

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

AGENDA

February 22, 2017 – 10:00 a.m.

February 23, 2017 – 8:30 a.m.

February 24, 2017 – 8:30 a.m.

TRS East Building, 5th Floor, Boardroom

*All or part of the February 22-24, 2017, 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 and the presiding officer 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 Wednesday, February 22, 2017, or during the meeting on the following days, February 23-24, 2017, beginning at the time and place specified on this agenda.

The open portions of the February 22-24, 2017, 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 Board administrative matters, including the following– David Kelly.
 - A. Consider a memorial resolution for Anita Smith Palmer.
 - B. Approval of the December 1-2, 2016 proposed meeting minutes
 - C. Excusing Board member absences from the December 1-2, 2016, Board meeting.
 - D. Setting, rescheduling, or canceling future Board meetings.
3. Provide an opportunity for public comment – David Kelly.
4. Receive an overview of the Board meeting agenda and theme – Brian Guthrie.
5. Receive an update on the TEAM Program and schedule – Brian Guthrie and Chet Henry.

6. Review and discuss the Executive Director's report on the following matters – Brian Guthrie:
 - A. Review Strategic Plan and Executive Director's Goals.
 - B. Discuss TRS history, operations, and workforce overview.
 - C. Reviewing Board Governance
 - D. Board operational matters, including a review of upcoming Board Elections and Board Training Calendar.
 - E. Preview draft agendas for upcoming Board meetings.
7. Receive the report of the Chief Benefit Officer and consider related action, including – Barbie Pearson:
 - A. Approve minutes of Medical Board meetings
 - B. Approve the list of members qualified for retirement for September through November.
8. Receive a presentation on the development of the Plan Management Policy – Rebecca Merrill; Joe Newton, Gabriel, Roeder, Smith & Co.
9. Receive a report on Communications Agency Plan – Howard Goldman and Rhonda Price.
10. Receive a presentation on Fiduciary Duties – John H. Walsh, Eversheds Sutherland.
11. Receive an overview of the collaboration and overall philosophy of the Audit, Compliance and Enterprise Risk Management functions – Heather Traeger, Jay LeBlanc, Amy Barrett and Jase Auby.

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

12. Provide opportunity for public comment – David Kelly.
13. Receive an overview of the February 23, 2017 agenda – Brian Guthrie.
14. Receive the report of the Audit Committee on its February 23, 2017 meeting – Chris Moss.
15. Discuss investment matters, including the following:
 - A. Trend and the End of Globalization - Ruchir Sharma, Morgan Stanley.

- B. Last Five Years / Next Five Years – Britt Harris.
 - C. Best Practice Review – Carolina de Onis, Sylvia Bell, and Amy Barrett.
 - D. Blank Canvas – Mike Pia.
 - E. TRS Competitive Advantages – Katy Hoffman and Mohan Balachandran.
 - F. Optimize TRS IMD Public Equity Portfolio – Jase Auby, Chi Chai, Dale West.
 - G. Top 5 Priorities for 2017 – Jerry Albright.
 - H. Emerging Manager Program Overview – Sylvia Bell.
16. Receive a report on the Evaluation of the Investment Practices and Performance at the Teacher Retirement System of Texas: An Assessment of the TRS Real Assets Investment Program – Hugh Ohn, Eric Lang and Grant Walker; Michael Clayton, SAO; and Keith Bozarth, Christy Garh, Randy Miller, Chris Tehranian, Funston Advisory Services LLC.
 17. Receive a presentation on Private Equity Fee Transparency – Amy Barrett, Eric Lang, and Neil Randall; Lorelei Graye, Leodoran Financial; Jennifer Choi, Institutional Limited Partners Association; Paul Yett, Hamilton Lane; Suresh Krishnamurthy, State Street.
 18. Receive a report on ISS Proxy Service Overview – Sylvia Bell; Fassil Michael, ISS.
 19. Receive an overview of the Texas budgeting process and a legislative and appropriations update –Don Green and Merita Zoga.

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

20. Provide opportunity for public comment – David Kelly.
21. Recognize the service of Melinda Nink.
22. Receive an overview of the February 24, 2017 agenda – Brian Guthrie.
23. Receive a report on health care value based purchasing – Katrina Daniel and Elizabeth Teisberg, Ph.D., Dell Medical School at University of Texas.
24. Receive a presentation on *Demographic Shifts in the Workforce* – John Burns.

25. Receive a report on the International Customer Management Institute (ICMI) Call Center Management Assessment – Barbie Pearson, Katrina Daniel, Janet Bray and Chris Cutler; Wendy Fowler and Laura Grimes, ICMI.
26. Receive a report on TRS Workforce Overview – Janet Bray
27. Receive a report on 403(b) – Rebecca Merrill; Dan Pawlisch, Aon Hewitt.
28. Consider personnel matters, including the appointment, employment, evaluation, compensation, performance, duties, discipline, or dismissal of the Executive Director, Chief Investment Officer, or Chief Audit Executive – David Kelly.
29. 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.

Minutes of the Board of Trustees

February 22-24, 2017

The Board of Trustees of the Teacher Retirement System of Texas met on February 22-24, 2017, 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
Karen Charleston
Joe Colonna
David Corpus
John Elliott
Greg Gibson
Christopher Moss
Dolores Ramirez

Others present:

Brian Guthrie, TRS	Tim Lee, TRTA
Ken Welch, TRS	Bill Barnes, TRTA
Don Green, TRS	Roy Varney, TRTA
Carolina de Onís, TRS	Ronnie Jung, TRTA
Katrina Daniel, TRS	Barbara Franklin, TSTA - R
Britt Harris, TRS	Nancy Byler, TRTA President
Jerry Albright, TRS	Maggie Parker, Aetna
Barbie Pearson, TRS	Mark Quinn, Aetna
Howard Goldman, TRS	Sandra Barsenas, ESI
Amy Barrett, TRS	Scott McAfee, HPE
Toma Miller, TRS	Victor Ferreira, HPE
Ashley Inman, TRS	Eric Sanders, HPE
Katherine Farrell, TRS	Sabina Rahman-Garcia, Humana
Heather Traeger, TRS	Joni Lozano, Caremark
Chet Henry, TRS	Mark Henry, Former Trustee
David Cook, TRS	Eric McDonald, Former Trustee
Adam Fambrough, TRS	John Walsh, Eversheds Sutherland
Rhonda Price, TRS	
Steve Huff, Reinhart Boerner Van Deuren	
Steve Voss, Aon Hewitt	
Mike Comstock, Aon Hewitt	
Dr. Keith Brown, Investment Advisor	
Joe Newton, Gabriel, Roeder, Smith & Company	

Mr. Kelly called the meeting to order at 10:15 a.m.

1. Call roll of Board members.

Ms. Farrell called the roll. A quorum was present. Mr. Corpus arrived at 4:15pm.

2. Consider the following administrative items – David Kelly:

A. Consider a memorial resolution for Anita Smith Palmer.

Mr. David Kelly stated the first order of business was to address the loss of a dear friend. He said we are diminished by the loss of Anita Palmer. He stated he did not think she will ever be replaced what she represented to all of us in terms of her cheer, her hard work, sense of integrity and the role she served in reminding us of who we all work for, in terms of the educators and citizens of the State. In an attempt to honor her memory, Mr. Kelly stated a few items were gathered to share with Anita’s family. Mr. Kelly identified that a flag was flown over the Capitol by the Texas House of Representatives on January 11, 2017, in honor of Anita Palmer’s dedicated service to the State of Texas. He then read the Senate Resolution 31 that was passed by the Senate of the 85th Legislature in memory of Ms. Anita Palmer Hackley for her service to the great state of Texas, its children, teachers and TRS and for the sharing of her talents as an award winning artist.

Mr. Kelly then read the following proposed TRS Resolution:

Whereas, Anita Smith Palmer served as a member of the Board of Trustees of the Teacher Retirement System of Texas (TRS) from September 2011 until her passing on January 6, 2017, mindful of her duty as caretaker of a trust to those who teach or otherwise serve our state’s children and thereby shape its future; and

Whereas, she provided leadership to the system during a time when the retirement system grew to more than 1.5 million members and annuitants; management controls were strengthened, new investment allocations and procedures were adopted and implemented, significant progress was made on the TRS Enterprise Application Modernization (TEAM) Program, the State Auditor’s Office reports provided unqualified opinions with no findings of material weakness in internal control, and TRS annually received the “Certificate of Achievement for Excellence in Financial Reporting” from the Government Finance Officers Association; and

Whereas, she served TRS in numerous ways, including as chair of the board’s Benefits and Budget Committees, and as a member of the Audit, Compensation and Policy Committees; and

Whereas, she served on the board at a time when TRS conducted an important legislative study on pension fund sustainability, which enabled the legislature to make modifications that made the pension fund actuarially sound, allowing for the first permanent cost-of-living increase for a majority of retirees in more than a decade; and

Whereas, she served on the board during the time of TRS' 75th anniversary and joined other trustees in commemorating that special event;

Whereas, she represented TRS on the National Council on Teacher Retirement (NCTR) Credentials Committee; and

Whereas, she helped guide the agency through prudent oversight of trust assets when the TRS Pension Fund grew from approximately \$107 billion in September 2011 to more than \$134 billion as of January 2017;

Whereas, Anita was loved by all who knew and worked with her during her 30-year public education career as well as her more than five years on the TRS Board of Trustees;

Whereas, Anita was an award-winning artist whose art still adds beauty to the halls and board room of TRS; and

Whereas, all of us at TRS will miss Anita's inquisitive mind, caring heart and ever-present smile;

Now, therefore, be it resolved, that the Board of Trustees and staff of the Teacher Retirement System of Texas recognize the accomplishments and contributions of Anita Palmer, honor her valued contributions and express appreciation on behalf of TRS members both present and future,

And be it further resolved, that a copy of this resolution be presented to Anita's family and entered into the record of the board for February 22, 2017.

Mr. Kelly called for both a rising and voice vote on the resolution honoring Ms. Anita Palmer Hackley's service:

Mr. Elliott – I approve the adoption.

Mr. Colonna: I approve.

Ms. Charleston: I approve.

Mr. Moss: I approve.

Ms. Ramirez: Aye

Dr. Gibson: I vote to approve.

Mr. Kelly: I vote to approve.

Mr. Kelly then requested it be entered into the record that the resolution passed unanimously.

Mr. Hackley presented TRS and TRTA with paintings by Ms. Palmer. He expressed his appreciation for the recognition given to Ms. Palmer for her service and requested that the Board continue to believe in what she believed in, getting the job done, for it would mean a lot, to a lot of people.

Mr. Tim Lee spoke on behalf of TRTA saying Ms. Palmer was a part of TRTA for a long time. He said Ms. Palmer loved the work she did with the Board, she loved teaching, and she loved retired teachers. He thanked her family for sharing her with us.

Mr. Kelly called for a five minute recess.

B. Approval of the December 1-2, 2016 proposed meeting minutes

On a motion by Mr. Moss, seconded by Ms. Ramirez, the Board unanimously voted to approve the proposed minutes of the December 1-2, 2016 Board meeting.

C. Excusing Board member absences from the December 1-2, 2016 Board meeting.

On a motion by Dr. Gibson, seconded by Mr. Elliott, the Board unanimously voted to excuse the absences of Mr. Colonna and Ms. Ramirez from December 1-2, 2016 Board meeting.

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

No changes to the future Board meetings schedule were addressed.

3. Provide opportunity for public comment – David Kelly.

No public comment was provided.

4. Receive an overview of the Board meeting agenda and theme – Brian Guthrie.

Mr. Brian Guthrie stated the theme for the February retreat was “Moving Forward to Better Serve Our Members.” He then provided an overview for the next three days and reviewed the specifics of the agenda for the day.

5. Receive an update on the TEAM Program and schedule – Brian Guthrie and Chet Henry.

Mr. Guthrie reported on the work done in readiness for Phase 1 rollout. Mr. Guthrie provided the number of reporting entities that are certified, over 1,300, 95 percent, that are ready for the roll out in September. He stated the parties are working well together, working off of the same metrics and working towards the September deadline.

Mr. Chet Henry reviewed the accomplishments to date as: successfully launching the Trust Certification environment; the new TRS website; and moving Filenet, an imaging system to a system compatible with the Trust environment. Mr. Henry stated the legacy decommissioning project is well on schedule. He stated less than one 1/100th of 1 percent of the membership remains to be conditioned or fed into the Trust system.

Mr. David Cook reviewed the history of TEAM. He stated there will be a new customer relationship management system, CRM, which will provide a 360 degree view of all of the interactions TRS has with a member. Mr. Cook reviewed the timeline of TEAM, how during the planning phase of the project in 2011 there was a target date of March 2017 to complete the project with a cost estimate of about \$93 million. These targets and estimates were made prior to

the issuance of the RFP and prior to our partnering with Provaliant or HP. Since this target date and cost estimate, Mr. Cook said new requirements have been issued by GASB along with TRS assuming the ownership of several development areas all of which impacted the schedule and costs. Mr. Cook then reviewed the forecasted spending with actual costs incurred.

Mr. Chet Henry discussed the transparency report for the month ending January that had an overall B grade. Mr. Henry provided background on how the report is developed and how the parties meet weekly to assess the report. Mr. Henry then reviewed key milestones in the project. He stated as of February 28th the goal is to have a moratorium on all proposed changes. Mr. Henry stated a beta test to show users and receive input has been established. Mr. Henry reported the UAT is scheduled to begin in April and complete in July. He said this is the last phase of software testing process and prior to the cutover in September.

Mr. Adam Fambrough reviewed what will be implemented with the different phases. He said Phase I will begin in September of this year and some of the major functionality will be the employer reporting. This is where all of the 1,300 reporting entities will start submitting data through the system. One feature is the update of service credit in real time, not having to wait for end of year. Mr. Fambrough reported another function is offering direct deposit for refunds for the first time. Additionally, he stated the refunds will be done on a daily process rather than issuing them twice a week as is done now. Mr. Fambrough then reviewed the functionalities that will come with Phase 2.

Mr. Guthrie commented on the issues that are being identified with the data conditioning and the information that is received under the new GASB requirements and. He noted they are identifying where employers may have misreported member eligibility information for decades.

Mr. Adam Fambrough then demonstrated the improvements and what screens and information benefit counselor will see to assist them during a member's call. He noted there is more information available and in a cleaner format. Mr. Fambrough stated that the service members' retirement statements that are mailed out, members will now be able to view it online. He said the default will be to continue to mail, for there are members who prefer paper to electronic communication.

Mr. Victor Ferreira commented on behalf of HP as to how he appreciated the update provided and thought it was an accurate depiction.

6. Review and discuss the Executive Director's report on the following matters – Brian Guthrie:

- A. Review Strategic Plan and Executive Director's Goals.**
- B. Discuss TRS history, operations, and workforce overview.**
- C. Reviewing Board Governance**
- D. Board operational matters, including a review of upcoming Board Elections and Board Training Calendar.**
- E. Preview draft agendas for upcoming Board meetings.**

Mr. Guthrie reviewed TRS' five strategic goals. He then reviewed his Executive Director's goals. He noted the goals were broken into several performance categories, operational excellence, leadership, investment management, benefit services and health care. There was discussion on the 403(b) program and the possibility of TRS offering more than just oversight. Mr. Guthrie said that in June the executive council, after legislative session, will review the strategic plan and make any tweaks, and changes to revise and improve that plan.

Mr. Guthrie provided a brief overview of what TRS does broken down into three buckets. On the pension side, there are 1.5 million total members, 1.1 million are active. He said this gives a ratio of 2.41 active members to retirees. Mr. Guthrie reported anything over two is considered to be very healthy for a pension trust fund TRS' size. He stated the funding ratio is at 79.7 percent and unfunded liability is currently at \$35 billion.

Mr. Guthrie reviewed the pension trust fund operations. For incoming activities, Mr. Guthrie reported \$3 billion is deposited on an annual basis by members, another \$3 billion is deposited by employers and the State. He said there are almost 712,000 calls a year, almost 10,000 one-on-one member visits. For outgoing activities, he said over \$9 billion in pension benefits were paid out, and over 40,000 refunds processed.

Mr. Guthrie reported membership growth over the past ten years has increased and the composition of membership has changed. There are 1.5 million members, having added 300,000 members over ten years. He said over the past ten years, active members have grown by 20 percent and retirees have grown almost 50 percent. This is to be expected due to the boomer population he said.

Mr. Guthrie provided a snapshot for TRS-ActiveCare and TRS-Care. For TRS-ActiveCare, he said there is an extensive network of medical and pharmacy providers, TRS pays almost 5 million medical claims a year and 4 and half million prescription claims. He said the fund is paid through premiums and the fund balance is kept just north of zero. For TRS-Care, the fund balance as of now is pretty good but is trending in the wrong direction. He said TRS-Care being funded through contributions from state, active members and from the districts which has no correlation to health-care costs. As a result, Mr. Guthrie said the contributions received for that program are far outpaced by the cost of delivering the care. He said we as staff and as the Board have done everything possible at this point to administer the program and are seeking legislative help to maintain the program beyond the next two years. Discussion was had regarding the possible legislation.

Mr. Guthrie reviewed the 403(b) program. He reported the allowable fee structure has not changed since the beginning of the program. He said there are 76 companies that have gone through the certification process and offer over 11,000 products.

Mr. Guthrie then reviewed the subject of focusing on the right things as an administrative body. He said it is making sure the mission and vision is set and to have an organizational profile that achieves that mission and vision. He said we need to ask the right questions about who our customers are, what our services are and that is done through the strategic planning process. Mr. Guthrie stated we have an effective governance structure at all levels and ensure an effective legal, regulatory and compliance. He also discussed the role of oversight entities and risk management. And finally he said, we need to make sure we are acting in an ethical manner to meet our responsibilities and that we have processes in place, checks and balances, to make sure we are held accountable.

Mr. Guthrie provided a legislative update. He said on January 24th there was a hearing at the Senate Finance Committee which was an overview of TRS. Mr. Guthrie said he testified in front of the House Appropriations Committee's Article III Subcommittee on February 20th. He also discussed the Senate State Affairs Committee that will be the body to consider legislative changes to TRS-Care and ActiveCare. Mr. Guthrie reported the House Pensions Committee will take up the same issues as the senate State Affairs Committee on the house side and will meet on February 27th. He then discussed the Senate Nomination Committee that will meet to approve the three new Trustees that were brought on board earlier this year.

Mr. Guthrie reviewed the Governor's letter directing all state agencies that appear in the Appropriations bill to implement a hiring freeze, which included TRS. Mr. Guthrie stated TRS will be seeking an exemption for a subset of the current openings based upon areas of critical need. Mr. Guthrie then reviewed pending legislation in both chambers pertinent to TRS.

Mr. Guthrie provided updates on the Board election process. He said there are two seats up for election, the at-large position and the retiree position. Mr. Guthrie reported the ballots will go out this month, February and will need to be returned by May 5th, and the top three candidates for each position will be sent to the Governor's office for his consideration by the end of May. He said hopefully by end of the current term, August 31st, we will have the Governor's selection.

Mr. Guthrie reviewed the list of upcoming Board training opportunities.

Mr. Guthrie then reviewed upcoming Board meeting agendas.

- 7. Receive the report of the Chief Benefit Officer and consider related action, including –
Barbie Pearson:**
 - A. Approve minutes of Medical Board meetings**
 - B. Approve the list of members qualified for retirement for September through November.**

Ms. Barbie Pearson provided background on the Medical Board. She then requested approval for the minutes of the Medical Board meetings for September and November of 2016.

On a motion by Mr. Moss, seconded by Ms. Charleston, the Board unanimously approved the proposed minutes of the September and November Medical Board meetings.

Ms. Pearson requested approval of the list of members qualified for retirement for the first quarter of 2017, September through November of 2016.

On a motion by Mr. Ramirez, seconded by Ms. Charleston, the Board unanimously approved the list of members qualified for retirement for the first quarter of 2017.

8. Receive a presentation on the Development of the Plan Management Policy – Rebecca Merrill and Joe Newton, Gabriel, Roeder, Smith.

Mr. Guthrie in introducing the topic discussed the pending legislation, Senate Bill 936, which would create a Joint Interim Committee to look at public retirement systems of the state and their governance. He said many of the items for the Joint Committee to study are topics the Board has discussed including the development of a funding policy.

Mr. Joe Newton described what a funding policy is and why it is important. He said generally the funding policy is taking all of the experience and creating a contribution requirement but there are different parameters that could go into that equation. Mr. Newton said in this plan we know what the contribution is and we can back into how long it will take to pay off the unfunded liability with the known contribution. Mr. Newton reported the State's constitution has a six percent floor and a 10 percent maximum contribution level for the employer. He said a couple of sessions ago legislation linked the member to employer rate so if the employer rate is decreased, the member rate will come down as well.

Mr. Newton reviewed the different methods of amortization regarding the unfunded liability. He said that some in the pension world push for longer periods to pay off the unfunded liability because it creates lower necessity cash flows next year. However, the risk increases the longer the liability is outstanding. Mr. Newton stated there is not much guidance on amortization and pushing so much interest off to future generations. He reported the Society of Actuaries put together a blue ribbon panel which published a white paper on pension funding and they recommended 15 year amortization. He noted the Conference of Consulting Actuaries in their white paper recommended 25 years, if using closed layered amortization.

Ms. Rebecca Merrill discussed how a funding policy could be put into an overall Plan Management Policy. A Plan Management Policy could package together a funding policy with measurements that are used regularly to look at the health of the system. She said there are a number of different system measurements and requirements that are found in statute, in the Appropriations Bill and in the IPS. Ms. Merrill stated another aspect of the policy is the actuarial methods. She said these are the methodologies the Board has already adopted as part of the assumption set developed from the most recent experience study. She noted other items for consideration in developing the Plan Management Policy are the amortization objective, discretionary contribution rate, use of funding excess, and return on investment assumption.

Ms. Merrill reviewed next steps for developing the policy. She said if the Board provides direction for staff to work on a draft, then staff could bring a draft to a future Policy Committee meeting for Board adoption. Further discussion was had regarding the need for an overall

framework of policies so as not to make individual decisions in a vacuum The Board also discussed not wanting to get out ahead of the Legislature on plan funding issues given that the Legislature has proposed a Joint Interim Select Committee on plan design and funding for the upcoming interim.

Mr. Kelly then announced Agenda Item 10 would be taken up to no objection.

10. Receive a presentation on Fiduciary Duties – John Walsh, Eversheds Sutherland.

Mr. John Walsh provided a presentation on fiduciary duties, what it is and why there is a need to know about it. He said fiduciary duty is actually a very profound relationship, a societal relationship that the law recognizes. He stated the foundation of the fiduciary duty is trust. Mr. Walsh referenced *Meinhard v. Slamon* as a famous fiduciary case that provides great insight into fiduciary duty by pulling in the concept of honor and higher standards.

Mr. Walsh then spoke to what a fiduciary should be doing. He said there are two specific duties. One is a duty of loyalty, where a fiduciary puts the beneficiary's interest ahead of their own. And the other duty is duty of care. He said a fiduciary must use reasonable effort and diligence in serving the beneficiary. Mr. Walsh discussed these two duties in further detail.

Mr. Walsh stated the third part of the presentation was how to test as a group of Trustees if the fiduciary duty is being met. He stated one method is through self-assessment. He then reviewed various questions to ask to determine if the fiduciary duty is being met. In response to Dr. Brown's question, Mr. Walsh stated there could be instances where a Board violates fiduciary duty by delegating too much but also there is the reverse problem of micromanaging. He stated micromanaging could be a problem under the duty of care. He said there was no bright line rule. In response to an inquiry from Mr. Kelly, Mr. Walsh said the warning signs when something is wrong is when the code of ethics is not applied consistently, certain people are getting waivers, if there is a question of accepting duty of loyalty and if there are a large number of conflicts of interest.

Mr. Kelly then called up Agenda Item 9.

9. Receive a report on Communications Agency Plan – Howard Goldman and Rhonda Price.

Mr. Howard Goldman provided an overview of the agency wide Communications Plan. He said the plan sets the path to collaborate with different parts of the agency, clarifying relationships between audiences, channels of communications and encouraging stakeholder input through engagement. He said while different areas of the agency have very different types of communication initiatives for example investments and HIB, all have a shared target audience.

Mr. Goldman said the agency's strategic plan calls for the communications plan and for it to be updated annually. Mr. Goldman then discussed the process followed in developing the communications plan.

Ms. Rhonda Price reviewed identifying the stakeholders. She then discussed the tactics in collaborating with Investment Management Division to increase awareness of TRS as a global investment leader. Ms. Price also discussed Communications partnering with Special Projects to produce the financial awareness video series. Communications has promoted these videos through social media, the TRS newsletter, email and posters.

Mr. Goldman discussed focusing on and prioritizing Benefit Services. He said they produced a Welcome to TRS video for new members to help members understand the value of pension benefits. Mr. Goldman said they are producing targeted newsletters, one for retirees and one for active members, allowing them to provide articles that pertain only to those members. He also said Communications was partnering with Benefit Services to increase understanding of frequently misunderstood topics relating to the pension plan. TRS-Care, is another area where Communications is partnering to increase health care literacy and awareness of how to be better consumers

Mr. Goldman reviewed the new website, how it was developed, and the outreach to stakeholders. Ms. Price discussed other features newly available on the website and other social media programming.

11. Receive an overview of the collaboration and overall philosophy of the Audit, Compliance and Enterprise Risk Management functions – Heather Traeger, Amy Barrett, Jay LeBlanc, Jase Auby

Ms. Heather Traeger provided an overview at a high level the roles and responsibilities of the risk compliance and insurance functions at TRS. Mr. Jay LeBlanc reviewed the governance structure at TRS. Ms. Amy Barrett stated another way to view governance is through three lines of defense: operations; enterprise risk management and compliance; and independent assurance. Mr. Jase Auby discussed how the three lines of defense are organized into four key oversight teams at TRS: Investment Risk Management; Compliance; Enterprise Risk Management; and Audit. Mr. Auby further described the function of Investment Risk Management. Ms. Traeger provided further information on Compliance's role. Mr. LeBlanc discussed Enterprise Risk Management's role and Ms. Barrett discussed the role of Audit.

At 5:00 p.m., Mr. Kelly announced the Board would recess for the rest of the day.

February 23, 2017

The Board of Trustees of the Teacher Retirement System of Texas met on February 23, 2017, 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
Karen Charleston
Joe Colonna
David Corpus
John Elliott

Greg Gibson
Christopher Moss
Dolores Ramirez

Others present:

Brian Guthrie, TRS
Ken Welch, TRS
Don Green, TRS
Carolina de Onís, TRS
Katrina Daniel, TRS
Britt Harris, TRS
Jerry Albright, TRS
Barbie Pearson, TRS
Amy Barrett, TRS
Howard Goldman, TRS
Katherine Farrell, TRS
Heather Traeger, TRS
Jase Auby, TRS
Dale West, TRS
Chi Chai, TRS
Mike Pia, TRS
Mohan Balachandra, TRS
Katy Hoffman, TRS
Eric Lang, TRS
Sylvia Bell, TRS
Hugh Ohn, TRS
Grant Walker, TRS
Neil Randall, TRS
Merita Zoga, TRS

Dr. Keith Brown, Investment Advisor
Joe Newton, Gabriel, Roeder, Smith & Company
Steve Huff, Reinhart Boerner Van Deuren
Steve Voss, Aon Hewitt
Mike Comstock, Aon Hewitt
Michael Clayton, State Auditor's Office
Randy Miller, Funston Advisory Services, LLC
Keith Bozarth, Funston Advisory Services, LLC
Christy Gahr, Meketa Investment Group
Chris Tehranina, Meketa Investment Group
Lorelei Graye, Leodoran Financial
Jennifer Choi, ILPA
Paul Yett, Hamilton Lane
Suresh Krishnamurthy, State Street
Fassil Michael, ISS
Philip Mullins, Texas State Employees Union

Mr. Kelly called the meeting to order at 8:37 a.m.

1. Call roll of Board members.

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

2. Provide opportunity for public comment.

No public comment was provided.

13. Receive an overview of the February 23, 2017 agenda – Brian Guthrie.

Mr. Ken Welch provided the overview of the day's agenda for Mr. Guthrie was called to the Legislature to testify. Mr. Welch said the day was mostly investment topics ending with an overview of the budget and legislative process.

14. Receive the report of the Audit Committee on its February 23, 2017 meeting – Chris Moss.

Mr. Chris Moss provided the following Audit Committee report regarding its February 23, 2017 meeting:

The Audit Committee met at 8:00 a.m. on Friday, February 23rd in the Fifth Floor Boardroom. Internal Audit presented the results of the annual testing of Investment Performance Incentive Pay calculations. TRS staff presented an overview of the annual financial report of the Teachers Retirement Investment Company of Texas (TRICOT) for the period ending August 31st, 2016. Representatives from Grant Thornton, independent auditors of TRICOT, presented the results of their audit and other required communications.

Without objection, Mr. Kelly called Agenda Item 15H.

**15. Discuss investment matters, including the following:
H. Emerging Manager Program Overview - Sylvia Bell.**

Ms. Sylvia Bell reviewed the goals of the Emerging Manager Program. Ms. Bell said the definition of a TRS emerging manager is a smaller, relatively newer firm with assets under two million with a strong and proven asset management capability. Ms. Bell reported, to date \$5 billion has been committed to the Emerging Manager Program across 151 managers. She said five managers have graduated to the premier list and have received a two billion allocation from the Trust.

Ms. Bell reported the Emerging Market portfolio has returned 7.1 percent on a one-year basis and a 9.8 percent on a three-year basis. She provided further details on the Emerging Market program. She then reported on the Emerging Manager Conference. The first conference was held six years ago with 115 attendees. This year there were close to 1,400 attendees, making it by far the largest emerging manager conference in the country. In response to Mr. Corpus inquiry, Ms. Bell stated once an emerging manager graduates to the premier list, they become a Trust level manager where TRS continues to work with them.

15 A. Trend and the End of Globalization – Ruchir Sharma, Morgan Stanley.

Mr. Britt Harris provided an introduction for Mr. Ruchir Sharma. Mr. Harris reported that Mr. Sharma has been named by Bloomberg as one of the 50 most influential people in the world. Mr.

Sharma has authored two books and is a regular writer for Foreign Policy and the Wall Street Journal. Mr. Harris then provided context for the topic of globalization.

Mr. Ruchir described globalization as having three traditional tenets which are global trade flows, capital flows and migration flows. He said the process of globalization and de-globalization has moved in waves over the centuries. He stated as of 2008, we have seen a de-globalization via a decrease in trade, capital and migration. Mr. Ruchir said this is consistent with historical patterns. Mr. Ruchir stated many in the developed countries have not benefited per se from globalization after the crisis has caused many incumbent politicians to lose their seats and for many countries to be open to economic experiments. Mr. Ruchir said the politicians will try to skew the production of goods back home through tax policies and other measures. Mr. Ruchir said these policies will shift the power from corporations to workers and will lead to higher inflation.

Mr. Ruchir said we are likely to see more and more sort of economic experiments take place to try and deal with this era of de-globalization and lower economic growth everywhere. He said focusing on a countries fundamentals is going to be very important in an era of de-globalization where countries march to their own tunes and not in sync. Mr. Rachir then took questions and discussed the upcoming elections across Europe. He also spoke to the productivity growth rate. In his concluding remarks Mr. Rachir spoke of his views of global valuations across asset classes.

15B. Last Five Years / Next Five Years – Britt Harris.

Mr. Harris said we are now eight years beyond the financial crisis ending. Mr. Harris reported TRS portfolio went down 20 or 30 percent, to roughly \$67 billion. He reported today the portfolio stands at about \$135 billion. Mr. Harris stated for the past eight years the system has earned just under \$90 billion, about \$45 million every single day that the markets have been open for past eight years. He said they have generated 1.2 percent above the 8 percent target rate at roughly 50 percent of the risk projected. He said the inflation rate, which normally runs at 2.5 has been 1.2. He reported a very high Sharpe ratio for past five years of 3.6.

Mr. Harris discussed the benefits of the Federal Reserve's monetary policy regarding quantitative easing and how the inflationary rate has remained low during this period of time after the recession. He said the back drop for the last five years has been getting us back to normal.

Mr. Harris said over the past five years they have had guiding principles. He said they are: looking to increase productivity; to become the preferred destination for large attractive investments around the world; increase areas of competence such as risk management and energy and develop an agency structure to be effective, efficient and very productive. Mr. Harris then provided further information on the monitoring they have implemented regarding market conditions for risk management. In response to Dr. Gibson's question, Mr. Harris said the most important competency moving forward was risk management followed by culture, retention and recruitment. But he also said agility is going to be massively more important moving forward into the next five years.

15C. Best Practice Review – Carolina de Onis, Sylvia Bell and Amy Barrett.

Ms. de Onis discussed the importance of having a good governance structure with clearly defined rules for the Board and management. She said while these two things do not guarantee good results, however, without these two things good results cannot be achieved consistently. Ms. de Onis reviewed the four principal groups at TRS to meet its long-term investment goals: the Board, Investment Management Division (IMD), Legal and Compliance and Audit. Ms. de Onis stated through three standing committees of the Board, Investment Management, Policy and Risk Management, the Board has special oversight and monitoring functions over IMD. She noted another important governance framework is the Internal Investment Committee (IIC). She also listed the IMD Management Committee.

Ms. Sylvia Bell reviewed the operational infrastructure supporting the investment functions at TRS. She stated the hallmarks of a best class investment operations is to ensure investment data was secure, verified and comprehensive. Ms. Bell provided information on the TRS-State Street relationship and the robust governance which includes colocation of key management personnel on site with TRS. She reviewed other operational aspects that lead to success such as settlements, valuations and IT,

Ms. Amy Barrett stated the strong governance structure and operational infrastructure are continuously evaluated both internally and externally. She said the State Auditor perform quite a bit of work in addition to a dedicated investment internal audit function. She stated that over a five year period there were 70 audits and there have not been any material weaknesses. She said besides audits there are also independent advisors. Mr. Voss and Mr. Huff each commented on TRS being best in class.

15D. Blank Canvas – Mike Pia.

Mr. Mike Pia presented an overview of the Blank Canvas Project. Going forward the question, Mr. Pia said, is how to best position TRS for the next five to ten years. To answer those questions, he said, they leveraged the Strategic Partner Network (SPN) Research project and asked them how they would invest \$130 billion to earn 8 percent annually. Mr. Pia said all six partners participated in the project.

Mr. Pia reviewed the key conclusions from the summit. Four of the six partners used more traditional methodologies to come up with asset allocations and the other two were less traditional. He said new or additional investments were identified in illiquid credit and energy. He said the total return expectations of the partners on average was 7.8 percent which is a result of increased liquid, a significant use of leverage and outsized alpha expectations. Mr. Pia described how IMD assessed the results. He noted further work was needed but he views Blank Canvas as the basis for launching the 2017 Super Five priorities.

15E. TRS Competitive Advantages – Katy Hoffman and Mohan Balachandran.

Ms. Katy Hoffman said TRS' fund is over \$130 billion, making it the 14th largest pension fund in the world, sixth largest in the US. She said there is over \$50 billion of liquidity available to take advantage of market dislocation. She next reviewed the capabilities developed to take advantage

of the aforementioned strengths. She said developing strong trusted relationships with general partners has allowed access to deal flows. Ms. Hoffman said when there is dislocation in the market they are prepared to assemble a cross-functional team to help evaluate market opportunities. In response to Mr. Kelly's question, Ms. Hoffman said the quarterback of these teams are rotated, it is not the same person each time, there is a lot of expertise in different pockets of IMD.

Mr. Mohan Balachandran reviewed the process for evaluation of new investment strategies. He said there are four pillars to the strategy. Mr. Balachandran reviewed examples of portfolios who have gone through this process.

15F. Optimize TRS IMD Public Equities Portfolio – Jase Auby, Chi Chai and Dale West.

Mr. Jase Auby reported the TRS Global Public Equity portfolio had \$52.4 billion of assets, 39 percent of the Trust, with a five-year return of 10.5 percent. He said the key phase one conclusion of a three-phase project is to move the Trust to a structure that manages the Global Equity Portfolio as one integrated portfolio, and within that optimize current beta and alpha streams.

Mr. Auby reviewed the three phases of the project. For phase one they gathered industry best practices and reviewed data on all current processes. In phase two, he said they are seeking to optimize the set of alpha streams with a goal of eliminating redundant or unproductive streams and building a single optimized portfolio and with phase 3 implement final recommendation and transition the trust over time.

Mr. Auby reported five years ago the portfolio had \$42.7 billion and today it is \$52.4 billion. Also, five years ago he said they had 34 alpha streams and today there are 44 alpha streams. Ten of the streams are internal and 34 are external. He said the alpha streams have performed positively over time with one exception. The alpha in the USA portion of the portfolio has had difficulties particularly due to quantitative easing. In response to Mr. Colonna's question, Mr. Auby stated in regards to passive versus active management, he still believes very much in active managers. He said active management's alpha comes in cycles, it is particularly difficult during times of low volatility and low dispersion of returns.

Mr. Chi Chai stated the last five years has been one of the worst periods for U.S. active management. He said on the other hand, EAFE managers outperformed four out of the last five years and emerging market managers outperformed five out of the last five years. Mr. Chai discussed the cyclical nature of the alpha and the need to be cautious in overreacting at the wrong time in the cycle.

Mr. Dale West provided an update on efforts to improve external manager, specifically hedge fund fees. He stated hedge funds over the past five years have not provided anything particularly useful to the Trust in terms of returns. He said the philosophy is that we want to take 70 percent of value-added or alpha even in lower returning markets, which is not achieved with traditional hedge fund fee structures. He reported they are trying to solve this is by introducing hurdle rates. Mr. West said it would redistribute how fees are paid, paying higher fees in a high return

environment but lower fees when returns are lower. He reported the majority of hedge fund assets are with managers who have agreed to use hurdle rates or low fixed fees.

15G. Top five priorities for 2017 – Jerry Albright.

Mr. Jerry Albright reviewed the London office and transactions that are being generated from that office. He then turned to discussing the top five priorities moving forward for IMD. For Beta Management he said they are reviewing the use of leverage, what the optimal leverage should be, reduced deflation hedge, and currency risk. For Alpha Production, he said, reducing expenses in the hedge fund portfolio and working on improving access to GPs and to allocations. Mr. Albright also addressed Absolute Returns, Private Markets and CIO Issues as part of the top five priorities.

16. Receive a report on the Evaluation of the Investment Practices and Performance at the Teacher Retirement System of Texas: An Assessment of the TRS Real Assets Investment Program – Hugh Ohn, Eric Lang and Grant Walker; Michael Clayton, SAO; and Keith Bozarth, Christy Garh, Randy Miller, Chris Tehranian, Funston Advisory Services, LLC

Mr. Hugh Ohn stated that under the statute the State Auditor's Office (SAO) is required to hire an independent company to evaluate TRS investment practices and performance. For this audit, TRS and the SAO agreed to focus on the privacy market side, specifically Real Asset Program.

Mr. Michael Clayton reported he was responsible for the vendor selection and the contract oversight. Mr. Clayton said the SAO and TRS worked collaboratively during the RFP process. He said Funston Advisory Services, LLC (Funston) was selected as having the best mix of experience.

Mr. Randy Miller reported the review was completed in the September through December time frame. He reviewed the list that Funston was requested to focus on relating to the Real Assets Program. He described the ratings: leading, prevailing and lagging practices. He said TRS' Real Assets Program is either leading or prevailing practices and policies in all areas, no lagging practices, it is a very well run program overall.

Mr. Keith Bozarth and Ms. Christy Gahr reviewed the recommendations in the governance category and the recommendations pertaining to risk management of the Real Assets Program.

Mr. Chris Tehranian reviewed the recommendations regarding real asset processes. He concluded by restating that overall the Real Assets Program is sound and TRs utilizes many leading practices. He said the recommendation in the report should enhance the leading practices already in place.

Mr. Grant Walker stated the department for the most part accepts Funston's recommendations. He said there were other recommendations they were going to discuss with the consultants and the Board over the next two years and make recommendations in 2018 at the next policy review period.

17. Receive a presentation on Private Equity Fee Transparency – Amy Barrett, Eric Lang and Neil Randall; Lorelei Graye, Lodoran Financial; Jennifer Choi, Institutional Limited Partners Association; Paul Yett, Hamilton Lane; Suresh Krishnamurthy State Street.

Ms. Amy Barrett provided an overview on how private equity fee transparency is not only an issue at TRS but nationally. She said the challenge is the accounting rules are not clear about how to present the fee information or what should be obtained and how it should be obtained. Ms. Barrett then introduced the panel. She then noted that there is a plan to audit the fee information that is being reported to TRS.

Ms. Gray said she had accepted a project role at the South Carolina Retirement System Investment Commission to build a system for collecting and reporting in a public manner the fees. She defined fees as management fees and carried interest and fund expenses across the whole portfolio not just private equity. She said determined the private equity funds were going to be the most difficult. She said what she saw was not inappropriate or inaccurate but nearly every one of the quarterly net asset value (NAV) statements were different. Ms. Gray said she ended up developing her own template and having each of the managers complete it. She said even in this form she was receiving different information from the managers, some would report realized carry number, the performance fee while others were giving the unrealized with net changes to unrealized.

In 2014, Ms. Gray said, CEM reported finding issues when examining fees and expenses over 50 percent of the time. She then realized her fund alone could not address this specific problem but if all the public pensions in the US worked together, there was a lot of power there. She said she worked with CEM Benchmarking in producing a white paper on this issue which resulted in calls from not only US pensions but Canadian, European, Mideast and Asia. From there, Ms. Gray said she worked with Ms. Jen Choi who was starting a working group at Institutional Limited Partnership Association (ILPA). Ms. Choi reported at the around the same time the GP's at the time were asking for direction and a more consistent set of requests which all culminated into what is called the Transparency Initiative. Mr. Eric Lang said that it was all leading up to the ILPA reporting template. Ms. Choi stated they are trying to do is to line up the timing of the reports so that LPs can use the information in their own CAFRs, in a format that easily lends itself to analysis and aggregation.

Mr. Neil Randall discussed TRS involvement in the process described previously. He said TRS was part of the ILPA's working group. He reported TRS was one of the first set of LPs to endorse the template that came out of the working group. He said we continue to work with our partners and make this as part of how TRS does business. Mr. Randall said TRS provided ample time for partners to get ready, allow them to build out systems and process to provide this type of reporting.

Mr. Suresh Krishnamurthy described how State Street as TRS' custodian sees the template working and provided perspective on the data received. He said the result of this will be over time people will compete based upon actual prowess and ability to deliver returns as opposed to what may be hidden in the portfolio or not.

Mr. Paul Yett stated this increased disclosure, transparency is not going away, it is going to get more and more prevalent. He stated TRS is ahead of the curve in the terms of the type of data asking for and the adoption rate.

Mr. Randall concluded by stating as of the fourth Quarter 2016, 32 percent of TRS funds are already providing the ILPA template. He projects by June 2017, 80 percent of the funds will be providing the ILPA template.

18. Receive a report on ISS Proxy Service Overview – Sylvia Bell; Fassil Michael, ISS.

Ms. Sylvia Bell introduced Mr. Fassil Michael with Institutional Shareholder Services, ISS. She stated in his current role, Mr. Michael oversees the implementation of over 40 plus proxy voting policies for institutional clients.

Mr. Michael provided an overview of the proxy voting process in general. He said ISS provides proxy research solutions. He said in 2016, ISS covered over 6,300 unique securities globally on behalf of TRS. Mr. Michael reported ISS research team is organized in three segments: market analysts, subject matter expertise and sector teams. He reported the overarching principle behind the proxy voting policy is the long-term economic interest of shareholders and plan beneficiaries. He described how the proxy voting guidelines are updated on an annual basis. Mr. Michael listed the various participants involved in the proxy voting process. In response to Dr. Brown's question, Mr. Michael said a change in a guideline can be a combination of several things. A big source of change, he said, is regulatory developments. In response to Mr. Johnson's question, Mr. Michael stated ISS offers the ability for clients to customize voting guidelines.

Mr. Albright noted that the contract with the current service provider expires at the end of March and there will not be another meeting until April. He asked for permission of the Board, and Policy Chair Corpus, to allow the Executive Director to extend the contract for a period of time until the policy is finalized. Mr. Kelly and Mr. Corpus agreed to extend the contract for no longer than six months.

19. Receive an overview of the Texas budgeting process and a legislative appropriations update – Don Green and Merita Zoga.

Mr. Don Green reviewed the budgeting timeline for TRS and the legislative process for the appropriations bill to become law. He reviewed the players in the budgeting process, the Legislative Budget Board, Comptroller of public accounts, the Governor and the State Auditor's Office. He discussed the House and Senate proposed budgets for this session.

Ms. Merita Zoga stated on average a session has about 6,000 bills and joint resolutions. Ms. Zoga reviewed the Chairs for the various House and Senate committees. There was discussion as to the final days of the legislative session and the life and death of a bill and possible resurrection.

At 5:20 p.m., Mr. Kelly announced the Board would recess for the rest of the day.

February 24, 2017

The Board of Trustees of the Teacher Retirement System of Texas met on February 24, 2017, 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
Karen Charleston
Joe Colonna
John Elliott
Greg Gibson
Christopher Moss
Dolores Ramirez

Others present:

Brian Guthrie, TRS	Dr. Elizabeth Teisberg, Dell Medical School at UT
Ken Welch, TRS	John Burns, John Burns Real Estate Consulting
Don Green, TRS	Steve Huff, Reinhart Boerner Van Deuren
Carolina de Onís, TRS	Wendy Fowler, ICMI
Katrina Daniel, TRS	Laura Grimes, ICMI
Britt Harris, TRS	Dan Pawlisch, Aon Hewlitt
Jerry Albright, TRS	Mr. Max Ates, Fort Worth ISD
Barbie Pearson, TRS	Sabina Rahman-Carcia, Humana
Amy Barrett, TRS	Brad Keoun, CUNY
Katrina Daniel, TRS	Philip Mullins, Texas State Employees Union
Janet Bray, TRS	Tom Cocam, Caremark
Chris Cutler, TRS	Sandra Barsensas, ESI
Howard Goldman, TRS	
Katherine Farrell, TRS	
Heather Traeger, TRS	
Melinda Nink, TRS	

Mr. Kelly called the meeting to order at 8:40 a.m.

1. Call roll of Board members.

Ms. Farrell called the roll. A quorum was present. Mr. Corpus was absent.

20. Provide opportunity for public comment.

Mr. Max Ates representing Fort Worth ISD asked TRS to allow the health claims history for Fort Worth ISD, to be released to Fort Worth ISD. He said Fort Worth ISD needs to prepare to offer new health coverage options with an effective date of September 1, 2018, in anticipation of Senate Bill 789 passing. Mr. Ates then described the process Fort Worth ISD will have to go through in order to provide health care.

21. Recognize the Service of Melinda Nink.

Mr. Kelly presented Ms. Melinda Nink in recognition and sincere appreciation for her years of service with the following: the golden plate of service recognition from TRS; a letter of recognition from Governor Greg Abbott and First Lady Cecilia Abbott; a Texas Flag flown over the Texas House of Representatives on January 31, 2017 in honor of her dedicated service to TRS. Mr. Kelly also presented her with his star of service. Ms. Nink said it has been her honor and pleasure to be here and looks forward to the next chapter in her life. Mr. Guthrie spoke words of appreciation for how Ms. Nink has not only been an asset to him but four previous executive directors and trustees past and present.

22. Receive an overview of the February 24, 2017 agenda – Brian Guthrie.

Mr. Guthrie provided the overview of the day's agenda.

21. Recognize the service of Melinda Nink.

Mr. Kelly requested a resolution in recognition of Ms. Nink be formally entered into the record.

Whereas, Melinda Nink joined the Teacher Retirement System of Texas (TRS) in October 1984 as an administrative secretary in the service retirement area; and

Whereas, in April 1985 she was transferred to the executive director's office where she began a career in executive and board trustee support, responsible for coordinating board member travel and board meeting material collection and distribution, and managing the annual convention registration operation for the National Council on Teacher Retirement (NCTR) for many years; and

Whereas, she became the assistant to the executive director and served in that capacity for four executive directors – Bruce Hineman, Wayne Blevins, Charles Dunlap and Ronnie Jung – for a total of 26 years, meeting challenging deadlines and successfully dealing with high-pressure and high-profile situations; and

Whereas, in September 2011 she became the assistant to the TRS Board of Trustees, acting as liaison between TRS staff and approximately 50 trustees over the years, responsible for all preparations and logistics related to board meetings; and

Whereas, during her years with TRS, in addition to her regular duties, Melinda has volunteered for numerous agency committees and project teams, including serving on the Holiday, SECC and Golden Apple Selection committees, and facilitating the SECC drive; and

Whereas, TRS recognized Melinda with a TRS Golden Apple Award in 2009 in part for her demonstrated ability to excel in all assignments, remain an invaluable resource to the executive office and the board of trustees, and help TRS capitalize on its positive history; and

Whereas, Melinda has developed her institutional knowledge to the point of serving as a one-stop source for information, guidance and action, not only in her areas of responsibility, but also in TRS' history, staff organization and member services; and

Whereas, Melinda has continually been a cheerful and helpful presence at TRS; she is known for her professionalism, dependability, loyalty, compassion, competency, patience, and the highest level of integrity, and is deserving of recognition for a job beyond well done; and

Whereas, Melinda currently has 39 years of service to the State of Texas, having previously worked for the Texas Department of Health and Texas Department of Public Safety; and

Whereas, Melinda will be sorely missed as she has proven to be the glue that holds the TRS Executive Division together and is an invaluable resource to the current executive director, Brian Guthrie, and all other members of the Executive Council; and

Now, therefore, be it resolved, that the Board of Trustees and staff of the Teacher Retirement System of Texas recognize the accomplishments and contributions of Melinda Nink at TRS during her highly successful career with the retirement system and express their sincere appreciation on behalf of TRS members both present and future,

And be it further resolved, that a copy of this resolution be presented to Melinda Nin and entered into the record of the board for February 24, 2017.

On a motion by Ms. Ramirez, seconded by Mr. Colonna, the Board unanimously voted to adopt the above resolution.

23. Receive a report on health care value based purchasing – Katrina Daniel and Elizabeth Teisberg, Ph. D., Dell Medical School at University of Texas.

Ms. Katrina Daniel stated the topic of controlling the cost of healthcare is not new to the Board but in controlling costs is not just limiting care and keeping costs down by preventing access but in purchasing healthcare in the most valuable way.

Dr. Elizabeth Teisberg said she is an engineer by training, a system engineer, but through personal life experiences, redirected her career to health care. She said you are paying more than \$3 billion a year on health care claims and asked three questions: are you getting your money's worth? How do we move toward better health? and What are the opportunities to catalyze high value health care?

Dr. Teisberg stated health care is an intermediate good like electricity. She said we do not want to experience it, the goal is to have better health and this is important to recognize when managing health care services. She reported in spite of the high spending, the incidence and severity of chronic disease are on the rise. She said traditionally the focus has been on lower

prices, battling down spending by battling down prices. She said the focus needs to be not just cost reduction but how do we spend our money to achieve the kind of health that drives the future spending down.

Dr. Teisberg discussed how defined contribution assumes there are good enough choices available for care. She said for the system to change there needs to be bigger players and not individuals saying change is needed. She said this is in line of her third question, how to catalyze high value health care. She said it needs to stop being centered around the doctors and organized around the payers but organized around the patients. She concluded with you cannot manage what is not measured, if you are not looking at what the health results are for the people served then you will not be able to figure out how to manage that service. She said the critical question is did the care improve your health, not just was there access, not just what is the health insurance costs.

Ms. Daniel then discussed the relevance of what Dr. Teisberg talked about to TRS health plans and how we administer and oversee them.

24. Receive a presentation on Demographic Shifts in the Workforce – John Burns.

Mr. John Burns provided a presentation on demographics from a business standpoint. He reviewed the status of the housing markets. He reviewed the formation of households for so many sectors of the economy depend on household formations. Mr. Burns then discussed demographics broken down by decades and how each are shaped by government policy, some significant change in the economy, a new technology or a societal shift. He said each though affect people differently depending on their stage of life.

25. Receive a report on the International Customer Management Institute (ICMI) Call Center Management Assessment – Barbie Pearson, Katrina Daniel, Janet Bray and Chris Cutler; Wendy Fowler and Laura Grimes, ICMI.

Ms. Barbie Pearson stated the assessment for the contact center discussed at the last February retreat was expanded to assess all of the areas that perform customer service within TRS. She said this also included the support functions that support those contact centers so quality assurance, training and technologies were reviewed as well.

Ms. Janet Bray provided the Board an update as to the quality assurance and training Human Resources is developing and implementing for Benefit Services and Health and Insurance Benefit (HIB).

Ms. Katrina Daniel described how the health benefits contact center issues have the additional challenge of the benefits changing much more often. She said they have undertaken initiatives to push information out to members to better inform but noted this also causes many calls.

Mr. Chris Cutler provided IT perspective. He said TEAM is their priority, he said there were quite a few milestones scheduled over the next two years. He said the telecom infrastructure is fairly old and will be addressed at the conclusion of TEAM.

Ms. Wendy Fowler said ICMI assessed the current state and reviewed the challenges described in order to develop a strategy to enhance the current system and look at what is needed for the future and implement best practices.

Ms. Laura Grimes said with the growth and all of the changes in regulations with retirement and health benefits members are contacting TRS. She said there were some real opportunities and real challenges facing TRS and the common theme is adequate staffing. She then reviewed the five primary recommendations.

Ms. Fowler said there is an element of workforce management in the environment today but it needs to have some best practices implemented to go along with it and some technology to support it.

Ms. Pearson, Ms. Daniel and Ms. Bray reviewed the implementation goals based upon ICMI's recommendations. Ms. Daniel noted that a temporary measure was being implemented by contracting with an outside vendor to assist with the overall increase in call volume and the anticipated increase call volume due to legislative changes. Mr. Cutler reviewed the timing for implementing the new technology solutions.

Mr. Kelly announced to defer Agenda Item 26 to the next Board meeting and to take up Agenda Item 27 to no objections.

26. Receive a report on TRS Workforce Overview – Janet Bray.

This agenda item was not taken up.

27. Receive a report on 403(b) – Rebecca Merrill; Dan Pawlisch, Aon Hewitt.

Ms. Rebecca Merrill reviewed TRS' authority regarding the 403(b) program, the Trustees are charged with setting the fee caps. She reported on December 12, 2016, an informal conference was held at TRS to take input from stakeholders. Ms. Merrill said they were right in the middle of identifying rule improvements and will bring the amendments back to the Policy Committee, including amendments to fee caps. She said for the rulemaking they are focusing on fees, terminology and identifying information requirements to assist members in their decision making.

Mr. Dan Pawlisch reviewed the current 403(b) marketplace. He said they are going to perform a benchmark study in March. A discussion was had on fees, costs, leveraging based on size, open and closed markets. Mr. Pawlisch noted that lowering fees would have a significant impact on a member account balances, a very small difference can make a meaningful impact over a member's career.

28. Consider personnel matters including the appointment, employment, evaluation, compensation, performance, duties, discipline, or dismissal of the Executive director, Chief Investment Officer, or Chief Audit Executive – David Kelly.

This agenda item was not taken up.

29. 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.

This agenda item was not taken up.

At 2:05 p.m., Ms. Ramirez moved, Mr. Moss seconded, and the Board unanimously voted to adjourn.

APPROVED BY THE BOARD OF TRUSTEES OF THE TEACHER RETIREMENT SYSTEM OF TEXAS ON THE 6th DAY OF APRIL 2017.

ATTESTED BY:

Katherine H Farrell

Katherine H. Farrell

Secretary to the TRS Board of Trustees

4/7/2017

Date