,313,898 | 963,009,307 |
| DEDUCTIONS | | | | | | | |
| * Investment management fees | - | - | - | - | - | 3,262,603 | 14,613,780 |
| Custody fees | - | - | - | - | - | - | - |
| Consultant and legal fees | 788,688 | - | - | - | 788,688 | 3,066,060 | 1,273,133 |
| Internal investment activity expense | 446,844 | - | - | - | 446,844 | 1,112,841 | 1,301,559 |
| Investment performance fees | - | - | - | - | - | 365,905 | 69,950,294 |
| Retirement and disability benefits | 263,960,678 | 2,911,431 | 11,222,400 | 4,549,918 | 282,644,428 | 1,420,774,569 | 1,359,258,223 |
| Survivor benefits | 4,482,158 | - | - | - | 4,482,158 | 19,225,654 | 20,879,080 |
| Refunds to withdrawing members, including interest | 15,219,335 | - | - | - | 15,219,335 | 115,668,812 | 120,759,879 |
| Administrative expenses | 1,988,652 | - | - | 85,700 | 2,074,352 | 14,085,429 | 12,570,225 |
| Transfers to other plans | 26,520 | - | - | - | 26,520 | 569,186 | 51,479 |
| Other | - | - | - | - | - | 55 | 84 |
| TOTAL DEDUCTIONS | 286,912,875 | 2,911,431 | 11,222,400 | 4,635,619 | 305,682,325 | 1,578,131,113 | 1,600,657,736 |
| INCREASE (DECREASE) | (84,374,275) | (2,911,431) | (7,059,721) | (1,736,820) | (96,082,247) | (561,817,215) | (637,648,429) |
| From securities lending activities: | | | | | | | |
| Security loan program | 327,056 | - | - | - | 327,056 | 2,389,784 | 2,754,180 |
| Security loan interest expense / (Rebate) | (18,444) | - | - | - | (18,444) | 130,553 | 77,972 |
| ** Net income from securities lending activities | 345,500 | - | - | - | 345,500 | 2,259,231 | 2,676,208 |
| *** Capital Calls / (Distributions) | | | | | | | |
| Distressed Debt Total | 12,687,127 | 72,283 | 554,538 | 52,389 | 13,366,337 | (20,981,008) | 227,024,753 |
| Private Debt | - | - | - | - | - | - | (61,242,854) |
| Private Debt - European Credit Total | - | - | - | - | - | 37,866,000 | 27,125,000 |
| Private Debt - US Corporate Total | 15,855,357 | 90,333 | 693,018 | 65,472 | 16,704,180 | 389,605,781 | (23,287,705) |
| Private Debt - US RE and Asset Backed Total | (156,896,750) | (893,891) | (6,857,761) | (647,872) | (165,296,274) | (309,536,443) | 16,882,141 |
| Private Equity | 14,095,695 | 80,308 | 616,105 | 58,205 | 14,850,313 | (137,868,970) | 9,729,764 |
| Real Estate | 202,263,885 | 1,152,361 | 8,840,701 | 835,206 | 213,092,153 | 445,606,246 | (54,399,611) |
| Owned Real Estate | (610,231) | (3,477) | (26,672) | (2,520) | (642,900) | (642,900) | 728,300 |
| Other Credit Total | 36,259,863 | 206,584 | 1,584,873 | 149,727 | 38,201,047 | 392,396,985 | 2,415,320 |
| TOTAL Capital Calls | 123,654,946 | 704,501 | 5,404,802 | 510,607 | 130,274,856 | 796,445,691 | 144,975,108 |
| NET INCREASE (DECREASE) | \$ (207,683,721) | \$ (3,615,932) | \$ (12,464,523) | \$ (2,247,427) | \$ (226,011,604) | \$ (1,356,003,675) | \$ (779,947,329) |

* Investment management fees for public investment managers and other managers paid by invoice. Does not include management fees paid through capital calls.

** Securities lending activities reported on a one month lag.

*** Capital calls / (Distributions) include investment management, incentive and other fees that were paid through capital call, rather than payment of an invoice, or through a reduction of a distribution.

Current period private market activity totals represent the best available preliminary information provided by our custodial bank. Changes in preliminary reported information for prior months are reflected in the year-to-date column.

ARIZONA STATE RETIREMENT SYSTEM
COMBINED STATEMENT OF CHANGES IN TOTAL FUND CASH
FOR THE MONTH ENDED DECEMBER 31, 2019

| | Retirement Plan Fund | Retirement System Fund | Health Benefit Supplement Fund | Long-Term Disability Fund | Current Period December | Fiscal 2020 YTD December | Fiscal 2019 YTD December |
|--|----------------------------|------------------------------|--------------------------------------|---------------------------------|----------------------------|-----------------------------------|-----------------------------------|
| ADDITIONS | | | | | | | |
| Contributions | | | | | | | |
| Member contributions | \$ 114,207,355 | \$ - | \$ - | \$ 1,614,894 | \$ 115,822,249 | \$ 613,013,784 | \$ 566,498,940 |
| Employer contributions | 109,397,778 | - | 4,686,901 | 1,614,894 | 115,699,573 | 614,906,708 | 567,529,557 |
| Alternative contributions (ACR) | 3,148,149 | - | 15,297 | 21,416 | 3,184,862 | 15,966,269 | 15,571,868 |
| Transfers from other plans | 209,522 | - | - | - | 209,522 | 1,024,696 | 449,802 |
| Purchased service | 1,129,857 | - | 564 | 313 | 1,130,734 | 8,628,709 | 10,144,512 |
| TOTAL CONTRIBUTIONS | 228,092,661 | - | 4,702,762 | 3,251,517 | 236,046,939 | 1,253,540,167 | 1,160,194,680 |
| DEDUCTIONS | | | | | | | |
| * Investment management fees | 587,063 | 3,278 | 25,595 | 2,393 | 618,329 | 3,880,932 | 14,613,780 |
| Custody fees | - | - | - | - | - | 611,086 | - |
| Consultant and legal fees | 682,990 | - | - | - | 682,990 | 4,510,805 | 1,686,127 |
| Internal investment activity expense | 378,584 | - | - | - | 378,584 | 1,636,345 | 1,439,784 |
| Investment performance fees | - | - | - | - | - | 365,905 | 69,492,403 |
| Retirement and disability benefits | 264,269,758 | 6,305,452 | 11,178,214 | 4,491,956 | 286,245,379 | 1,706,440,729 | 1,632,593,305 |
| Survivor benefits | 3,148,399 | - | - | - | 3,148,399 | 22,378,355 | 23,109,299 |
| Refunds to withdrawing members, including interest | 18,290,706 | - | - | - | 18,290,706 | 133,943,828 | 133,838,606 |
| Administrative expenses | 1,936,385 | - | - | 115,722 | 2,052,107 | 16,266,891 | 14,592,549 |
| Transfers to other plans | 20,967 | - | - | - | 20,967 | 590,154 | 51,479 |
| Other | - | - | - | - | - | 64 | 102 |
| TOTAL DEDUCTIONS | 289,314,852 | 6,308,730 | 11,203,809 | 4,610,071 | 311,437,462 | 1,890,625,093 | 1,891,417,434 |
| INCREASE (DECREASE) | (61,222,192) | (6,308,730) | (6,501,047) | (1,358,554) | (75,390,522) | (637,084,926) | (731,222,755) |
| From securities lending activities: | | | | | | | |
| Security loan program | 363,503 | - | - | - | 363,503 | 2,753,287 | 3,228,490 |
| Security loan interest expense / (Rebate) | 20,132 | - | - | - | 20,132 | 150,685 | 79,871 |
| ** Net income from securities lending activities | 343,371 | - | - | - | 343,371 | 2,602,602 | 3,148,619 |
| *** Capital Calls / (Distributions) | | | | | | | |
| Distressed Debt Total | 38,448,293 | 214,666 | 1,676,270 | 156,742 | 40,495,971 | 19,514,963 | 226,895,585 |
| Private Debt | - | - | - | - | - | - | (61,242,854) |
| Private Debt - European Credit Total | 28,483,050 | 159,027 | 1,241,805 | 116,117 | 29,999,999 | 67,865,999 | 47,124,999 |
| Private Debt - US Corporate Total | 10,736,124 | 59,943 | 468,074 | 43,768 | 11,307,909 | 400,913,690 | (125,855,768) |
| Private Debt - US RE and Asset Backed Total | (32,748,266) | (182,841) | (1,427,760) | (133,505) | (34,492,372) | (344,028,815) | 16,850,687 |
| Private Equity | 14,230,953 | 79,455 | 620,442 | 58,015 | 14,988,865 | (122,880,105) | 41,891,672 |
| Real Estate | 57,089,163 | 318,742 | 2,488,976 | 232,736 | 60,129,617 | 505,735,863 | 5,172,042 |
| Owned Real Estate | - | - | - | - | - | (642,900) | 728,300 |
| Other Credit Total | 20,035,990 | 111,866 | 873,530 | 81,681 | 21,103,067 | 413,500,052 | 43,894,486 |
| TOTAL Capital Calls | 136,275,307 | 760,858 | 5,941,337 | 555,554 | 143,533,056 | 939,978,747 | 195,459,149 |
| NET INCREASE (DECREASE) | \$ (197,154,127) | \$ (7,069,588) | \$ (12,442,384) | \$ (1,914,108) | \$ (218,580,207) | \$ (1,574,461,071) | \$ (923,533,284) |

* Investment management fees for public investment managers and other managers paid by invoice. Does not include management fees paid through capital calls.

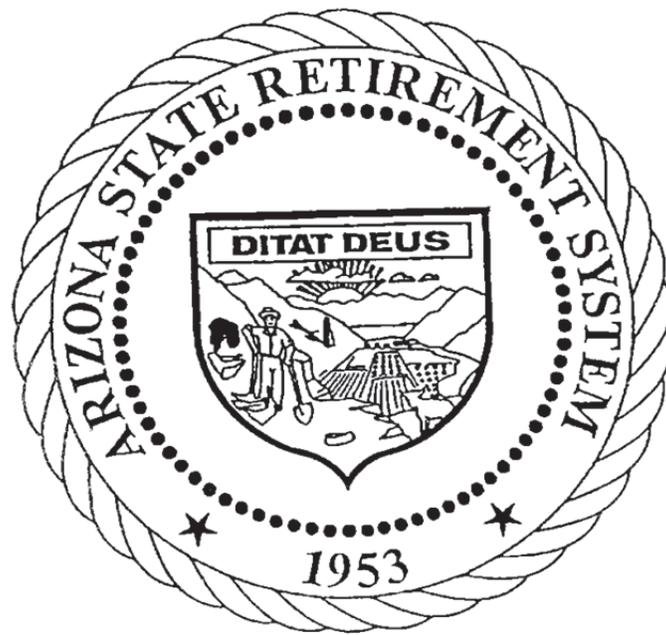
** Securities lending activities reported on a one month lag.

*** Capital calls / (Distributions) include investment management, incentive and other fees that were paid through capital call, rather than payment of an invoice, or through a reduction of a distribution.

Current period private market activity totals represent the best available preliminary information provided by our custodial bank. Changes in preliminary reported information for prior months are reflected in the year-to-date column.

Agenda Item #6d

Director's Report Appeals Report



OUTSTANDING ASRS APPEALS

| Date Received | Appeals | Issues/Questions Regarding | Status/Comments |
|---------------|--------------------|--|--|
| 10/26/2016 | Susan Lagerman | Appellant is requesting a retroactive retirement date. | OAH hearing held on 1/5/2017. ALJ decision received on 2/13/2017 upholding ASRS decision. ASRS Appeals Committee accepted ALJ Decision on 3/31/2017. Appellant filed appeal with Superior Court 4/3/2017. Superior Court ruled in ASRS' favor on 11/28/2017. Appellant Susan Lagerman filed an appeal to the Arizona Court of Appeals on 12/8/17. Briefing completed on June 29, 2018. Court of Appeals ruled in ASRS' favor on March 7, 2019. Appellant filed Petition for Review with Arizona Supreme Court. Arizona Supreme Court accepted review on 9/24/2019 & oral argument occurred on 12/17/2019. |
| 3/15/2018 | Julie Schweigert | Member is appealing benefit calculation. | OAH hearing held on April 20, 2018. ALJ ruled in favor of the ASRS. ASRS Board Appeals Committee accepted the ALJ Decision on 6/12/2018 upholding the agency action. Appellant filed appeal to the Superior Court on July 17, 2018. Briefing completed on December 19, 2018. Oral Arguments conducted on February 27, 2019. Superior Court ruled in ASRS' favor on 4/25/2019. Appellant Julie Schweigert filed an appeal to the Arizona Court of Appeals on 5/21/2019. ASRS settled matter with appellant in November 2019 for appeal to be vacated. |
| 6/13/2018 | Elizabeth Mullavey | Member is appealing recalculation of pension benefit due to Mesa Public Schools audit. | Appellant filed this appeal on July 9, 2018. The member has agreed that a hearing will not be scheduled at this time due to a current Notice of Claim by other affected retirees in the Mesa Public Schools audit matter and possible resulting litigation in the superior court. |
| | | | |

Information as of January 10, 2020. Updates are noted in bold font.

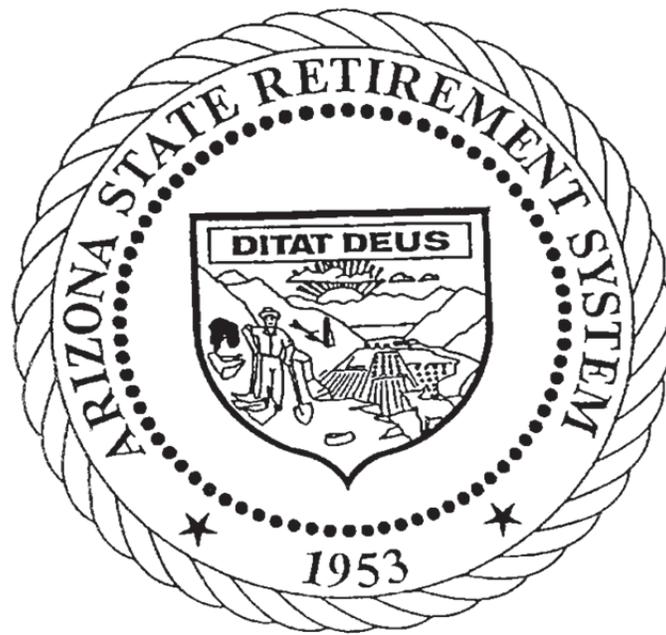
OUTSTANDING ASRS APPEALS

| Date Received | Appeals | Issues/Questions Regarding | Status/Comments |
|---------------|-----------------------------|--|--|
| 11/16/2018 | Jeffrey Pichotta | Member is appealing Long Term Disability overpayment | OAH hearing conducted on February 21, 2019. ALJ ruled in favor of the ASRS on March 7, 2019. Scheduled for the June 11, 2019 Board Appeals Committee meeting. ASRS Board Appeals Committee accepted the ALJ Decision on 6/11/2019 upholding the agency action. Appellant filed Motion for Reconsideration on 7/12/2019. ASRS Board Appeals Committee rejected the Motion on 8/13/2019. Superior Court accepted misfile of Appellant's appeal and moved case to Maricopa County on 11/14/2019. |
| 5/21/2019 | Shari McHugh | Member is appealing Contributions not Withheld issues | OAH hearing occurred on November 21, 2019. ALJ ruled in favor of the ASRS on 12/30/2019. Scheduled for the 2/11/2020 Board Appeals Committee meeting. |
| 8/12/2019 | Seymour Kolman | Member is appealing Level Income Alternative provisions. | OAH scheduled for January 8, 2020 but appellant did not appear – ALJ to issue an Order dismissing appeal. |
| 8/20/2019 | Nadean Burnes | Ex-Spouse is appealing no community property from deceased member Gerald Gardin's ASRS account | OAH hearing conducted on October 16, 2019. ALJ ruled in favor of the ASRS on 11/18/19. Scheduled for the 2/11/2020 Board Appeals Committee meeting. |
| 10/2/2019 | Pepi Sandhaus | Member is appealing for interest to be paid to her on retroactive pension adjustment received. | OAH hearing occurred on 11/26/19. ALJ ruled in favor of the ASRS on 12/10/19. Scheduled for the 2/11/2020 Board Appeals Committee meeting. |
| 11/26/2019 | Estate of William Thomasson | Estate and Personal Representative are appealing a pension overpayment which occurred prior to member's passing. | OAH is currently scheduled for January 21, 2020. |
| 12/6/2019 | Helen Johnson | Member is appealing pension overpayment and repayment method offered | OAH is currently scheduled for February 4, 2020. |

Information as of January 10, 2020. Updates are noted in bold font.

Agenda Item #6e

Director's Report Employers Reporting





ARIZONA STATE RETIREMENT SYSTEM

3300 NORTH CENTRAL AVENUE • PO BOX 33910 • PHOENIX, AZ 85067-3910 • PHONE (602) 240-2000
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TOLL FREE OUTSIDE METRO PHOENIX AND TUCSON 1 (800) 621-3778

Paul Matson
Director

MEMORANDUM

TO: Arizona State Retirement System (ASRS) Board
FROM: Mr. Paul Matson, Director
DATE: January 16, 2020
RE: Delinquent Employers

As of January 16, 2020, the following employers have failed to remit contributions by a date certain. These employers have received a letter advising them that the ASRS will initiate collection procedures unless they contact us within five days:

| | |
|-------------------------|------------------------|
| PARK VIEW MIDDLE SCHOOL | \$15,300 |
| TOWN OF PARKER | <u>\$33,300</u> |
| TOTAL | <u>\$48,600</u> |

Agenda Items #7-10

No Materials

Agenda Item #11



ARIZONA STATE RETIREMENT SYSTEM

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AZASRS.GOV

Paul Matson
Director

MEMORANDUM

TO: Mr. Jim Hillyard, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director
Mr. Anthony Guarino, Deputy Director and Chief Operations Officer
Ms. Sara Orozco, Strategic Planning Manager

DATE: January 21, 2020

RE: **Agenda Item #11:** Presentation, Discussion, and Appropriate Action Regarding the ASRS Strategic Plan

Purpose

To review and discuss ASRS Strategic Priorities and Key Performance Indicators (KPIs) outlined in the Five Year Strategic Plan.

Recommendation

Informational only; no recommendation.

Background

In the summer of 2018, the Board approved a new Five-Year Strategic Plan for the ASRS, effective July 1, 2018.

At the Board Chairman's request, staff will review key performance indicators and discuss strategic issues facing the ASRS related to the following six priorities adopted by the Board:

1. Maintain Sustainable Benefit Plans
2. Achieve Investment Goals
3. Provide Outstanding Customer Service
4. Enhance Risk Management Capabilities
5. Optimize Operational Effectiveness
6. Ensure Operational Continuity

At future Board or Committee meetings, any of the following items may occur, at the Board's discretion:

- Staff will present recommended additions, changes, deletions to KPIs
- Staff will incorporate discussion of the applicable KPIs into already scheduled board agenda items
- Staff will provide a 'deeper dive' into any of the priorities or goals as requested
- An annual review of KPIs in January 2021

Attachment: Strategic Plan

Arizona State
Retirement System

Strategic Plan

Priorities, Goals, and
Key Performance Indicators

For Fiscal Years
2019 to 2023



Table of Contents.

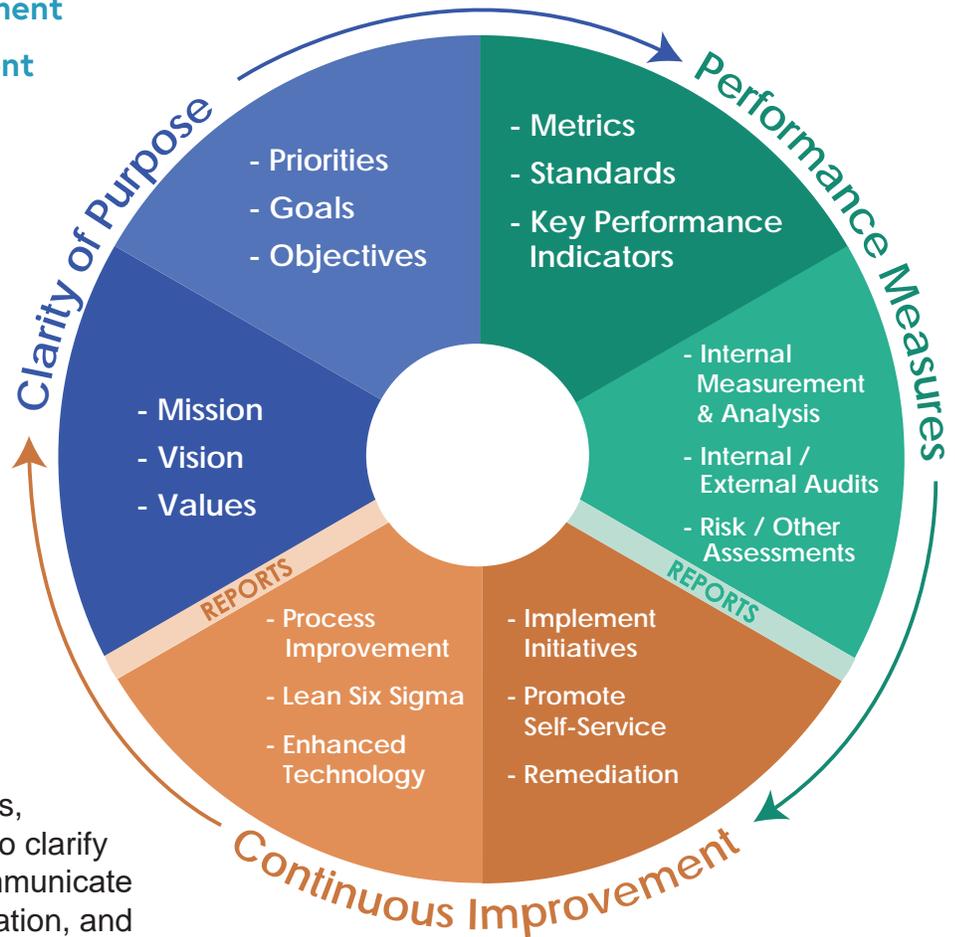
| | |
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| Mission & Vision | 4 |
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| Strategic Priorities | 6 |
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Introduction.

The ASRS uses a strategic planning cycle that contains three organizing principles:

1. Clarity of Purpose
2. Performance Measurement
3. Continuous Improvement

This cycle, similar to process improvement methodologies like the DMAIC process used in six sigma, has been used at the ASRS since the late 1990's. Over two decades, this process has helped the ASRS transform itself from a manual, paper-driven enterprise into a cost-effective, technologically savvy benefit provider with high levels of customer service to members and employers.



Clarity of Purpose

The ASRS, like other organizations, uses traditional planning devices to clarify its purpose, define its culture, communicate what it strives to be as an organization, and identify its priorities and goals for the current planning cycle. At the highest level, the ASRS achieves clarity through its mission, which is outlined in statute. Our vision statement, adopted by the Board, outlines the kind of organization ASRS wants to be. Our values describe the culture we want within our organization and describe how we want employees to interact with each other and also with our various stakeholders.

Our priorities, identified by Executive Management and approved by the Board, help us clarify what the agency will be focusing on during the strategic planning period, which typically lasts five years. Priorities consist of key areas the agency wants to enhance and optimize, and also areas the agency wants to monitor and maintain during the strategic planning period. Priorities are typically identified through discussions with executive management and through the review of various performance measures and outcomes of continuous improvement initiatives.

Priorities are operationalized through the development of goals and objectives. For each of the broad functional areas of the agency, we identify what the high level goal is that we want to accomplish. Each of these goals has a series of key performance indicators, or KPI's. KPI's are designed so that if all of the KPI's are met within a goal, then the agency should be comfortable in assuming that it has achieved its goal. If a collection of goals has been achieved within a priority, then a priority has been achieved.

Performance Measurement

We've all heard the phrase "what gets measured gets managed". At the ASRS, performance is monitored using various types of measures and reports. For example, customer service measurements include turnaround times, volumes, and customer satisfaction. Cost effectiveness measurements include examining our agency's performance when compared to similar organizations. Fiscal health measurements include reviewing independent assessments of funded status, investment returns and financial statements. Operational risk measurements include examining risk or other assessments and internal or external audits. Employee engagement measurements include examining customer and employee satisfaction.

For each of these measurements, risk tolerances are identified to provide supervisors and managers with guidance on not just the standard of performance we desire to achieve, but also our level of risk tolerance for performance that falls outside of the standard. Taken together, the performance standard and risk tolerance provide the corridor of performance that management deems to be acceptable before remediation activities need to be considered.

Continuous improvement

Through performance measurement, management is able to identify opportunities to improve service, satisfy customers, be more cost-effective, or mitigate risk. To address these opportunities, new initiatives are recommended and prioritized. These initiatives could be as simple as deploying additional resources to a business function to address increased service demand, or implementing a complex, multi-year technology project to make our agency more cost-effective. Sometimes, the initiative takes the form of further analysis. For example, peer benchmarking surveys are examined each year to identify how our different services compare to peer retirement systems. This allows the agency to identify outliers for further study. A process improvement team is in place and available to examine business processes to identify opportunities to reduce redundant or unnecessary steps. Remediation plans are developed to mitigate risks that have been identified. As these improvements are implemented, performance continues to be measured, and new priorities emerge, starting the cycle once more.

In this strategic plan, the agency is migrating its strategic plan reporting to a new web-based tool. This new tool is expected to improve our ability to capture, view, store, and share performance data throughout the agency. A similar tool is being implemented for the agency's enterprise-wide risk program.

Our Mission.

Arizona's Revised Statutes § 38-712 outlines the purpose of the ASRS:

- Provide an incentive in the recruitment and retention of employees of the highest possible quality.
- Contribute toward providing a total compensation package that is generally equivalent to comparable employment in other public and private organizations in this state.
- Provide a retirement system that encourages employees to remain in service for periods of time that will provide public employers with the full benefit of the training and experience gained by the employees.
- Provide an orderly method of promoting and maintaining a high level of service to the public through an equitable separation procedure that is available to employees at retirement or on becoming a person with a disability.
- Provide a base retirement benefit that is less than one hundred per cent of a member's post-retirement income requirements, recognizing that personal savings and social security also contribute toward total post-retirement income requirements.

In general, the statutory mission refers to the following programs managed by the ASRS:

1. The Defined Benefit Plan (The Plan).
2. The System (the plan in place prior to the DB plan which is closed to new participants).
3. A Retiree Health Insurance program and premium benefit supplement.
4. The Long Term Disability (LTD) program for disabled members.
5. Optional, Supplemental Defined Contribution Plans to employers.

Our Vision.

For the benefit of our members, the Arizona State Retirement System will be a top performing benefit plan administrator with a solid reputation and sustainable plan design.

The agency will be a leader in the areas of:

- Core Member Services
- Operational Effectiveness
- Investment Performance
- Funded Status

This will be accomplished while maintaining actuarial and fiscal integrity and keeping program benefits and associated costs relatively aligned.

Our Values.

Our organizational culture will be based upon the following **PRIDE** values



Professionalism

A highly capable workforce will promote a professional and respectful environment and lead the organization.



Results

A results-oriented approach to operations will energize the organization.



Improvement

A climate of continuous quality improvement and enhanced efficiencies will drive the organization.



Diversity

Engagement of diversity by the appreciation, recognition and support for all people will propel the organization to ever greater achievement.



Excellence

A commitment to service excellence will permeate the organization.



Strategic Priorities.

The ASRS has identified six priorities for the next 5 years:

- 1. Maintain Sustainable Benefit Plans**
- 2. Achieve Investment Goals**
- 3. Enhance Risk Management Capabilities**
- 4. Optimize Operational Effectiveness**
- 5. Provide Outstanding Customer Service**
- 6. Ensure Operational Continuity**

Priority #1:

Maintain Sustainable Benefit Plans



Goal #1: Ensure the cost-effectiveness and sustainability of ASRS benefit programs.

Key Performance Indicators

- a) Employees and employers contribute the required defined benefit plan contribution and the plan is projected to achieve full funded status over the amortization period
- b) Contribution rates for the defined benefit plan are relatively stable over time and trend toward normal cost
- c) Employers indicate that the defined benefit plan contribution rate is affordable and manageable for the future benefit received
- d) Experience studies will ensure that actuarial assumptions and methods accurately portray the actuarial condition of the plan
- e) Actuarial audits will confirm the assumptions, procedures, methods and conclusions of the retained actuary are technically sound and conform to the appropriate Standards of Practice as promulgated by the Actuarial Standards Board
- f) Employers contribute the required health benefit supplement contribution and the plan is projected to achieve full funded status over the amortization period
- g) Contribution rates for the health benefit supplement are relatively stable over time and trend toward normal cost
- h) Percent of total active membership on long term disability
- i) Employees and employers contribute the required long term disability program contribution and the plan is projected to achieve full funded status over the amortization period
- j) Contribution rates for the long term disability program are relatively stable over time and trend toward normal cost

Priority #1:

Maintain Sustainable Benefit Plans

 **Goal #2:** Ensure responsible governance in the administration of ASRS and its benefit programs.

Key Performance Indicators

- a) Successful completion of annual governance responsibilities as demonstrated in governance handbook
- b) Legislative initiatives introduced by or affecting the ASRS achieve the agency's desired outcome (pass or fail)
- c) Complete an assessment of risks associated with current legislation, rules, and business practices and report results, including recommended remediation strategies
- d) Few member and employer appeals are overturned at OAH or courts
- e) Percent of the agency's Key Performance Indicators (KPI) met within risk tolerance
- f) Obtain an unmodified opinion from the independent auditors on the ASRS' annual audited financial statements (CAFR)
- g) Obtain an unmodified opinion from the independent auditors on the ASRS' GASB 68 reporting schedules
- h) Obtain an unmodified opinion from the independent auditors on the ASRS' GASB 75 reporting schedules

Priority #1:

Maintain Sustainable Benefit Plans

 **Goal #3:** Communicate in a way that informs, educates and fosters trust and confidence among members, employers, and other stakeholders.

Key Performance Indicators

- a) Members respond positively when asked if “ASRS operates in my best interest”
- b) Members respond positively when asked if “My retirement is secure with the ASRS”
- c) Stakeholders respond positively when asked if “The ASRS acts ethically”
- d) Stakeholders respond positively when asked if “the ASRS acts in the states best interest”
- e) Employers respond positively when asked “How do you rate the ASRS as an organization?”

Priority #2:

Achieve Investment Goals

 **Goal #4:** Design, implement, and maintain an investment management program that maximizes rates of return for acceptable levels of risk.

Key Performance Indicators

- a) Develop, approve and implement an Asset Allocation program that is expected to achieve a 20-year rolling average annual rate of return at or above the actuarial assumed rate
- b) Total fund net return compared to peer universe
- c) 1 year total fund net rate of return compared to Strategic Asset Allocation Benchmark
- d) 3-year total fund net rate of return compared to Strategic Asset Allocation Benchmark
- e) 1 year asset class net rates of return compared to respective Asset Allocation Benchmark
- f) 3 year asset class net rates of return compared to respective Asset Allocation Benchmark

Priority #3:

Enhance Risk Management Capabilities

 **Goal #5:** Develop and maintain a robust security program that ensures appropriate data security, privacy protection, and cash controls.

Key Performance Indicators

- a) Independent assessment of the agency's overall information security program maturity level when measured against the Gartner maturity model
- b) Number of unacceptable risks identified with a score of 15 or higher in internal risk assessment that have not been addressed within 12 months
- c) Maturity level identified in annual internal information risk maturity assessment
- d) Agency's vulnerability risk score compared to other state agencies with assets (computers, servers, etc.) of 500 or more when measured by the Risk Sense tool
- e) Number and severity of security-related issues identified through static code analysis software
- f) Implement dynamic application analysis software; develop performance standards related to use of this tool
- g) Percent of Security Plan priorities, action items and milestones achieved
- h) Independent assessment of the agency's overall privacy program maturity when measured against the Gartner maturity model and within the GAPP framework every other year
- i) Percent of Privacy Plan priorities, action items, and milestones achieved
- j) Independent assessment of the agency's cash controls every three years
- k) Percent of cash control remediation plan, priorities, action items and milestones achieved

Priority #3:

Enhance Risk Management Capabilities

 **Goal #6:** An enterprise-wide risk management (ERM) program will provide reasonable assurance that the agency has identified and is managing and mitigating risks most likely to impede the agency's ability to meet its mission, vision, goals and objectives.

Key Performance Indicators

- a) Provide Executive Management Team (EMT) with an overview of agency ERM practices, priorities, risk appetites, incidents where risks fell outside of accepted risk levels, and corresponding mitigation actions
- b) Follow up on emergency response plan tests, report progress on identified plans of action
- c) Review the agency's emergency response plan (including incident response plans, procedures and events) and ensure DEMA requirements are satisfied
- d) An internal audit plan is formulated based on agency risks, goals, objectives, standards and metrics
- e) Percentage of scheduled internal audit and consulting plan completed

Priority #4:

Optimize Operational Effectiveness

 **Goal #7:** Manage budgets and implement strategies designed to improve operational effectiveness and/or make the ASRS more cost effective.

Key Performance Indicators

- a) Total annual administrative expense variance (including special line item expenditures for service/security enhancements and anticipated cost reductions)
- b) Percent reduction in base administrative expenses from July 1, 2017 to June 30, 2020 (excluding special line item expenditures)
- c) Pension operations service score compared to peers as measured by CEM benchmarking
- d) Pension operations cost per member and annuitant compared to peers as measured by CEM benchmarking
- e) Relative service versus relative cost score measured in CEM pension administration benchmarking study
- f) Percent of Lean report priorities, action items and milestones achieved
- g) Percent of technology plan priorities, action items and milestones achieved

Priority #4:

Optimize Operational Effectiveness

 **Goal #8:** Provide members and business users with technology that is high-performing, and able to support evolving business needs.

Key Performance Indicators

- a) Core applications and components are kept up to date
- b) Number of core applications that had an unplanned downtime of 0.5% or more during business hours
- c) Percent of overall user satisfaction with core business applications (PERIS, POL, PWEB, imaging)
- d) Percent of overall user satisfaction with non-core business applications (MUNIS, office suite, IQ, COTS products)
- e) Determine and implement industry best practices, including staff size and structure, costs and reporting for development teams in organizations of similar size and complexity
- f) Research and implement productivity measures for system development, including improved ROI analysis
- g) Take steps to plan for a reduction in system development teams from 8 to 6 by July 2021, ensuring security and business needs continue to be met

Priority #5:

Provide Outstanding Customer Service

 **Goal #9:** Members and employers will receive timely and accurate service that results in high levels of customer satisfaction.

Key Performance Indicators

- a) Percent of member calls answered within 20 seconds
- b) Percent of member secure messages answered within business day
- c) Percent of overall satisfaction with member calls
- d) Percent of overall satisfaction with member secure messaging
- e) Percent of counseled members who are satisfied overall
- f) Percent of employer secure messages answered within 2 business days
- g) Percent of overall satisfaction with employer secure messaging
- h) Percent of employers responding positively (response 4-5) that ASRS contributes to a total compensation package that helps their organization attract new employees
- i) Percent of employers responding positively (response 4-5) that ASRS contributes to a total compensation package that helps their organization retain employees
- j) Number of employers engaged by ASRS to discuss potential risk events identified through data review and analysis
- k) Number of employers engaged by ASRS that require a remediation plan due to non-compliance
- l) Percent of employer remediation plans successfully executed within 12 months of notification
- m) Percent of employers that repeat non-compliance after remediation efforts

Priority #5:

Provide Outstanding Customer Service

 **Goal #10:** Member disbursements will be distributed timely, accurately, and cost-effectively, resulting in high levels of member satisfaction.

Key Performance Indicators

- a) Percent of new retiree applicants that receive their first payment within 10 business days of their retirement date
- b) Percent of members satisfied with the new retiree process
- c) Percent of pension payments disbursed to annuitants on or before the first business day of each month
- d) Percent of forfeiture benefits paid within 5 business days of receipt of request and any additional required documents and information
- e) Percent of members satisfied with the forfeiture process
- f) Percent of survivor benefit annuity calculations finalized within in the first month possible following receipt of all documentation and information
- g) Percent of lump sum payments disbursed to beneficiaries within 10 business days of receipt of required documentation and information
- h) Percent of beneficiaries satisfied with the survivor benefit process

Priority #5:

Provide Outstanding Customer Service

 **Goal #11:** Contributions and data received from members and employers will be processed and managed efficiently and effectively.

Key Performance Indicators

- a) Percent of members that receive a service purchase cost invoice within 5 business days
- b) Percent of members satisfied with the service purchase process
- c) Percent of employers satisfied with the contribution process
- d) Percent of active member accounts that have a complete demographic profile containing a valid Social Security Number, name, birth date, and address
- e) Percent of inactive members that have a valid birth date and address

Priority #5:

Provide Outstanding Customer Service



Goal #12: For the sole benefit of all eligible members, the ASRS will offer health insurance plans which have the following characteristics:

1. Cost Competitive, with respect to each marketplace
2. Accessible, with respect to provider networks
3. Efficient, with respect to enrollment and in-plan navigation
4. Strong Customer Service, from vendors and ASRS staff

Key Performance Indicators

- a) Report to EMT on cost competitiveness of the health insurance plans compared with like plans and/or marketplaces including opportunities for improvements, recommendations, action items and milestones
- b) Percent of members that are satisfied with the cost of health insurance plans for the benefits received
- c) Percent of eligible members participating in an ASRS health insurance plan
- d) Percent of health insurance performance guarantees that are met and enforced
- e) Percent of members that are satisfied with the cost of dental insurance plans for the benefits received
- f) Percent of eligible members participating in an ASRS dental insurance plan

Priority #5:

Provide Outstanding Customer Service



Goal #13: The ASRS will administer a Long Term Disability plan that is competitive, efficient and satisfies members.

Key Performance Indicators

- a) Percent change in administrative expenses per disabled member
- b) Percent of long term disability performance guarantees that are met and enforced
- c) Percent of members that are satisfied with the LTD approval process based on the quarterly survey conducted by vendor
- d) Percent of members that are satisfied with the LTD maintenance process based on the quarterly survey conducted by vendor

Priority #6: Ensure Operational Continuity

 **Goal #14:** Recruit, retain and develop a high-performing and engaged workforce that is capable of achieving agency goals and implement workforce plans that prepare future leaders and ensure continuity in key positions.

Key Performance Indicators

- a) Total annualized rolling turnover rate compared to the State of AZ and BLS turnover rates
- b) Percent of voluntary separations with a tenure of five or more years (excludes separation due to retirement)
- c) Percent of employees receiving salaries within ten percent of identified target compensation
- d) Ratio of engaged to disengaged employees as measured in ADOA engagement survey
- e) Percent of key positions in workforce plan with at least 2 candidates identified

Arizona State Retirement System

3300 N Central Avenue, Phoenix AZ 85012



Agenda Item #12



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MEMORANDUM

TO: Mr. Jim Hillyard, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director

DATE: January 21, 2020

RE: **Agenda Item #12:** Presentation, Discussion, and Appropriate Action Regarding the Board Governance Evaluations

- a) Trustees' 2019 Self-Evaluation
- b) Board 2019 Self-Evaluation
- c) Key Issues of 2019
- d) Focus areas for 2020

The Board Governance Policy Handbook states: *"The Board will conduct an annual performance evaluation of its effectiveness and that of its committees as the governing fiduciary body of the ASRS. This will serve as a means of helping ensure that the Board continues to effectively meet its responsibilities and duties."*

Additionally, the Handbook states *"The Board will seek input from the Director with respect to the staff's perception regarding the Board's and Board Committees' performance."*

To assist you with your evaluation, the following documents are included in this packet:

1. Selections from the Handbook:
 - a. Board Performance Evaluation Outline
 - b. Trustee Self-Evaluation Document
 - c. Overall Board Evaluation Document
2. Trustee Evaluation Input Summary
3. Director's Comments on 2019 Board Operations

M. BOARD PERFORMANCE EVALUATION

General

The Board will conduct an annual performance evaluation of its effectiveness and that of its committees as the governing fiduciary body for the ASRS. This will serve as a means of helping ensure that the Board continues to effectively meet its responsibilities and duties.

Board Evaluation Policy

1. The Board Chair, working with the Director, will be responsible for coordinating and conducting the Board performance evaluation process.
2. The evaluation will focus on the operations and decision-making processes of the Board as well as the outcome of ASRS actions.
3. The Board Chair will provide to each Trustee the performance evaluation forms approved by the Board. The Trustees are to conduct their evaluation in the first quarter of each calendar year, preceding the Director's evaluation.
4. The Board will seek input from the Director with respect to the staffs' perception regarding the Board's and Board Committees' performance.
5. The Board may seek input from the Assistant Attorney General regarding an annual evaluation of the Board's compliance with statutory and governance responsibilities.

Board Performance Evaluation Process and Forms

A way for the Board to maintain excellence in governance is to develop a policy of reviewing its own performance on an annual basis. A two-step evaluation process has been adopted:

Part A: Trustee Self-Evaluation

The purpose of having each individual Trustee evaluate him/herself is to encourage introspection and heighten awareness of the important areas of fiduciary responsibility. Trusteeship carries with it both a personal and collective duty to the members and beneficiaries. The "Trustee Self-evaluation" is an abbreviated outline and periodic reminder of what constitutes "good trusteeship."

It is recommended that this self-evaluation be performed annually, by each individual Trustee before the overall board evaluation is performed. Each year the Board can choose how to handle the results of the evaluations.

The Trustee Self-evaluation is for the personal use of each Trustee to facilitate the full and frank examination of each Trustee's own performance. The form need not be completed or submitted, but rather each Trustee is asked to review the questions as they contemplate their self-evaluation. The objective is for this annual exercise to be helpful to the ASRS and not embarrassing to any individual.

Part B: Overall Board Evaluation

By discussing and developing an overall board evaluation, the Board demonstrates its intention to establish a process for Trustees to evaluate Board performance with candor, objectivity, and a broad perspective. Such an evaluation process presents special challenges, and it may be difficult for Trustees to speak frankly about the performance of the Board as a whole, especially in situations where there is room for improvement. Notwithstanding this difficulty, the benefits of an annual evaluation will enhance the Board's effectiveness in carrying out the mission of the ASRS.

The "Overall Board Evaluation" form contains elements of "best practices" of public retirement systems and is for the personal use of each Trustee to facilitate the full and frank discussion among the Trustees. The completed form is to be submitted to the Board Chair who will compile the results for further discussion.

Appendix A – Trustee Self Evaluation

It is not necessary to turn this document in; it is to assist board members in contemplating their evaluation.

Review the following statements in relation to your involvement as a Trustee of the ASRS. Rank answers using the following scale: **5 - always, 4 - almost always, 3 - sometimes, 2 - almost never, 1 - never**

| | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I attend the Board and Committee meetings I am expected to attend. | | | | | |
| 2. I contribute to the discussion in a meaningful and helpful way. | | | | | |
| 3. I fully understand my fiduciary duties and act for the benefit of all members, not merely for a particular constituency. | | | | | |
| 4. I make an effort to be educated on the aspects of the ASRS that I do not understand. | | | | | |
| 5. I comply with state laws and Board policies regarding conflicts of interest. | | | | | |
| 6. I read the materials distributed before the Board meeting so I can constructively participate and make timely decisions. | | | | | |
| 7. I work with the other Trustees and the staff in a collegial way. | | | | | |
| 8. I understand that work requests to staff and outside consultants need to be agreed to by the Board or the Director and I act accordingly. | | | | | |
| 9. I work with the Director in a way that creates an atmosphere of trust and cooperation. | | | | | |
| 10. I understand the Director works for the entire Board and not for individual Trustees and I act accordingly. | | | | | |
| 11. I communicate Board governance problems to the Board Chair. | | | | | |
| 12. As a Trustee of the Board, I have re-read Section L “Board Code of Ethics” and Appendix F “Loyalty Oath,” of the Board Governance Policy Handbook and I reaffirm my understanding of these items. | | | | | |

I am most concerned about the following issues: _____

Appendix B – Overall Board Evaluation

Name (optional) _____ Date: _____

This document should be completed and submitted to the Board chair.

Rate the following statements in relation to the overall operation of the Board. Rank answers using the following scale: **5 - always, 4 - almost always, 3 - sometimes, 2 - almost never, 1 - never**

| | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. The Board maintains an effective oversight role with regard to benefits and investments issues. | | | | | |
| 2. The Board knows and understands the ASRS Strategic Plan, and reflects this understanding when addressing key issues throughout the year. | | | | | |
| 3. The Board engages in long-range strategic thinking and planning. | | | | | |
| 4. The Board has achieved the business objectives it set out to accomplish this past year. | | | | | |
| 5. The Board stays abreast of issues and trends affecting the ASRS, using this information to assess and guide the ASRS over the long term. | | | | | |
| 6. The Board conducts a comprehensive evaluation of the Director annually. | | | | | |
| 7. The Board ensures that new Trustees receive a prompt, thorough orientation. | | | | | |
| 8. Board meetings are conducted in a manner that ensures open communication, meaningful participation, and sound resolution of issues. | | | | | |
| 9. The Board meeting agendas are well-balanced, allowing time for the most critical issues. | | | | | |
| 10. The Board and Committee meetings are handled efficiently. | | | | | |
| 11. The Committees are effective, focusing on pertinent topics and allocating reasonable time. | | | | | |
| 12. The Board is well-educated on both benefit and investment issues. | | | | | |
| 13. The Board recognizes its policy-making role and reconsiders and revises policies as necessary. | | | | | |
| 14. The Board is consistently prepared for meetings. | | | | | |
| 15. The Board as a whole, and Trustees as individuals, evaluate their performance on an annual basis. | | | | | |
| 16. The Board reviews and adopts a reasonable operating budget that is followed and monitored throughout the year. | | | | | |
| 17. The Board periodically monitors investment performance and measures it against relevant benchmarks. | | | | | |
| 18. The Board periodically monitors service to members. | | | | | |
| 19. The Board comprehends and respects the difference between its policy-making role and the Director's management role. | | | | | |
| 20. Board goals, expectations, and concerns are promptly, candidly and effectively communicated to the Director. | | | | | |
| 21. The Board anticipates issues and does not often find itself reacting to "crisis" situations. | | | | | |

Trustee Evaluation Input Summary 2019

Note: This table reflects the returned responses of four trustees as of 1/6/2020.

5 - always, 4 - almost always, 3 - sometimes, 2 - almost never, 1 - never

| | 5 | 4 | 3 | 2 | 1 | Avg. |
|---|---|---|---|---|---|------|
| 1. The Board maintains an effective oversight role with regard to benefits and investments issues. | 4 | | | | | 5.0 |
| 2. The Board knows and understands the ASRS Strategic Plan, and reflects this understanding when addressing key issues throughout the year. | 3 | 1 | | | | 4.8 |
| 3. The Board engages in long-range strategic thinking and planning. | 3 | | 1 | | | 4.5 |
| 4. The Board has achieved the business objectives it set out to accomplish this past year. | 3 | 1 | | | | 4.8 |
| 5. The Board stays abreast of issues and trends affecting the ASRS, using this information to assess and guide the ASRS over the long term. | 3 | | 1 | | | 4.5 |
| 6. The Board conducts a comprehensive evaluation of the Director annually. | 4 | | | | | 5.0 |
| 7. The Board ensures that new Trustees receive a prompt, thorough orientation. | 4 | | | | | 5.0 |
| 8. Board meetings are conducted in a manner that ensures open communication, meaningful participation, and sound resolution of issues. | 4 | | | | | 5.0 |
| 9. The Board meeting agendas are well-balanced, allowing time for the most critical issues. | 4 | | | | | 5.0 |
| 10. The Board and Committee meetings are handled efficiently. | 4 | | | | | 5.0 |
| 11. The Committees are effective, focusing on pertinent topics and allocating reasonable time. | 4 | | | | | 5.0 |
| 12. The Board is well-educated on both benefit and investment issues. | 2 | 2 | | | | 4.5 |
| 13. The Board recognizes its policy-making role and reconsiders and revises policies as necessary. | 3 | 1 | | | | 4.8 |
| 14. The Board is consistently prepared for meetings. | 4 | | | | | 5.0 |
| 15. The Board as a whole, and Trustees as individuals, evaluate their performance on an annual basis. | 3 | 1 | | | | 4.8 |
| 16. The Board reviews and adopts a reasonable operating budget that is followed and monitored throughout the year. | 3 | 1 | | | | 4.8 |
| 17. The Board periodically monitors investment performance and measures it against relevant benchmarks. | 4 | | | | | 5.0 |
| 18. The Board periodically monitors service to members. | 3 | 1 | | | | 4.8 |
| 19. The Board comprehends and respects the difference between its policy-making role and the Director's management role. | 4 | | | | | 5.0 |
| 20. Board goals, expectations, and concerns are promptly, candidly and effectively communicated to the Director. | 4 | | | | | 5.0 |
| 21. The Board anticipates issues and does not often find itself reacting to "crisis" situations. | 3 | 1 | | | | 4.8 |

Trustee Evaluation Input Summary Comments

Note: This table reflects the returned responses of four trustees as of 1/6/2020.

Identify the three greatest achievements of the Agency with Board support during the past year.

1. Top of class performance (among peers)
-

1. Continued implementation of investment strategies
 2. Successful legislative session
 3. Continued transition of Internal Audit
-

1. Legislative issues
 2. Funding rate
 3. Security issues
-

1. Extending retention plan for Director
2. Continued outstanding investment performance
3. Outstanding customer service

What critical issues need to be addressed by the Board in the future?

- Consider adding Board member with investment expertise
- More security issues – cyber
- Funding rate – working to lower member portion when possible, but being responsible

What suggestions do you have for improvement of the conduct of Board and Committee meetings and for Board operation and communication?

- Fill vacancies on the ASRS Board
-

- I believe it is very professional and forthright

I am most concerned about the following issues:

- The campaign that is currently going against ASRS in terms of funding and members' contribution rate.

DIRECTOR'S COMMENTS ON CALENDAR 2019 BOARD OPERATIONS

It has been a professional pleasure to have served the ASRS Board and our members during 2019.

Following are the Director's comments/opinions, including staff input, on 2019 Board operations as required pursuant to the ASRS Board Governance Policy Handbook. These comments are substantially similar to recent prior years, which I view as positive.

In addition, perspectives looking forward to 2020 have been included.

Key Characteristics

Macro Orientation:

The Board again substantially focused on macro and strategic level issues.

- This strategic focus is critical to the long-term economic viability of ASRS programs and should be an ongoing focus of the agency.

Oversight:

The Board again substantially focused on oversight versus management, and supported a well-defined Governance Model.

- This focus on oversight is important with respect to empowering staff to make significant, complex and/or controversial decisions. The Board appears to be committed and informed, thereby providing the requisite oversight and support.

Cordiality:

The Board conducted public and personal dialogue in a very cordial and professional manner.

- This is important in ensuring an engaging, open, and supportive forum for Trustees, staff, consultants, members, and members of the public, thereby ensuring that information flows effectively.
- The Board appears respected by Board members, staff, members, the public, and the legislative and executive branches. The Director continues to receive multiple external positive comments on the professionalism of the ASRS.

Support:

The Board verbalized ongoing support, where appropriate, to one another, staff, and consultants on key initiatives.

- This significantly encourages decision-making and action throughout the organization, beginning with the Director.

Expertise:

There was effective utilization of Trustee expertise.

- The utilization of Trustees' specific expertise and experience is often beneficial to the Board, staff and the Trust Fund. Effective utilization of Board member expertise and experience was evident in Board meetings, Committee meetings, and also with individual staff level interactions. A balance between Trustee value-added input and management appears to exist.

Areas for Possible Improvement

- Although strong finance, budget, policy, public sector, private sector, and technical skills exist, an additional investment expert on the Board could be advantageous for oversight purposes.
- Feedback to the Director on the effectiveness of investment presentation materials would be helpful.
- Feedback to the Director on the effectiveness of operations presentation material would be helpful.

Director Recommended Agency Focus Areas for 2020

1. Sustainability of Programs

ASRS historically allocated significant resources on analysis of plan design, liability considerations, funded status, and contribution rate issues. The financial impacts and enhanced credibility that have resulted from this effort have been significant. Although the significant majority of required modifications have been achieved, continued efforts should be maintained in this area, possibly into perpetuity. Plan design areas for 2020 focus are:

- Determine and successfully implement areas (medical, pharmaceutical, dental) for calendar 2021 where health insurance programs can be self-insured in a manner that results in:
 - lower premiums to our members, and
 - equal benefit levels for our members, and
 - financial risk that is approximately equal to, and targeted to be less than, the status quo.

- Monitor and potentially oppose legislation which would harm the ASRS Trust.

2. Further Enhancements to Operational Effectiveness

- For governance purposes – staff should provide better linkages between the ASRS Strategic Plan and the Board and Committee meeting presentations.

- Further increase productivity through the use of staff engagement, unit alignments, lean analysis, and information technology enhancements.

- Further decrease operational budget size and staff size.

- Enculturate recent enhancements to our employee and employer customer service experience model.

- Plan for a downsizing of the information technology development capability commensurate with the completion of various IT modernization projects.

3. Efficient Investment Processes, Structure, and Strategies

- Continue to source (and de-source where appropriate), diligize, structure, and implement strategic value-added investment strategies while ensuring significant liquidity.

- Continue to research, analyze, and implement value-added tactical asset allocation decisions.

- Enhance internal portfolio excess return generation capability.

- Re-research and consider alpha-overlay strategies.

4. Risk Management

- Fully implement enterprise risk management software.

- Complete an external review of our digital data, financial, and cash security.

- Continued succession planning.

5. Dissemination of Unbiased Data & Information

Given an aggressive out-of-state 'attack' on the ASRS, preparedness and pro-activeness with confidently conveying clear and articulate unbiased factual data, information, and insights to policy-makers, members, the public, and other interested parties.