



TRS Board of Trustees Meeting

September 22 - 23, 2016

**TEACHER RETIREMENT SYSTEM OF TEXAS MEETING
BOARD OF TRUSTEES**

AGENDA

September 22, 2016 – 9:00 a.m.

September 23, 2016 – 9:00 a.m.

TRS East Building, 5th Floor, Boardroom

*All or part of the September 22-23, 2016, meeting of the TRS Board of Trustees may be held by telephone or video conference call as authorized under Sections 551.130 and 551.127 of the Texas Government Code. The Board intends to have a quorum physically present at the following location, which will be open to the public during the open portions of the meeting: **1000 Red River, Austin, Texas 78701 in the TRS East Building, 5th Floor, Boardroom.***

NOTE: The Board may take up any item posted on the agenda during its meeting on Thursday, September 22, 2016, or during the meeting on the following day, September 23, 2016, beginning at the time and place specified on this agenda.

The open portions of the September 22 - 23, 2016, Board meeting are being broadcast over the Internet. Access to the Internet broadcast of the Board meeting is provided at www.trs.texas.gov.

1. Call roll of Board members.
2. Consider the following administrative items – David Kelly: *[Estimated time 9:00 – 9:15]*
 - A. Approval of the proposed July 29, 2016, Board meeting minutes.
 - B. Excusing Board member absences from the July 29, 2016, Board meeting.
 - C. Setting, rescheduling, or canceling future Board meetings, including considering dates for calendar year 2017.
3. Provide opportunity for public comment – David Kelly. *[Estimated time 9:15 – 9:30]*
4. Receive an update on the TEAM Program and revised schedule – Brian Guthrie. *[Estimated time 9:30 – 10:30]*
5. Receive a presentation from the TEAM Program Independent Program Assessment (IPA) Vendor – Michael Johson, Bridgepoint Consulting. *[Estimated time 10:30 – 11:00]*
6. Discuss the Executive Director's report on the following – Brian Guthrie: *[Estimated time 11:00 – 11:45.]*

- A. Administrative operational matters, including updates on the following: Executive Director's goals, financial awareness project, audit, legal, staff services, investments, board administration, special projects, actuarial matters, and strategic planning.
 - B. Board operational matters, including a review of draft agendas for upcoming meetings.
 - C. Event notices or reminders; holiday and other schedules of interest; board member, employee, or other individual recognitions; and expressions of thanks, congratulations, or condolences.
7. Discuss and consider investment matters, including Performance Review: Second Quarter 2016. – Steve Voss and Mike Comstock, Aon Hewitt. *[Estimated time 11:45 – 12:15.]*

NOTE: *The Board meeting likely will recess after the last item above to conduct committee meetings and will resume to take up the item listed below.*

8. Receive an update on Brexit and Global Banking – Jes Staley, CEO of Barclays and Britt Harris *[Estimated time 2:00 – 3:00] (Requested to start at 2:00pm on 9/22 due to Mr. Staley's flight arriving at 12:30)*
9. Consider opting out of a pending securities class action lawsuit to assert claims directly against the defendants and review the report of the General Counsel on pending and contemplated litigation, including updates on litigation involving benefit-program contributions, retirement benefits, health-benefit programs, and open records. – Carolina de Onís and Lane Arnold. *[Estimated time 3:00 – 3:30.]*

NOTE: *The Board meeting likely will recess after the last item above to conduct committee meetings and will resume Friday morning to take up items listed below.*

10. Provide opportunity for public comment – David Kelly. *[9:00 – 9:15.]*
11. Receive the report of the Investment Management Committee on its September 22, 2016, meeting. – Joe Colonna. *[Estimated time 9:15 – 9:30.]*
12. Receive the report of the Risk Management Committee on its September 22, 2016, meeting. – Karen Charleston. *[Estimated time 9:30 – 9:45.]*
13. Receive the report of the Policy Committee on its September 22, 2016, meeting and consider related matters– David Corpus: *[Estimated time 9:45 – 10:00.]*
- A. Consider proposed amendments to the Investment Policy Statement.
 - B. Consider proposed amendments to the General Authority Resolutions.
 - C. Consider proposed rule amendments to TRS-ActiveCare Rule § 41.36.

14. Receive the report of the Compensation Committee on its September 22, 2016, meeting and consider related matters, including the annual adoption of the Performance Incentive Payment Plan and any proposed amendments. – Dolores Ramirez. *[Estimated time 10:00 – 10:15.]*
15. Receive the report of the Audit Committee on its September 23, 2016, meeting and consider related matters, including the following – Chris Moss: *[Estimated time 10:15 – 10:30.]*
 - A. Proposed revisions to the Internal Audit Charter.
 - B. Proposed Audit Plan for Fiscal Year 2017.
16. Review the reports of the Chief Financial Officer regarding expenditures, current financial review and other financial matters involving TRS programs. – Don Green. *[Estimated time 10:30 – 10:45.]*
17. Review the report of the Chief Benefit Officer, and consider the following related matters – Barbie Pearson: *[Estimated time 10:45 – 11:00.]*
 - A. Consider approving the list of members qualified for retirement for June through August 2016.
 - B. Consider approving the minutes of the May and July 2016 Medical Board meetings.
18. Receive an update on the Website Redesign Project. – Howard Goldman. *[Estimated time 11:00 - 11:15.]*
19. Receive the Deputy Director's report, including matters related to administrative, financial and staff services operations – Ken Welch. *[Estimated time 11:15 - 11:30.]*
20. Consider personnel matters in Executive Session, including the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee as authorized by Section 551.074 of the Texas Open Meetings Act (Chapter 551 of the Texas Government Code). – David Kelly.
21. Consult with the Board's attorney(s) in Executive Session on any item listed above on this meeting agenda as authorized by Section 551.071 of the Texas Open Meetings Act (Chapter 551 of the Texas Government Code). – David Kelly.

Tab 2 A

Minutes of the Board of Trustees

July 29, 2016

The Board of Trustees of the Teacher Retirement System of Texas met on July 29, 2016, in the boardroom located on the fifth floor of the TRS East Building offices at 1000 Red River, Austin, Texas. The following Board members were present:

David Kelly, Chair
Joe Colonna
David Corpus
John Elliott
Greg Gibson
Christopher Moss
Anita Palmer
Dolores Ramirez

Others present:

Brian Guthrie, TRS	Ajay Dalal, Express Scripts
Ken Welch, TRS	Ernie Sanders, HPE
Don Green, TRS	Victor Ferreira, HPE
Carolina de Onís, TRS	Sabina Rahman-Garcia, Humana
Katrina Daniel, TRS	Tiffany Calderon, Humana
Jerry Albright, TRS	Tim Lee, TRTA
Amy Barrett, TRS	Andrew Clark, Speaker's Office
Toma Miller, TRS	David Flores, Nitya Capital
Chris Bailey, TRS	Joni Lozann, Caremark
Ashley Inman, TRS	Patricia Del Rio, Aetna
Meaghan Budean, TRS	Rose Pullen, Aetna
Katherine Farrell, TRS	Ann Fickel, TCTA
	Ted Melina Raab, Texas AFT

Mr. Kelly called the meeting to order at 9:10 a.m.

1. Call roll of Board members.

Ms. Farrell called the roll. A quorum was present. Ms. Charleston was absent.

2. Consider the following administrative items – David Kelly:

A. Approval of the proposed June 16-17, 2016 Board meeting minutes.

On a motion by Dr. Gibson, seconded by Ms. Ramirez, the Board unanimously voted to approve the proposed minutes of the June 16 and 17, 2016, Board meeting.

B. Excusing Board member absences from the June 16-17, 2016 Board meeting.

On a motion by Mr. Moss, seconded by Dr. Gibson, the Board unanimously voted to excuse the absences of Dolores Ramirez from June 17, 2016, Board meeting and Joe Colonna and John Elliott from the June 16 - 17, 2016, Board meeting.

C. Setting, rescheduling, or canceling future Board meetings.

It was determined the scheduled October Board meeting will stand.

3. Provide opportunity for public comment – David Kelly.

Mr. Tim Lee, Executive Director of Texas Retired Teachers Association (TRTA), addressed the Board concerning TRS-Care. Mr. Lee expressed concern and frustration over the \$1 billion crisis and TRTA's desire as a stakeholder to work with TRS in finding a solution.

4. Receive an update on the TEAM Program – Ken Welch.

Mr. Ken Welch reported that the beginning of the user acceptance test for Phase 1B of the line of business project will not meet the July 18, 2016 milestone and that Phase 1 will not be deployed this September.

Mr. Welch noted that at the last Board meeting he reported that, if the Phase 1 rollout did not occur this September, the next two feasible rollout periods would be March-April 2017 and September 2017. After much analysis and weighing of various impacts, Mr. Welch reported that the TEAM advisory group was recommending the designation of September 2017 as the new rollout date for the Phase 1. Mr. Welch pointed out this adjustment did not mean there would be a 12-month delay in the TEAM project. He said it is fully anticipated that Phase 2 business requirements could begin within 90 days of the original start date for those individual scheduled items.

Mr. Welch informed the Board of the assignment of a full-time individual, Chet Henry, to manage this project. Mr. Henry joined TRS recently as the deputy chief investment officer (CIO).

Mr. Welch reported he and Mr. Guthrie had been in a series of ongoing communications with HPE to address issues that the project was facing. Mr. Guthrie noted the meetings with HPE, the TEAM line-of-business vendor, had been very productive, if uncomfortable at times, and he saw momentum moving forward.

Mr. Kelly asked if reporting entities would benefit more from a March-April 2017 rollout date. Mr. Welch reported that such a timeline would not be better for reporting entities and that the advisory group preferred to have a clean start with the new school year rather than a mid-year implementation.

Mr. Kelly announced without objection that the Board would next take up agenda items 8 and 10.

8. Discuss the Executive Director's report on the following – Brian Guthrie:

- A. Administrative operational matters, including updates on the Executive Director's goals; financial, audit, legal, staff services, investment, board administration, special projects, long-term space planning, and strategic planning.**

B. Board operational matters, including a review of draft agendas for upcoming meetings.

C. Event notices or reminders; holiday and other schedules of interest; board member, employee, or other individual recognitions; and expressions of thanks, congratulations, or condolences.

Mr. Guthrie provided general updates. He said the National Council on Teacher Retirement (NCTR) workshop for trustees was held in Berkeley, California, in which Ms. Palmer was TRS' trustee representative. Ms. Palmer reported it was a good conference and that cyber security was a hot topic. Mr. Guthrie noted a couple of other upcoming meetings.

Mr. Guthrie noted that the first joint budget hearing before the Legislative Budget Board (LBB) and Governor's Budget Division would be September 27, 2016.

Mr. Guthrie updated the Board regarding emergency leave. The House General Investigating Committee held a hearing on the topic and did not invite TRS to testify. TRS has been cooperating with legislators and the State Auditor's Office in explaining how TRS has used emergency leave and providing related information.

Mr. Guthrie provided an update on the communications plan for the health benefit plan changes. He reported that TRS would be holding 60 to 80 seminars across the state on changes to the TRS-Care Medicare Advantage and Medicare Part D plans so that members would have an opportunity to get information and ask questions about changes to those plans, including the transition from Aetna to Humana as the new health-plan-administration-services vendor for Medicare Advantage. The vendor transition, he said, should be fairly seamless. Ms. Katrina Daniel added that, although the vendors were changing, the basic plan would remain the same. Mr. Guthrie noted the use of social media, Facebook and Twitter and other means of communicating with members to get the word out.

Regarding changes to prescription-drug benefits, Ms. Anita Palmer stated some local pharmacies had inquired about TRS members not being able to use them. Asked by Ms. Palmer to explain changes affecting local pharmacies, Ms. Daniel said that a change adopted by the Board emphasized the use of mail-order and select retail pharmacies to contain costs, and such change also reduced the size of the pharmacy network. Members, she said, could still use their local pharmacies by paying a bit more.

Mr. Guthrie stated that he Ms. Daniels would continue to update trustees on the status of changes to the health-benefits plans.

Mr. Guthrie concluded by updating the Board on a vendor's appeal of the Medicare Advantage contract award to Humana and a provider issue involving Aetna and covered members. He said the vendor's appeal had been resolved without any changes to the award, and the provider issue was nearing a resolution that would be satisfactory to the members involved.

10. Consider the following statutory certifications of estimated state contributions – Don Green:

Mr. Green explained the four certifications presented for the Board's consideration in agenda items 10A through 10D.

A. To the State Comptroller of Public Accounts the estimated amount of state contributions to be received by the retired school employees group health benefit fund for the fiscal year ending August 31, 2016.

On a motion by Mr. Colonna, seconded by Ms. Palmer, the Board unanimously approved the following certification to the State Comptroller of Public Accounts:

At its meeting on July 29, 2016, the Board of Trustees of the Teacher Retirement System, on a motion by Mr. Colonna, seconded by Ms. Palmer, voted to certify \$298,384,769 as the estimated amount of state contributions to be received by the retired school employees group insurance fund (TRS-Care) for the 2017 fiscal year under the appropriations authorized by Chapter 1575 of the Insurance Code, the Texas Public School Retired Employees Group Benefits Program. This amount includes \$283,870,923 authorized in the General Appropriations Act (House Bill 1, 84th Legislature, Regular Session), plus an amount of \$14,513,846 due to fiscal year 2016 payroll costs being more than previously estimated. These contributions are based on 1.0 percent of the salary of each active public school employee.

This estimate of state contributions is required by Section 1575.209 of the Insurance Code.

B. To the Legislative Budget Board and the Office of the Governor the estimate of state contributions to be received by the retired school employees group health benefit fund for fiscal years 2018 and 2019.

On a motion by Dr. Gibson, seconded by Mr. Elliott, the Board unanimously approved the following certification to the Legislative Budget Board and the Budget Division of the Governor's Office:

At its meeting on July 29, 2016, the Board of Trustees of the Teacher Retirement System, on a motion by Dr. Gibson, seconded by Mr. Elliott, voted to certify the following estimated amounts as necessary to pay the state's contributions to the retired school employees' group insurance fund for the 2018–2019 biennium:

Fiscal Year 2018	Fiscal Year 2019
\$ 317,619,952	\$ 328,736,651

These estimates are required by Section 1575.208 of the Insurance Code and are based on the assumption that covered payroll will grow 3.5% per year and that the minimum statutory contribution rate of 1.0 percent will apply to both fiscal year 2018 and fiscal year 2019. Additionally, the agency will ask for an exceptional item in the Legislative Appropriations Request in the amount of \$1.35 billion to sustain the program through the end of FY2019 and will be working with the Joint Select Committee to address the issue.

C. To the State Comptroller of Public Accounts the estimate of state contributions to the Pension Trust Fund for fiscal years 2018 and 2019.

On a motion by Mr. Moss, seconded by Ms. Ramirez, the Board unanimously approved the following certification to the State Comptroller of Public Accounts:

At its meeting on July 29, 2016, the Board of Trustees of the Teacher Retirement System, in compliance with Texas Government Code, Section 825.404 (b), on a motion by Mr. Moss, seconded by Ms. Ramirez, voted to certify the following estimated amounts as necessary to pay the state's contributions from General Revenue to the retirement system for the 2018–2019 biennium based on the appropriated contribution rate of 6.8% of the aggregate annual compensation of all members of the Teacher Retirement System to be:

Fiscal Year 2018	Fiscal Year 2019
\$ 1,891,490,692	\$ 1,955,281,240

These amounts are net of estimated funds to be received by the System for contributions based on compensation above the statutory minimum, other educational and general income, federal/private funding sources, and new member contributions. These estimates assume a covered payroll growth rate of 3.5% per year for public education and 2.5% per year for higher education.

D. To the State Comptroller of Public Accounts the estimated amount of state contributions necessary to pay the state's contributions for those individuals participating in the Optional Retirement Program Fiscal Years 2018 and 2019.

On a motion by Ms. Palmer, seconded by Mr. Moss, the Board unanimously approved the following certification to the State Comptroller of Public Accounts:

At its meeting on July 29, 2016, the Board of Trustees of the Teacher Retirement System (TRS), in compliance with Texas Government Code, Section 830.201(h), on a motion by Ms. Palmer, seconded by Mr. Moss, voted to certify the following estimated amounts as necessary to pay the state's contributions from General Revenue to the optional retirement system for the 2018–2019 biennium:

Fiscal Year 2018	Fiscal Year 2019
\$ 138,675,010	\$ 143,780,526

To the best of the Board's knowledge and belief, these amounts are based on the existing state contribution rate and account for contribution changes as stipulated in Government Code, Section 830.201(g). The analysis supporting these amounts was a joint effort between staff of TRS and the Texas Higher Education Coordinating Board (THECB) based on data collected by THECB and reviewed by TRS staff for reasonableness.

Mr. Kelly announced without objection that the Board would next take up agenda item 5.

5. Receive a presentation from Focus Consulting on the evaluation of the Chief Audit Executive, Chief Investment Officer, and Executive Director – Keith Robinson, Focus Consulting.

Mr. Keith Robinson provided an overview of the process that was used in evaluating the chief audit executive, the chief investment officer and the executive director.

Mr. Kelly announced without objection that the Board meeting would recess to allow the Audit and Budget Committees to meet and would reconvene after they met. Whereupon, at 10:20 a.m., the Board meeting recessed, to reconvene that same day, Friday, July 29, 2016, following conclusion of the Audit Committee and Budget Committee meetings.

After the meetings of the Audit and Budget Committees, Mr. Kelly reconvened the Board meeting at 2:25 p.m. He announced without objection that the Board would take further public comment under agenda item 3.

3. Provide opportunity for public comment – David Kelly.

Mr. Ted Melina Raab with Texas AFT addressed the Board concerning premium sharing for active school employees. Mr. Melina Raab asked that the administrator's statement in TRS' legislative appropriation request include a request to increase the State's contribution to premium sharing for active school employees.

6. Receive the report of the Audit Committee on its July 29, 2016 meeting, and consider approval of the following items – Chris Moss:

A. The proposed evaluation of the Chief Audit Executive for Fiscal Year 2016.

B. The selection of Grant Thornton as the auditor of the Teacher Retirement Investment Company of Texas Ltd. (TRICOT) and the State Auditor's Office as the auditor for a financial audit of the TRS Comprehensive Annual Financial Report for fiscal year 2016

Mr. Moss, Committee Chair, provided the following committee report:

The Audit Committee meet on Friday, July 29 in the 5th Floor Boardroom. The Audit Committee discussed and approved the financial auditors of the Teacher Retirement Investment Company of Texas, TRICOT, and the TRS Comprehensive Annual Financial Report.

The Audit Committee received a status report on the readiness review of TRS-ActiveCare enrollment and billing and a report on the results of testing of the executive performance incentive pay calculation. The Audit Committee discussed and approved the recommendation to the Board of Trustees regarding the annual performance appraisal for the chief audit executive. The Audit Committee deferred consideration of any salary increase to the Board of Trustees.

On a motion by Mr. Moss, seconded by Mr. Corpus, the Board unanimously approved Grant Thornton as the auditors for TRICOT and the State Auditor's Office as the auditors for the TRS CAFR.

On a motion by Mr. Moss, seconded by Mr. Corpus, the Board unanimously approved the annual performance appraisal of the chief audit executive for fiscal year 2016.

7. Discuss or consider personnel matters, including the appointment, employment, evaluation, compensation, performance, duties, discipline, or dismissal of an employee or public officer, including a trustee, the Executive Director, Chief Investment Officer, or Chief Audit Executive – David Kelly:

- A. Discuss and consider the compensation of the Chief Audit Executive.**
- B. Discuss and consider the evaluation, compensation, and duties of the Chief Investment Officer and provide input to the Executive Director.**
- C. Discuss and consider the evaluation, compensation, and duties of the Executive Director.**
- D. Discuss the 2017 trustee nominating elections for the retiree position and the new at-large position, the transition from the current incumbent higher education position to the at-large position, and related matters.**

At 2:29 p.m., Mr. Kelly announced without objection that Board meeting would recess to go into executive session under Sections 551.074 and 551.071 of the Government Code to deliberate agenda items 7A through 7D, and as needed, to seek advice of legal counsel.

At 4:30 p.m., Ms. Palmer and Mr. Corpus departed the meeting.

At 4:59 p.m., Mr. Kelly reconvened the Board meeting in open session. After a brief discussion, Mr. Kelly asked for a motion concerning the chief audit executive's compensation.

On a motion by Mr. Moss, seconded by Mr. Colonna, the Board unanimously approved the following resolution concerning the chief audit executive's compensation:

Whereas, Section 825.208 of the Texas Government Code provides that, notwithstanding any other law, the Board of Trustees ("Board") of the Teacher Retirement System of Texas ("TRS") shall approve the rate of compensation of all persons it employs;

Whereas, Subsection 1.7(u) of the Board's bylaws provides that the Board shall be responsible for the selection, replacement, dismissal, performance evaluation, and compensation of the Chief Audit Executive in consultation with the Audit Committee and the Executive Director; and

Whereas, The Board wishes to increase the base salary of the Chief Audit Executive; now, therefore be it

Resolved, That the Board hereby increases the base salary of the Chief Audit Executive as follows:

Chief Audit Executive's base salary (the incumbent is Amy L. Barrett):

Increase the base salary amount effective September 1, 2016 by 5%; and

Resolved, That nothing in the adoption of this resolution alters the at-will nature of employment that TRS has with any of its employees, creates a contract between TRS and any TRS employee, or confers on any TRS employee the right to continued employment with TRS, including the Chief Audit Executive or any other employee.

After a brief discussion, Mr. Kelly asked for a motion concerning the chief investment officer's compensation.

On a motion by Ms. Ramirez, seconded by Dr. Gibson, the Board unanimously approved the resolution as presented regarding the chief investment officer's salary range:

Whereas, Section 825.208 of the Texas Government Code provides that, notwithstanding any other law, the Board of Trustees (Board) of the Teacher Retirement System of Texas ("TRS") shall approve the rate of compensation of all persons it employs;

Whereas, Subsection 4.1.2(c)(2) of the Board's Bylaws delegates to the Executive Director full authority and responsibility for the Chief Investment Officer's compensation;

Whereas, The upper limit of the Chief Investment Officer's base salary is set out as a not-to-exceed amount in the Schedule of Exempt Positions in TRS' bill pattern in the current General Appropriations Act ("GAA"), and Rider 8 of TRS' GAA bill pattern provides that, notwithstanding the limitations on exempt positions contained in Article IX of the GAA, the Board may determine the salaries of the positions listed in TRS' Schedule of Exempt Positions without limitation;

Whereas, The General Provisions of TRS' annual administrative operations budget adopted by the Board grants the Executive Director discretion in setting the Chief Investment Officer's base salary within the not-to-exceed amounts set out in the GAA or any amended limits adopted by the Board;

Whereas, The GAA not-to-exceed amount for the Chief Investment Officer's salary is not sufficient for the Executive Director to exercise his discretion in setting the salary for that position; and

Whereas, For the purpose of allowing the Executive Director to exercise his discretion in setting the Chief Investment Officer's salary under Bylaw subsection 4.1.2(c)(2) and the General Provisions of TRS' administrative operations budget, the Board wishes to adopt an adjusted not-to-exceed amount for the Chief Investment Officer's base salary; now, therefore be it

Resolved, That the board hereby adopts the following not-to-exceed amount for the annual base salary of the Chief Investment Officer:

Chief Investment Officer's not-to-exceed amount for annual base salary (the incumbent is Thomas B. Harris):

Increase the not-to-exceed amount effective September 1, 2016 to \$551,250; and

Resolved, That nothing in the adoption of this resolution alters the at-will nature of employment that TRS has with any of its employees, creates a contract between TRS and any TRS employee, or confers on any TRS employee the right to continued employment with TRS, including the Chief Investment Officer or any other employee holding a position in the Schedule of Exempt Positions.

- 9. Receive the report of the Budget Committee on its July 29, 2016 meeting, and consider the approval of the following items – Anita Palmer:**
 - A. The proposed fiscal year 2017 pension trust fund administrative operations budget, general provisions, and resolution authorizing transfer of pension trust funds to the TRS expense account to cover the expenses approved under the fiscal year 2017 budget.**
 - B. The proposed fiscal year 2017 administrative operations budgets and general provisions for the TRS health benefits funds (retired and active plans), including the optional long-term care insurance program.**
 - C. The proposed fiscal year 2017 administrative operations budget and general provisions for the 403(b) company certification and investment product registration program.**

Mr. Kelly called upon Dr. Gibson to provide the Budget Committee report in the absence of Ms. Palmer.

Dr. Gibson provided the committee report as follows:

The Budget Committee met today, Friday, July 29. The first item of business was approval of the minutes of the June 16, 2016 Budget Committee meeting. Mr. Green presented a high level overview of the proposed administrative operating budget of \$164.5 million for fiscal year 2017 and the associated general provisions. The FY2017 requested budget is approximately 3.4 percent over the FY16 budget. Mr. Green presented the findings of the 2016 IMD salary study that are underway. The committee discussed the preliminary results and proposed adjustments to fund the salary actions. The Budget Committee also discussed the TEAM report. The total operating and capital expenses budget is \$21.4 million.

Mr. Green reviewed the legislative appropriations request, or LAR, for the next biennium. He highlighted that the pension fund salary growth assumptions are 3.5 percent for public education and 2.5 percent in higher

education. He discussed issues related to the funding and long-term sustainability of TRS-Care. TRS will be requesting \$1.3 billion and an exceptional item for TRS-Care solvency. He discussed funding for additional staffing, compensation, and facilities as they relate to the LAR.

The committee recommended that the Board adopt the FY2017 operating budgets and recommended that the Board adopt a resolution transferring pension trust funds from the interest account to the expense account.

On a motion by Dr. Gibson, seconded by Mr. Colonna, the Board unanimously adopted the fiscal year 2017 administration operations budget for the pension trust fund, the TRS health benefits funds for the retired and active plans, including the long-term insurance program and the 403(b) certification program, as presented by staff, and the general provisions as presented by staff and recommended by the committee.

On a motion by Dr. Gibson, seconded by Mr. Moss, and the Board unanimously adopted the resolution authorizing staff to transfer pension trust funds to the TRS expense account for pension administrative operations expenses under the approved fiscal year 2017 budget.

11. Consider authorizing a one-year extension of the contract between TRS and Genworth Life Insurance Company, the carrier authorized by TRS to provide group long-term care insurance under Chapter 1576 of the Texas Insurance Code – Katrina Daniel.

Ms. Katrina Daniel brought forth the request to extend the long-term care contract with Genworth for one more year. Ms. Daniel explained Genworth is the only carrier that is in the group long-term care market. Ms. Daniel reported terms for the new year is being negotiated right now.

On a motion by Ms. Ramirez, seconded by Mr. Colonna, the Board unanimously approved the following resolution extending the Genworth contract for one year:

Whereas, Chapter 1576 of the Insurance Code, authorizes the Teacher Retirement System of Texas (TRS), as trustee, to establish a group long-term care insurance program (the "Program") to provide long-term care insurance coverage for eligible active employees and retirees, and their eligible family members;

Whereas, Chapter 1576, Insurance Code, also provides that TRS may contract with a carrier authorized to provide long-term care insurance;

Whereas, TRS currently has a contract (the "Contract") with Genworth Life Insurance Company ("Genworth"), a carrier authorized to provide long-term care insurance, to underwrite the Program and, thereby, to offer benefits to participants in this Program;

Whereas, TRS staff recommends that the Contract be extended for an additional one (1) year period, effective from September 1, 2016 through August 31, 2017, with changes to the Contract that include, but are not limited to, the terms presented to the TRS Board of Trustees ("Board");

Whereas, The Board desires to adopt the recommendations of TRS staff; now, therefore, be it

Resolved, That the Board, pursuant to Chapter 1576 of the Insurance Code, hereby authorizes a one-year extension of the Contract with Genworth, with changes to the Contract that include, but are not limited to, the terms presented to the Board, beginning on September 1, 2016 through August 31, 2017, unless sooner terminated, subject to negotiation and execution of an extension agreement;

Resolved, That the Board finds that the requested one-year extension of the Contract continues to provide the best overall value to TRS and serves the best interests of TRS; and

Resolved, That the Board hereby authorizes the Executive Director or his designees to negotiate, with the assistance and advice of legal counsel, a one (1) year extension, effective from September 1, 2016 through August 31, 2017, of the Contract with Genworth to underwrite the Program and, thereby, to offer benefits to participants in the Program; and, if negotiations are deemed by the Executive Director, in his discretion to be successful, then the Executive Director is hereby authorized to execute the one (1) year extension of the Contract with Genworth on such terms and conditions as the Executive Director deems, in his discretion, to be in the best interest of TRS, and further to execute and deliver all such other documents that the Executive Director may deem necessary or appropriate to effect this resolution, as conclusively evidenced by the taking of the action or the execution and delivery of the documents, and to incur, approve and pay any budgeted expenses or costs reasonably necessary or advisable with respect to such contract extension, it being understood that the Board's approval of a contract extension pursuant to this resolution shall not be construed as a binding agreement or obligation to extend the Contract, and there shall be no binding agreement among the parties until a full and final written contract extension is negotiated and signed by both parties.

12. Consider an investment in Akard Street platform — Eric Lang and Grant Walker.

Mr. Eric Lang explained that staff was bringing the proposed private-market investment to the Board for consideration because it would involve replacing an existing manager with a newly formed entity owned by the existing management team. Under the proposed deal, the newly formed entity would manage more than 0.5 percent of the Total Fund value and, therefore, it required Board approval. In response to Mr. Kelly's questions, Mr. Lang and Mr. Colonna provided additional background on the management and financial arrangements that led to the proposed investment opportunity for TRS. In response to Mr. Colonna's questions, Mr. Lang outlined the terms of TRS' proposed capital commitment to the private investment fund, TRS' purchase of an existing investor's position and unfunded commitments, and why the opportunity was a good one for TRS.

On a motion by Mr. Colonna, seconded by Mr. Elliott, the Board unanimously voted to adopt the following resolution regarding an allocation to the Akard Street platform:

Whereas, The Investment Policy Statement (“IPS”) section 1.3(c) established the Internal Investment Committee to review, consider, and authorize investments for the Private Markets Portfolio;

Whereas, IPS Appendix B limits the amount that may be initially be allocated or committed to a single manager organization, and requires prior TRS Board of Trustees (“Board”) authorization to exceed that limit;

Whereas, The Investment Division acting through the Internal Investment Committee has recommended that, consistent with the provisions of IPS Sections 1.3(c) and Appendix B, the Board authorize the Chief Investment Officer (“CIO”) to allocate an amount of up to \$958 million (plus returned capital) (the “Allocation”) to acquire certain interests in, to maintain capital commitments to, and to make further investments in existing or new limited partnerships comprising the Akard Street program that is entirely managed by a single organization(collectively, “Akard Street”); now, therefore be it

Resolved, That the CIO or his designee be and hereby is authorized to negotiate the requisite legal agreements for the Allocation to Akard Street on substantially the same, or better, terms and conditions than those presented to the Board, and, if negotiations are deemed by the CIO or his designee, in its discretion, to be successful, then the CIO or his designee is hereby authorized to execute such definitive documents on such terms and conditions as the CIO may deem, in his discretion, to be in the best interest of TRS, and to execute and deliver all such other documents and agreements that the CIO or his designee may deem necessary or appropriate to effect this resolution, as conclusively evidenced by the taking of the action or the execution and delivery of the documents and agreements, and to incur, approve and pay any budgeted expenses or costs associated with such documents and agreements, and deemed in the discretion of the Executive Director and CIO to be reasonably necessary or advisable with respect to such documents and agreements; and

Resolved, That the Board hereby expressly authorizes the initial allocation or commitment with respect to the Allocation contemplated hereby, consistent with the requirement of IPS Appendix B that any such allocations or commitments in excess of 0.5% of the total fund value require prior authorization of the Board; and

Resolved, That the investments approved hereby and the authority granted in these resolutions to implement the approved investments does not supersede, waive, or otherwise affect the investment allocations set forth in the table in IPS Section 1.6. All investments shall be considered for purposes of the 6% Total Manager Organization limit in the IPS Appendix B.

13. Consult with the Board's attorney(s) in Executive Session on any item listed above on this meeting agenda as authorized by Section 551.071 of the Texas Open Meetings Act (Chapter 551 of the Texas Government Code) – David Kelly.

Ms. de Onís said there were no legal matters she needed to discuss with the Board at this time.

At 5:20 p.m., Ms. Ramirez moved, Dr. Gibson seconded, and the Board unanimously approved adjournment.

Tab 2 C



Proposed Board Meeting Dates

Change for October 2016 Board Meeting

- From October 28, 2016 to October 27, 2016

Proposed CY 2017 Meeting Dates

- February 22 – 24, 2017 (already set)
- April 6 – 7, 2017 (quarterly)
- June 1 – 2, 2017 (quarterly)
- July 14, 2017 (one-day)
- August 25, 2017 (one-day)
- September 21 – 22, 2017 (quarterly)
- October 27, 2017 (one-day)
- December 14 - 15, 2017 (quarterly)

Tab 4

TEAM



TEAM - Agenda

- History and context
- Why are we replacing our current system?
- What are we creating?
- What do we have already?
- Who are the key players?
- Where are we now and how did we get here?
- Why has the schedule moved?
- What are the costs?
- What have we done since June to improve?
- What is the new timeline?
- What does future reporting on TEAM need to look like?

TEAM – History and context

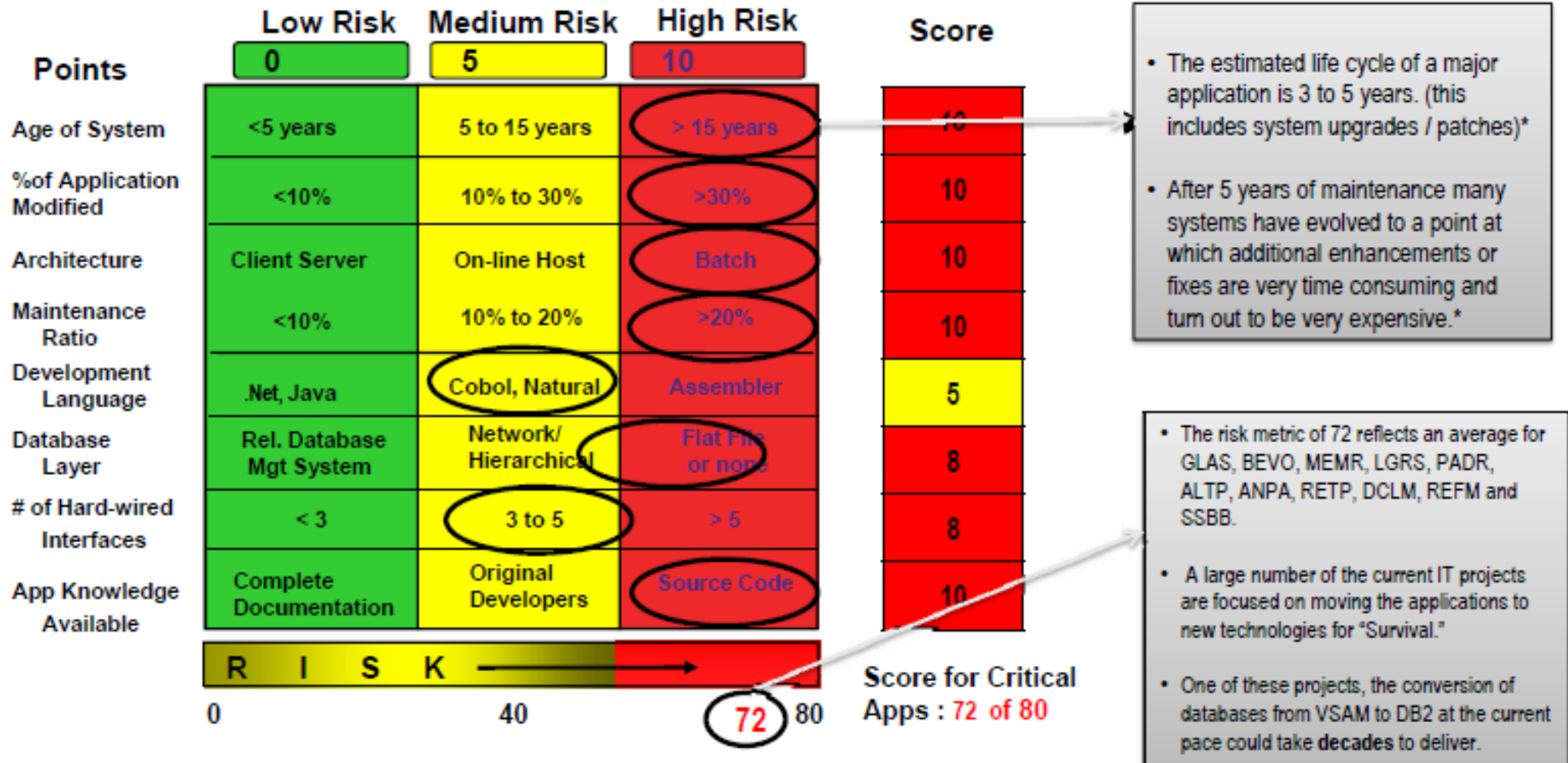
- Why are we doing TEAM
 - Risk review of legacy systems
 - Loss of institutional expertise
 - Improving legacy processes and systems

TEAM – History and context

History - 2009

- Brian challenged executive management to visualize what TRS would look like in 10 years, the Next Generation Project was born
- TRS hired Grant Thornton to perform an independent review on the TNG project, TRS initiatives, operations and governance
- At that time the Stoplight Report showed that Legacy Modernization was one of the risks we needed to deal with; its color was yellow = increased monitoring & action items

TEAM - Why are we replacing current system?



TEAM - Why are we replacing current system?

- Risks - February 2010 TRS Board Meeting in Katy, TX

	Financial Upgrade	Unified Member Module	eForms & Self-Service v1	eForms & Self-Service v2	Work Flow Auto	Electronics Records Mgmt	Technical Architect / Business Analysis	Electronic Communications with Reporting Entities
Cost High/Low	High	High	Low		High	Low	Low	Low
Resources Needed High/Low	High	High	Med		High	Low	Low	Low
Impediments High/Low	Low	High	Low		High	Low	Low	Low
Time Needed to Implement High/Low	2+ Years	5-7 Years	6 Months		3+ Years	12 Months	1-3 months	6 months
Degree of Difficulty High/Low	High	High	Med		High	Med	High	Low
Priority							1	

TEAM – What are we creating?

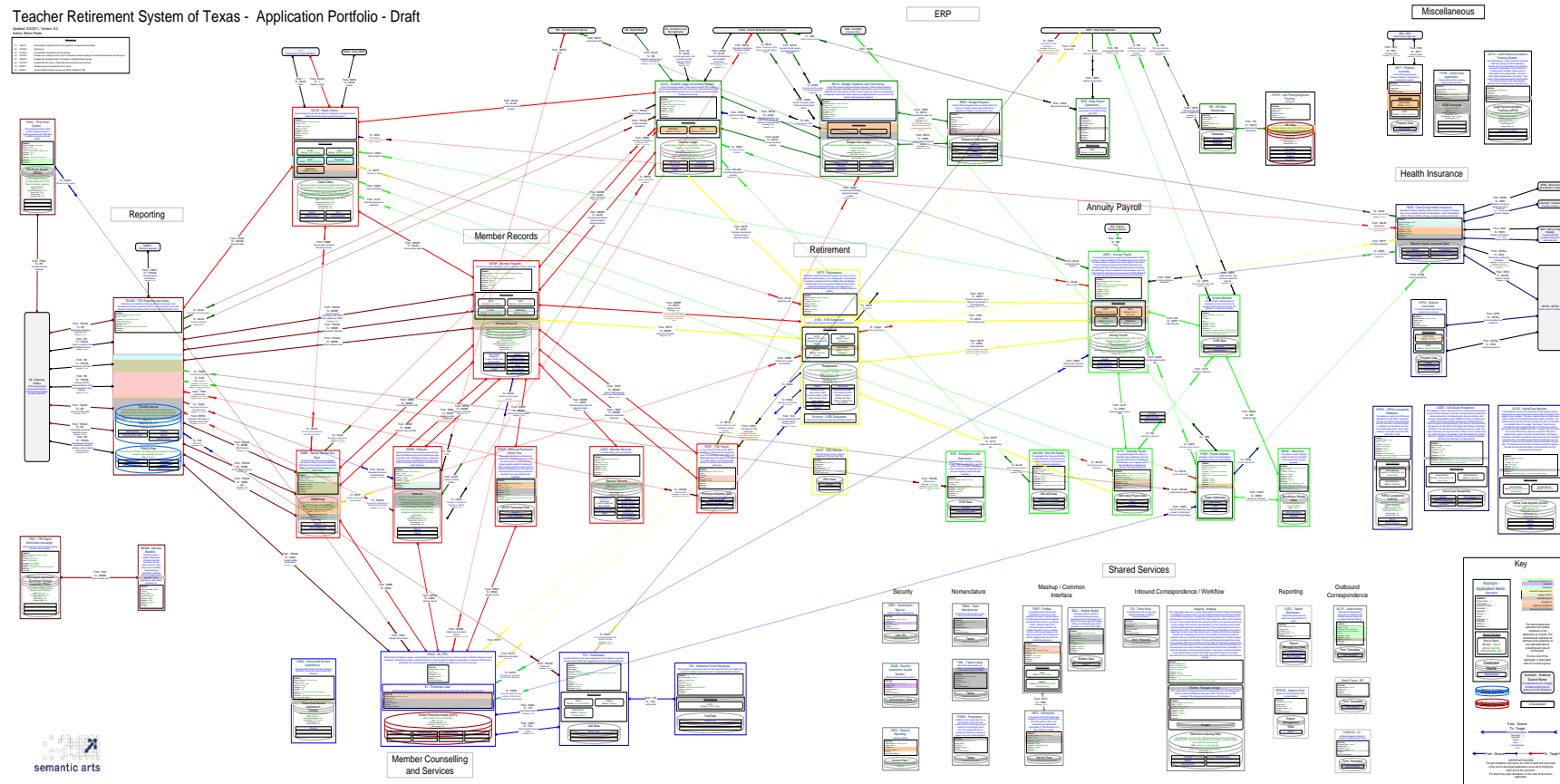
- CRM – Single view of customer
- Workflow – automated tracking of multi-step processes
- e-Signature functionality
- New Communication methods
 - Chat
 - Text Message
- Centralized Business Rules Engine – Store and manage complex business rules in one place

TEAM – What are we creating?

- Web Self Service
- Full payroll reporting
- More frequent payment processing
- Direct deposit for refunds
- Improved online error correction for employer reporting

TEAM – What are we creating?

Architectural Vision – Current State

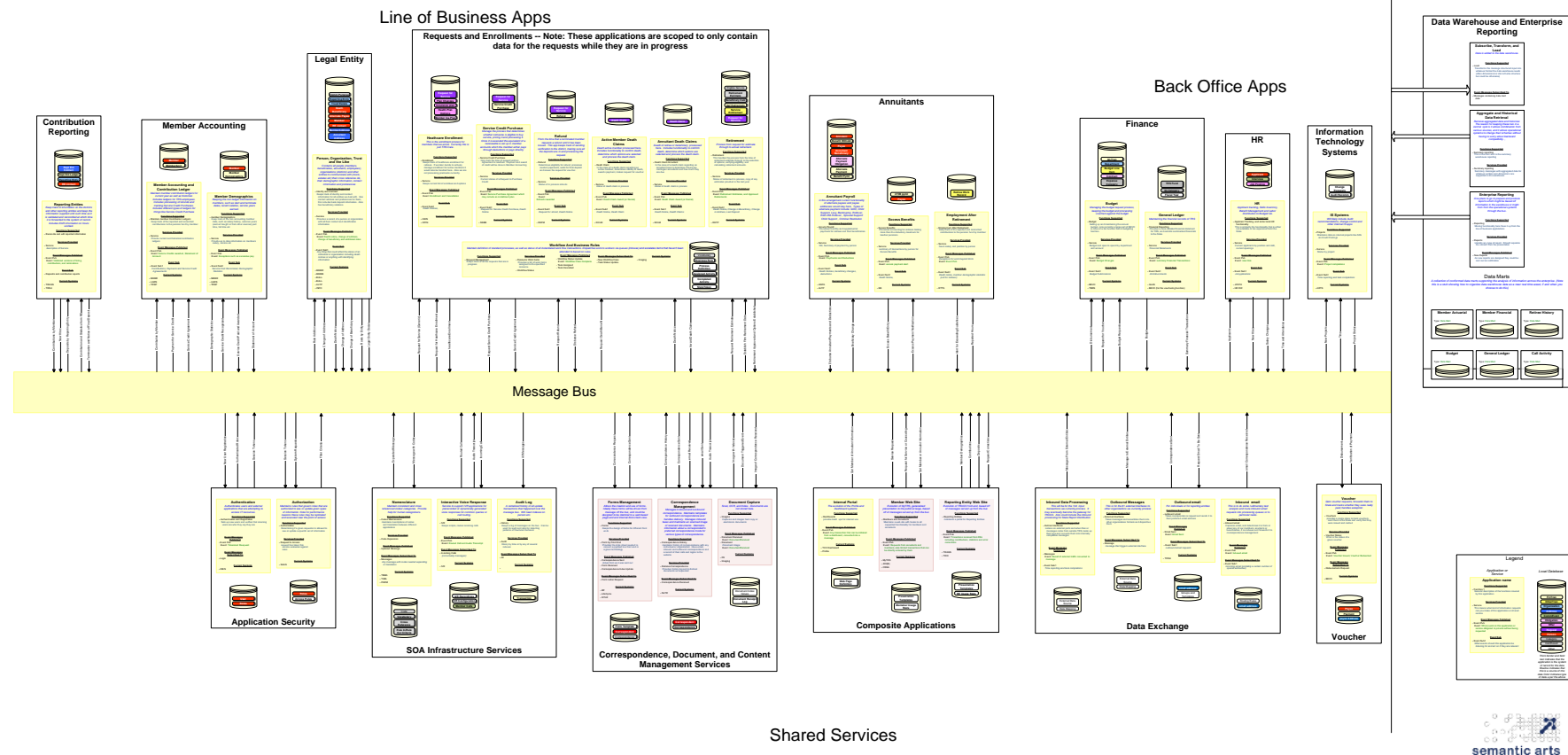


TEAM – What are we creating?

Architectural Vision – Proposed Future State

Teacher Retirement System Of Texas –
Target Application Architecture – Final

Updated: 9/7/2011, Version: 1.0

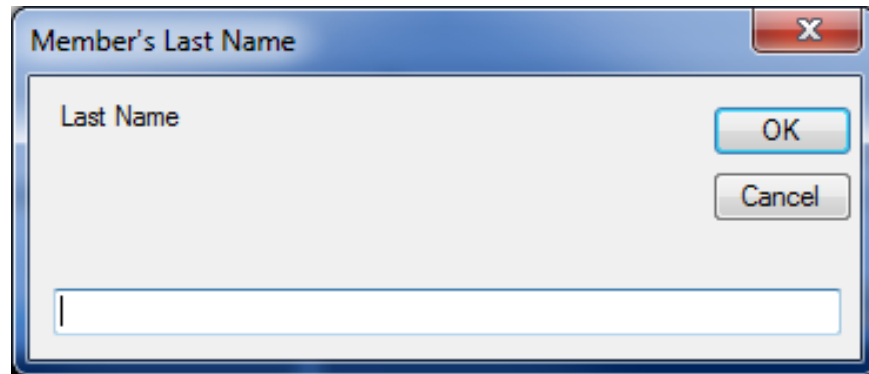


TEAM – What are we creating?

- Improved processes and systems
 - The following slides show the difference between current Legacy functionality and future TRUST functionality.
 - The TRUST examples are functionality that have already been developed by HP and are available to TRS in a test environment.

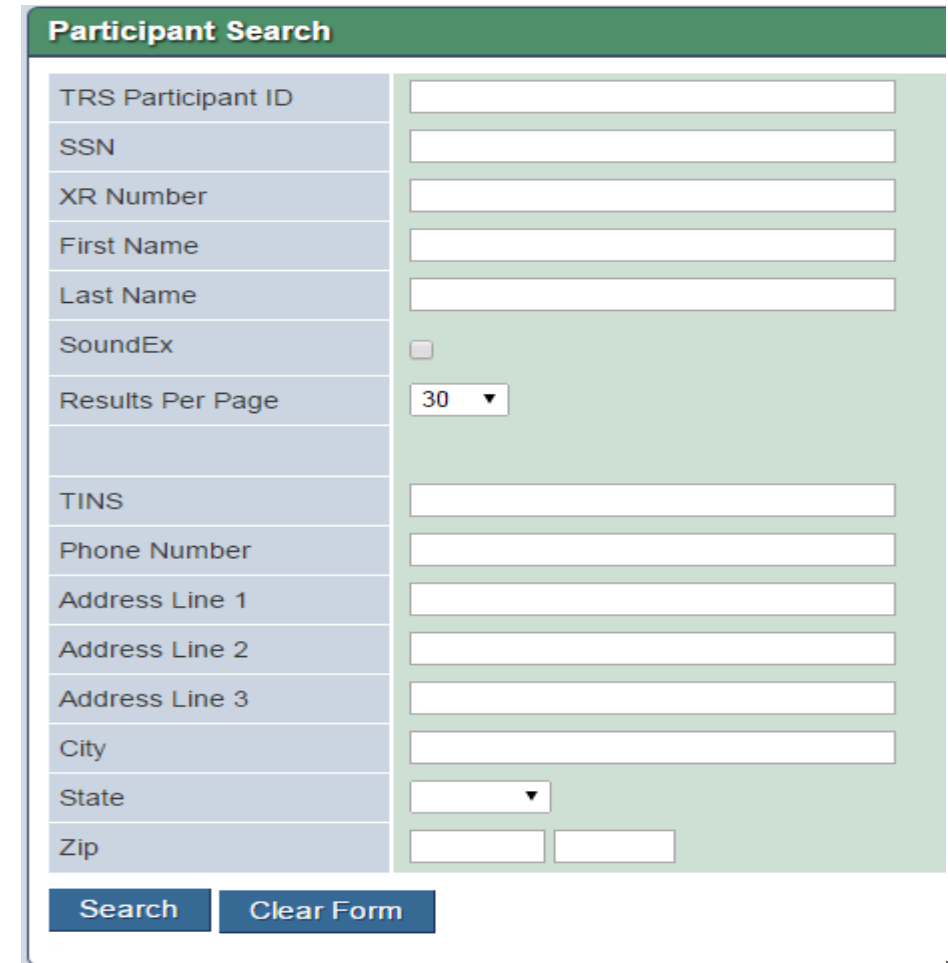
TEAM – What are we creating?

- Legacy Search



A small dialog box titled "Member's Last Name" with a close button (X) in the top right corner. It contains a text input field labeled "Last Name" and two buttons: "OK" and "Cancel".

- TRUST Search



A form titled "Participant Search" with a green header bar. It contains a list of search criteria on the left and corresponding input fields on the right. The criteria include: TRS Participant ID, SSN, XR Number, First Name, Last Name, SoundEx (with a checkbox), Results Per Page (set to 30), TINS, Phone Number, Address Line 1, Address Line 2, Address Line 3, City, State (dropdown), and Zip. At the bottom are "Search" and "Clear Form" buttons.

TEAM – What are we creating?

- Legacy Participant Summary

Tax Num:	100-01-0000	Go	Not Grandfathered
XR Num:	XR1758116		
70033166771	ACCOUNTONE, DEMO		
Name:	DEMO ACCOUNTONE		
Address:	1000 RED RIVER ST AUSTIN, TX 78701		
Status			
ACTIVE MEMBER			
RETIREMENT PENDING BULLETIN(S)	Pending, 12/14		
REFUNDING MEMBER	Paid 8/11/1998		
SSBB BILL	Lump Sum Bill Calculated		

- TRUST Participant Summary

JOHN Blue	TRS Participant ID	000000	Account Status	Active	Membership Type	MBR
HPRS - Tier 1	SSN	300-29-2222	Membership Status	Active	Employment	Inactive

Age	Service Credit	Membership Tier	First Eligible Retirement Date	Account Balance
46 years	None	1	09/01/2026	\$659.20

Participant Accounts			
Owner SSN	Owner Name	Type	Status
300-29-2222	JOHN Blue	MBR	Active

Demographic Information			
Name:	JOHN Blue	Date of Birth:	08/28/1968
Gender:	Male	Age:	46 years
Address:	1000 Red River Austin, TX 78701-1010	Communication Preference:	Email
Update Demographics			

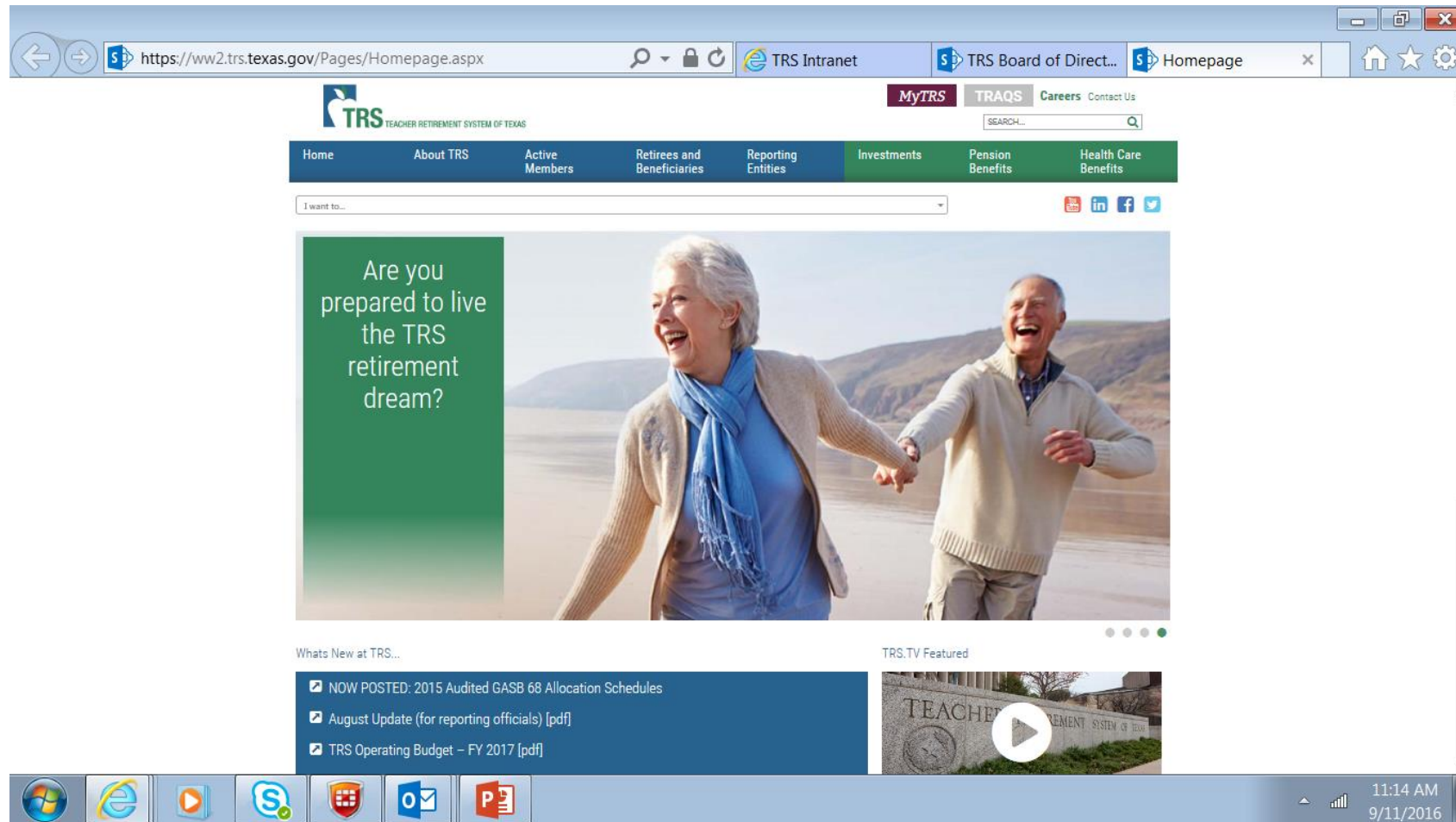
Notes		Account Activity	
Notes:	No	Refund in Progress:	No
View Notes		Pending Retirement:	No
		Service Credit Purchase:	No
		Death Reported:	No
		DROP Participant:	No
		TRS-Care Participant:	No
		TRS-ActiveCare Participant:	No
		ORP Elected:	No
View account details		View account details	

Account Flag Information		Legal Representatives	
Prepare Account:	No	Update Legal Representatives	
Sensitive Person:	No		
Under Construction:	Yes		
Legal Order:	No		

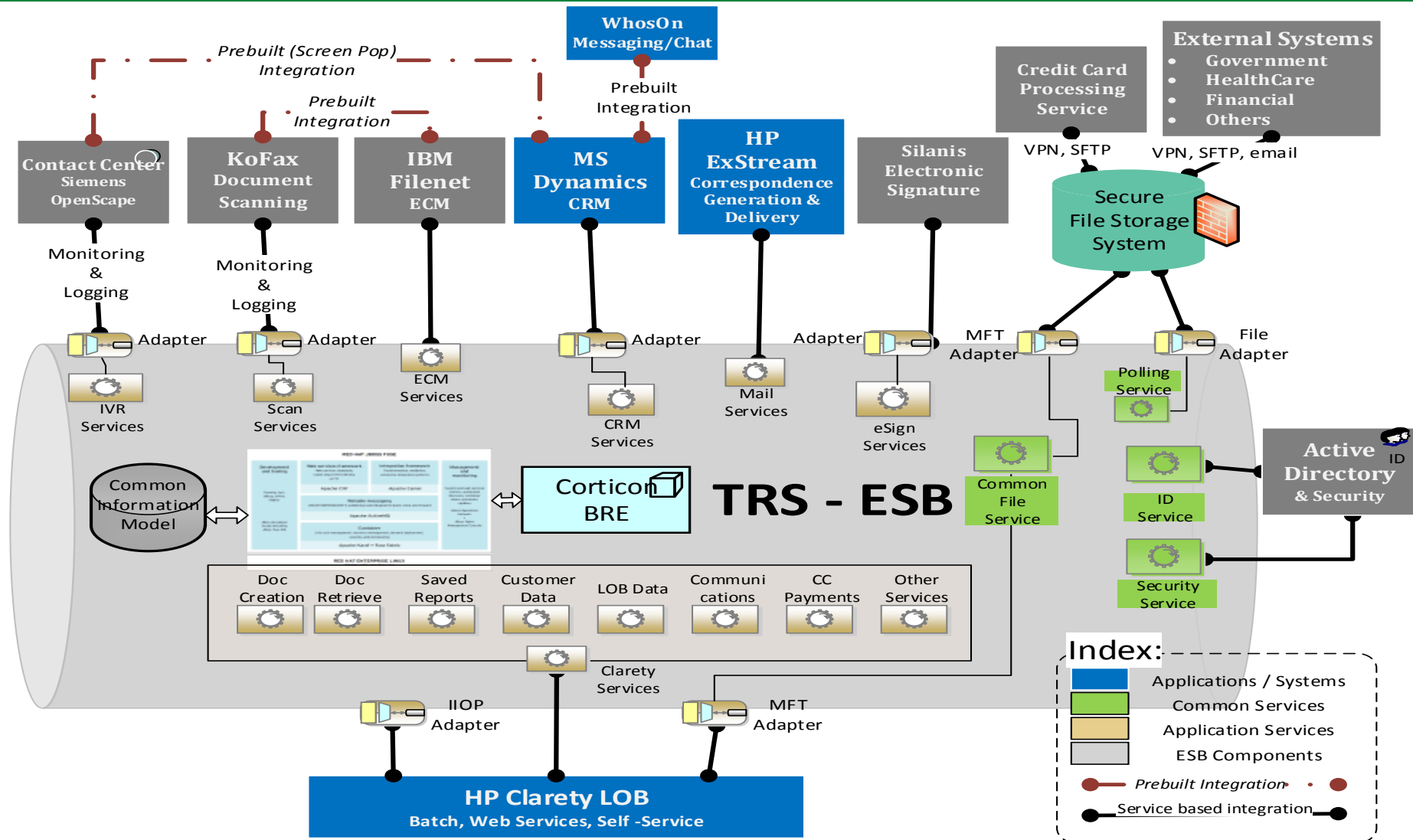
TEAM – What do we have already?

- New website
- Improved technical infrastructure
- Better data
- Documented business rules
- RE Certification Environment
- Financial Data Hub

TEAM – What do we have already?



TEAM – What we have already?



TEAM – Who are the key players?

- Executive Steering Committee
- Core Management Team
- TRS Execution Team
- Bridgepoint
- Provaliant
- Hewlett Packard

TEAM – Who are the key players

- Executive Steering Committee (ESC) – Provides strategic direction and oversight to the TEAM Program
 - Brian Guthrie
 - Ken Welch
 - Barbie Pearson
 - Chris Cutler
 - Don Green
 - Amy Barrett
 - Janet Bray
 - Katrina Daniel

TEAM – Who are the key players

- Core Management Team (CMT) – serves as sponsors and provide day-to-day management of the TEAM Program efforts
 - Adam Fambrough
 - Billy Lowe
 - Christi Holman
 - Jamie Pierce
 - Edward Esquivel
 - Garry Sitz
 - Amanda Gentry
 - Cindy Yarbrough
 - Beckie Smith
 - Yvette Carter

TEAM – Who are the key players

- TRS Execution Team
 - Chet Henry, Program Director
 - Project Management Office
 - Core Program Team
 - Subject Matter Experts
 - Technical staff
 - Quality assurance staff

TEAM – Who are the key players

- Bridgepoint
 - Provide Independent project assessment to the Executive Director and the Board
 - Michael Johnson
 - David Roe
 - Andrea Anderson

TEAM – Who are the key players

- Provaliant
 - Provides program and project management services and consulting
 - Over 20 years experience working with public pension systems
 - Jay Masci
 - Bob Solheim
 - Sue Richards
 - Wendy Sanchez

TEAM – Who are the key players

- Hewlett Packard – primary implementation vendor for the Pension Line of Business
 - Ernie Sanders, Account Executive
 - Greg Hayes, Project Manager
 - Prashant Jaiswal, Delivery Manager
 - Team of Business Analysts, Developers, Quality Assurance staff

TEAM – Where are we now and how did we get here?

- Started in Fall 2011
 - Planning
 - RFO Development and award
- Line of Business Project Started in November 2013
 - Originally scheduled to finish in May 2017
 - Now Summer 2019

TEAM – Where are we now and how did we get here?

- Requirements gathering for Phase 1 did not meet expectations
- New GASB Rules for pensions and reporting
- Lack of understanding between HP and TRS about what Clarety does and TRS business needs
- Original schedule overly aggressive

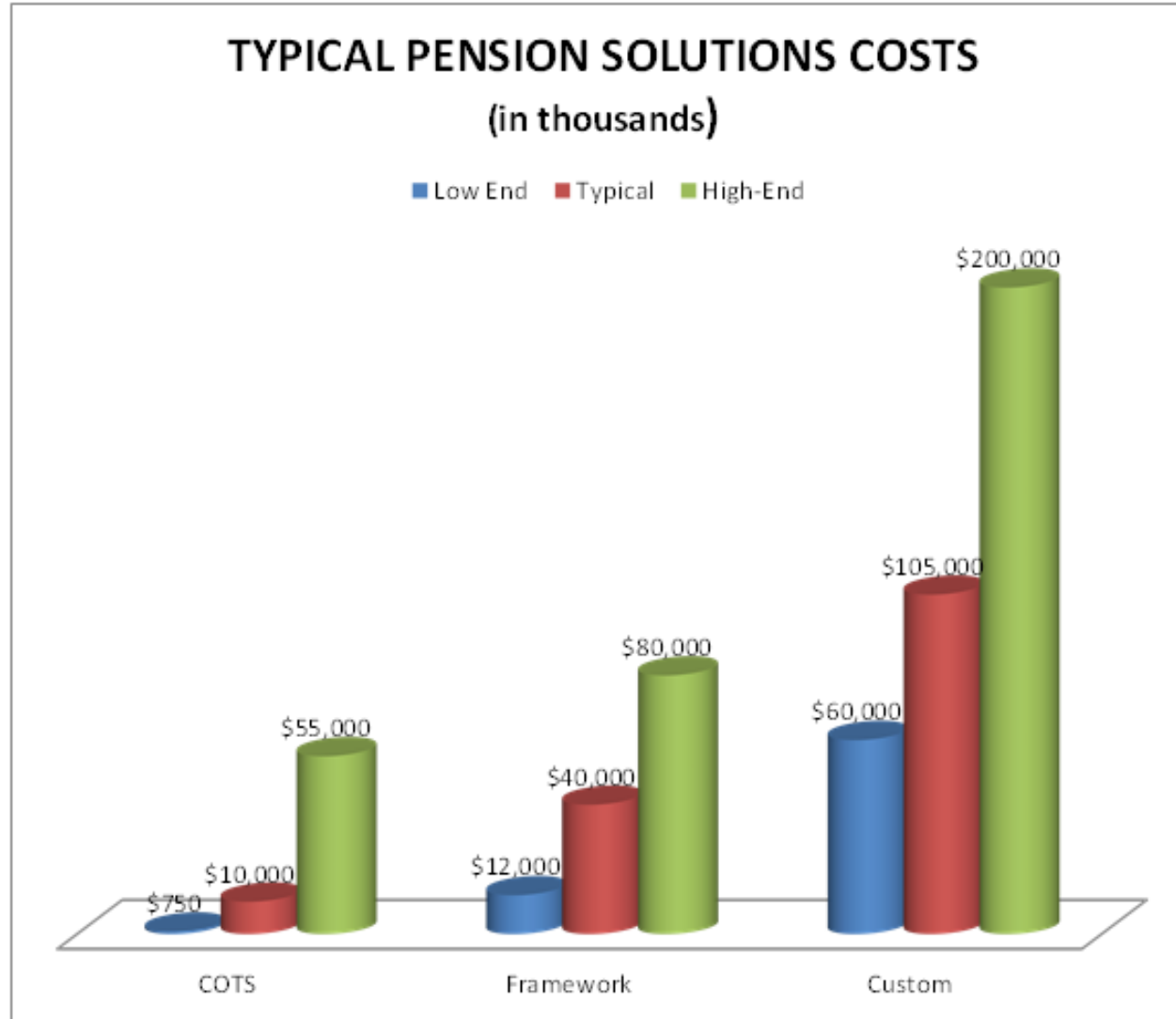
TEAM – Why has the schedule moved?

- Performance Improvement Process for Requirements gathering
- We didn't revisit pre-PIP requirements and are spending time correcting them today
- Neither HP nor TRS anticipated new GASB requirements
- As reported in June Board Meeting
 - Change
 - Quality
 - Data

TEAM – What are the costs?

- Budget
 - How much did we expect to spend?
 - \$42 million on HP Contract
 - About \$100 million total on entire program
 - How much have we spent?
 - \$21.9 million on HP Contract
 - \$65.5 million on entire program
 - How do we expect the budget to change?

TEAM – What are the costs?



TEAM – Improvements since June

- Chet Henry has been identified as TEAM Program Director to work with the TEAM Program to make improvements and communicate directly with TRS Executives
- Coordination of TRS, HPE, Provaliant and Bridgepoint to ensure all parties are using the same common metrics
- List of lessons learned and improvements from Phase 1 requirements gathering are being implemented
- Going forward, interface HPE and TRS QA earlier in the process, including joint development of test cases to foster delivery of higher quality code.

TEAM – Improvements since June

- Implement regular agile type standup meetings including joint HPE/TRS staff where appropriate to increase focus on delivery
- Development of agreed upon common metrics to manage and report the program is being worked
- A new, realistic schedule is being created, with finalization dependent on the requirement update work effort and contract negotiations
- Simplification and consolidation of project management and reporting
- Creating a war room to address situations more quickly
- Flattened decision making process

TEAM - Scope Changes

- TRS has identified two deliverables in Phase II that will be removed from the scope of the contract:
 - CRM and Workflow – HP will provide the architecture, but TRS will do the programming.
 - Health Care – TRS will monitor legislative developments in 2017 and address health care IT needs internally.
- TRS will work with the Comptroller's Office to implement their Statewide Financial System next biennium.
- All changes are designed to de-risk the TEAM program and maximize the efficiency of internal and external resources.

TEAM – What is the new timeline?

- Phase 1
 - Phase 1C Requirements: Sep 2016 – Jan 2017
 - Phase 1C Development: Oct 2016 – Mar 2017
 - Phase 1C Testing: Nov 2016 – May 2017
 - UAT: Apr 2017 – July 2017
 - Go Live: Sep 2017
- Phase 2
 - Requirements Gathering: Nov 2016 - May 2018
 - Development: Jul 2017 – Jan 2019
 - Testing: Jun 2017 – Apr 2019
 - UAT: Apr– Jun 2019
 - Go Live: Aug 2019

TEAM – What is the new timeline?

Timeline through end of project

Sep-16 FY17 Q1	Dec-16 FY17 - Q2	Mar-17 FY17 - Q3	Jun-17 FY17 - Q4	Sep-17 FY18 - Q1	Dec-17 FY18 - Q2	Mar-18 FY18 - Q3	Jun-18 FY18 - Q4	Sep-18 FY19 - Q1	Dec-18 FY19 - Q2	Mar-19 FY19 - Q3	Jun-19 FY19 - Q4		
Phase 1C - Req, Dev, Test													
		Phase 1 - UAT	Phase 1 Contingency	Phase 1 Go Live 10/2/2017									
		Phase 2 - Requirements Gathering					5/9/2018						
			Phase 2 - Development						1/30/2019				
				Phase 2 - Testing						2/21/2019			
									Regression Testing				
									Start UAT: 4/12/2019	UAT	End UAT: 6/14/2019		
											75d contingency		
												Phase 2 Go Live	9/3/2019

TEAM – What is the new timeline?

Timeline for next 4 months

Sep-16	Oct-16	Nov-16	Dec-16
Phase 1B Acceptance			
	Complete Phase 1C REQ (Complete by 11/22/2016)		
		Begin Phase 1C Development	
		Begin Phase 1C Test Case Preparation	
			Begin Phase 1C Testing
		Begin Phase 2 Requirements Planning	

TEAM – What does future reporting look like?

- Transparency Report
 - Scope
 - Schedule
 - Budget
 - Quality
 - Execution

Tab 5



**TEAM Program
Independent Program Assessment
Board Presentation**

September 2016



Objectives

Independent Program Assessment (IPA)

Provide independent reporting and oversight to the TRS Board and Executive Director, or designee, regarding critical risks related to the TRS Enterprise Application Modernization (TEAM) Program to enable informed decision making

Critical Risks Focus:

- Scope: requirements not adequately defined
- Quality: significant defects in code development
- Schedule: program substantially delayed
- Cost: program substantially over budget

IPA Current Focus

TRS Executive Team asked Bridgepoint to assist with the following in addition to ongoing independent program assessment activities:

1. Help identify and develop common metrics for measurement of TEAM program performance
2. Work with the TEAM Project Director and Project Management in the development of a new project schedule
3. Provide guidance and suggestions for TEAM status reporting

Progress on IPA Current Focus

1. Common Metrics

- Bridgepoint is participating in meetings and providing advisory feedback, including specific examples for metrics related to scope, schedule, quality and cost

2. Project Schedule

- Bridgepoint provided guidance for the development of a new realistic schedule; recommend hiring a dedicated resource to regularly update the project plan

3. Reporting

- Bridgepoint is participating in meetings and providing advisory feedback for a new Transparency Report to communicate Board and Executive level TEAM status

IPA Scope Expansion

\$200K estimated contract change increase through fiscal 2017 covering:

- Increased advisory consulting
- Incremental executive involvement
- Ongoing independent program assessment activities
 - Including Transparency Report input and accuracy assessment going forward
- True-up of cumulative IPA budget variance

Activities Completed – Current Period

1. Attended TEAM Core Management Team weekly status meetings and other relevant project meetings.
2. Reviewed and evaluated current project schedules and progress against schedule.
3. Reviewed samples of approved deliverables and TRS acceptance documentation.
4. Attended LOB joint HP and TRS project schedule planning meetings and reviewed drafts of HP MS Project Schedule.
5. Reviewed and analyzed Line of Business - testing defect status reports and defect tracking reports.
6. Attended TEAM program management meetings and provided advisory input on project transparency reporting and common metrics for key performance indicators.
7. Prepared TEAM IPA Status reports and reviewed risks identified with project management.

Activities for Next Period

1. Continue to attend and observe weekly Executive Steering Committee and Core Management Team meetings.
2. Continue to analyze vendor deliverable acceptance documentation and vendor invoice payment approvals. Verify that completed deliverables are accepted and that vendor invoices aligned with contractual agreement.
3. Continue to review and provide feedback on the revised project schedules, common metrics measurements, and transparency reporting initiatives.
4. Review updated Line of Business Phase1 Quality Gate criteria documentation for User Acceptance Testing entry and preliminary cutover plan.
5. Continue to review and analyze the various TEAM related logs for tracking and management.
6. Continue to monitor TRS risk mitigation activities related to execution risks.

IPA Budget Status

IPA Financial summary status through August 31, 2016

Total hours incurred	5,233
Total calculated cost incurred	\$920,915
Total billings for deliverables	\$845,000
Variance	\$75,915

Tab 6

Teacher Retirement System of Texas



Executive Director's Report

Brian Guthrie
September 22, 2016





- General Updates.
- Trending Issues.
- Update on Financial Awareness Member Education (Videos).
- Review of Internal TRS Communications with Executive Director.
- Upcoming agendas.



General Updates



General Updates

- Update on Public / Private Joint Strategic Partnership Summit – August 3 ~ NYC.
- Update on National Association of State Retirement Administrators Annual Conference (NASRA) – August 5-9 ~ Coeur D'Alene, ID.
- Legislative Budget Board and Office of the Governor Budget Hearing – September 27, 2016.
- 94th NCTR Annual Conference: Securing the Future – Oct. 8-12, 2016 ~ Providence, Rhode Island.
- NASRA Executive Committee – October 27-30 ~ Portland, Maine.



General Updates

- Continue to prepare for the Legislative Session and support the Interim Committees.
- Successfully implemented performance appraisal process agency wide 360 reviews where appropriate.
- Claritas Program – all EC should have started and/or passed by end of year.
- Boardroom renovations.
- Employee Informational Brown Bag in conjunction with LBJ School.
- Participating in industry discussion on investment return assumption.



Trending Issues



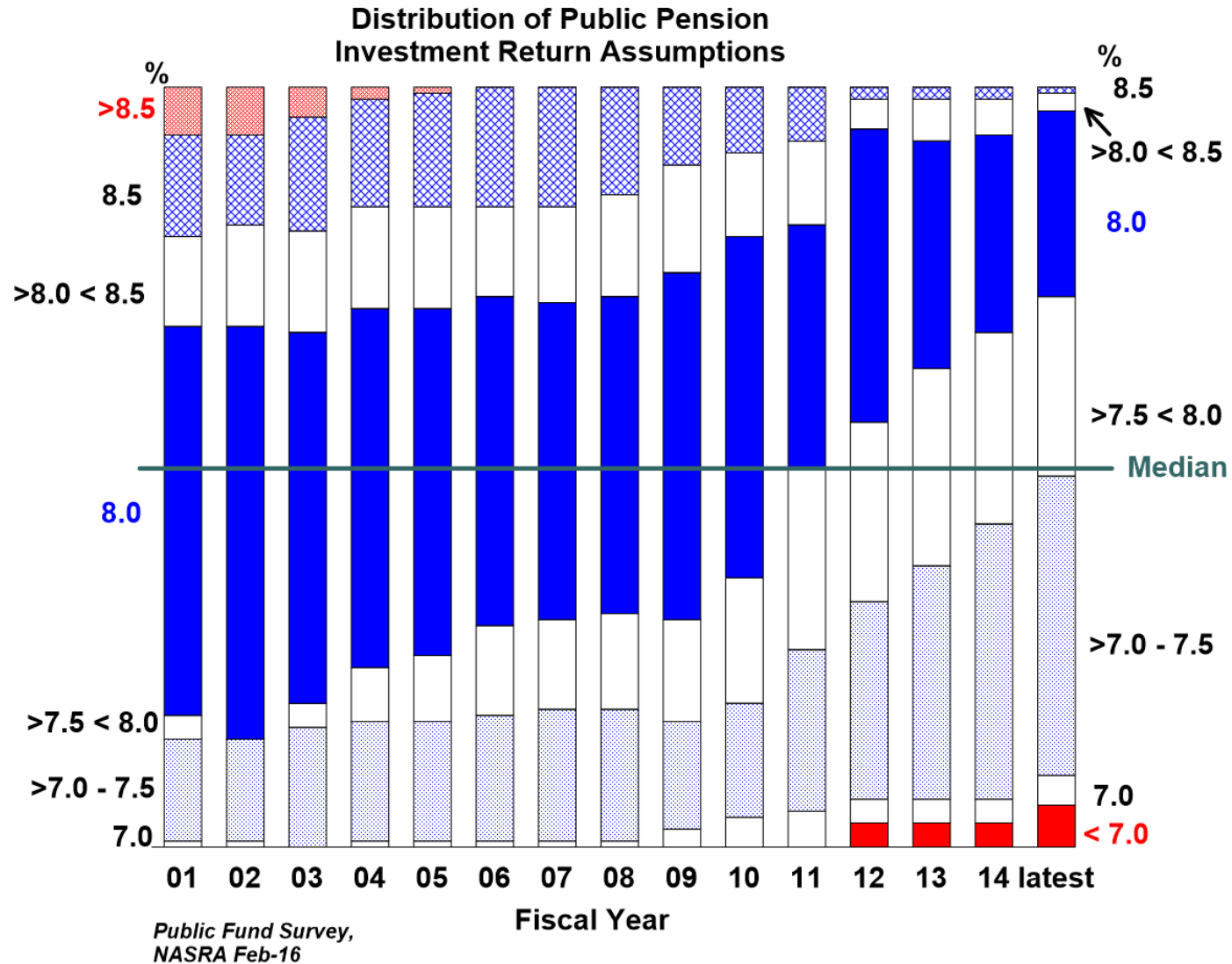
Trending Issues

■ Investment Return Assumption.

- Pension Review Board Actuarial Guidelines Survey and Committee Meeting. Recently commented on PRB Guidelines for Actuarial Soundness.
- Actuarial Standards Board Pension Task Force Report proposes new Actuarial Standard of Practice (ASOP) requiring actuaries to calculate a “solvency liability” (i.e. liability calculated on market value using a risk-free rate) as part of each system’s valuation. New ASOP is currently in exposure draft for comment.
- National Association of State Retirement Administrators (NASRA) prepared Issue Brief on Public Pension Plan Investment Return Assumption in February 2016.
- The Issue Brief found that among the 127 plans measured, more than one-half have reduced their investment return assumption since fiscal year 2008.
- The average return assumption is 7.62 percent.
- NASRA reported to TRS that as of August 2016, fifteen of the plans included in the Issue Brief have lowered their assumptions further.



Trending Issues





Financial Awareness



Internal Communication



TRS Internal Communications

- Beginning in Nov. 2013, Brian Guthrie and Ken Welch have held TEAM Huddles with each TRS department.
- Huddles are opportunity for TRS employees to learn about TEAM and for Executive to receive feedback from employees about TEAM as well as any other topics employees wish to discuss.
- Each round of Huddles coincided with a milestone on the project:
 - Round 1 – Requirements Gathering
 - Round 2 – Process Improvement Phase
 - Round 3 – Phase 1A
 - Round 4 – Phase 1B
- In all Brian and Ken have conducted 67 Huddles.

	Number of Huddles	1st Huddle Date	Last Huddle Date
Round 1	18	11/8/2013	1/23/2014
Round 2	15	7/17/2014	11/4/2014
Round 3	17	8/11/2015	10/29/2015
Round 4	17	7/12/2016	9/20/2016
Cumulative Total	67		



Upcoming Agendas



October 27, 2016 Board Agenda

October 27, 2016 Major items include (1 Day Meeting on a **Thursday**):

- TEAM update.
- Updates on Legislative Issues
- Report from CEM on customer service benchmarks.
- IMD Succession Plan

Committees

- No Committee Meetings Planned.



December 1-2, 2016 Board Agenda

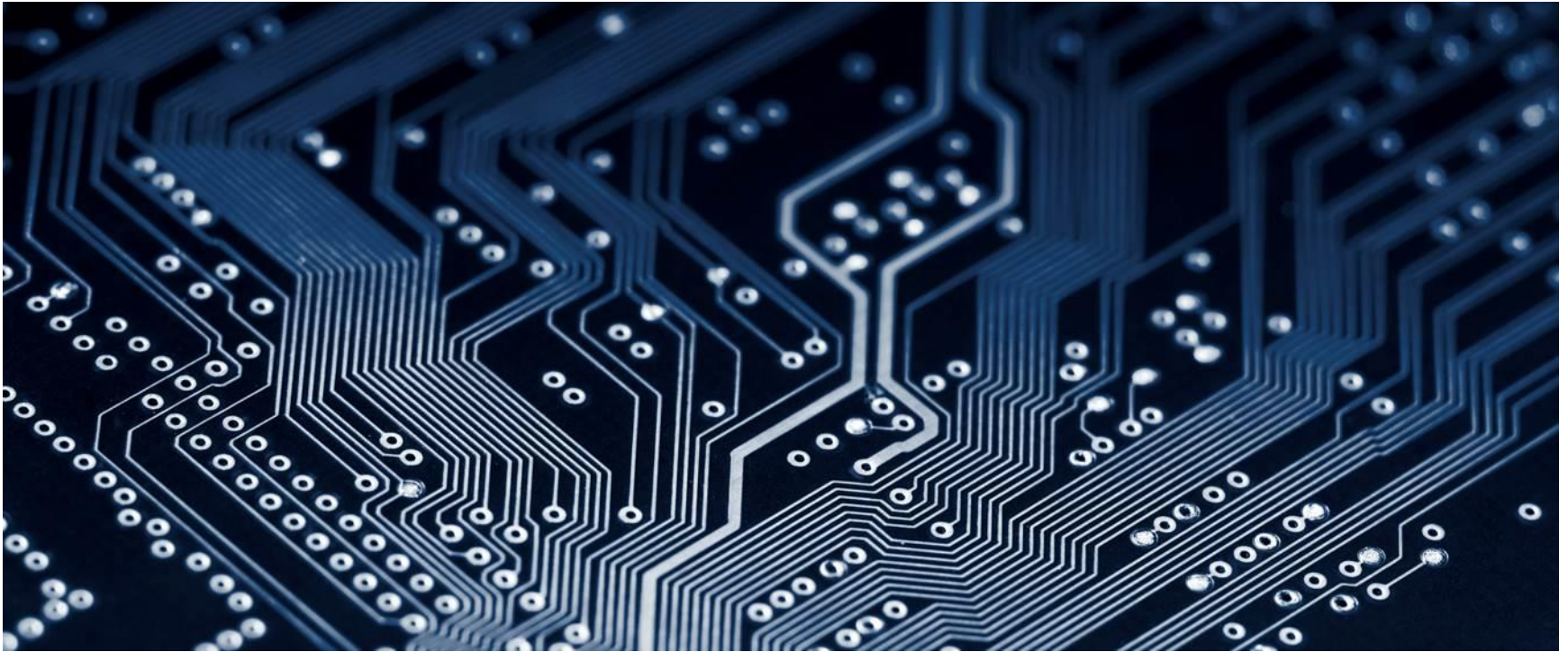
December 1-2, 2016 Major items include (2 Day Quarterly Meeting):

- TEAM Update
- Report on Q3 Earnings.
- Comprehensive Annual Financial Report (CAFR).
- Pension Fund Valuation.
- TRS-Care Valuation (Other Post Employment Benefits – OPEB) Valuation.
- TRS-ActiveCare Benefits Briefing.

Committees

- **Investment Management Committee Meeting**
 - Asset Allocation Group Presentation.
 - Risk Group Presentation.
- **Risk Management Committee Meeting**
 - Enterprise Risk Management.
- **Policy Committee Meeting**
 - Designation of Key Employees regular review.
- **Audit Committee Meeting**
 - Report on the CAFR Audit (if ready).

Tab 7



Teacher Retirement System of Texas

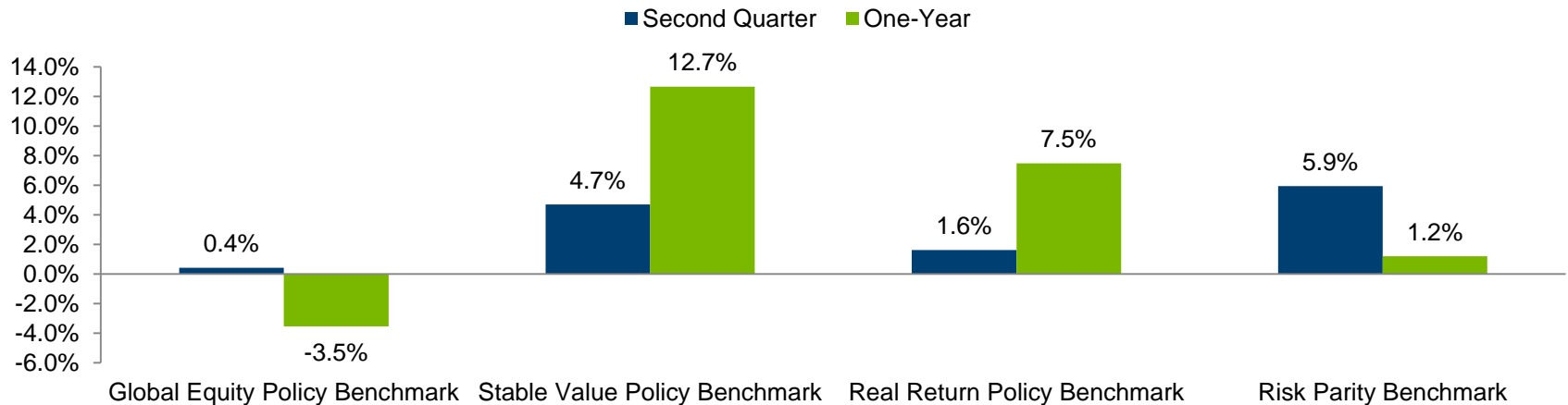
Performance Review: Second Quarter 2016

Aon Hewitt
Retirement and Investment

Investment advice and consulting services provided by Aon Hewitt Investment Consulting, Inc., an Aon Company.



Summary

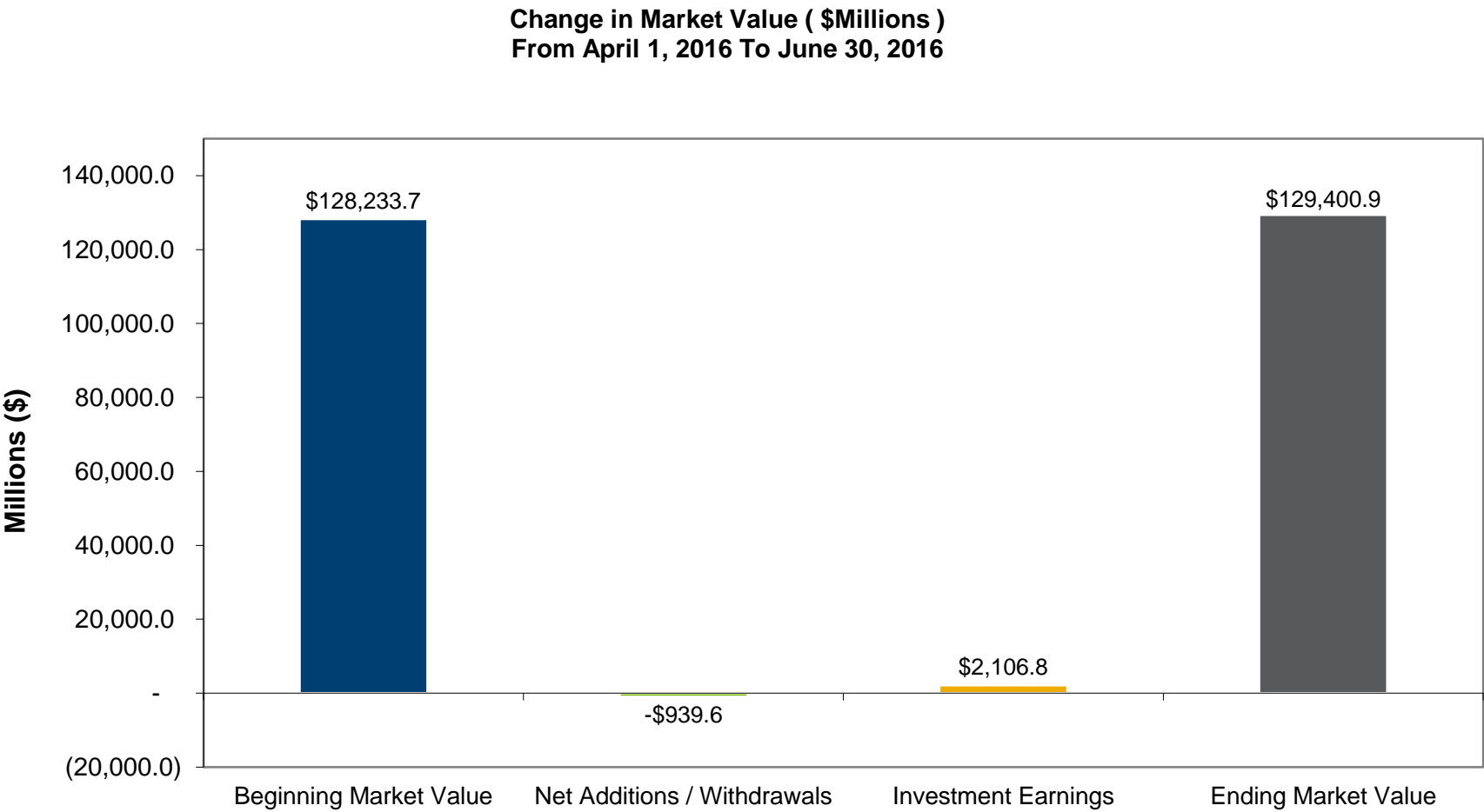


- Global asset markets produced mixed returns for the second quarter, with U.S. Equities and Fixed Income gaining and Non-U.S. Equities declining
- The TRS investment portfolio returned 1.6% for the quarter and underperformed its performance benchmark by 0.2%.
 - Detractors from relative results included underperformance within Global Equity and a lower than benchmark exposure to Long Treasuries
 - Strong relative performance by managers in Emerging Markets, Hedge Funds, and Private Equity helped to offset the underperformance somewhat
- For the trailing twelve months, TRS returned 1.3%, underperforming its performance benchmark by 0.5%.
 - The main detractors were poor relative performance by active U.S. Equity managers and an underweight allocation to Long Treasuries

1. Market Summary – Second Quarter 2016

	Second Quarter	Year to Date	One Year	Three Years	Five Years	Ten Years
<u>Global Equity:</u>						
MSCI U.S.A. IMI Index	2.8%	3.7%	2.3%	11.2%	11.6%	7.6%
MSCI EAFE + Canada Index	-1.1	-3.0	-9.8	1.9	1.2	1.6
MSCI Emerging Markets Index	0.7	6.4	-12.1	-1.6	-3.8	3.5
HFRI Fund of Funds Composite Index	0.6	-2.6	-5.4	1.9	1.6	1.6
State Street Private Equity Index (qtr lagged)	0.7	1.8	4.6	10.1	9.3	9.1
Global Equity Policy Benchmark	0.4	1.5	-3.5	5.9	5.0	--
<u>Stable Value:</u>						
Barclays Long Treasury Index	6.4%	15.1%	19.3%	10.5%	10.3%	8.8%
HFRI Fund of Funds Conservative Index	0.5	-1.6	-3.3	1.9	1.9	1.4
3 Month LIBOR + 2%	0.7	1.3	2.5	2.3	2.4	3.4
90 Day U.S. Treasury Bill	0.1	0.1	0.2	0.1	0.1	1.0
Stable Value Policy Benchmark	4.7	10.2	12.7	8.0	8.3	--
<u>Real Return:</u>						
Barclays U.S. TIPS Index	1.7%	6.2%	4.4%	2.3%	2.6%	4.7%
NCREIF ODCE (qtr lagged)	2.0	5.1	12.6	12.6	12.2	--
Cambridge Nat. Resources (75) / CPI (qtr lagged) (25)	-1.0	-9.9	-18.7	--	--	--
Goldman Sachs Commodities Index	12.7	9.9	-26.1	-19.8	-14.0	-10.2
Real Return Policy Benchmark	1.6	4.0	7.5	8.0	8.3	--
<u>Risk Parity:</u>						
Risk Parity Benchmark	5.9	10.9	1.2	3.0	--	--
TRS Policy Benchmark	1.8%	4.0%	1.8%	6.9%	6.7%	5.7%

2. Market Value Change



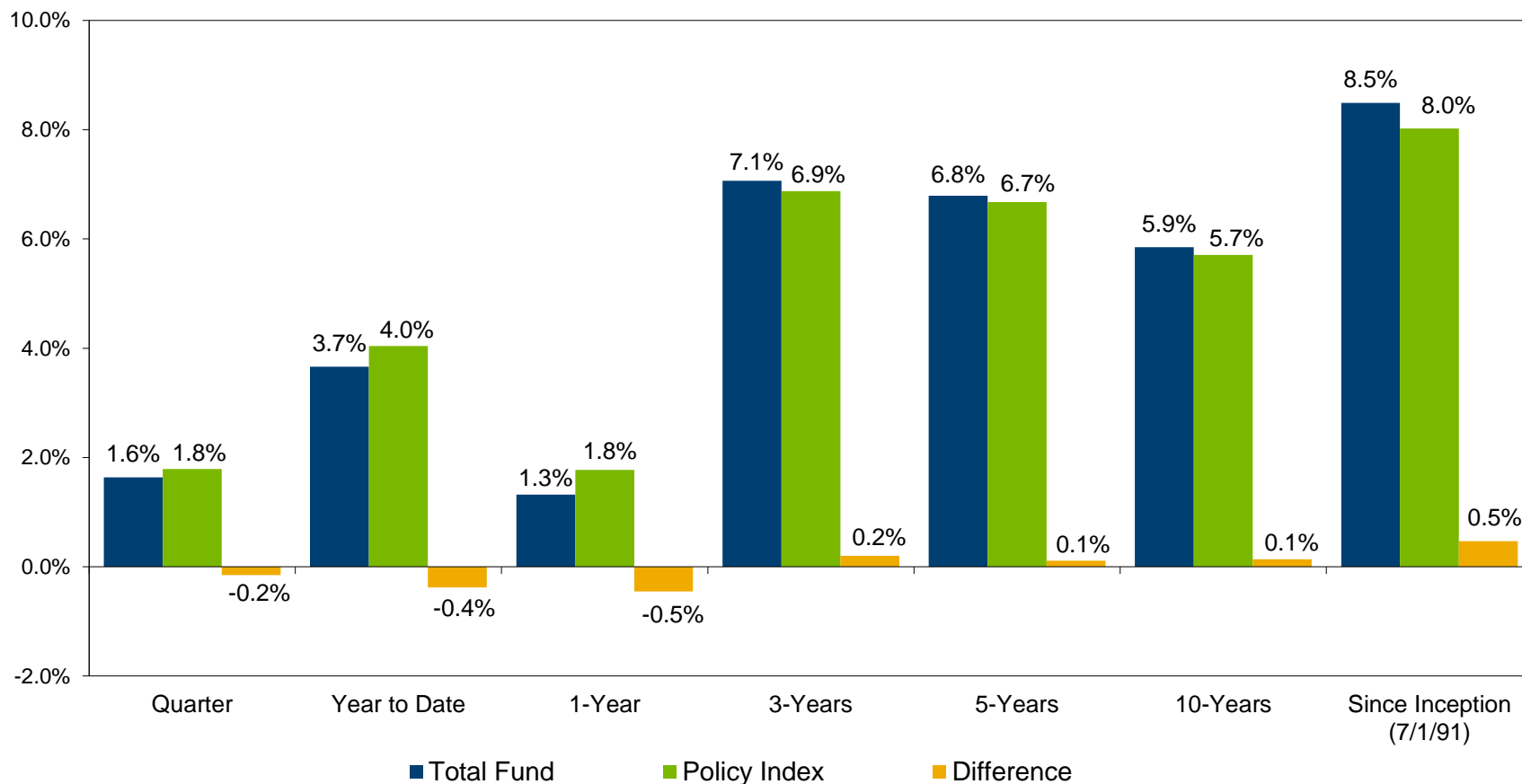
3. Asset Allocation Detail

	Market Value (\$ in millions) as of 6/30/2016		Interim Policy Target	Relative Allocation to Interim Policy Target	Long Term Policy Target	Long Term Policy Ranges
	(\$)	(%)				
Total Fund	\$129,401	100%		---	100%	--
Total U.S.A.	\$24,176	18.7%	19.1%	-0.4%	18%	13-23%
Non-U.S. Developed	\$17,401	13.4%	14.1%	-0.7%	13%	8-13%
Emerging Markets	\$12,492	9.7%	9.8%	-0.1%	9%	4-14%
Directional Hedge Funds	\$5,260	4.1%	4.3%	-0.2%	4%	0-10%
Private Equity	\$15,398	11.9%	12.1%	-0.2%	13%	8-18%
Global Equity	\$74,728	57.7%	59.3%	-1.6%	57%	50-64%
Long Treasuries	\$14,311	11.1%	12.1%	-1.0%	11%	0-20%
Stable Value Hedge Funds	\$5,496	4.2%	4.0%	+0.2%	4%	0-10%
Absolute Return (including OAR)	\$2,466	1.9%	0.0%	+1.9%	0%	0-20%
Cash	\$1,130	0.9%	1.0%	-0.1%	1%	0-5%
Stable Value	\$23,403	18.1%	17.1%	+1.0%	16%	11-21%
TIPS	\$4,625	3.6%	4.1%	-0.5%	3%	0-10%
Real Assets	\$18,390	14.2%	14.1%	+0.1%	16%	7-17%
Energy and Natural Resources	\$2,447	1.9%	1.9%	+0.0%	3%	0-7%
Commodities	\$243	0.2%	0.0%	+0.2%	0%	0-5%
Real Return	\$25,704	19.9%	20.0%	-0.1%	22%	17-27%
Risk Parity	\$5,567	4.3%	3.6%	+0.7%	5%	0-10%
Risk Parity	\$5,567	4.3%	3.6%	+0.7%	5%	0-5%

Note: Asset allocation information shown above is based upon PureView reporting.

4. Total TRS Performance Ending 6/30/2016

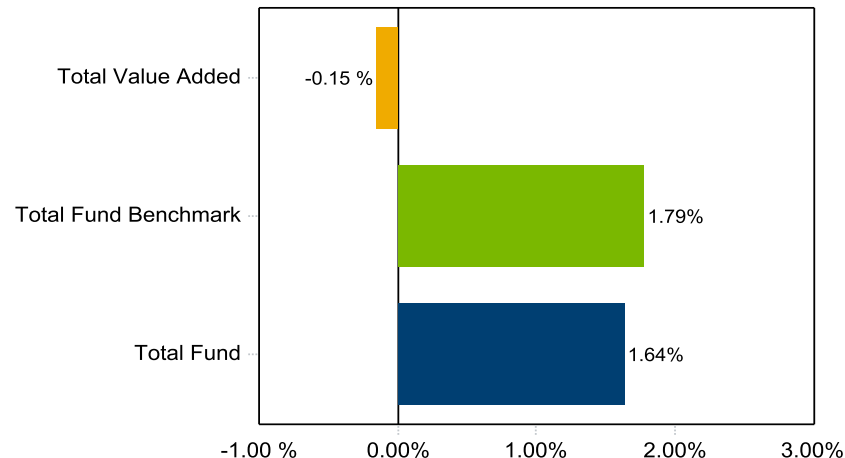
Investment Results As of 6/30/2016



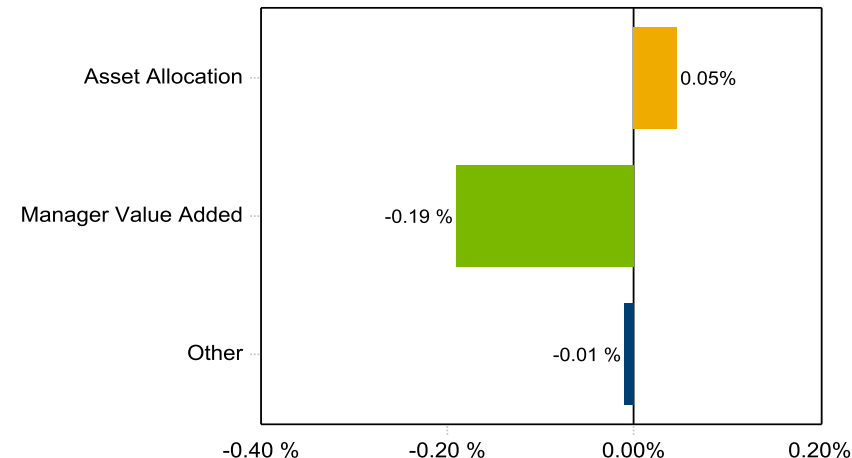
Note: The excess returns shown above may not be a perfect difference between the actual and benchmark returns due entirely to rounding.

5. Total Fund Attribution - Quarter Ending 6/30/2016

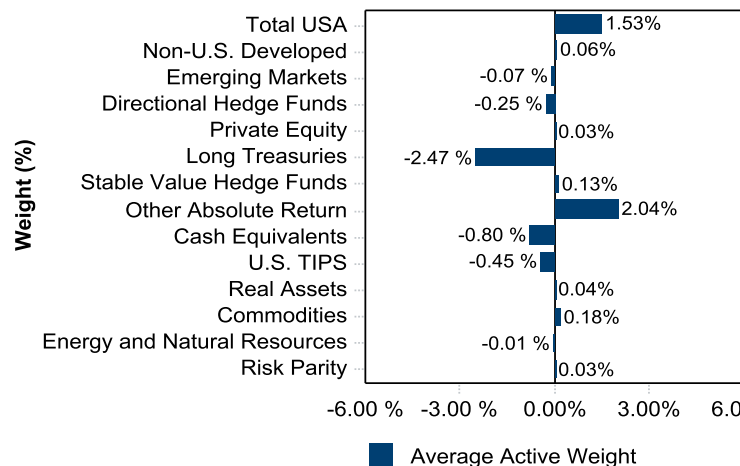
Total Fund Performance



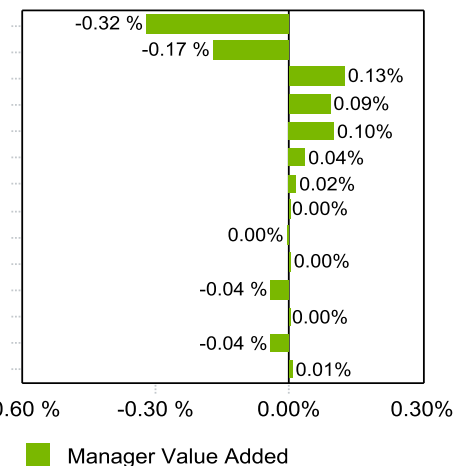
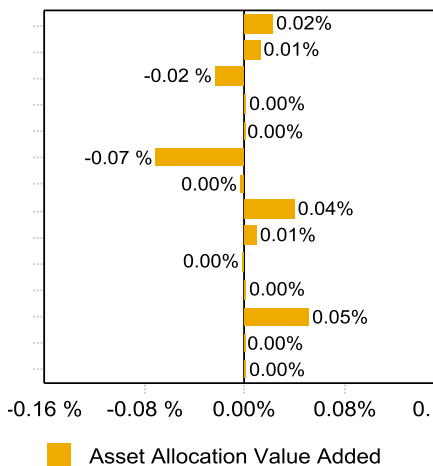
Total Value Added:-0.15 %



Total Asset Allocation:0.05%

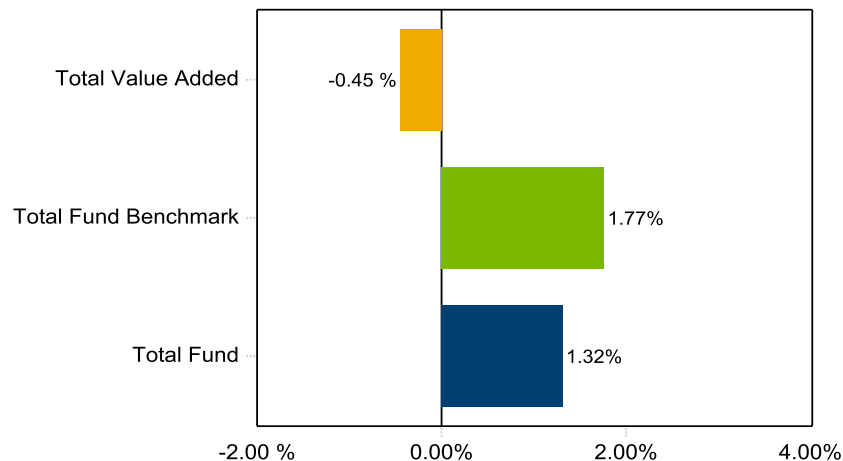


Total Manager Value Added:-0.19 %

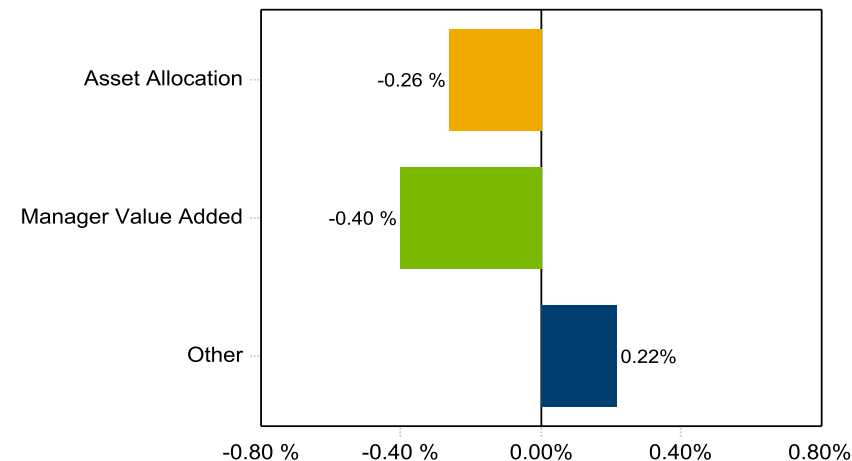


5. Total Fund Attribution – Trailing One Year Ending 6/30/2016

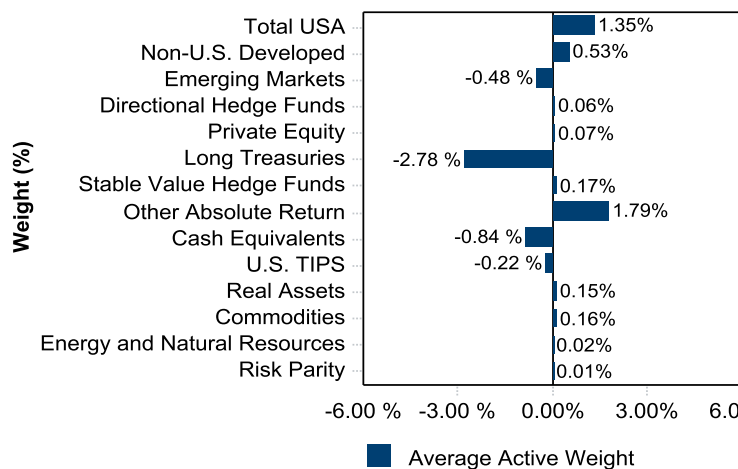
Total Fund Performance



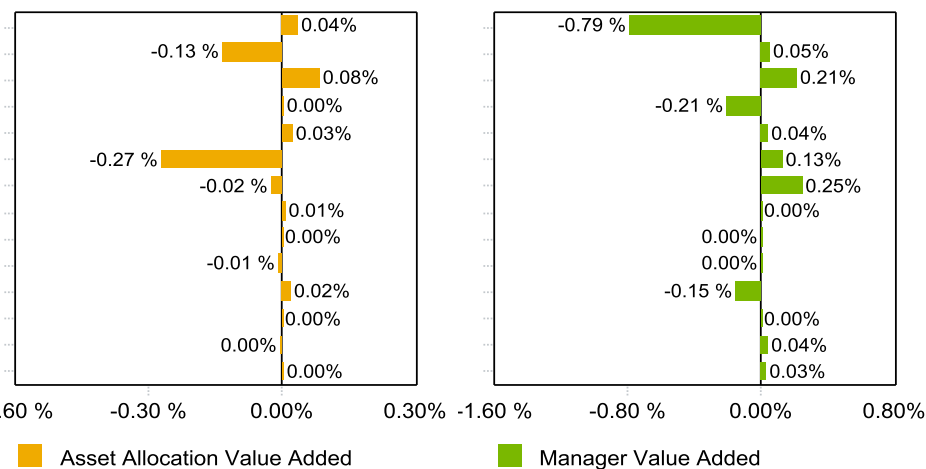
Total Value Added:-0.45 %



Total Asset Allocation:-0.26 %

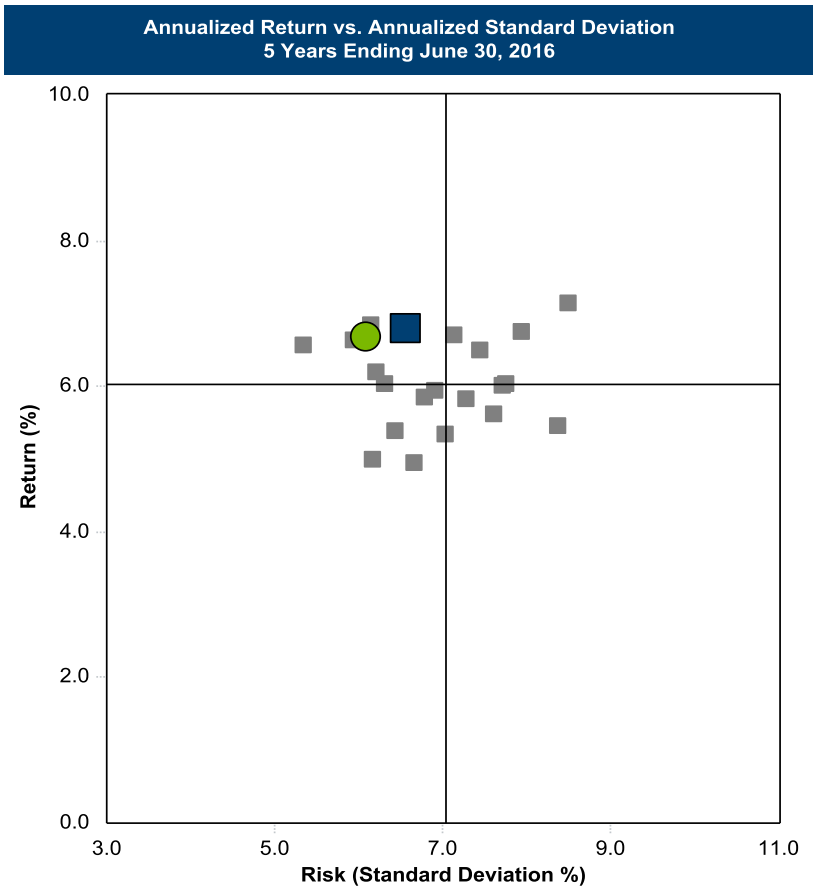
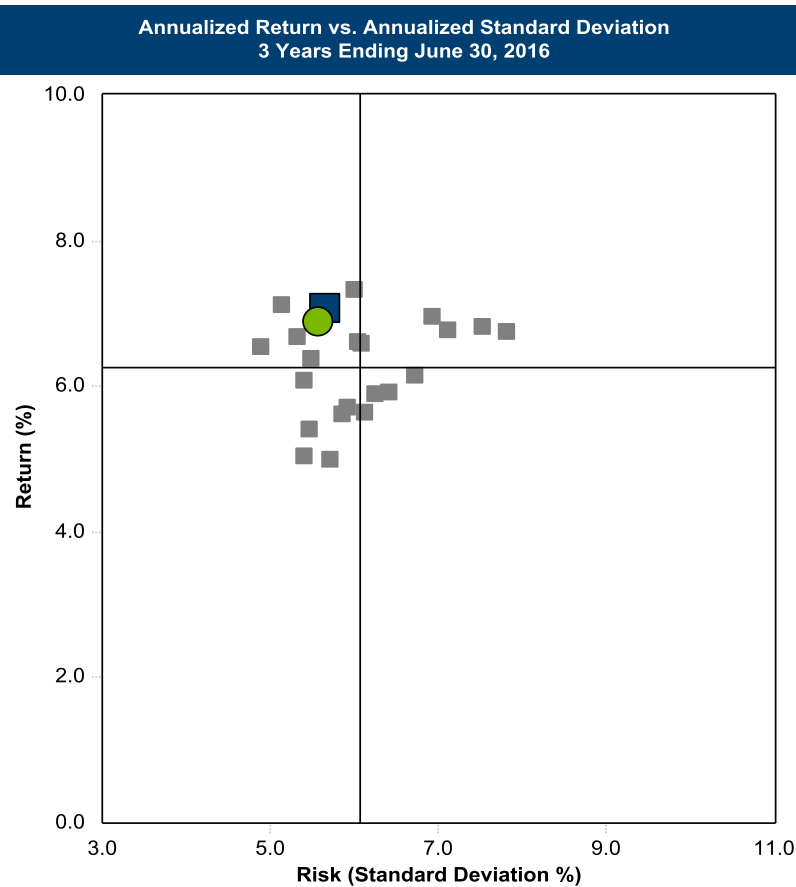


Total Manager Value Added:-0.40 %



6. Risk Profile: Total Fund Risk-Return vs. Peers

All Public Plans > \$10B-Total Fund



Plan Sponsor Peer Group composed of 30 public funds with total assets in excess of \$10B as of 6/30/2016.
An analytic outlining the asset allocation of the peer portfolios has been included in the appendix of this report.

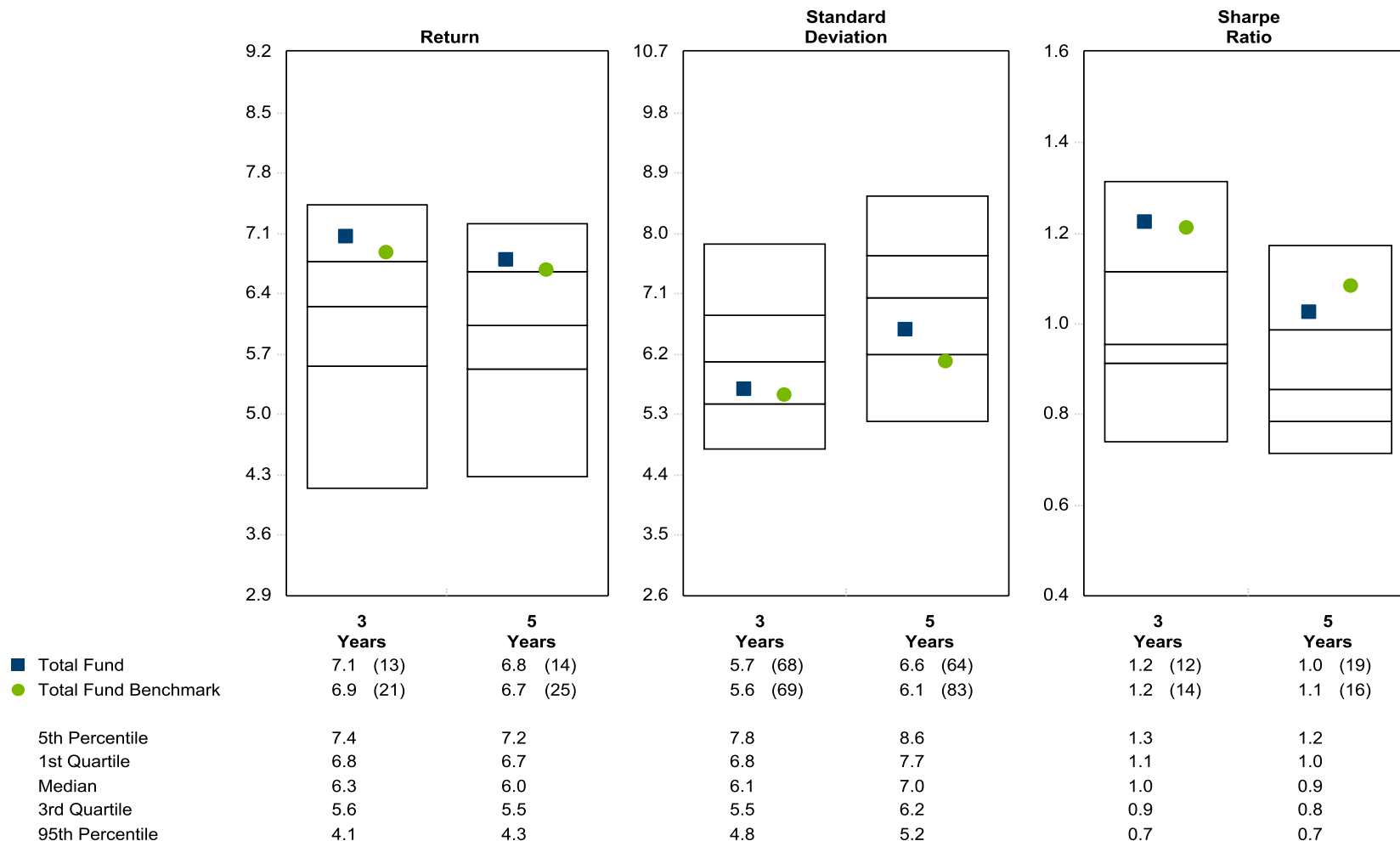
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Investment advice and consulting services provided by Aon Hewitt Investment Consulting, Inc., an Aon Company.

6. Risk Profile: Trailing 3-Year and 5-Year Risk Metrics Peer Comparison

Total Fund vs. All Public Plans > \$10B



Plan Sponsor Peer Group composed of 30 public funds with total assets in excess of \$10B as of 6/30/2016.
An analytic outlining the asset allocation of the peer portfolios has been included in the appendix of this report.

7. Global Equity: Performance Summary Ending 6/30/2016

	Second Quarter	Year to Date	One Year	Three Years	Five Years
<u>Total Global Equity</u>	0.5%	0.7%	-4.2%	6.2%	5.5%
Global Equity Benchmark	0.4	1.5	-3.5	5.9	5.0
<i>Difference</i>	+0.1	-0.8	-0.7	+0.3	+0.5
<u>Total U.S. Equity</u>	1.2	1.6	-1.5	9.1	9.9
Total U.S. Equity Benchmark	2.8	3.7	2.3	11.3	11.5
<i>Difference</i>	-1.6	-2.1	-3.8	-2.2	-1.6
<u>Non-U.S. Equity</u>	-0.6	-0.6	-9.6	1.6	0.2
Non-U.S. Benchmark	-0.3	0.9	-10.5	0.6	-0.7
<i>Difference</i>	-0.3	-1.5	+0.9	+1.0	+0.9
<u>Non-U.S. Developed</u>	-2.3	-5.5	-9.8	3.2	2.6
MSCI EAFE + Canada	-1.1	-3.0	-9.8	1.9	1.2
<i>Difference</i>	-1.2	-2.5	+0.0	+1.3	+1.4
<u>Emerging Markets</u>	1.9	7.1	-10.0	-0.6	-2.7
MSCI Emerging Markets	0.7	6.4	-12.1	-1.6	-3.8
<i>Difference</i>	+1.2	+0.7	+2.1	+1.0	+1.1

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

7. Global Equity: Performance Summary Ending 6/30/2016 (cont'd)

	Second Quarter	Year to Date	One Year	Three Years	Five Years
Directional Hedge Funds	2.9%	-2.9%	-9.2%	1.2%	--
HFRI Fund of Funds Composite Index	0.6	-2.6	-5.4	1.9	--
<i>Difference</i>	+2.3	-0.3	-3.8	-0.7	--
Total Public Equity	0.5	0.2	-6.2	4.7	4.1
Public Equity Benchmark	1.0	1.8	-5.0	5.0	4.2
<i>Difference</i>	-0.5	-1.6	-1.2	-0.3	-0.1
Total Private Equity	0.4	2.7	4.7	12.8	12.4
Private Equity Benchmark	-0.4	1.7	4.1	9.9	9.2
<i>Difference</i>	+0.8	+1.0	+0.6	+2.9	+3.2

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

8. Stable Value: Performance Summary Ending 6/30/2016

	Second Quarter	Year to Date	One Year	Three Years	Five Years
Total Stable Value	4.8%	11.3%	15.5%	9.7%	8.8%
Total Stable Value Benchmark	4.7	10.2	12.7	8.0	8.3
<i>Difference</i>	+0.1	+1.1	+2.8	+1.7	+0.5
Long Treasuries	6.8	17.2	20.6	11.7	11.3
Treasury Benchmark	6.4	15.1	19.3	10.5	10.3
<i>Difference</i>	+0.4	+2.1	+1.3	+1.2	+1.0
Stable Value Hedge Funds	0.9	0.6	2.5	4.2	3.1
Hedge Funds Benchmark	0.5	-1.6	-3.3	1.9	2.9
<i>Difference</i>	+0.4	+2.2	+5.8	+2.3	+0.2
Other Absolute Return	3.6	6.4	6.2	10.7	12.3
Other Absolute Return Benchmark	0.7	1.3	2.5	2.3	2.4
<i>Difference</i>	+2.9	+5.1	+3.7	+8.4	+9.9
Cash Equivalents	0.1	0.2	1.5	2.9	2.1
Cash Benchmark	0.1	0.1	0.2	0.1	0.1
<i>Difference</i>	+0.0	+0.1	+1.3	+2.8	+2.0

Note: Performance of Cash Equivalents is shown net of fees paid to TRS Strategic Partners

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

9. Real Return: Performance Summary Ending 6/30/2016

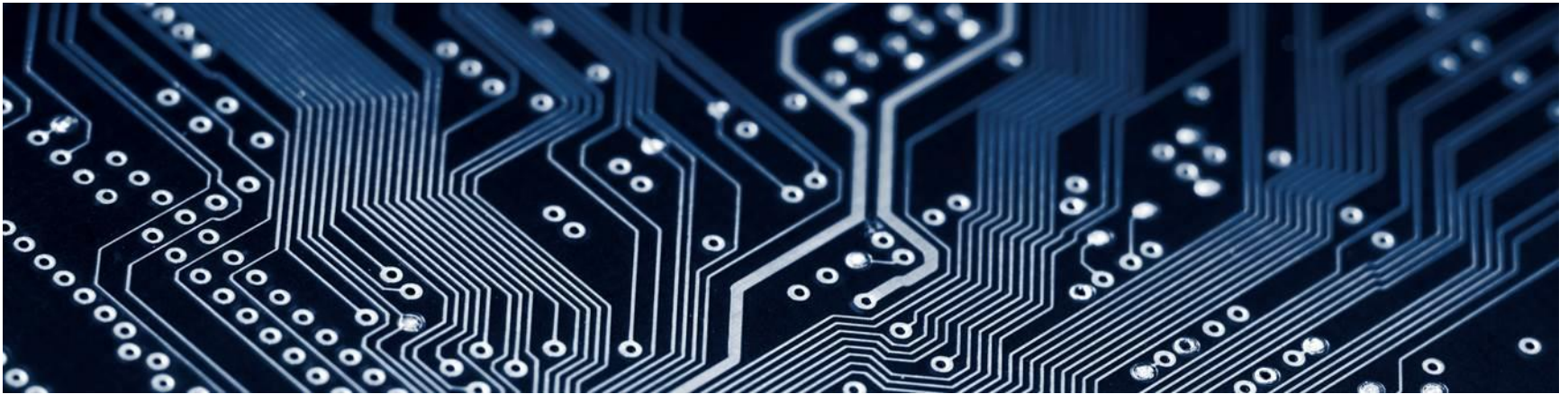
	Second Quarter	Year to Date	One Year	Three Years	Five Years
Total Real Return	1.5%	4.6%	7.0%	8.0%	7.7%
Real Return Benchmark	1.6	4.0	7.5	8.0	8.3
<i>Difference</i>	<i>-0.1</i>	<i>+0.6</i>	<i>-0.5</i>	<i>+0.0</i>	<i>-0.6</i>
TIPS	1.8	6.4	4.4	2.4	2.7
U.S. TIPS Benchmark	1.7	6.2	4.4	2.3	2.6
<i>Difference</i>	<i>+0.1</i>	<i>+0.2</i>	<i>+0.0</i>	<i>+0.1</i>	<i>+0.1</i>
Real Assets	1.7	5.5	11.7	12.8	12.2
Real Asset Benchmark	2.0	5.1	12.6	12.6	12.2
<i>Difference</i>	<i>-0.3</i>	<i>+0.4</i>	<i>-0.9</i>	<i>+0.2</i>	<i>+0.0</i>
Energy and Natural Resources	-3.2	-8.5	-16.4	--	--
Energy and Natural Resources Benchmark	-1.0	-9.9	-18.7	--	--
<i>Difference</i>	<i>-2.2</i>	<i>+1.4</i>	<i>+2.3</i>	<i>--</i>	<i>--</i>
Commodities	37.7	69.1	21.8	-11.5	-16.9
Commodities Benchmark	12.7	9.9	-26.1	-19.8	-14.0
<i>Difference</i>	<i>+25.0</i>	<i>+59.2</i>	<i>+47.9</i>	<i>+8.3</i>	<i>-2.9</i>

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

10. Risk Parity: Performance Summary Ending 6/30/2016

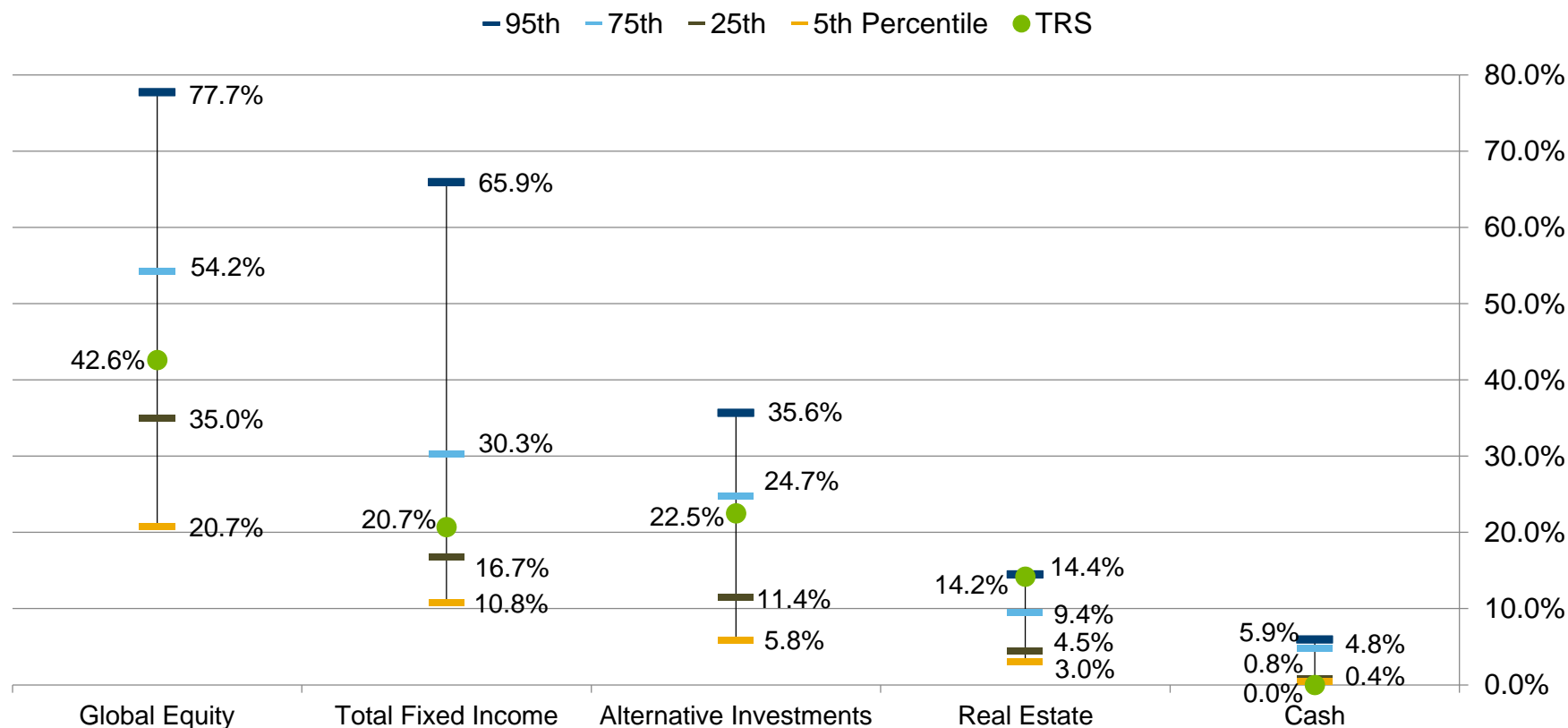
	Second Quarter	Year to Date	One Year	Three Years	Five Years
<u>Total Risk Parity</u>	6.2%	11.3%	2.3%	5.6%	--
Risk Parity Benchmark	5.9	10.9	1.2	3.0	--
<i>Difference</i>	+0.3	+0.4	+1.1	+2.6	--

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.



Appendix – Supplemental Reporting

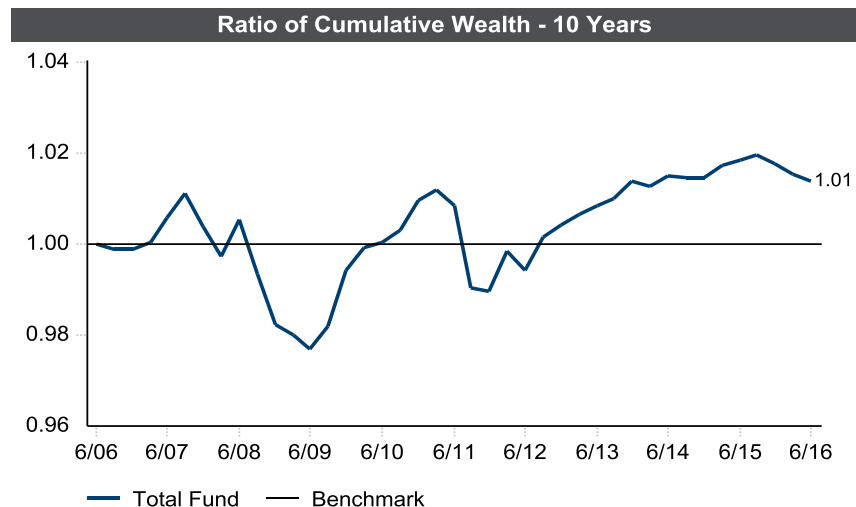
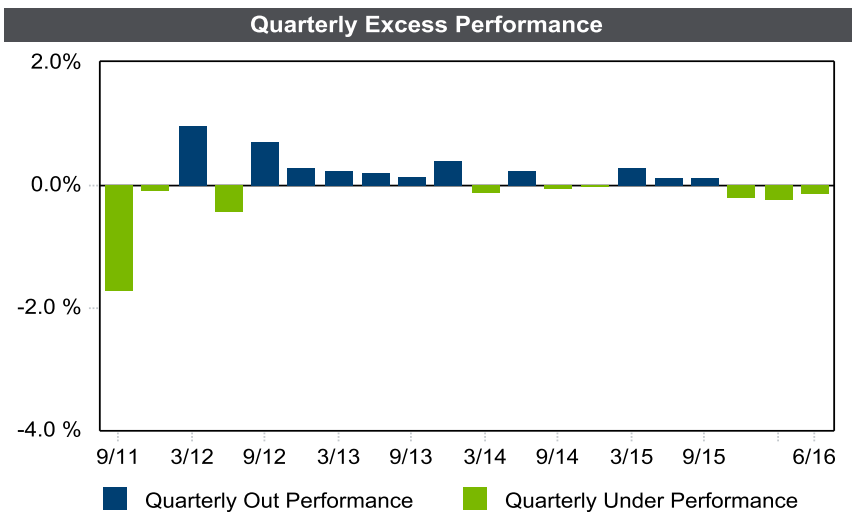
TRS Commitment Levels vs. Peers (>\$10 Billion)



- The chart above depicts the asset allocation of peer public funds with assets greater than \$10 billion.
 - The ends of each line represent the 95th and 5th percentile of exposures, the middle light blue and grey lines represent the 25th and 75th percentile of exposures, and the green dot represents TRS exposure.

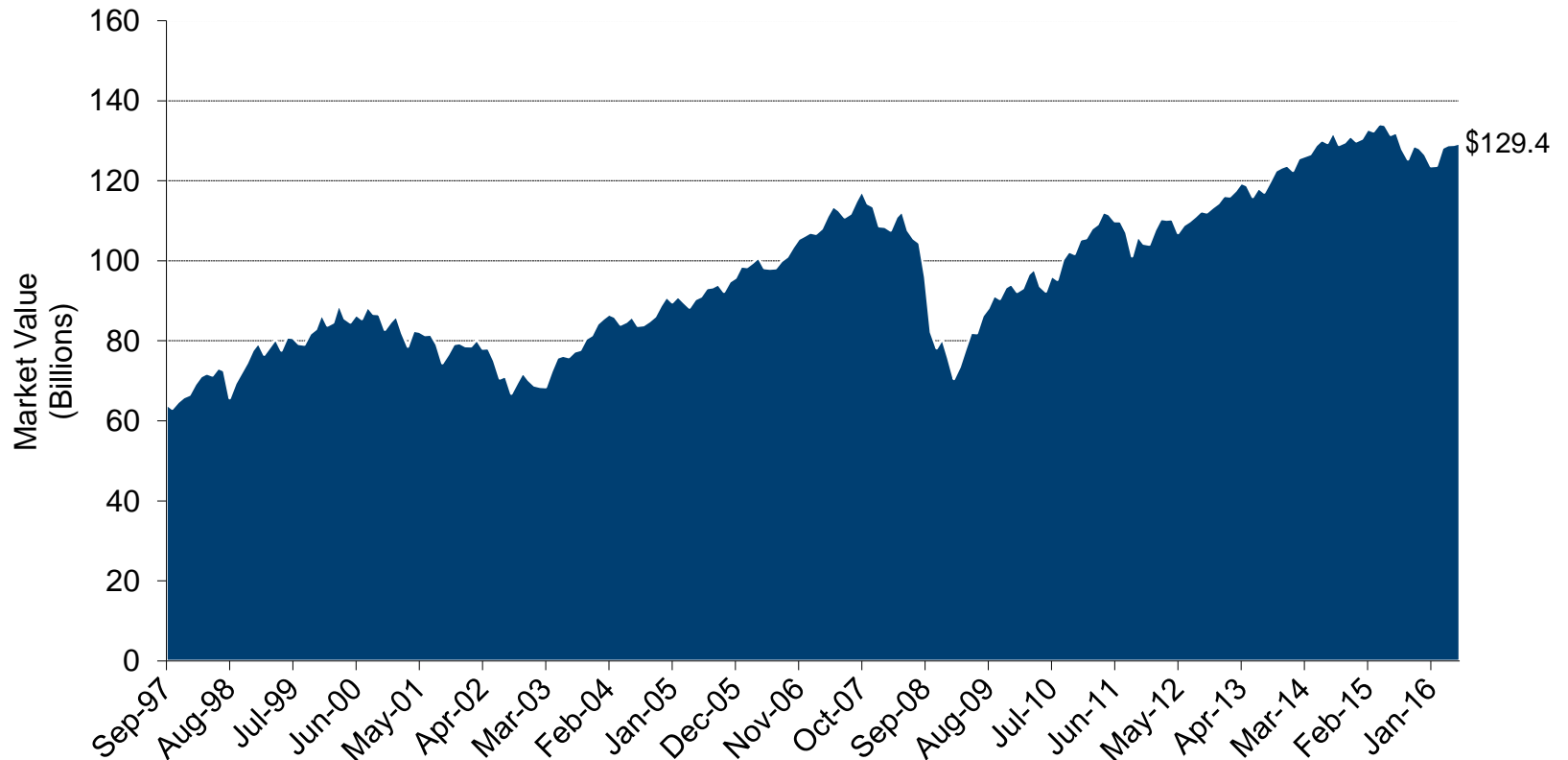
Historical Excess Performance Ending 6/30/2016

Quarterly and Cumulative Excess Performance Total Fund vs. Total Fund Benchmark



TRS Asset Growth

Total Fund Historical Growth (September 1997 - June 2016)



External Manager Program: Public Equity Performance as of 6/30/2016

	Allocation (\$ in billions)	Second Quarter	Year to Date	One Year	Three Years
EP Total Global Equity	\$29.6	1.1%	0.9%	-6.7%	3.8%
EP Global Equity Benchmark	--	0.9	1.7	-5.2	4.5
<i>Difference</i>	--	+0.2	-0.8	-1.5	-0.7
EP U.S.A.	\$5.8	2.1	4.0	-1.7	8.5
EP U.S.A. Benchmark	--	2.8	3.7	2.3	11.2
<i>Difference</i>	--	-0.7	+0.3	-4.0	-2.7
EP Non-U.S. Developed	\$5.2	-2.4	-5.6	-8.4	3.7
MSCI EAFE + Canada Index	--	-1.1	-3.0	-9.8	1.9
<i>Difference</i>	--	-1.3	-2.6	+1.4	+1.8
EP Emerging Markets	\$8.1	2.3	7.4	-9.8	-1.2
MSCI Emerging Markets Index	--	0.7	6.4	-12.1	-1.6
<i>Difference</i>	--	+1.6	+1.0	+2.3	+0.4
EP World Equity	\$5.2	0.0	-1.4	-5.7	5.3
EP World Equity Benchmark	--	1.1	1.4	-3.4	6.2
<i>Difference</i>	--	-1.1	-2.8	-2.3	-0.9
EP Directional Hedge Funds	\$5.3	2.9	-2.9	-9.2	1.4
HFRI Fund of Funds Composite Index	--	0.6	-2.6	-5.4	1.9
<i>Difference</i>	--	+2.3	-0.3	-3.8	-0.5

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

External Manager Program: Stable Value/Total Program Performance as of 6/30/2016

	Allocation (\$ in billions)	Second Quarter	Year to Date	One Year	Three Years
EP Total Stable Value	\$5.6	1.1%	0.9%	2.8%	5.0%
EP Stable Value Benchmark	--	0.5	-1.5	-3.2	1.9
<i>Difference</i>	--	+0.6	+2.4	+6.0	+3.1
EP Stable Value Hedge Funds	\$5.5	0.9	0.6	2.5	4.2
EP Stable Value Hedge Funds Benchmark	--	0.5	-1.6	-3.3	1.9
<i>Difference</i>	--	+0.4	+2.2	+5.8	+2.3
EP Absolute Return	\$0.1	7.1	11.0	15.8	24.9
EP Absolute Return Benchmark	--	0.7	1.3	2.5	2.3
<i>Difference</i>	--	+6.4	+9.7	+13.3	+22.6
Total External Public Program	\$35.2	1.1	0.8	-5.4	4.1
EP External Public Benchmark	--	0.8	1.2	-5.0	4.1
<i>Difference</i>	--	+0.3	-0.4	-0.4	+0.0

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

Public Strategic Partnership Program (SPN): Performance Summary as of 6/30/2016

	Allocation (\$ in billions)	Second Quarter	Year to Date	One Year	Three Years
Public Strategic Partnership	\$6.5	1.8%	4.1%	-0.5%	6.1%
Public SPN Benchmark	--	2.3	5.4	1.3	6.3
<i>Difference</i>	--	-0.5	-1.3	-1.8	-0.2
Blackrock	\$1.6	1.6%	4.2%	0.9%	7.3%
J.P. Morgan	\$1.7	2.7%	4.8%	1.1%	6.9%
Neuberger Berman	\$1.6	1.7%	3.8%	-2.1%	5.0%
Morgan Stanley	\$1.6	1.1%	3.6%	-2.1%	5.2%

- The Public SPNs in aggregate underperformed the benchmark during the second quarter as well as during the trailing one and three-year period
 - Two of the managers, BlackRock and J.P. Morgan have 3-year returns above that of the benchmark while Neuberger Berman and Morgan Stanley trail the benchmark.

Note: The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material. Returns are shown on a before-fees basis.

Benchmarks

- Total Fund Performance Benchmark – 19.1% MSCI U.S.A. IMI, 9.8% MSCI Emerging Markets, 14.1% MSCI EAFE plus Canada, 4.4% HFRI FoF Composite Index, 11.9% State Street Private Equity (1 qtr lagged), 12.1% BC Long Term Treasury, 4.0% HFRI FoF Conservative Index, 1.0% Citigroup 3 Mo T-Bill, 4.1% BC U.S. TIPS, 14.1% NCREIF ODCE (1 qtr lagged), 1.9% Energy and Natural Resources Benchmark, and 3.6% Risk Parity Benchmark.
- Global Equity Benchmark– 23.7% MSCI EAFE plus Canada, 32.2% MSCI U.S.A. IMI, 16.5% MSCI Emerging markets index, 7.2% HFRI FoF Composite Index, and 20.4% State Street Private Equity (1 qtr lagged)
 - U.S. Equity Benchmark - MSCI U.S.A. IMI Index
 - Emerging Markets Equity Benchmark – MSCI Emerging Markets
 - Non-US Developed Equity Benchmark– MSCI EAFE plus Canada
 - Directional Hedge Funds – HFRI Fund of Funds (FoF) Composite Index
 - Private Equity Benchmark - State Street Private Equity (1 qtr lagged)

Note: Returns and market values (based on account level) reported are provided by State Street. Net additions/withdrawals are reported on a gross (adjusted for expenses) total fund level as provided by State Street. All rates of return for time periods greater than one year are annualized. The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

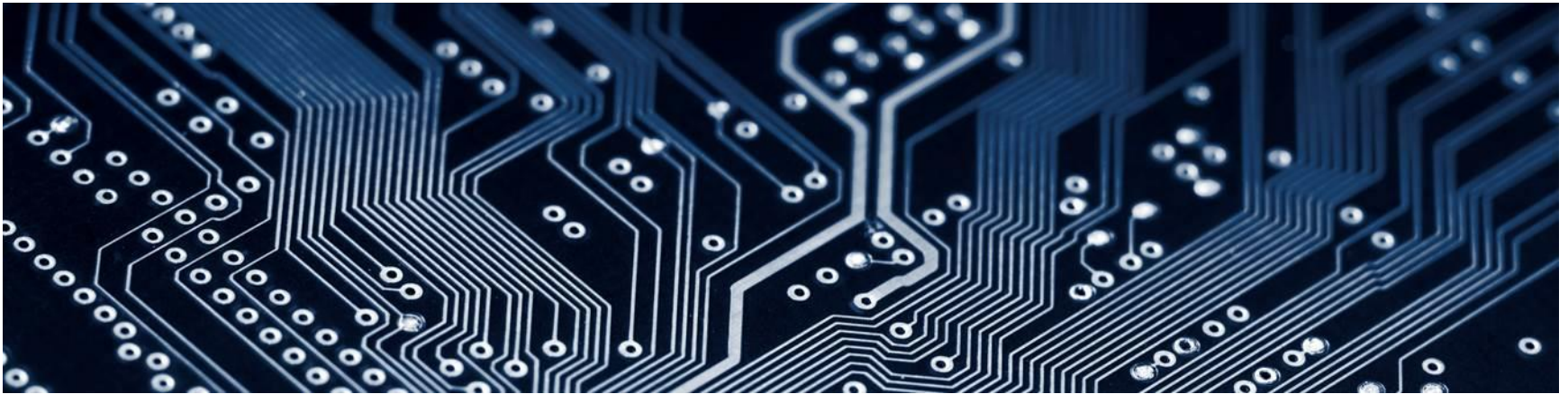
Benchmarks (cont'd)

- Stable Value Benchmark – 23.4% HFRI FoF Conservative Index, 70.7% Barclays Long Term Treasury, and 5.9% Citigroup 3 mo T-Bill.
 - US Treasuries Benchmark – Barclays Long Term Treasury
 - Stable Value Hedge Funds – HFRI Fund of Funds (FoF) Conservative Index
 - Other Absolute Return Benchmark - 3 Mo LIBOR + 2%
 - Cash Benchmark - Citigroup 3 Mo T-Bill
- Real Return Benchmark – 20.3% Barclays U.S. TIPS, 70.2% NCREIF ODCE, and 9.4% Energy & Natural Resources Benchmark
 - US TIPS Benchmark – Barclays U.S. TIPS Index
 - Real Assets Benchmark – NCREIF ODCE (1qtr lagged)
 - Energy and Natural Resources – 75% Cambridge Associates Natural Resources (reweighted) / 25% quarterly Seasonally-Adjusted Consumer Price Index (1qtr lagged)
 - Commodities Benchmark – Goldman Sachs Commodity Index

Note: Returns and market values (based on account level) reported are provided by State Street. Net additions/withdrawals are reported on a gross (adjusted for expenses) total fund level as provided by State Street. All rates of return for time periods greater than one year are annualized. The excess returns shown in this presentation may differ from State Street statements due entirely to rounding. These differences are generally within a few basis points and are not material.

Description of Performance Attribution

- A measure of the source of the deviation of a fund's performance from that of its policy benchmark. Each bar on the attribution graph represents the contribution made by the asset class to the total difference in performance. A positive value for a component indicates a positive contribution to the aggregate relative performance. A negative value indicates a detrimental impact. The magnitude of each component's contribution is a function of (1) the performance of the component relative to its benchmark, and (2) the weight (beginning of period) of the component in the aggregate.
- The individual Asset Class effect, also called Selection Effect, is calculated as
$$\text{Actual Weight of Asset Class} \times (\text{Actual Asset Class Return} - \text{Asset Class Benchmark Return})$$
- The bar labeled Allocation Effect illustrates the effect that a Total Fund's asset allocation has on its relative performance. Allocation Effect calculation = $(\text{Asset Class Benchmark Return} - \text{Total Benchmark Return}) \times (\text{Actual Weight of Asset Class} - \text{Target Policy Weight of Asset Class})$.
- The bar labeled Other is a combination of Cash Flow Effect and Benchmark Effect:
 - Cash Flow Effect describes the impact of asset movements on the Total Fund results. Cash Flow Effect calculation = $(\text{Total Fund Actual Return} - \text{Total Fund Policy Return}) - \text{Current Selection Effect} - \text{Current Allocation Effect}$
 - Benchmark Effect results from the weighted average return of the asset classes' benchmarks being different from the Total Funds' policy benchmark return. Benchmark Effect calculation = $\text{Total Fund Policy Return} - (\text{Asset Class Benchmark Return} \times \text{Target Policy Weight of Asset Class})$
- Cumulative Effect
$$\text{Cumulative Effect calculation} = \text{Current Effect } t \times (1 + \text{Cumulative Total Fund Actual Return } t-1) + \text{Cumulative Effect } t-1 \times (1 + \text{Total Fund Benchmark Return } t)$$



Disclaimers and Notes

Disclaimers and Notes

As of June 30, 2016

Disclaimers:

- Please review this report and notify Aon Hewitt Investment Consulting (AHIC) with any issues or questions you may have with respect to investment performance or any other matter set forth herein.
- The client portfolio data presented in this report have been obtained from the custodian. AHIC has compared this information to the investment managers' reported returns and believes the information to be accurate. AHIC has not conducted additional audits and cannot warrant its accuracy or completeness.
- The mutual fund information found in this report is provided by Lipper Inc. and AHIC cannot warrant its accuracy or timeliness.
- Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Notes:

- The rates of return contained in this report are shown on an after-fees basis unless otherwise noted. They are geometric and time weighted. Returns for periods longer than one year are annualized.
- Universe percentiles are based upon an ordering system in which 1 is the best ranking and 100 is the worst ranking.
- Due to rounding throughout the report, percentage totals displayed may not sum up to 100.0%. Additionally, individual fund totals in dollar terms may not sum up to the plan totals.

Tab 16

Teacher Retirement System of Texas



FY 2016 Year End Analysis

Don Green, Chief Financial Officer

Board of Trustees Meeting
September 2016

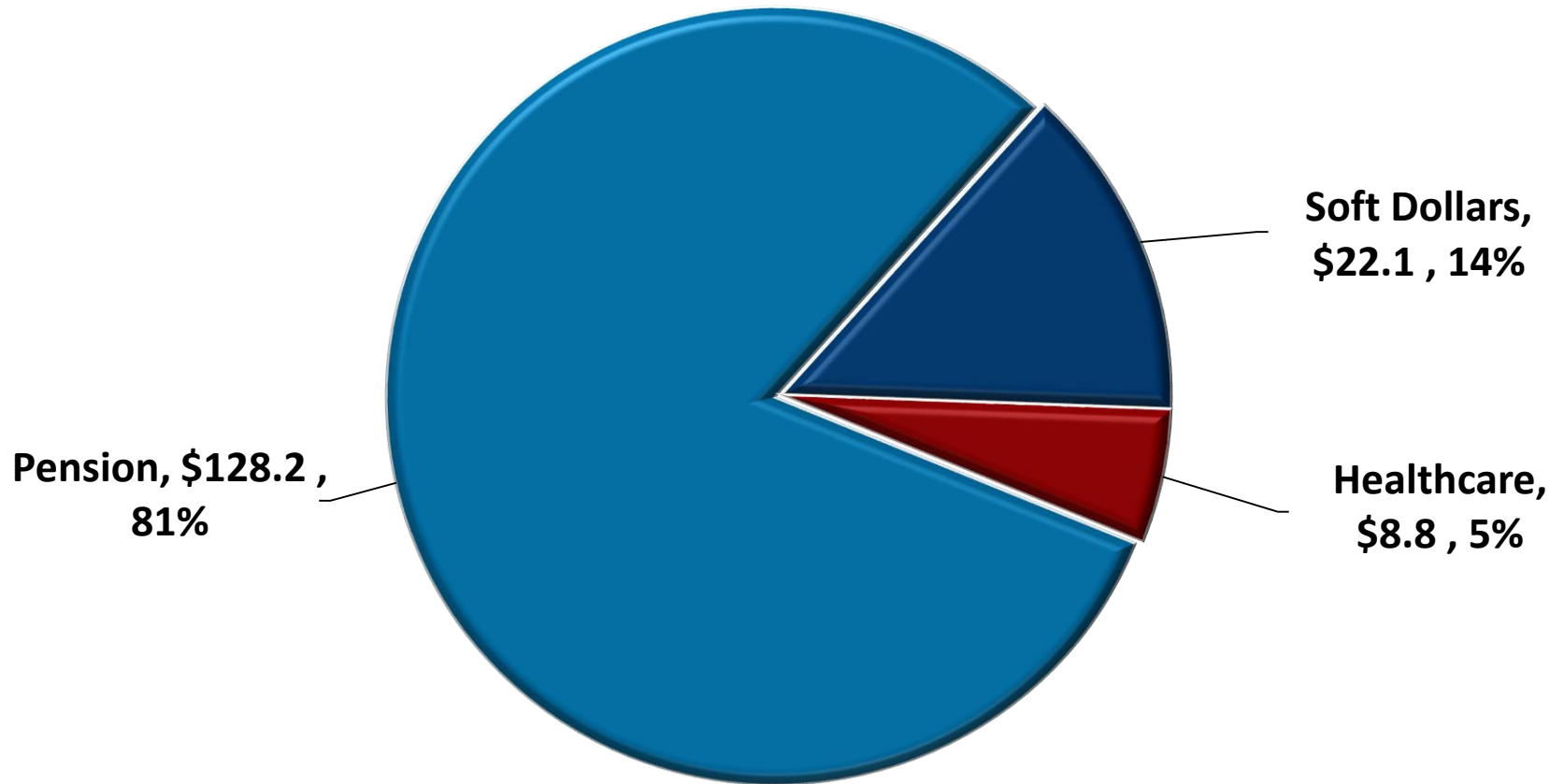


Pension Trust Fund Cash Disbursements

	FY 2015	FY 2016	Variance
September	\$8,329,726	\$8,735,650	\$405,924
October	8,291,727	7,623,816	(\$667,911)
November	5,966,718	8,005,979	\$2,039,262
December	9,042,869	6,801,315	(\$2,241,554)
January	13,819,515	16,545,179	\$2,725,664
February	8,004,871	9,779,078	\$1,774,207
March	7,004,924	9,574,510	\$2,569,585
April	6,971,933	8,176,373	\$1,204,440
May	7,337,151	6,350,361	(\$986,790)
June	7,458,131	8,222,175	\$764,043
July	13,119,761	9,322,996	(\$3,796,764)
August	7,942,097	11,268,839	\$3,326,742
Total	\$103,289,422	\$110,406,272	\$7,116,849



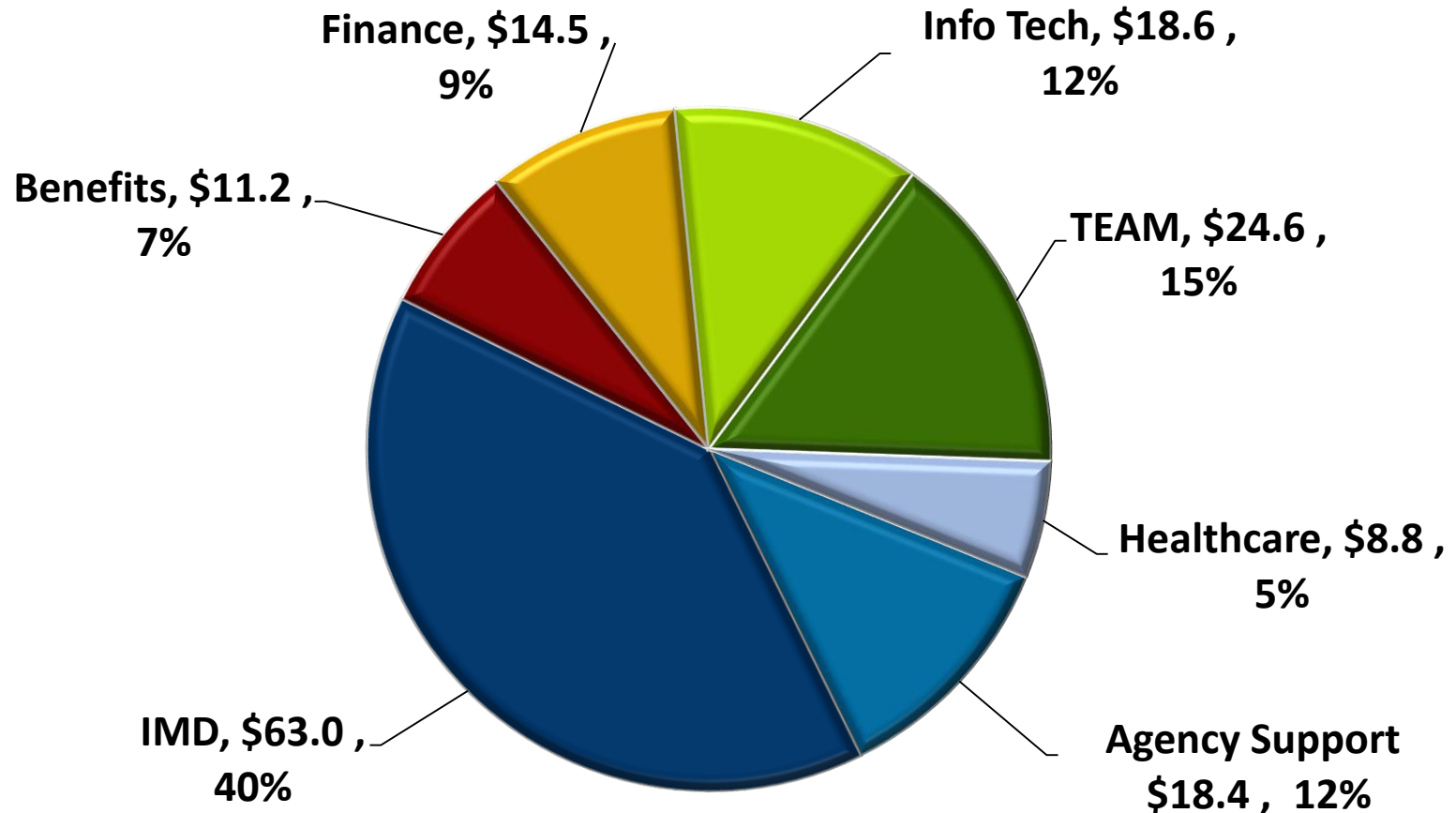
Recap of FY 2016 Budget by Fund



The total operating budget is \$159,169,733 across all funds. Label amounts in millions.



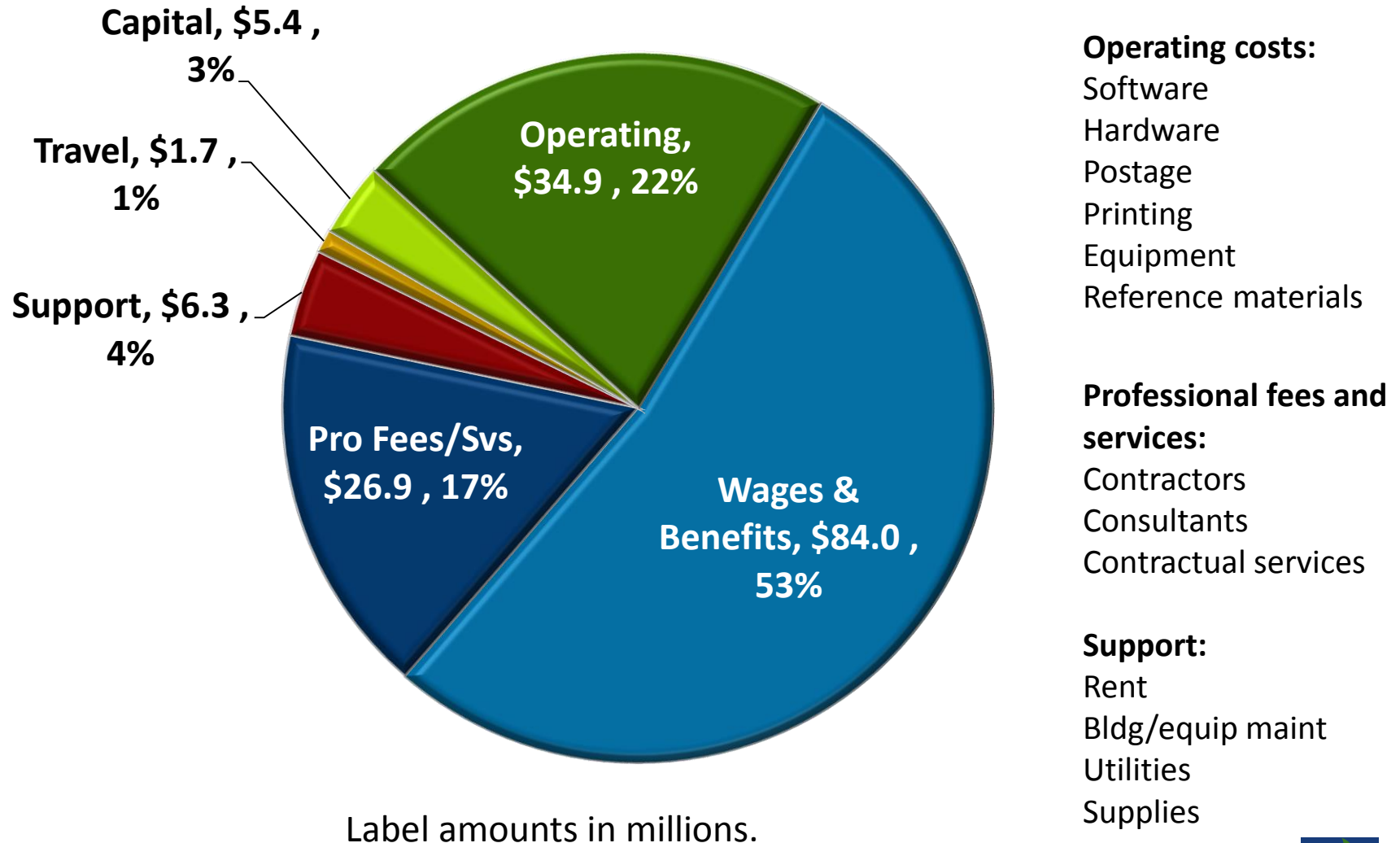
Recap of FY 2016 Budget by Division



The Agency Support Division includes executive, human resources, communications, internal audit, strategic initiatives, risk management and legal. Label amounts in millions.



Recap of FY 2016 Budget by Expense





Summary By Fund

Fund	Budget	Exp/Enc	% Spent	Balance
Pension	103,597,313	88,243,894	85%	15,353,419
TEAM	24,636,163	15,865,139	64%	8,771,024
Soft Dollars	22,137,462	18,723,271	85%	3,414,191
Care	5,325,902	4,835,477	91%	490,425
ActiveCare	3,387,496	2,826,139	83%	561,357
403(b)	85,397	48,108	56%	37,289
Total	159,169,733	130,542,028	82%	28,627,705



Pension Fund

Explanation of Balance	\$15.4 Million	
Salaries/Benefits	\$5.7 M	\$3.2M for incentive compensation; \$1.1M in benefits; \$1.4M in salaries
Professional Fees/Services	\$509 K	\$144K for outside legal counsel; \$365K in consulting services & audit services
Travel	\$460 K	30% of total travel budget
Operating Costs	\$537 K	\$240K in utilities; \$110K in supplies, \$82K in rent and \$105K in bldg. maint
Capital Budget	\$4.5 M	(breakout by project included)
Other Operating Expenses	\$3.7 M	4.0% of total budgeted amount compared to 1.0% last FY



London Office*

Category	Budget	Exp/Enc	% Spent	Balance
Wages/Benefits	627,100	385,794	62%	241,306
Pro Fees and Services	570,000	535,000	94%	35,000
Support Costs	555,111	430,950	78%	124,161
Travel	35,000	13,134	38%	21,866
Soft Dollars (Contractors)	189,500	185,558	98%	3,942
Total	1,976,711	1,550,436	78%	426,275

*These amounts are contained in the previous budget slides and represent 9 months of activity in FY 2016. Includes both TRS and TRICOT direct expenses; excludes indirect expenses (i.e. outside legal counsel costs and non-IMD staff costs).



TEAM

Explanation of Balance	\$8.8 Million	
Salaries/Benefits	\$456 K	\$251K in salary due to vacant positions that were approved but not filled \$205K in related benefits
Professional Fees/Services	\$6 M	FSR; LOB; spending prior year encumbrances, \$7M in FY 2015
Operating Costs	\$2.3 M	\$1.5M in hardware contingency; \$562K for software along with \$238K for staff support funding



Capital Budget (non TEAM)

Item	Budget	Exp/Enc	% Spent	Balance
Investment Systems	370,000	148,879	40.0%	221,121
PC Upgrades	370,000	368,161	99.5%	1,839
Telecom Upgrades	450,000	362,889	80.6%	87,111
Mainframe Upgrades	420,000	0	0%	420,000
Bldg Renovations	500,000	0	0%	500,000
Data Center Generator	600,000	0	0%	600,000
Garage Fire Suppression	1,500,000	0	0%	1,500,000
Sump Pump System	1,200,000	0	0%	1,200,000
Total	5,410,000	879,929	16.3%	4,530,071

* Unexpended balances will be transferred to fiscal year 2017.



Soft Dollar Funding

Explanation of Balance	\$3.4 Million	
SSB Partnership Agreement, Commission Sharing Arrangement (CSA), and Commission Recapture	\$3.4 M	<p>\$3.4 million difference between budget and actual spent is related to contractor staffing and data & systems expenses</p> <p>\$982K is related to SSB partnership agreement, \$1.88M is related to CSA and \$510K is related to Commission Recapture</p> <p>Any unspent revenue for the SSB partnership agreement will carry forward to subsequent fiscal years</p>



Healthcare and Other Trust Funds

Explanation of Balance	\$1.09 Million	
TRS Care Administrative Operations	\$490 K	\$149K for salary and benefits \$341K for consulting services and other support costs
ActiveCare Administrative Operations	\$559 K	\$133K for salary and benefits \$426K for consulting services and other support costs
403(b) Certification Program Administrative Operations	\$37 K	\$37K for salary and benefits

Tab 17

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TEACHER RETIREMENT SYSTEM OF TEXAS
BOARD REPORT
SUMMARY OF DISBURSEMENTS

PAGE 1

	June 1,2016 through August 31,2016		
	NUMBER OF	GROSS	AVERAGE
	PAYMENTS	PAYMENT TOTAL	PAYMENT
Service Retirees	7,625	18,725,845.93	2,455.84
Disability Retirees	222	265,535.05	1,196.10
Survivor Benefits	280	70,250.00	250.89
Survivor Benefit Lump Sum Payment	2,720	16,223,377.99	5,964.47
Life Annuity as Death Settlement	42	80,218.35	1,909.96
60 Monthly Payments as Death Settlement	57	71,817.04	1,259.94
Refund of Deposit as Death Settlement	128	2,328,025.97	18,187.70
Twice Annual Salary as Death Settlement	282	10,096,180.90	35,802.05
Lump Sum DROP Member Payment	3	554,743.50	184,914.50
5 Annual DROP Member Payments			
10 Annual DROP Member Payments			
60 Monthly DROP Member Payments			
120 Monthly DROP Member Payments			
DROP Payments to Beneficiary of Active Member			
12 Month Partial Lump Sum Option Payment	556	18,983,793.48	34,143.51
24 Month Partial Lump Sum Option Payment	311	22,557,191.16	72,531.16
36 Month Partial Lump Sum Option Payment	744	75,053,919.54	100,878.92
Totals:	12,970	165,010,898.91	12,722.50

SUMMARY OF DISBURSEMENTS
Glossary

The Summary of Disbursements on the preceding page provides data related to annuitants added to the payroll during the quarter. Specifically, for each category listed, the data includes: (1) the number of new payment inceptions, (2) the gross total of all new payments, and (3) the average of all payments. The categories are defined as follows:

Service Retirees: Members who have met the eligibility requirements and applied for a monthly service retirement annuity.

Disability Retirees: Members who have met the eligibility requirements, applied and been approved for a monthly disability retirement annuity.

Survivor Benefits: Monthly survivor benefits paid to eligible beneficiaries of deceased active members and retirees.

Survivor Benefit Lump Sum Payment: Single lump-sum survivor benefit, or reduced lump-sum in conjunction with monthly survivor benefit, paid to eligible beneficiaries of deceased active members and retirees.

Life Annuity as Death Settlement: Actuarially reduced monthly life annuity payment to eligible beneficiary of deceased active member. (One of several options which may be payable upon the death of an active member.)

60 Monthly Payments as Death Settlement: Monthly standard annuity payment, for a period of 60 months, to eligible beneficiary of deceased active member.

Refund of Deposit as Death Settlement: Payment of accumulated contributions and interest to beneficiary of deceased active member.

Twice Annual Salary as Death Settlement: Lump-sum payment equal to twice the member's annual salary rate, not to exceed \$80,000, paid to beneficiary of deceased active member.

Lump Sum DROP Member Payment: One-time, lump-sum distribution, at retirement, of member's DROP account balance. (One of several DROP distribution options that may be elected by a retiree.)

5 Annual DROP Member Payments: Initial or subsequent annual DROP payment under this DROP distribution election.

10 Annual DROP Member Payments: Initial or subsequent annual DROP payment under this DROP distribution election.

60 Monthly DROP Member Payments: Initial or subsequent monthly DROP payment under this DROP distribution election.

120 Monthly DROP Member Payments: Initial or subsequent monthly DROP payment under this DROP distribution election.

DROP Payments to Beneficiary of Active Member: Lump-sum distribution of DROP account balance to beneficiary of deceased active member who participated in DROP prior to death.

12 Month Partial Lump Sum Option Payment: Lump-sum payment to retiree who elected a partial lump-sum option (PLSO) distribution equal to 12 months of standard annuity.

24 Month Partial Lump Sum Option Payment: Lump-sum payment to retiree who elected a partial lump-sum option (PLSO) distribution equal to 24 months of standard annuity.

36 Month Partial Lump Sum Option Payment: Lump-sum payment to retiree who elected a partial lump-sum option (PLSO) distribution equal to 36 months of standard annuity.

**TEACHER RETIREMENT SYSTEM OF TEXAS
MEDICAL BOARD MEETING
OPEN SESSION AGENDA
May 10, 2016**

The Medical Board of the Teacher Retirement System of Texas met at 12:00 p.m. Tuesday, May 10, 2016 in the TRS offices.

The following members were present:

Dr. Alice Cox, Fredericksburg
Dr. James Allen Reinartz, Austin
Dr. Larry Wilson, Austin

Others present:

Ms. Barbie Pearson, Chief Benefit Officer
Mr. Adam Fambrough, Manager, Benefit Processing, TRS
Mr. Brian Zunker, Assistant Manager, Benefit processing, TRS
Ms. Beckie Smith, Legal Services, TRS
Ms. Denise Hope, Benefit Consultant, Benefit Processing, TRS

Dr. Wilson called the meeting to order at 12:16 p.m.

1. REVIEW OF MINUTES FROM THE MARCH 1, 2016 MEETING.

The minutes of the March 1, 2016 meeting were reviewed and approved.

2. CONSIDERATION OF FILES OF TRS MEMBERS WHO ARE CURRENTLY APPLYING FOR DISABILITY RETIREMENT AND THE FILES OF DISABILITY RETIREES WHO ARE DUE A RE-EXAMINATION REPORT.

Dr. Wilson announced that the Medical Board would enter into Executive Session, as provided by section 551.078 of the Texas Government Code, to deliberate medical information of individual members and retirees.

The Board entered into closed session at 12:21 p.m.
The meeting was re-opened at 12:45 p.m.

3. REVIEW OF DISABILITY STATISTICS.

**PG. 2 TRS Medical Board Minutes
May 10, 2016**


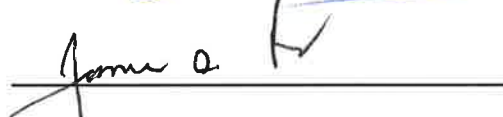

4. DISCUSSION OF ITEMS TO BE PLACED ON FUTURE AGENDAS.

Dr. Wilson Will do a presentation on the Zika virus.

5. DISCUSSION OF THE DATE OF NEXT BOARD MEETING.

The next Medical Board meeting was scheduled for July 12, 2016.
The meeting was adjourned at 12:56 p.m.

**Dr. Larry Wilson, Chairman
TRS Medical Board**

Attest:


Denise Hope

**TEACHER RETIREMENT SYSTEM OF TEXAS
MEDICAL BOARD MEETING
OPEN SESSION AGENDA
JULY 12, 2016**

The Medical Board of the Teacher Retirement System of Texas met at 12:00 p.m. Tuesday, July 12, 2016 in the TRS offices.

The following members were present:

Dr. Alice Cox, Fredericksburg
Dr. James Allen Reinarz, Austin
Dr. Larry Wilson, Austin

Others present:

Ms. Barbie Pearson, Chief Benefit Officer
Mr. Adam Fambrough, Manager, Benefit Processing, TRS
Ms. Beckie Smith, Legal Services, TRS
Ms. Denise Hope, Benefit Consultant, Benefit Processing, TRS

Dr. Wilson called the meeting to order at 12:11 p.m.

1. REVIEW OF MINUTES FROM THE MAY 10, 2016 MEETING.

The minutes of the May10, 2016 meeting were reviewed and approved with two corrections for spelling. The minutes were revised to show Ms. Beckie Smith under others present and Zika virus under Item 4.

2. CONSIDERATION OF FILES OF TRS MEMBERS WHO ARE CURRENTLY APPLYING FOR DISABILITY RETIREMENT AND THE FILES OF DISABILITY RETIREES WHO ARE DUE A RE-EXAMINATION REPORT.

Dr. Wilson announced that the Medical Board would enter into Executive Session, as provided by section 551.078 of the Texas Government Code, to deliberate medical information of individual members and retirees.

The Board entered into closed session at 12:14 p.m.
The meeting was re-opened at 12:31 p.m.

3. REVIEW OF DISABILITY STATISTICS.

PG. 2 TRS Medical Board Minutes
July 12, 2016


4. DISCUSSION OF ITEMS TO BE PLACED ON FUTURE AGENDAS.

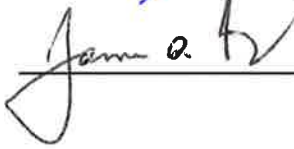
Dr. Wilson gave a presentation on the Zika virus.

5. DISCUSSION OF THE DATE OF NEXT BOARD MEETING.

The next Medical Board meeting was scheduled for September 13, 2016.
The meeting was adjourned at 1:04 p.m.

Dr. Larry Wilson, Chairman
TRS Medical Board





Attest:



Denise Hope

Tab 18

TO: TRS Board of Trustees
Brian Guthrie, Executive Director
Ken Welch, Deputy Director

FROM: Howard Goldman, Director of Communications

DATE: September 23, 2016

SUBJECT: Website Redesign Project

On Monday, Sept. 26, TRS will launch its newly designed website – our first major redesign in 10 years. As part of the TEAM Program, the project has been managed by the Project Management Office and a Project Core Team representing various parts of the agency.

The project formally began when TRS contracted in November 2015 with Catapult Systems, Inc. to design the new site. Since that time, we have carefully evaluated our stakeholder needs, including those of retirees, active public and higher education members, reporting entities, TRS employees, education associations, business partners, government officials, persons with disabilities, and the press.

We have also undertaken a separate but related website accessibility project with Knowbility, a firm that supports the independence of persons with disabilities by promoting the use of accessible information technology. With Knowbility's assistance, we have developed a website accessibility plan, conducted accessibility training for website content owners, and remediated heavily used website documents to make them accessible for persons with disabilities.

The most notable features of our new website include the following:

- Enhanced navigation (Megamenu)
- Drop-down "I want to" menu
- More robust search feature
- More attractive, inviting design
- Responsive design customized for different devices (smart phones, tablets, desktops)
- Information now accessible by role as well as by topic area
- More content written in plain English
- Improved accessibility for persons with disabilities
- More videos and photos
- More stories featuring our members and retirees

- Enhanced content for several sections of the site (investments, human resources, financial awareness, health care awareness, improved communication with stakeholders, etc.)
- Represents the first time that the TRS will have a content management system – using SharePoint to leverage skills and experience already in-house

Our September 26 launch follows a comprehensive outreach plan that has included the following:

- a twenty-second teaser video promoting the new website
- a two-minute online video tour of the new site
- frequently asked questions and answers about the new website
- a 10-day in-house countdown to launch
- in-house posters
- email messages sent to a variety of external audiences
- social media posts

We are pleased to report that this project will be completed on time and within budget thanks to the hard work of dedicated employees from throughout TRS and highly collaborative contractors.

Our new site will be launched with an online survey to gauge satisfaction from our members and other visitors, and we look forward to sharing the results with you at your next meeting.