



Risk Management Committee



November 2015

**TEACHER RETIREMENT SYSTEM OF TEXAS MEETING
BOARD OF TRUSTEES
AND
RISK MANAGEMENT COMMITTEE**

(Ms. Charleston, Committee Chair; Mr. Barth; Mr. Corpus; Mr. Kelly; & Mr. Moss, Committee Members)

AGENDA

**November 19, 2015 – 2:30 p.m.
TRS East Building, 5th Floor, Boardroom**

1. Consider the approval of the proposed minutes of the September 24, 2015 committee meeting – Karen Charleston
2. Receive report on Enterprise Risk Management – Jay LeBlanc and Michelle Pagán
3. Receive overview of Disaster Recovery and Business Continuity Initiatives – Jay LeBlanc, Cristi Woods and Kyle Weigum

NOTE: The Board of Trustees (Board) of the Teacher Retirement System of Texas will not consider or act upon any item before the Risk Management Committee (Committee) at this meeting of the Committee. This meeting is not a regular meeting of the Board. However, because a quorum of the Board may attend the Committee meeting, the meeting of the Committee is also being posted as a meeting of the Board out of an abundance of caution.

Tab 1

Minutes of the Risk Management Committee

September 24, 2015

The Risk Management Committee of the Board of Trustees of the Teacher Retirement System of Texas met on September 24, 2015 in the boardroom located on the fifth floor of the TRS East Building offices located at 1000 Red River Street, Austin, Texas.

The following committee members were present:

Karen Charleston, Chair
Todd Barth
David Corpus
David Kelly
Christopher Moss

Others present:

Anita Palmer, TRS Trustee	Hugh Ohn, TRS
Dolores Ramirez, TRS Trustee	Michelle Pagán, TRS
Nanette Sissney, TRS Trustee	Sharon Toalson, TRS
Brian Guthrie, TRS	Dr. Keith Brown, Investment Advisor
Ken Welch, TRS	Steve Huff, Fiduciary Counsel, Reinhart Boerner Van Deuren s.c.
Jerry Albright, TRS	Steve Voss, Aon Hewitt
Amy Barrett, TRS	Mike Comstock, Aon Hewitt
Carolina de Onís, TRS	Tathata Lohachitkul, Albourne America
Jase Auby, TRS	James Walsh, Albourne America
Katy Hoffman, TRS	Philip Mullins, Texas Retired Teachers Association
Dan Junell, TRS	Ted Melina Rabb, Texas American Federation of Teachers
Lynn Lau, TRS	Josh Sanderson, Association of Texas Professional Educators
Jay LeBlanc, TRS	Ann Fickel, Texas Classroom Teachers Association

Ms. Charleston called the meeting to order at 12:24 p.m. All committee members were present.

1. Consider the approval of the proposed minutes of the June 11, 2015 committee meeting – Committee Chair.

On a motion by Mr. Barth, seconded by Mr. Moss, the committee approved the proposed minutes of the June 11, 2015 meeting, as presented.

2. Review the Investment Risk Report – Jase Auby.

Mr. Auby began his presentation of the investment risk report by summarizing TRS' compliance with certain key risk measures for the pension trust fund. He reported that TRS was in full compliance with all seven key measures, which addressed the following — asset allocation, value at risk (the absolute risk measure), tracking error (the relative risk measure), various leverage measures, trust liquidity, counterparty exposures, and derivatives exposures. Mr. Auby devoted the remainder of his report to presenting detailed information about each of the seven key measures and TRS' compliance with them during the reporting period, the second quarter of calendar year 2015 as of June 30, 2015.

Mr. Auby reported that the overweights and underweights in asset allocation were all within policy limits and that the total trust fund was in a relatively neutral position. Turning to value at risk

(VaR), he said that for the total fund it was at 7.1 percent of market value, which was close to the benchmark value of 6.6 percent and within the VaR of a minimum of 5 percent and a maximum of 8.9 percent. He noted that the first real risk event for TRS since 2013 was in August 2015, when the trust fund experienced a drawdown of minus 3.2 percent. He then compared various asset classes as percentages of total assets with the percentages of risk they contributed. He noted that U.S. treasuries and stable-value hedge funds had reduced total-fund risk during the reporting period and were providing the diversification that would be needed in a crisis environment. He then completed this part of his report by reviewing the history of VaR contribution since the third quarter of 2012.

Mr. Auby next reported on tracking error. He said that the three-year realized tracking error was below the predicted, policy neutral, and maximum values as measures of volatility relative to the benchmark. He agreed with Dr. Brown that TRS would not want tracking error to drop too low. Dr. Brown asked whether low tracking error indicated that TRS had not taken enough risk in its investment strategies during the past three years. Mr. Auby said that the tracking error predicted three years ago did not anticipate the low, overall volatility in the markets, including the U.S. stock market, which has been growing steadily since then. Dr. Brown said that, though TRS could not control the markets, it could control tracking error volatility through active investment strategies. Mr. Auby and Mr. Harris discussed with the committee the historical bases for TRS' predicted tracking error relative to predicted market performance. Mr. Auby reviewed tracking error versus policy requirements for a specified list of actively managed TRS portfolios, nearly all of which, he said, had lower realized tracking errors than forecast.

Mr. Auby reported on leverage for the period, including the gross and net amounts at the trust level and for securities lending, hedge funds, public strategic partners, and real assets. He described increases or decreases in leverage since his last committee report. He said that tactical asset allocation and strategic partners had been using larger amounts of leverage to take fixed-income bottom positions. He noted that the real assets special situations portfolio had continued to add expected amounts of leverage as it ramped up. Mr. Auby reported that TRS had more than enough liquidity to potentially make benefit payments in a one-year period during a stress scenario. Mr. Kelly discussed the calculation of the liquidity ratio with the committee and staff. Mr. Auby agreed with Mr. Kelly that TRS was accumulating returns faster than it was paying out benefits.

Mr. Auby reported that TRS' risk as to counterparties for over-the-counter and exchange traded derivatives transactions was well diversified and well collateralized. He described TRS' use of derivatives. He pointed out that all TRS net notional positions for derivatives were about zero percent of the total trust fund.

He finished his presentation by reporting that, as of June 30, 2015, TRS' investment exposures complied with the Investment Policy Statement. TRS, he said, was overweight in global equity, underweight in stable value, and underweight in real return. At the sub-asset class level, he said, TRS was overweight in absolute return, cash, and risk parity, while being underweight in treasuries, U.S. equity, and emerging markets. All of TRS' risk metrics, he concluded, were within established parameters for the reporting period.

Without further discussion, the meeting adjourned at 1:00 p.m.



APPROVED BY THE **RISK MANAGEMENT COMMITTEE** OF THE BOARD OF TRUSTEES OF THE TEACHER RETIREMENT SYSTEM OF TEXAS ON THE 19TH DAY OF NOVEMBER 2015.

ATTESTED BY:

Dan Junell
Secretary to the TRS Board of Trustees

Date



Tab 2

Enterprise Risk Management Report

Jay LeBlanc & Michelle Pagán

Teacher Retirement System of Texas Stoplight Report – November 2015

 403(b)	 Accounting & Reporting	 Budget	 Business Continuity	 Communications & External Relations
 Credit	 Customer Service	 Employer Reporting	 Ethics & Fraud Prevention	 Facilities Management & Planning
 Governmental/ Association Relations & Legislation	 Health Care Plans Administration	 Information Security & Confidentiality	 Investment Accounting	 Investment Operations
 Legacy Information Systems	 Liquidity/Leverage	 Market	 Open Government	 Pension Benefit Administration
 Pension Funding	 Purchasing & Contracts	 Records Management	 Regulatory, Compliance & Litigation	 Talent Continuity
 TEAM Program	 TRS-ActiveCare Affordability	 TRS-Care Funding		

STOPLIGHT RISK LEVEL (Threat to Achieving TRS Goals & Objectives)				
HIGH	ELEVATED	CAUTION	GUARDED	LOW
				

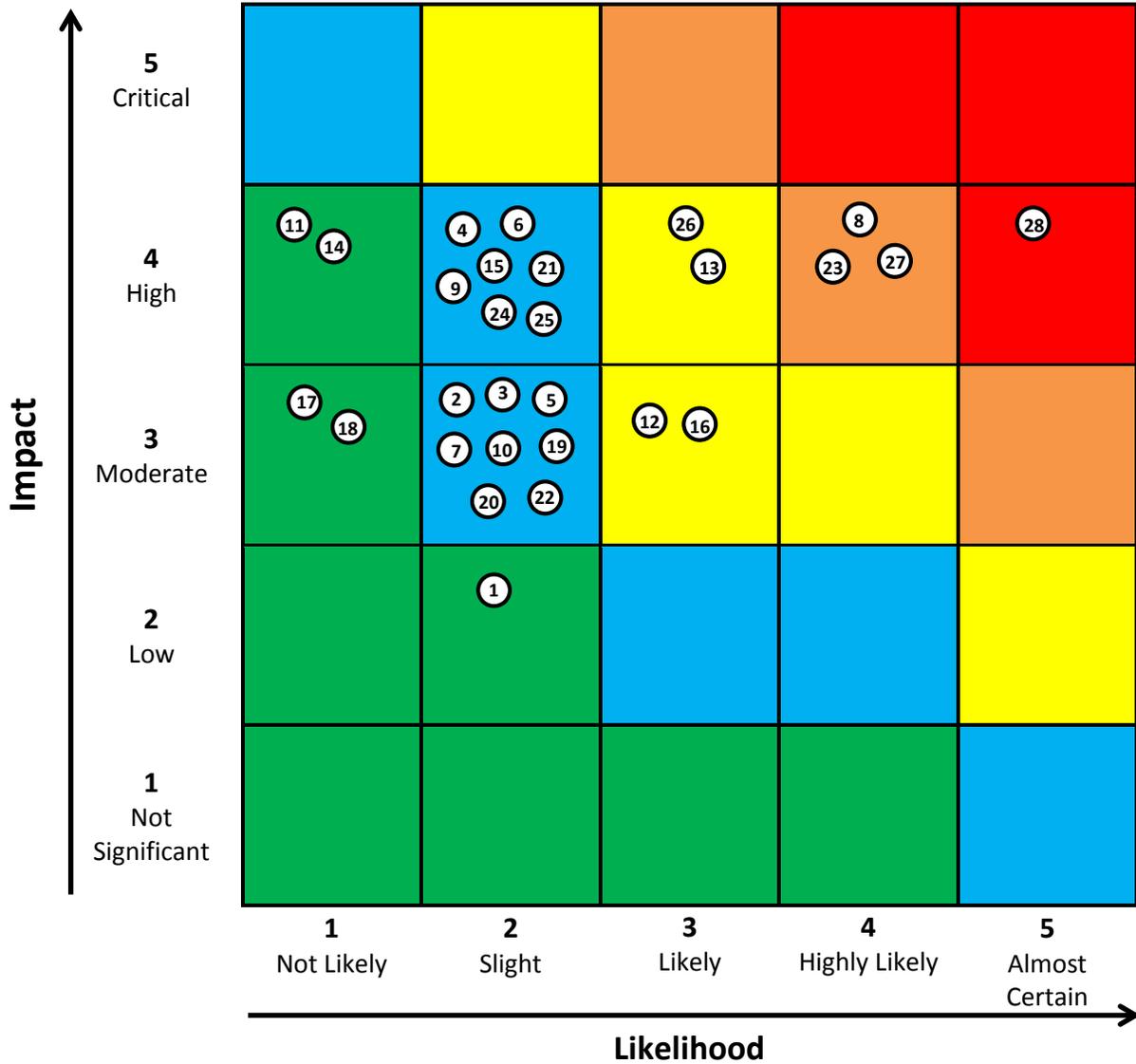
EXPECTED RISK LEVEL TREND (NEXT 12-24 MONTHS)		
INCREASE	DECREASE	NO CHANGE
		

Teacher Retirement System of Texas ERM Update – November 2015

Stoplight Report Changes

Risk Level Color/Trending Changes	June 2015	November 2015
■ Customer Service	● ↔	● ↑
■ Health Care Plans Administration	● ↔	● ↓
■ Information Security & Confidentiality	● ↔	● ↓
■ Pension Benefit Administration	● ↔	● ↑
■ Purchasing & Contracts	● ↔	● ↓
■ Records Management	● ↔	● ↔
■ TEAM Program	● ↓	● ↑
■ TRS-ActiveCare Affordability	● ↔	● ↑

Teacher Retirement System of Texas Risk Heat Map – November 2015



Risk Category (Risk Score)

1. 403(b) (2,2)
2. Accounting & Reporting (3,2)
3. Budget (3,2)
4. Business Continuity (4,2)
5. Communications & External Relations (3,2)
6. Credit (4,2)
7. Customer Service (3,2)
8. Employer Reporting (4,4)
9. Ethics & Fraud Prevention (4,2)
10. Facilities Management & Planning (3,2)
11. Governmental/Association Relations & Legislation (4,1)
12. Health Care Plans Administration (3,3)
13. Information Security & Confidentiality (4,3)
14. Investment Accounting (4,1)
15. Investment Operations (4,2)
16. Legacy Information Systems (3,3)
17. Liquidity/Leverage (3,1)
18. Market (3,1)
19. Open Government (3,2)
20. Pension Benefit Administration (3,2)
21. Pension Funding (4,2)
22. Purchasing & Contracts (3,2)
23. Records Management (4,4)
24. Regulatory, Compliance, & Litigation (4,2)
25. Talent Continuity (4,2)
26. TEAM Program (4,3)
27. TRS-ActiveCare Affordability (4,4)
28. TRS-Care Funding (4,5)

Teacher Retirement System of Texas Risk Level & Trend Summary – November 2015

Risk Category	6/2014	11/2014	6/2015	11/2015
403(b)				
Accounting & Reporting				
Budget				
Business Continuity				
Communications & External Relations				
Credit				
Customer Service				
Employer Reporting				
Ethics & Fraud Prevention				
Facilities Management & Planning				
Governmental/Association Relations & Legislation				
Health Care Plans Administration				
Information Security & Confidentiality				
Investment Accounting				
Investment Operations				

Risk Category	6/2014	11/2014	6/2015	11/2015
Legacy Information Systems				
Liquidity/Leverage				
Market				
Open Government				
Pension Benefit Administration				
Pension Funding				
Purchasing & Contracts				
Records Management				
Regulatory, Compliance & Litigation				
Talent Continuity				
TEAM Program				
TRS-ActiveCare Affordability				
TRS-Care Funding				

Teacher Retirement System of Texas ERM Update – November 2015

Risk Profile Updates

Changes made to:	Goal/Risk Description	Risk Score	Risk Level/ Trend	Comments	
				Risk Level	Trend
▪ 403(b)	✓	✓			✓
▪ Accounting & Reporting		✓			
▪ Business Continuity				✓	✓
▪ Credit					✓
▪ Customer Service		✓	✓	✓	✓
▪ Employer Reporting					✓
▪ Facilities Management & Planning					✓
▪ Governmental/ Association Relations & Legislation		✓			
▪ Health Care Plans Administration	✓	✓	✓	✓	✓
▪ Information Security & Confidentiality		✓	✓	✓	✓
▪ Legacy Information Systems		✓		✓	
▪ Liquidity/Leverage		✓			
▪ Open Government				✓	✓
▪ Pension Benefit Administration		✓	✓	✓	✓
▪ Pension Funding		✓			
▪ Purchasing & Contracts		✓	✓	✓	✓
▪ Records Management	✓	✓	✓	✓	✓
▪ Regulatory, Compliance & Litigation					✓
▪ TEAM Program		✓	✓	✓	✓
▪ TRS-ActiveCare Affordability	✓		✓		✓
▪ TRS-Care Funding	✓	✓		✓	✓

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
403(b)	Rebecca Merrill	Maintain list of both qualified companies and products which meet requirements of law and TRS rule.	Public education employees purchase non-qualified products and/or products from non-qualified companies.	2,2		While the 403(b) program is important to help ensure that members invest with reputable companies, it is not a core part of TRS' mission. So, if the program were to experience problems, TRS' core functions would continue on without interruption. Additionally, TRS has mitigations in place – such as review of 403(b) rules and a 403(b) program specialist – to help ensure the consistency of the 403(b) program. Therefore, the impact and likelihood of a 403(b) program failure seem low.	Legislation impacting the 403(b) program is not anticipated. New mitigations are planned for fiscal year 2016; however, the trend is expected to remain constant.
Accounting & Reporting	Don Green	Maintain and monitor the integrity, accuracy, and completeness of financial information and timeliness of reporting.	Materially inaccurate financial information and reports would result in Board of Trustees and Texas Legislature decisions being made on flawed data and adverse or qualified audit opinions.	3,2		Although there are challenges ahead in the implementation of a new accounting system and new accounting pronouncements, there should be adequate and knowledgeable staff to accomplish the tasks.	It is anticipated that staffing levels and experience will remain relatively constant. Any challenges initiated by the implementation of the TEAM Program (TEAM) will be mitigated by sound accounting and reporting processes and procedures.
Budget	Don Green	Ensure TRS has appropriate budget to provide and sustain resources necessary to successfully carry out TRS' mission, goals, and objectives to serve our members.	Lack of a sufficient operating budget could jeopardize our ability to effectively serve our members.	3,2		The agency's operating budget is driven by staffing, membership growth, trust fund balance, and other workload drivers. The agency's strong organizational governance plays a crucial role in meeting these challenges.	Any risk drivers in the ability to sustain an appropriate budget and available resources are mitigated by a strong strategic planning process and working closely with all divisions to identify funding to achieve goals and objectives in accordance with state statute.

*Light purple shading indicates risk category had a risk assessment this reporting period.

RISK SCORE	
IMPACT	5-Critical, 4-High, 3-Moderate, 2-Low, 1-Not Significant
LIKELIHOOD	5-Almost Certain, 4-Highly Likely, 3-Likely, 2-Slight, 1-Not Likely

Example: 3,1 (Impact, Likelihood) = 3-Moderate, 1-Not Likely

RISK LEVEL				
HIGH	ELEVATED	CAUTION	GUARDED	LOW
High Risk	Elevated Risk	Moderate Risk	Guarded Risk	Low Risk

EXPECTED RISK LEVEL TREND (NEXT 12-24 MONTHS)		
INCREASE	DECREASE	REMAIN CONSTANT

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
Business Continuity	Rebecca Merrill	Recover and resume operations in the event of a major business interruption.	Members do not receive statutorily required services timely.	4,2		The 2015 Disaster Recovery Exercise was conducted at the colocation site on October 9-10. All IT systems were successfully restored within the established Recovery Time Objectives. Staff from three core business units verified recovery data quality and performed critical function processes to effectively illustrate continuity capabilities.	Over the next 12-24 months the risk level is not expected to change. Until TEAM is fully implemented, the recovery process for older technologies may continue to be a challenge.
Communications & External Relations	Howard Goldman	Maintain effective communication and positive relations with members, retirees, employers, TRS employees, news media, and the public.	Poor communication could lead to confusion resulting in increased calls to TRS, poor or inappropriate decision-making regarding TRS benefits, and incorrect information provided to external parties.	3,2		Due to existing procedures and routine interaction with other departments when responding to media requests, preparing articles for publications and developing information for social media channels and our website, the overall risk level is controlled.	No substantive changes have occurred in the processes and policies followed to warrant an increase or decrease in risk levels.
Credit	Jase Auby	Maintain effective management of counterparty and securities lending risks.	Unmanaged counterparty and securities lending exposures could result in losses to the investment portfolio.	4,2		All counterparties currently meet required credit ratings; securities lending exposures well managed and are within guidelines.	All counterparty credit ratings are A3/A- or higher by at least one credit agency. Credit ratings expected to remain stable. Added a third FCM (Credit Suisse) for additional diversification.
Customer Service	Barbie Pearson	Deliver superior service to members and internal/external customers.	Inadequate customer service could result in dissatisfied members or customers and could lead to increased scrutiny and oversight.	3,2		High quality customer service is provided by Benefit Services departments based on internal and external feedback. Overall, telephone customer service measures are meeting and routinely exceeding expectations. The addition of Benefit Accounting increases the number and type of customers served. Tools currently used to measure the quality of service and customer satisfaction of reporting entities will need to be reviewed and enhanced to ensure we are delivering superior service to these customers.	Expect increased risk as TEAM requires more subject matter expert involvement while phases are implemented. The implementation of TRUST Phase 1 will increase the need for consistent and managed communication with reporting entities and members. Recent audit findings for reporting entities have unearthed reporting errors that may be increased in volume with full payroll reporting requirements. We expect to see a trend in employment after retirement issues and eligibility

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
							determinations resulting in increasing demands for customer service.
Employer Reporting	Barbie Pearson	Accurately capture and utilize employer reported data to project and calculate future benefits of TRS members and to properly allocate the total pension liability across districts.	<ul style="list-style-type: none"> Incorrect reporting could lead to calculated benefits being inaccurate. Improperly allocating actuarial liability across districts. 	4,4		Current system limitations present challenges to data analysis and verification controls. Risk level has increased due to recent GASB pronouncements requiring greater controls around district data and reports.	The new TEAM LOB system is expected to address most of the risks and challenges surrounding collecting, analyzing and verifying district data. However, the system will not be implemented until at least fiscal year 2017.
Ethics & Fraud Prevention	Brian Guthrie	Maintain a culture that upholds ethical behavior and values that contribute and promote the fiduciary duties of prudence and loyalty, and reduces fraud risks.	A lack of ethics could undermine the duties of prudence and loyalty and create fraud risks resulting in loss of assets and credibility, adverse publicity, and increased scrutiny and oversight.	4,2		While the impact of an ethical breach or instance of fraud would be high, the likelihood of such an event is relatively low. Currently, TRS has a number of mitigations in place such as educating individuals on the fraud, waste, and abuse policy and the fraud web reporting form. These types of mitigations, along with TRS' background check policy, operate together to create a guarded risk for a fraud or ethics breach.	The risk of a fraud or ethical breach is trending neither up nor down. TRS continues to maintain mitigations that help prevent incidences of fraud or an ethical breach. This holds the trend line constant.
Facilities Management & Planning	Don Green	Provide a physical work environment that is safe and enhances productivity.	Inadequate facilities management or ineffective space utilization could result in less than desirable conditions for TRS members, visitors, and staff and could jeopardize our ability to continue providing an exemplary level of service to our members.	3,2		An evolving organization with rapidly changing needs for the amount and type of space required can experience negative impacts on service levels and/or moderate business disruptions.	TRS has engaged GSC Architects to assist with space planning and design. With their assistance, we have completed redesign of the fourth and fifth floors of the east building and are working on a redesign of the Telephone Counseling Center.
Governmental/ Association Relations & Legislation	Ray Spivey	Maintain effective communications and positive relations with the Legislature, associations, and other public parties.	Poor communications could lead to adverse relations, unfavorable legislation, and restricted funding.	4,1		Our relationship with the legislature is constantly improving and communication has been effective. Our relationship with the public also appears to be positive.	No major issues are expected over the next 12-24 months.

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
Health Care Plans Administration	Katrina Daniel	Administer retiree and active member health care programs that are valued by enrollees.	Inadequate administration of the health care programs could possibly affect the health of those who depend on the delivery of TRS health care benefits.	3,3		Much of the administration of the programs is outsourced. Contract monitoring and controls mitigate this risk.	The risk level of this category has been elevated to caution, but the trend is expected to decrease over time due to enhanced administrative support from vendors and access to additional resources.
Information Security & Confidentiality	Chris Cutler Ken Welch	Maintain the integrity, availability, and protection in the storage, use, and transfer of TRS information resources (in any form or medium).	Unauthorized or unintentional release/access of TRS confidential information could result in state or federal law violations, sanctions against TRS or its employees, and harm the best interests of TRS.	4,3		Depending on the scope of an unauthorized or unintentional release of confidential data, this could have a high impact on TRS. With the existing mitigation strategies in place and new strategies being implemented by the newly formed Information Security Department and Enterprise Security Team the likelihood is fairly low; however, due to the broad landscape of cyber threats and nature of information security, we remain aware that this risk is likely to occur.	Trending for this risk category is trending lower. This trend reflects our increased focus and organization around information security. Over the last year IT has hired a new Information Security Officer (ISO), created a new Information Security department dedicated to information security that reports directly to the Chief Information Officer and created an Enterprise Security team made up of IT Security and business professionals across the agency focused on security. While this trend is positive, we should never get comfortable that enough security or mitigating strategies are in place.
Investment Accounting	Don Green	<ul style="list-style-type: none"> Maintain the integrity of investment information - reporting and disclosure, accuracy, completeness and valuation. Ensure TRS investment fundings and distributions are appropriately and accurately delivered and received. 	Materially inaccurate investment information and reports would result in Board of Trustees and Texas Legislature decisions being made on flawed data and adverse or qualified audit opinions.	4,1		The system's custodian maintains the official investment book of record. Funds are sent and received by custodian bank. Department monitoring and oversight control mitigate the risks for this category.	State Street bank has been re-selected as custodian bank providing stability for the next few years. Additionally, the SSB accounting team has been upgraded emphasizing a daily ownership greater understanding of accounting records rather than a traditional month-end only traditional pension fund accounting cycle.

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments		
						Risk Level	Trending	
Investment Operations	Public Market Operations	Sylvia Bell	Maintain the integrity of the transaction settlement and position information for optimal investment management decisions.	Inefficient or ineffective transaction settlement or position management process could result in losses to the fund.	4,2		Given the operational complexity of these processes, there exists a guarded threat to TRS achieving its investment goals and objectives.	IMD performs daily and monthly reconciliations of trade and positions and NAVs via TRS custodian systems. Results are provided to IMD profit centers on a daily and monthly basis. TRS-custody bank relationship is managed through customized Service Level Agreement with key performance indicators.
	Private Market Operations	Sylvia Bell	Maintain integrity of the transaction settlement and position information for optimal investment management decisions.	Inefficient or ineffective transaction settlement or position management process could result in losses to the fund.	4,2		Given the operational complexity of these processes, there exists a guarded threat to TRS achieving its investment goals and objectives.	IMD performs monthly and quarterly reconciliations of trade and positions and NAVs via TRS custodian systems. Results are provided to IMD profit centers on a monthly and quarterly basis. TRS-custody bank relationship is managed through customized Service Level Agreement with key performance indicators.
	Performance Reporting	Sylvia Bell	<ul style="list-style-type: none"> Maintain the integrity of investment information - reporting and disclosure, accuracy, completeness and valuation. Develop and disseminate customized investment reporting for both management and governance to enhance making better strategic and tactical investment decisions. 	Performance reports contain material inaccuracies.	4,2		Communication of inaccurate information, to both internal and external parties, could result in a guarded threat to TRS investment decisions.	IMD performs daily, weekly and quarterly reconciliations of investment returns. Investment results are presented to the IMD management committee for review and validation. Third-party calculation and pricing is performed by TRS custodian bank. TRS-custody bank relationship is managed through customized Service Level Agreement with key performance indicators.
Legacy Information Systems	Chris Cutler	Provide information systems to meet TRS' business and customer service needs.	Inability to provide adequate and consistent information in a timely fashion via the	3,3		It is complicated for our legacy systems to provide robust, online self-service applications for our members. So there is a moderate impact that the preferred	The legacy systems are still working well and are stable. The functionality that they provide has not and will not diminish in the near future.	

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
			preferred delivery mechanism.			delivery mechanism may not be available when desired. The risk is likely because we know that some of our membership would like to do all their business with us online and that desire will only grow over time.	There are some web self-service applications for members and retirees to use. The TEAM Program will help provide improved delivery mechanisms such as online self-service applications and web-based functionality preferred by our members and business users.
Liquidity/Leverage	Jase Auby	Maintain levels of liquidity appropriate for the support of fund disbursements, anticipated investment funding needs and trust level leverage.	Inadequate liquidity could lead to cash shortfalls.	3,1		Trust is highly liquid and minimally levered.	Trust use of liquidity and leverage is monitored daily and is projected to remain stable.
Market	Jase Auby	Maintain market risk exposures consistent with investment objectives.	Too little or too much exposure to market risk could each lead to undesirable investment outcomes.	3,1		Investment policy asset allocation ranges limit absolute market risk (VaR) appropriately; relative risk (tracking error) is budgeted by IMD.	Limits remain appropriate and risk is well within min/max range.
Open Government	Carolina de Onís	Ensure compliance with laws and rules related to open records and meetings.	Non-compliance could lead to penalties and fines or voiding of board actions.	3,2		Volume and complexity of open records requests and requests seeking personal financial information about TRS' key employees and attorney-client privileged communications in outside-counsel fee bills for legal services rendered in TRS investment matters.	New staff attorney hired during last reporting period is expanding duties and expertise in open meetings matters. New open records specialist hired since last reporting period is meeting or exceeding expectations and contributing significantly to processing recent heavy open records workload. New legislation gives trustees more flexibility to attend educational summits regarding TRS' strategic partnerships.
Pension Benefit Administration	Barbie Pearson	Accurate delivery of benefits to TRS members, retirees and beneficiaries, including systems monitoring and controls related to accurate calculations and benefit payments to others.	Ineffective delivery of benefits could lead to inaccurate information, inaccurate benefits/ payments, dissatisfied members, retirees, or beneficiaries, and loss of credibility, adverse public perception,	3,2		Current controls and monitoring assure accurate delivery of benefits. Accuracy and timeliness of benefit delivery meets or exceeds expectations as evidenced through audits and performance metrics. Implementation of TRUST Phase 1 will result in changes for reporting entities and how some services are delivered.	Expect trend to increase if major legislative changes are passed, a larger than usual number of members retire, and/or TEAM requires more subject matter expert involvement than anticipated. The implementation of TRUST Phase 1 will increase the need for

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
			increased scrutiny, and oversight.			Multiple departments will also have competing priorities with testing and participating in requirements gathering activities.	consistent and managed communication with reporting entities and members. Recent audit findings for entities have unearthed reporting errors that may increase in volume with full payroll reporting requirements. We expect to see a trend in employment after retirement issues and eligibility determinations resulting in increasing demands for customer service.
Pension Funding	Brian Guthrie	Sustain a financially sound pension trust fund.	A lack of sound funding for the plan could lead to insufficient assets to pay for long-term benefits and financial obligations.	4,2		While the impact of a loss of pension funding would be significant, the likelihood of such an event is relatively low. The mid-year valuation for February 2015 determined the pension fund is actuarially sound with a funding period of 29.3 years. Moreover, the fund is deferring just over one billion in investment gains. The plan's fiscal health depends on the current contribution levels continuing indefinitely and any benefit enhancements receiving appropriate and timely funding. Finally, there continues to be parties interested in changing the plan's funding and defined benefit status. Therefore, the risk is guarded.	Currently, the risk of a fiscally unsound pension fund is remaining constant. The increased contribution rates adopted by the 83 rd Legislature continue to help keep the fund actuarially sound and investment returns have been strong enough that the fund is now deferring a gain. However, the fund's five-year experience study is beginning with anticipated adjustments necessary to at least the mortality assumption. Any new assumption package will likely increase the funding period and the UAAL. So, the trend is holding constant until the results of the experience study are determined.
Purchasing & Contracts	Don Green	Maintain effective procurement and contract management systems.	Inappropriate procurement practices could result in purchases of sub-standard products and services, unfavorable pricing or contract terms, and violation of laws. Ineffective contract monitoring could result in contractors not fulfilling	3,2		Impact is listed at 3 (moderate) because in the event the overall risk were to occur, it could have a fairly significant impact to TRS ranging from appearance issues, violation of statute, or by not spending TRS funds in a responsible manner (pay too much, contractors not fulfilling obligations, project failures, etc.). Likelihood is listed at 2 (slight) because TRS has good processes and procedures in place, our Contract Administration Coordinator performs an	Hiring process is completed, three certified purchasers and one certified contract administrator have been hired. Will be fully staffed by December 1, 2015.

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
			their contractual obligations.			internal quality assurance function, we must report procurement activities regularly, and we are subject to audit by multiple audit entities, both internal and external.	
Records Management	Don Green	Manage the creation, use, maintenance, retention, preservation, and destruction of records to improve efficiency of recordkeeping, ensure access to public information, and reduce cost.	An ineffective records management program could result in loss or accidental release of records, loss of credibility, delays in accessing/destroying records, and increased scrutiny and oversight.	4,4		There is a high growth rate in the volume of e-records. We have silos of files where the retention and disposition is managed manually by individual staff. Due to recent audit findings and succession planning issues, the risk level has been increased to "Elevated" from "Caution."	<p>The risk level will remain elevated over the next 12-24 months. Activities to mitigate the risk include the following:</p> <ol style="list-style-type: none"> 1. Realignment was done in June 2015 to the Chief Administrative Officer. 2. An Awareness Campaign is planned to give a higher profile to Records Management in the organization. 3. Department assessments to review where each work team stores their electronic records. 4. Standardized records repositories in SharePoint for short and medium-term retention records, and FileNet for long-term retention records. 5. Increased staffing in Records to handle the projects and for succession planning. 6. Create a cross-functional group to review Records Management policy, and program scope; to coordinate records across the agency. 7. A certification process on exiting employees and contractors. 8. Different levels of training are planned to aid in understanding the importance of records management.

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
Regulatory, Compliance & Litigation	Carolina de Onís	<ul style="list-style-type: none"> Adhere to and analyze current laws, rules, and policies (e.g., maintain tax qualification status). Render competent advice on legal risk management and awareness, manage litigation risks, and negotiate contracts to address risks. 	Non-compliance with laws and rules could lead to penalties, fines, liability and litigation; impaired ability to conduct business; burdensome oversight; third-party investigations/audits; adverse legislation; increased scrutiny; or loss of tax qualification status.	4,2		Changes in regulatory environment (Dodd-Frank, BASEL III) and changes in TRS laws (open government, retirement age, health plans, etc.).	Hiring an additional compliance employee to assist the Chief Compliance Officer with regulatory compliance matters; consulting frequently with outside counsel; board policy on procurement adopted; updating contract administration manual; enhancing compliance software systems; received IRS tax-qualification determination; monitoring proposed IRS regulations; onboarding new pension benefits attorneys; completed statutory four-year rule review; new investment attorneys have been trained; and retaining existing expertise.
Talent Continuity	Janet Bray	Attract, retain and develop a highly competent staff.	The delivery of member services and pension fund management could be negatively impacted by turnover, the inability to retain qualified staff, lack of a sufficient knowledge transfer program, and an inconsistent performance management process.	4,2		Maintaining a qualified, competent workforce is important for TRS to achieve its goals and objectives. Turnover in the workforce is inevitable, and the loss of staff may create some delays or reductions in meeting strategic or operational objectives. However, these potential risks are not critical enough to stop TRS from meeting goals or terminate business services. As a result, the overall workforce continuity risk level color is set at Guarded (Blue) because of minimal threats to achieving TRS goals and objectives.	We anticipate overall workforce continuity risks decreasing over the next 12-24 months due to various Human Resources (HR) initiatives. These include implementing new HR technologies; updating all agency job descriptions; identifying core competencies, knowledge, skills and abilities for positions; addressing gaps in those attributes through increased learning and development opportunities; and resolving staffing needs through workforce planning, succession planning and the realignment of job functions as necessary.
TEAM Program	Ken Welch	Implement cost effective, efficient, and sustainable processes and systems that enable TRS to serve its members, employers, and annuitants.	System design, implementation and functionality of the new processes and systems do not meet the growing demands of TRS in service of its members. Program/	4,3		The Impact rating was increased from a 3 on the last report to a 4 for this report. The Likelihood rating remained the same at a 3. This puts the average risk score at a 12.0 versus a 9.0 on the last report.	The number of key TEAM risks decreased from 21 on the previous report to the current 17. This net decrease of 4 risks was the result of 6 risks being closed and 2 risks being added.

Teacher Retirement System of Texas Risk Profiles – November 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
			project implementation schedule and cost exceeds original estimates.			<p>This is still a Risk Threat Level of “Caution” as was reported on the last Stoplight Report.</p> <p>The Risk Level increase is directly attributed to the fact that six lower level scored risks were closed and two higher scored risks were added. There were also several current risks that had their likelihood decreased, but the overall net was slightly higher than the previous report.</p>	The Risk Oversight Committee has assessed the Risk Trend to be increasing over the next 6 months as we enter the development, testing and Reporting Entity Certification phases of the TEAM Program. Should a risk occur in one of these later phases it would have a greater impact on the project due to the limited time left to correct the risk.
TRS-ActiveCare Affordability	Katrina Daniel	Facilitate financial soundness of TRS-ActiveCare in order to provide affordable health care benefits.	Inadequate funding by the state and participating entities and/or unanticipated external forces could affect affordability.	4,4		<p>Given the static state and district contributions and rising healthcare costs, the risk level remains elevated. Inadequate funding would jeopardize the fund’s ability to provide public school employees with affordable health care.</p>	District and State minimum contribution requirements to the fund have been static since the inception of the plan, while overall healthcare continues to rise.
TRS-Care Funding	Katrina Daniel	Facilitate long-term soundness of TRS-Care in order to provide sustainable retiree health care benefits.	Inadequate funding and/or unanticipated external forces would affect solvency of the program over the next biennium, requiring significant premium increases or benefit reductions.	4,5		<p>The fund is projected to become insolvent in the 2016-2017 biennium. The risk level has been elevated to high. Inadequate funding would jeopardize retirees having access to affordable health care.</p>	The fund is projected to decline each year and become insolvent in the 2016-2017 biennium. House Bill 2 provided supplemental funding.

Teacher Retirement System of Texas

ERM Update – November 2015

Risk Assessments

- Updated risk assessments
 - 403(b)
 - Accounting & Reporting
 - Budget
 - Credit
 - Customer Service
 - Governmental/Association Relations & Legislation
 - Health Care Plans Administration
 - Information Security & Confidentiality
 - Legacy Information Systems
 - Liquidity/Leverage
 - Market
 - Pension Benefit Administration
 - Pension Funding
 - Purchasing & Contracts
 - TEAM Program
 - TRS-ActiveCare Affordability
 - TRS-Care Funding

Teacher Retirement System of Texas

ERM Update – Conclusion

Summary for this Reporting Period

- 17 Stoplight Report risk assessments completed
- 4 risk categories increased their risk levels
- High Risk Area – TRS-Care Funding
- Elevated Risk Areas – Employer Reporting, Records Management, TRS-ActiveCare Affordability
- Action items to further mitigate higher risks are detailed in the Appendix

ERM Activities for 2016

- Risk Assessments
 - Stoplight Report
 - TEAM Program Projects
 - Ad-hoc Requests
- Strategic Planning

Tab 3

Teacher Retirement System of Texas



Disaster Recovery and Business Continuity Initiatives

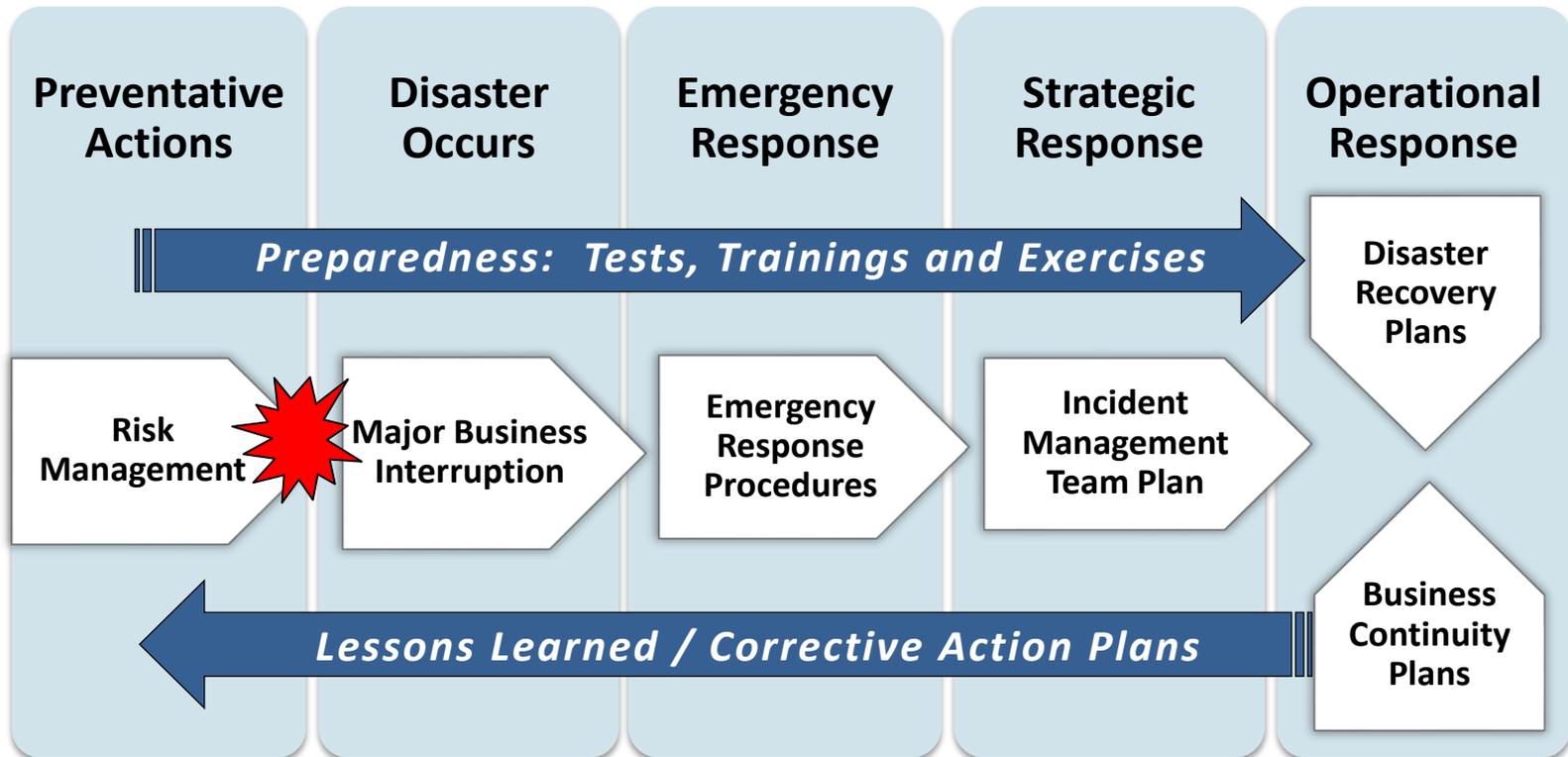
A commitment to preparedness and resiliency

Jay LeBlanc and Cristi Woods, Risk Management & Strategic Planning
Kyle Weigum, Network Infrastructure & Support





Business Continuity Management Program





Risk Management Coordination

Incident Management Team has the ultimate responsibility for making decisions related to business resumption



Disaster Recovery Teams are needed to recover the technological aspects of mission-critical functions in the event of a major interruption



Business Continuity Teams consist of business units necessary to resume TRS' critical functions in the event of a major business interruption



On Thursday, October 8, at about 10:00 a.m., a tornado passed through downtown Austin. TRS issued a Shelter-in-Place, accounted for all employees, and when determined it was safe, assisted employees with evacuating the buildings. No injuries were reported and employees were instructed to remain available for communications. Both buildings at the Red River campus and 816 Congress have significant damage.



Are we ready?

For illustration purposes only



Disaster Recovery Environment

Move Production to Co-location Site



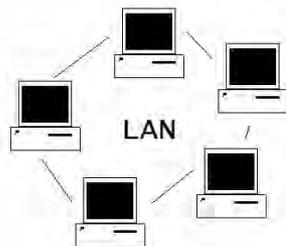
Teacher Retirement System



Replicate/Recover
Data & Systems



Recovery Service Center Austin





Disaster Recovery Results

Pre Co-location Recovery Results		Network Recovery Results		Mainframe Recovery Results	
Core System Recovery time	48 hours	Core System Recovery time	1.5 hours	Core System Recovery time	10 hours
Numbers of servers recovered/tested	12 / 12	Numbers of servers recovered/tested	375 / 42	Numbers of servers recovered/tested	1 / 1
Amount of data restored (terabytes)	45	Amount of data replicated (terabytes)	142	Amount of data restored (terabytes)	9
System/Data Age	3 days	System/Data Age	1-4 hours	System/Data Age	24-48 hours

Disaster Recovery Highlights

Disaster Recovery Objectives Successfully Achieved!

- Network, Virtual Server/Storage, and Imaging environments were recovered in record time
- IT Infrastructure for **TRUST** Phase 1A was successfully recovered
- Customized recovery programming developed by IT staff resulted in significant cost savings and contributed to recovery efficiency
- Co-location environment allowed testing of additional infrastructure applications and functions



Testers – Business Units

- TEAM/TRUST Phase 1A
- Benefit Counseling
- Benefit Processing
- General Accounting
- Risk Management



Evaluator - Internal Audit





Business Continuity Test Highlights

Business Continuity Objectives Successfully Achieved!

- Data recovered was accessible, complete and accurate
- New process flows tested
- New reconciliation capabilities identified
- Risk of data loss significantly reduced



Conclusion

We are prepared!



APPENDIX

Risk Report Details

403(b) RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Rebecca Merrill		November 2015

GOAL	OVERALL RISK	OBJECTIVES
Maintain list of both qualified companies and products which meet requirements of law and TRS rule.	Public education employees purchase non-qualified products and/or products from non-qualified companies.	<ul style="list-style-type: none"> ▪ Set fee caps for 403(b) products offered to school district employees. ▪ Ensure that salespeople are properly licensed by their respective governing authority.

SUMMARY

Existing mitigations are working as implemented; however, additional mitigations are planned to further reduce the risks related to intentional/unintentional violation of 403(b) requirements, district employees paying fees that exceed TRS maximums, and lack of awareness of 403(b) requirements by school districts and charter schools. Key mitigations include annual demonstration of licensure and qualifications of 403(b) company personnel, statutory review of the 403(b) Rule, and companies certify every five years. Notable activity since the last reporting date, the 403(b) Rule was reviewed in June 2013 and the next review is planned for 2018.

Risk Description	Mitigations
1. intentional violation of 403(b) requirements including misreporting to TRS, failing to certify as a company, failing to register products or failing to comply with annual demonstration (Action Item 1, 4)	<ul style="list-style-type: none"> ▪ annual demonstration to ensure salespeople are qualified to offer the products ▪ follow-up on complaints ▪ communicate with school districts to educate on 403(b) requirements ▪ revoke certification ▪ initial review of products ▪ report company to licensing agency ▪ address any lack of compliance with company ▪ statutory review of 403(b) Rule ▪ strengthened efforts to comply with annual demonstration through revised follow-up letter referencing original certification
2. unintentional violation of 403(b) requirements including erroneous reporting to TRS, inadvertent failure to certify as a company, inadvertent failure to register products or inadvertent failure to comply with annual demonstration (Action Item 4)	<ul style="list-style-type: none"> ▪ annual demonstration to ensure salespeople are qualified to offer the products ▪ send reminders of registration period to all companies with registered products every 6 months ▪ companies required to certify every 5 years ▪ follow-up on complaints ▪ address any lack of compliance with company ▪ statutory review of 403(b) Rule ▪ strengthened efforts to comply with annual demonstration through revised follow-up letter referencing original certification
3. online list of companies can't be accessed due to technical issues	<ul style="list-style-type: none"> ▪ hard copy list maintained ▪ electronic backups nightly ▪ district employees can call TRS

403(b) RISK REPORT

Risk Description	Mitigations	
4. online list of products can't be accessed due to technical issues (new risk)	<ul style="list-style-type: none"> ▪ electronic backups nightly 	<ul style="list-style-type: none"> ▪ district employees can call TRS
5. companies remain on the list after they are no longer certified	<ul style="list-style-type: none"> ▪ manual process to review and remove companies 	<ul style="list-style-type: none"> ▪ companies required to certify every 5 years ▪ address any lack of compliance with company
6. products remain on the list after they are no longer registered (new risk)	<ul style="list-style-type: none"> ▪ address any lack of compliance with company 	<ul style="list-style-type: none"> ▪ companies are required to apply for product registration every 5 years
7. district employees pay fees that exceed TRS maximums (Action Item 1)	<ul style="list-style-type: none"> ▪ address any lack of compliance with company ▪ contact licensing agency for investigation 	<ul style="list-style-type: none"> ▪ follow-up on complaints ▪ statutory review of 403(b) Rule
8. complaint resolution is not reported to TRS timely	<ul style="list-style-type: none"> ▪ contact licensing agency 	<ul style="list-style-type: none"> ▪ follow-up on complaints
9. school districts and charter schools are unaware of requirements for 403(b) products (Action Item 3)	<ul style="list-style-type: none"> ▪ communicate with school districts about 403(b) program requirements 	<ul style="list-style-type: none"> ▪ annually provide information in <i>TRS Update Newsletter</i> on 403(b) requirements

Action Item	Owner	Target Date	Revised	Status	Comments
1. Explore adoption of a rule that requires companies to annually review fees charged on all contracts and initiate refunds if fee caps are exceeded (Risk 1, 7)	Special Projects	1/2015	8/2016	Planned	
2. Communicate with school districts to educate on 403(b) requirements (Risk 1, 9)	Special Projects	10/2014		Complete	Utilized <i>TRS Update Newsletter</i> to reach out to school districts.
3. Contact association of charter schools and offer to educate (Risk 9)	Special Projects	11/2014	2/2016	Planned	
4. Explore options for addressing the issue of mutual fund companies having to sign annual demonstration despite the fact that they don't sell directly to Texas educators (Risk 1, 2)	Special Projects	8/2016		Planned	

403(b) RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Annually demonstrate licensure and qualifications of 403(b) company personnel	Special Projects	Contact the companies for annual demonstration.	Each June receive documentation and record compliance on TRS website.
Statutory review of 403(b) Rule	Special Projects	Rule review every 5 years based on statutory requirements.	Review completed in 2013 and the next review is planned for 2018.
Companies required to certify every 5 years	Special Projects	Contact the companies for recertification.	Ongoing process as company certifications expire.

ACCOUNTING & REPORTING RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Don Green	● ↔	November 2015

GOAL	OVERALL RISK	OBJECTIVES
Maintain and monitor the integrity, accuracy, and completeness of financial information and timeliness of reporting.	Materially inaccurate financial information and reports would result in Board of Trustees and Texas Legislature decisions being made on flawed data and adverse or qualified audit opinions.	<ul style="list-style-type: none"> Ensure timely and accurate reporting for decision-making purposes Obtain favorable or unqualified audit results

SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts a majority of the risks. Other risks need further mitigation and action items are planned or in progress for those risks. Key mitigations include quality control processes, policies and procedures, and hiring additional/experienced personnel. Two notable activities for this risk category include the following:

- Received Certificate of Achievement for Excellence in Financial Reporting for fiscal year ended August 31, 2014
- Executive Director’s Award of Excellence for GASB 67/68 Project

Risk Description	Mitigations
1. inadvertent errors, duplicates, or omissions	<ul style="list-style-type: none"> quality control process documented policies and procedures hire additional staff as needed exception reports <ul style="list-style-type: none"> reconciliations audit trails ongoing training
2. missed oversight or regulatory deadline	<ul style="list-style-type: none"> documented policies and procedures hire additional staff as needed <ul style="list-style-type: none"> planning schedule Outlook reminders
3. lack of training	<ul style="list-style-type: none"> documented policies and procedures training budget <ul style="list-style-type: none"> documented workpapers hire experienced staff
4. poor or unclear communication	<ul style="list-style-type: none"> documented policies and procedures documented workpapers routine team meetings <ul style="list-style-type: none"> obtain clarification hire experienced staff good communication skills
5. competing priorities (Action Item 1)	<ul style="list-style-type: none"> supervisory guidance cross-training <ul style="list-style-type: none"> routine team meetings hire additional staff as needed

ACCOUNTING & REPORTING RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> ▪ contract workers ▪ delegation 	<ul style="list-style-type: none"> ▪ subject matter experts for each team
6. inadequate or poorly executed quality control process	<ul style="list-style-type: none"> ▪ hire experienced personnel ▪ multiple reviewers when needed 	<ul style="list-style-type: none"> ▪ documented policies and procedures ▪ checklists
7. labor intensive manual data collection process (Action Item 2)	<ul style="list-style-type: none"> ▪ automate processes ▪ streamline manual processes 	<ul style="list-style-type: none"> ▪ hire experienced personnel
8. TRS financial statements not in compliance with the Governmental Accounting Standards Board (GASB) or notes are omitted for significant disclosure items	<ul style="list-style-type: none"> ▪ familiarity and continuous monitoring of accounting standard changes (e.g., GASB requirements) ▪ Government Finance Officers Association (GFOA) checklist 	<ul style="list-style-type: none"> ▪ communication with Benefit Accounting and oversight entities ▪ GASB subscriptions

Action Item	Owner	Target Date	Revised	Status	Comments
1. Enhance time management process (e.g., scheduling appointments to minimize interruptions) (Risk 5)	General Accounting	Pending		Planned	To assist with time management, staff has posted a frequently asked questions area on the Intranet to help reduce visits and calls regarding routine Payroll, Leave and Insurance questions. In addition, the Financial System Replacement Project may include a Human Resources Management (HRM) module.
2. Implement new financial system (Risk 7)	General Accounting	Pending		In Progress	The Financial System Replacement Project is part of the TEAM Program. Cross-reference Budget risk report action item for Risk 5.

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Quality control processes (Risk 1)	General Accounting	Maintain up-to-date desk procedures. Ongoing supervisory review.	

ACCOUNTING & REPORTING RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Policies and procedures (Risk 1, 2, 3, 4, 6)	General Accounting	Reviewed and updated annually.	Provided to the State Auditor's Office (SAO) during the Comprehensive Annual Financial Report (CAFR) audit.
Hire additional/experienced personnel (Risk 1, 2, 3, 4, 5, 6, 7)	General Accounting	Job description review, qualifications screening, reference and background checks, and skills-based testing. Feedback during probationary period.	

BUDGET RISK REPORT

RISK OWNER

RISK LEVEL/TREND

REPORTING DATE

Don Green



November 2015

GOAL

OVERALL RISK

OBJECTIVE

Ensure TRS has appropriate budget to provide and sustain resources necessary to successfully carry out TRS' mission, goals, and objectives to serve our members.

Lack of a sufficient operating budget could jeopardize our ability to effectively serve our members.

To efficiently request, plan, allocate, and control the spending of financial resources.

SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts a majority of the risks. One risk needs further mitigation and an action item is in progress for those risks. Key mitigations include policies and procedures, hiring additional experienced personnel, and quality control processes.

Risk Description	Mitigations	
1. inaccurate data from systems	<ul style="list-style-type: none"> ▪ reconciliations ▪ internal and external audits 	<ul style="list-style-type: none"> ▪ documented desk and departmental procedures
2. lack of training	<ul style="list-style-type: none"> ▪ training through oversight agencies 	<ul style="list-style-type: none"> ▪ cross-training
3. competing priorities	<ul style="list-style-type: none"> ▪ supervisor guidance ▪ cross-training ▪ routine meetings 	<ul style="list-style-type: none"> ▪ prioritize workload ▪ intern program ▪ ongoing communication
4. lack of support from upper management	<ul style="list-style-type: none"> ▪ ongoing communication 	<ul style="list-style-type: none"> ▪ supervisor guidance
5. labor intensive manual processes (Action Item 1)	<ul style="list-style-type: none"> ▪ automate processes ▪ periodic reassessment 	<ul style="list-style-type: none"> ▪ streamline manual processes ▪ quality control process
6. lack of personnel	<ul style="list-style-type: none"> ▪ recruitment ▪ intern program ▪ contractors 	<ul style="list-style-type: none"> ▪ hire additional, experienced staff ▪ internal team meetings ▪ quarterly budget meetings
7. lack of cross-communication with departments	<ul style="list-style-type: none"> ▪ quarterly budget meetings ▪ divisional budget representatives ▪ participatory budget process 	<ul style="list-style-type: none"> ▪ monitor ongoing expenses against budgeted estimates and identify changes needed for future budgets

BUDGET RISK REPORT

Risk Description	Mitigations
8. not aligning budget plans with agency goals and objectives	<ul style="list-style-type: none"> ▪ clearly defined executive management priorities ▪ strong strategic planning process ▪ monitor ongoing expenses against budgeted estimates and identify changes needed for future budgets
9. failure to receive approval for adequate funding, or appropriate statutory authority to determine funding, from the legislature	<ul style="list-style-type: none"> ▪ follow state budget process ▪ pursue transparency with state leadership ▪ seek input as appropriate from all stakeholders

Action Item	Owner	Target Date	Revised	Status	Comments
1. Implement new financial system (Risk 5)	General Accounting	Pending		Planned	The Financial System Replacement Project is part of the TEAM Program. Cross-reference Accounting & Reporting risk report action item for Risk 7.

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Policies and procedures (Risk 1)	Budgeting	Reviewed and updated annually.	Provided to the State Auditor’s Office (SAO) during the Comprehensive Annual Financial Report (CAFR) audit.
Quality control processes (Risk 5)	Budgeting	Maintain up-to-date desk procedures. Ongoing supervisory review.	
Hire additional, experienced staff (Risk 6)	Budgeting	Job description review, qualifications screening, reference and background checks, and skills-based testing. Feedback during probationary period.	

CREDIT RISK REPORT

RISK OWNER

RISK LEVEL/TREND

REPORTING DATE

Jase Auby



November 2015

GOAL

OVERALL RISK

OBJECTIVE

Maintain effective management of counterparty and securities lending risks.

Unmanaged counterparty and securities lending exposures could result in losses to the investment portfolio.

Achieve proper diversification of counterparty exposure.

SUMMARY

The mitigations in place appropriately reduce risks to a level that the risk owner accepts the risks. No additional mitigation strategies are planned at this time. Key mitigations include Securities Lending Policy, approved list of counterparties and limits, Securities Lending Program reviews, Credit Rating Monitor, and Daily Derivatives Report.

Risk Description	Mitigations
Securities Lending	
1. Counterparty/lending agent default	<ul style="list-style-type: none"> ▪ TRS approval required for change in counterparties and limits (reviewed annually) ▪ Current counterparty exposure monitored monthly ▪ Indemnification against losses from counterparty default ▪ Approved list of counterparties and limits ▪ Securities Lending Policy
2. Inadequate collateral	<ul style="list-style-type: none"> ▪ Security Lending Policy restricts types of collateral, requires minimum over-collateralization (haircut) by collateral type
3. Securities Lending Investment Portfolio suffers declines	<ul style="list-style-type: none"> ▪ Strict Security Lending Policy parameters, monthly reviews and stress testing ▪ Securities Lending Program review
Derivatives	
4. Over-The-Counter (OTC) derivative counterparty default	<ul style="list-style-type: none"> ▪ Daily Derivatives Report - monitors counterparty exposure and creditworthiness ▪ Credit rating monitoring
5. Collateral tied up at counterparties	<ul style="list-style-type: none"> ▪ Collateral swept daily
6. Futures clearing merchants (FCM) default	<ul style="list-style-type: none"> ▪ Three FCMs for diversification ▪ Daily Derivatives Report ▪ Daily monitoring

CREDIT RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
No actions required at this time.					

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Securities Lending Policy (Risk 1, 2, 3)	Investment Compliance	Sets parameters for Securities Lending Program, includes limits to type of collateral, minimum over-collateralization (haircut) required, etc.
Approved list of counterparties and limits (Risk 1)	Investment Compliance	Reviewed monthly and updated annually
Securities Lending Program review (Risk 3)	Investment Compliance, Asset Allocation, Risk Group	Monthly call to review performance
Credit rating monitor (Risk 4, 6)	Risk Group	Periodic review of credit ratings (both long and short term) by various rating agencies
Daily Derivatives Report (Risk 4, 6)	Risk Group	Reports daily derivative exposure by derivative type, strategy, and counterparty (includes credit ratings)

CUSTOMER SERVICE RISK REPORT

RISK OWNER

RISK LEVEL/TREND

REPORTING DATE

Barbie Pearson



November 2015

GOAL

OVERALL RISK

OBJECTIVES

Deliver superior service to members and internal/external customers.	Inadequate customer service could result in dissatisfied members or customers and could lead to increased scrutiny and oversight.	<ul style="list-style-type: none"> Minimize amount of time members spend waiting to speak to a counselor. Maintain a Benefit Counseling Department quality average score at the “successful” rating.
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SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts a majority of the risks. Additional mitigation strategies are planned to further reduce the risks related to disruption of or interruption in customer service levels. Key mitigations include cross-training/training, Quality Assurance Program, surveys, and the verification process.

Risk Description	Mitigations	
1. employee staffing level inadequate (Action Item 1)	<ul style="list-style-type: none"> hiring process budget approved for additional staff workforce management streamline work processes 	<ul style="list-style-type: none"> cross-training backfills documented processes and procedures skills-based testing
2. unexpected turnover (e.g., staff retirements, resignations, terminations)	<ul style="list-style-type: none"> succession planning hiring additional staff streamline work processes cross-training backfills documented processes and procedures 	<ul style="list-style-type: none"> workforce management Organizational Change Management (OCM) project (TEAM) delegating and development of staff merit increases recognition programs
3. spikes in retirement/other service areas due to legislative changes or outside factors create backlog	<ul style="list-style-type: none"> cross-training prioritize workload streamline work processes workforce management 	<ul style="list-style-type: none"> overtime proactive member communication documented processes and procedures TRS rule changes
4. Benefit Services staff provides incorrect information	<ul style="list-style-type: none"> timely training Quality Assurance Program 	<ul style="list-style-type: none"> ongoing feedback on accuracy and quality of counseling from members and retirees

CUSTOMER SERVICE RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> ▪ performance evaluations/feedback ▪ interdepartmental communication ▪ periodic quality checks ▪ formal approval process of written materials ▪ system edits and reports ▪ internal audits and quarterly testing ▪ documented processes and procedures 	<ul style="list-style-type: none"> ▪ surveys ▪ reviewing website ▪ verification process ▪ reviewing forms, publications and letters ▪ decision repository ▪ routine staff meetings
5. conflicting priorities due to TEAM Program implementation impacts service levels	<ul style="list-style-type: none"> ▪ backfills ▪ streamline work processes ▪ cross-training ▪ resource planning ▪ workforce management 	<ul style="list-style-type: none"> ▪ prioritize workload ▪ Benefit Services touch point meetings ▪ delegating and development of staff ▪ OCM project
6. disruption of or interruption in customer service levels between Phase 1 and Phase 2 during transitional phase of TEAM Program implementation (Action Items 2-5)	<ul style="list-style-type: none"> ▪ ongoing member communication ▪ interdepartmental communication ▪ thorough testing of new system before it's placed in production ▪ TEAM Connect 	<ul style="list-style-type: none"> ▪ Decommissioning Legacy Systems Project (TEAM) ▪ documented processes and procedures to include interim procedures
7. lack of knowledge of TRS laws and rules (new risk)	<ul style="list-style-type: none"> ▪ training ▪ cross-training ▪ procedures ▪ <i>TRS Update</i> 	<ul style="list-style-type: none"> ▪ TRS Laws & Rules ▪ routine staff meetings ▪ email communication
8. Benefit Accounting miscommunicates information to member or reporting entity (new risk)	<ul style="list-style-type: none"> ▪ training ▪ cross-training ▪ procedures ▪ <i>TRS Update</i> 	<ul style="list-style-type: none"> ▪ TRS Laws & Rules ▪ routine staff meetings ▪ email communication
9. other departments miscommunicate information to member or reporting entity (new risk)	<ul style="list-style-type: none"> ▪ interdepartmental communication through email 	<ul style="list-style-type: none"> ▪ bulletin messages ▪ team leader/manager coordination

CUSTOMER SERVICE RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
1. Research skills-based testing for benefit counselors (Risk 1)	Benefit Counseling, Human Resources	9/2014	9/2015	Complete	Coordinated with Human Resources to begin testing with September 2015 new hires.
2. Develop interim processes for Phase 1 (Risk 6)	Benefit Services, Core Program Team	5/2015	9/2016	Planned	This action item has been incorporated into business procedures and training.
3. User acceptance testing for Phase 1 (Risk 6)	Core Program Team	6/2015	2/2016	Planned	For Phase 1 only.
4. Business Procedures and Training Project (TEAM) (Risk 6)	BPT Project Team	9/2015	10/2016	Planned	This is for Phase 1 training and includes having all TRS staff trained for Go Live Phase 1.
5. Training (Risk 6)	Benefit Services	9/2015	9/2016	Planned	All business staff should have training completed for Phase 1 prior to Go Live.

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Cross-training/Training (Risk 1, 2, 3, 4, 5, 7, 8)	Benefit Services Management	Training with new staff and refresher and cross-training with existing staff; within and across departments.
Quality Assurance Program (Risk 4)	Benefit Counseling	Monthly call reviews and coaching sessions.
Surveys (Risk 4)	Benefit Counseling, Communications	Review survey results and take action when necessary.
Verification Process (Risk 4)	Benefit Services	Ongoing secondary review.

GOVERNMENTAL/ASSOCIATION RELATIONS & LEGISLATION RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Ray Spivey		November 2015

GOAL	OVERALL RISK
Maintain effective communications and positive relations with the Legislature, associations, and other public parties.	Poor communications could lead to adverse relations, unfavorable legislation, and restricted funding.

SUMMARY

Two risks on inadequate communications and perception of lobbying were identified. Based on the mitigations in place, the risk owner accepts both risks. No additional mitigation strategies are planned at this time. Proactive communication is a key mitigation.

Risk Description	Mitigations
1. inadequate communications with Legislature and other external groups	<ul style="list-style-type: none"> ▪ coordinate releasable information with TRS directors, including notifying Governmental Relations of any communications to external groups by other TRS divisions ▪ proactive communication ▪ plan key TRS meetings with external groups and continually update group contact lists ▪ follow-up with person-to-person communications
2. perception of lobbying	<ul style="list-style-type: none"> ▪ presentation on statutes to the board ▪ proactive communication ▪ maintain constant awareness of no lobbying

Action Item	Target Date	Revised	Status	Comments
None actions required at this time.				

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Proactive communications (all risks)	Governmental Relations	Maintain contact with our stakeholder groups and provide timely responses to requests or inquiries.

HEALTH CARE PLANS ADMINISTRATION RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Katrina Daniel		November 2015

GOAL	OVERALL RISK	OBJECTIVE
Administer retiree and active member health care programs that are valued by enrollees.	Inadequate administration of the health care programs could possibly affect the health of those who depend on the delivery of TRS health care benefits.	Provide health care benefits in compliance with the statutory requirements for TRS-Care and TRS-ActiveCare.

SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts a majority of the risks. Additional mitigation strategies are planned to further reduce the risks related to the disruption of or interruption in customer service and processing levels. One key mitigation for this risk category is contract/vendor monitoring.

Risk Description	Mitigations
1. change in legislative health care policy	<ul style="list-style-type: none"> ▪ proposed legislation reviewed by TRS analysts ▪ fiscal notes prepared ▪ active communication with legislators
2. inadequate information systems	<ul style="list-style-type: none"> ▪ rely on Information Technology (IT) for solutions
3. reliance on external vendors (i.e., violation of contract terms, vendor/provider fraud, limited vendor competition)	<ul style="list-style-type: none"> ▪ financial performance penalties, suspension, termination ▪ independent healthcare consultants & auditors ▪ monthly reporting ▪ quarterly meetings ▪ vendor disaster recovery plan ▪ rely on vendor controls ▪ warnings/suspensions/ termination of contract ▪ contractual performance penalties ▪ replace vendor ▪ provider fraud risk for Medicare Advantage participants transferred to vendor
4. unauthorized release of confidential information	<ul style="list-style-type: none"> ▪ business associate agreements under HIPAA¹ ▪ require vendors to report monthly any unauthorized release of information ▪ sign code of conduct statement ▪ utilize secure email ▪ documented policies and procedures ▪ confidentiality agreements/policy ▪ request changes in writing ▪ member notifications ▪ required annual training on HIPAA

¹ Health Insurance Portability and Accountability Act of 1996 (HIPAA)

HEALTH CARE PLANS ADMINISTRATION RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> ▪ limited disclosure of confidential info on documents 	<ul style="list-style-type: none"> ▪ obtain TRS-628 (HIPAA) form ▪ unique member identifiers
5. failure to comply with laws/rules/regulations/ policies and procedures	<ul style="list-style-type: none"> ▪ departmental policies and procedures ▪ maintain & access copy of laws/rules ▪ weekly staff meeting ▪ periodic staff training ▪ risk for Medicare Advantage participants transferred to vendor ▪ access to vendors' policies/procedures 	<ul style="list-style-type: none"> ▪ annual compliance statement ▪ escalate issues ▪ consult with co-workers ▪ review laws ▪ mandatory confidentiality/HIPAA training ▪ ethics training
6. inadequate staffing and resources (i.e., succession planning)	<ul style="list-style-type: none"> ▪ departmental policies and procedures ▪ employee job descriptions ▪ cross-training ▪ share work 	<ul style="list-style-type: none"> ▪ prioritize workload/activities ▪ hire full-time staff or temps ▪ flexible project teams
7. ineligible participants due to reliance on districts to determine eligibility (TRS-ActiveCare)	<ul style="list-style-type: none"> ▪ designated district benefit administrators (BA) ▪ restricted/secure access by BAs to vendors enrollment systems ▪ TRS provides eligibility guidelines to BAs 	<ul style="list-style-type: none"> ▪ districts have financial incentive to be accurate and timely ▪ BA must verify eligibility by signature for each enrollee
8. disruption of or interruption in customer service levels during transitional phase of TEAM Program implementation (Action Item 1, 2, 3, 4)	<ul style="list-style-type: none"> ▪ ongoing participant communication ▪ interdepartmental communication ▪ parallel running of new and old system ▪ TEAM Connect 	<ul style="list-style-type: none"> ▪ Decommissioning Legacy Systems Project (TEAM) ▪ thorough testing of new system before it's placed in production
9. disruption with accuracy, processing productivity, turnaround times and timely reporting of participant data to third party administrators during transitional phase of TEAM Program implementation (Action Item 1, 2, 3, 4)	<ul style="list-style-type: none"> ▪ ongoing participant communication ▪ interdepartmental communication ▪ internal system gap reporting ▪ revised process flows ▪ parallel running of new and old system ▪ TEAM Connect 	<ul style="list-style-type: none"> ▪ Organizational Change Management Project (TEAM) ▪ Decommissioning Legacy Systems Project (TEAM) ▪ thorough testing of new system before it's placed in production
10. reputational risk when members and stakeholders do not understand plan structure and benefits or the healthcare system (Action Item 5, 8)	<ul style="list-style-type: none"> ▪ consumer and stakeholder education 	<ul style="list-style-type: none"> ▪ proactive communication

HEALTH CARE PLANS ADMINISTRATION RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
1. Develop interim processes and internal system reporting for Phase I (Risk 8, 9)	Health & Insurance Benefits, Core Program Team	5/2015	5/2016	Planned	
2. User acceptance testing for Phase 1 (Risk 8, 9)	Core Program Team	6/2015	2/2016	Planned	For Phase 1 only.
3. Business Procedures and Training Project (TEAM) (Risk 8, 9)	BPT Project Team	9/2015	10/2016	Planned	
4. Training (Risk 8, 9)	Health & Insurance Benefits	9/2015	9/2016	Planned	
5. Enhance data analytics (Risk 10)	Chief Health Care Officer	10/2016		Planned	
6. Expand and enhance independent claims audit (Risk 3)	Chief Health Care Officer	11/2015		Planned	
7. Enhance contract oversight to include but not limited to site visits (Risk 3)	Chief Health Care Officer	2/2016		Planned	
8. Enhance communication to members and stakeholders (Risk 1, 10)	Chief Health Care Officer	12/2016		Planned	

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Contract/vendor monitoring (Risk 3)	TRS staff and GRS	Quarterly/annual vendor reviews and other periodic ad hoc reports.

INFORMATION SECURITY & CONFIDENTIALITY RISK REPORT

RISK OWNER

Ken Welch/Chris Cutler

RISK LEVEL/TREND

REPORTING DATE

November 2015

GOAL	OVERALL RISK	OBJECTIVE
Maintain the integrity, availability, and protection in the storage, use, and transfer of TRS information resources (in any form or medium).	Unauthorized or unintentional release/access of TRS confidential information could result in state or federal law violations, sanctions against TRS or its employees, and harm the best interests of TRS.	Comply with laws, rules, policies, and fiduciary duties regarding the security and confidentiality of information, including TRS participant records, personal health information, investment information, and other categories of information classified as high risk.

SUMMARY

Risks to information security and confidentiality include non-compliance with laws and regulations, accidental or intentional exposure or disclosure of confidential information to unauthorized parties, external parties gain unauthorized access, and inappropriate modification of critical information maintained by TRS. Key mitigations include policies and procedures, records management program, system security, data encryption, physical security, criminal history background checks, annual review of user access, training and awareness, and contract agreements.

Planned actions to mitigate risks to an appropriate level include developing departmental HIPAA¹ training and method for tracking completion, enhancing the Records Management Program, and completing the Data Protection Project.

Risk Description	Mitigations	
1. non-compliance with federal or state laws and regulations result in civil or criminal penalties imposed on TRS or TRS employees (Action Item 1, 4)	<ul style="list-style-type: none"> ▪ training and awareness ▪ policies and procedures ▪ audit and system security review ▪ criminal history background checks ▪ physical security 	<ul style="list-style-type: none"> ▪ system security ▪ corrective action ▪ Records Management Program ▪ legal review
2. employees or non-TRS workers accidentally or intentionally expose or disclose confidential information to unauthorized	<ul style="list-style-type: none"> ▪ training and awareness ▪ policies and procedures ▪ monitoring compliance ▪ corrective action 	<ul style="list-style-type: none"> ▪ management/supervisor oversight/review ▪ employer reference checks ▪ criminal history background checks ▪ non-TRS worker policy

¹ Health Insurance Portability and Accountability Act of 1996 (HIPAA)

INFORMATION SECURITY & CONFIDENTIALITY RISK REPORT

Risk Description	Mitigations	
parties (e.g., theft by contractor, kickback for disclosing) (Action Item 1, 5)	<ul style="list-style-type: none"> ▪ physical security ▪ system security ▪ vendor contract agreements 	<ul style="list-style-type: none"> ▪ annual review of system access ▪ non-disclosure agreements
3. external parties with whom TRS does business expose or disclose confidential information to unauthorized parties (Action item 6)	<ul style="list-style-type: none"> ▪ system security ▪ communication ▪ vendor contract agreements ▪ policies and procedures ▪ non-TRS worker policy ▪ training and awareness ▪ cloud computing policy 	<ul style="list-style-type: none"> ▪ non-disclosure agreements ▪ physical security ▪ business associate agreements ▪ criminal history background checks ▪ IT audit of key vendor controls ▪ Information Security validation of third-party contracts
4. external parties with whom TRS does business gain unauthorized access to confidential information electronically or physically	<ul style="list-style-type: none"> ▪ system security ▪ vendor contract agreements ▪ non-disclosure agreements ▪ policies and procedures ▪ non-TRS worker policy ▪ Information Security validation of third-party contracts 	<ul style="list-style-type: none"> ▪ cloud computing policy ▪ communication ▪ business associate agreements ▪ physical security ▪ criminal history background checks ▪ IT audit of key vendor controls
5. natural disaster or accident exposes TRS confidential information (Action Item 2, 3)	<ul style="list-style-type: none"> ▪ vendor selection for disaster recovery services ▪ training and awareness ▪ policies and procedures ▪ vendor contract agreements ▪ vulnerability assessments ▪ encryption 	<ul style="list-style-type: none"> ▪ vendor's mitigation/ remediation plan ▪ maintain electronic copies ▪ non-TRS worker policy ▪ criminal history background checks ▪ contracting process
6. employees or external parties with whom TRS does business inappropriately (accidentally or intentionally) modify critical information maintained by TRS	<ul style="list-style-type: none"> ▪ restrict privileged access used for critical data files using owner-defined access criteria ▪ audit and system security review ▪ annual review of system access ▪ reconciliations ▪ policies and procedures 	<ul style="list-style-type: none"> ▪ confirm appropriate use of systems and data ▪ control validity of work processes in system development (and during program changes) ▪ training and awareness ▪ criminal history background checks
7. external party with whom TRS does business is compromised (new risk) (Action item 6)	<ul style="list-style-type: none"> ▪ use different data providers (e.g., contract provisions, biometrics authorization, business associate agreements) 	<ul style="list-style-type: none"> ▪ collaboration/validation of system security ▪ periodic contract reviews ▪ encryption

INFORMATION SECURITY & CONFIDENTIALITY RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> ▪ communicate expectations and standards for protecting TRS information ▪ cloud computing policy 	<ul style="list-style-type: none"> ▪ internal audit vendor review ▪ criminal history background checks
8. TRS systems compromised (new risk)	<ul style="list-style-type: none"> ▪ internal system security ▪ IT perimeter security ▪ information security policy ▪ internal audit review ▪ managed security services (third party monitoring) ▪ training 	<ul style="list-style-type: none"> ▪ multiple encryption methods ▪ staying abreast of industry standards ▪ security monitoring ▪ non-TRS worker policy ▪ criminal history background checks ▪ policies and procedures ▪ cloud computing policy

Action Item	Owner	Target Date	Revised	Status	Comments
1. Develop departmental HIPAA training and method for tracking completion (Risk 1, 2)	Management, Legal Services, Information Technology, Human Resources	12/2015	12/2016	In Progress	Departmental HIPAA training has been developed for Health & Insurance Benefits, Information Technology, Benefit Counseling, and Internal Audit. An action plan will be developed to complete the remaining divisions/departments before the revised target date. Cross-reference to Open Government risk report.
2. Confirm vendors selected for disaster recovery services have mitigation/remediation plans to assist with incident response (Risk 5)	Contract Management	Ongoing		Complete	During the contracting process for disaster recovery service vendors, review/confirm vendors have plans in place for recovery after a TRS incident.
3. Research enhancing disaster recovery plans to respond to natural disasters or vendor accidents (Risk 5)	Risk Management	12/2013	8/2015	Complete	The annual IMT plan review included researching contractual provisions requiring all TRS critical function vendors to have and maintain tested DR/BC response plans. TRS' DR/BC response plans were developed using an all-hazard approach that captures the risk for natural disasters and vendor interruptions. Enhancements were made to plans to make them more scalable and adaptable. Most plans

INFORMATION SECURITY & CONFIDENTIALITY RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
					currently include 3 redundancy options with the ability to utilize alternative vendors, physical vendor sites or vendor provided equipment dependent on our needs at the time of the event.
4. Records Management Program enhancements (Risk 1)	Records Management	8/2017		Planned	
5. Data Protection Project (Risk 2)	Risk Management	6/2016		In Progress	<p>The Data Protection Project was initiated to help individual business units complete the following:</p> <ul style="list-style-type: none"> • Identify data created, received or transmitted as part of their key processes • Classify the data based on TRS' information classification criteria • Document the location of the data • Identify security-related controls for the data • Develop, document, and implement security-related controls for the data, including creating/updating procedures and departmental HIPAA training <p>Ten business units have completed the project and the remaining 11 are either drafting their policy and procedures or in progress of identifying their data.</p>
6. Contract Administration Manual/Policy Updates (Risk 3, 4, 5, 7)	Contract Management	9/2015		Complete	Reviewed and updated the contract administration policy.

INFORMATION SECURITY & CONFIDENTIALITY RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Policies and Procedures (All Risks)	Management	Review/update policies and procedures according to the normal review cycle or update them if significant changes are needed.	TRS' Confidentiality Policy and related procedures and standards were approved in April 2012; the next review is due April 2017. The Information Security Policy was updated July 2013; the next review is due July 2018. The Information Security Manual was reviewed and updated on February 20, 2015.
Records Management Program (Risk 1)	Records Management, Records Liaisons	Records Analyst coordinates agency-wide records purge on an annual basis to ensure departmental information, which may contain confidential records, is destroyed in accordance with standard procedures.	The annual disposition cycle covers records regardless of media. Departments respond relatively well in processing their paper files; however, the deletion of electronic records is a concern. Individual electronic file deletion is labor-intensive due to volume and lack of standard filing procedures. A methodology was created to help departments standardize their folder structure. Several work teams have completed this work. File plans allow for automated retention of e-records.
System Security and Physical Security (All Risks)	Information Technology, Staff Services, Information Owners	<ul style="list-style-type: none"> ▪ Information Security Officer conducts annual: <ul style="list-style-type: none"> ○ Security risk assessments and makes recommendations. ○ Vulnerability assessments and penetration testing. ▪ Security staff monitors both West and East buildings 24 hours a day. Routine security patrols ensure critical areas are secured. ▪ Staff Services coordinates the pick-up and delivery of bins for confidential materials to be shredded offsite by the contracted vendor. The contractor is required to ensure that the bins are locked while in transit to and from TRS facilities. Staff Services also provides oversight of the contractor 	System security is effective and enhancements have been made to vulnerability scanning, encryption, and security monitoring. Physical security to secure the computer room and confidential shred bins is working. Routine security patrols help to deter any suspicious activity.

INFORMATION SECURITY & CONFIDENTIALITY RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
		responsible to convey locked confidential bins to and from the individual department locations within TRS.	
Criminal History Background Checks (All Risks)	Human Resources	Human Resources conducts or requires state and federal criminal history background checks on all new employees, applicants, consultants, contractors and workers. Employees are also responsible for self-reporting incidents. If the contractor conducts the criminal background check, then the contractor shall inform the TRS HR Director as soon as possible as to all relevant facts and circumstances surrounding the surrounding the charge or indictment.	This is a very thorough check that provides TRS with information to determine future employment or continued employment based on the type of incident.
Annual review of user access by managers and information owners (Risk 2, 6)	Information Security	Access criteria are continually reviewed and adjusted to match changes/modifications in automated performance of job functions.	
Training and Awareness (e.g., use of applications) (Risk 1, 2, 3, 5, 6, 8)	Human Resources, Information Security, and Management	<ul style="list-style-type: none"> ▪ Human Resources staff in collaboration with IT use SharePoint to provide and document policy acknowledgment and training for TRS employees and non-TRS workers. Training related to information security and confidentiality includes HIPAA/Confidentiality-General, Fraud, Waste, and Abuse Prevention, and Ethics. ▪ Completion of policy and training acknowledgments by non-TRS workers will be confirmed by the contract sponsor and a signed acknowledgment form will be forwarded to Human Resources. ▪ Information Security provides and documents annual Information Awareness training. 	Training is conducted as outlined in the <i>Procedures for Compliance Training</i> ; to ensure attendance can be validated for web-based training, electronic signatures for online participation is being captured.

INFORMATION SECURITY & CONFIDENTIALITY RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
		<ul style="list-style-type: none"> ▪ TRS staff is provided individual specialized departmental training and instruction on HIPAA/confidentiality requirements prior to beginning their new job duties and as needed. Completion of annual departmental training will be documented and reported to Human Resources once a method has been determined. ▪ Supervisory oversight by department manager. 	
Vendor contract agreements; non-disclosure agreements; and business associate agreements (Risk 2, 3, 4, 5, 7)	Contract Management	Contract management staff requests non-disclosure and business associate agreements as part of the contracting process.	Contract management follows a standard process to request completion of these agreements during contract negotiations.

LEGACY INFORMATION SYSTEMS RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Chris Cutler		November 2015

GOAL	OVERALL RISK
Provide information systems to meet TRS' business and customer service needs.	Inability to provide adequate and consistent information in a timely fashion via the preferred delivery mechanism.

SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts all risks. No additional mitigation strategies are planned at this time. Key mitigations include additional personnel and/or contractors, purchasing and implementing software tools to aid in modernization, focused project management, approving/disapproving and prioritizing work requests, and having open communication with stakeholders.

Risk Description	Mitigations
1. insufficient number of personnel with appropriate skill sets	<ul style="list-style-type: none"> ▪ justify additional personnel and/or contractors ▪ hire retirees with special skill sets ▪ cross-training ▪ fill vacant positions ▪ prioritize work requests
2. inability to support aging application infrastructure	<ul style="list-style-type: none"> ▪ TEAM Program ▪ modernize applications where feasible within constraints posed by ongoing business demands for maintenance and enhancement of existing system
3. lack of strategic analysis and development of system due to too much focus on tactical changes	<ul style="list-style-type: none"> ▪ approve/disapprove and prioritize work requests ▪ freeze changes to existing systems unless critical to TRS' goals and objectives ▪ IT strategic plan
4. business and technical changes that require implementation on legacy information systems that will be retired	<ul style="list-style-type: none"> ▪ justify additional personnel and/or contractors ▪ hire retirees with special skill sets ▪ cross-training ▪ prioritize work requests

LEGACY INFORMATION SYSTEMS RISK REPORT

Risk Description	Mitigations	
5. complexity of decommissioning of legacy information systems	<ul style="list-style-type: none"> ▪ focused project management ▪ open communication with stakeholders ▪ testing and quality assurance ▪ seek simplest solutions 	<ul style="list-style-type: none"> ▪ maintain buy-in for TEAM Program ▪ maintain extensive inventory and system interdependencies ▪ TEAM Program governance
6. challenge of running the legacy information systems in parallel to TEAM	<ul style="list-style-type: none"> ▪ continue to actively manage the legacy information system infrastructure ▪ maintain appropriate capacity ▪ seek simple and common methodology for interdependent processes between new application and legacy applications ▪ open communication with stakeholders 	<ul style="list-style-type: none"> ▪ justify additional personnel and/or contractors ▪ implement automated solutions to verify consistent results ▪ focused project management ▪ outsourcing ▪ leverage existing tools (e.g., Informatica) ▪ maintain buy-in for TEAM Program
7. competing priorities within the decommissioning project	<ul style="list-style-type: none"> ▪ communication ▪ reallocate workload ▪ clear direction ▪ more resources ▪ be aware of legislation and planning ▪ board/management support 	<ul style="list-style-type: none"> ▪ extend schedule ▪ willingness to negotiate ▪ approval to backfill positions ▪ utilize the decommissioning core project team to prioritize work

Action Item	Owner	Target Date	Revised	Status	Comments
No actions required at this time.					

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Additional personnel and/or contractors (Risk 1, 2, 4, 6, 7)	Information Technology	Backfill positions as needed due to existing resources needed for the TEAM Program.	Contracted for eight Natural programmers to backfill key positions.
Purchase and implement software tools to aid in modernization (Risk 2)	Information Technology	Research and analyze solutions to facilitate modernization.	<ul style="list-style-type: none"> • Evaluated and decided upon address validation software to ensure the best postal rates for mass mailings. • Evaluated and decided upon software to handle credentials and roles for remote users.

LEGACY INFORMATION SYSTEMS RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
			<ul style="list-style-type: none"> Evaluated and decided upon software for the application servers and the enterprise service bus.
Approve/disapprove and prioritize work requests (Risk 3, 4)	Information Technology	As part of the IT governance process, the Core Management Team (CMT) approves and disapproves work requests. CMT prioritization meetings are monthly.	Decided that all projects related to the TEAM Program will be given a high default value to expedite the approval process. Some work requests have been disapproved.
Focused project management (Risk 5, 6)	Information Technology	Assign experienced project managers to critical projects.	Project managers have been assigned to the critical projects including Data Management, Line of Business, Website Redesign, Reporting Entity Outreach, Decommissioning, and Enterprise Security.
Open communication with stakeholders (Risk 5, 6, 7)	Information Technology	Maintain ongoing communication with stakeholders through status reports, meetings, and presentations.	Weekly status reports on TEAM Program and projects, weekly executive briefings, board presentations, multiple meetings, detailed level requirement discussions, and ad hoc reports.

LIQUIDITY/LEVERAGE RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Jase Auby	● ↔	November 2015

GOAL	OVERALL RISK	OBJECTIVE
Maintain levels of liquidity appropriate for the support of fund disbursements, anticipated investment funding needs and trust level leverage.	Inadequate liquidity could lead to cash shortfalls.	Keep trust liquidity at necessary level to support trust objectives.

SUMMARY

The mitigations in place appropriately reduce risks to a level that the risk owner accepts the risks. No additional mitigation strategies are planned at this time. Key mitigations include Daily Liquidity Report and Hedge Fund Leverage/Liquidity/Concentration (LLC) reports.

Risk Description	Mitigations
1. Trust does not have enough cash to meet its obligations (benefits, capital calls, etc.)	<ul style="list-style-type: none"> ▪ Daily Liquidity Report ▪ Conservative cash management guidelines in place ▪ Low net leverage ▪ High trust liquidity
2. Unexpected Hedge Fund losses due to excessive leverage	<ul style="list-style-type: none"> ▪ Limited Partnerships (LP) Structure ▪ Hedge Fund Leverage/ Liquidity/Concentration (LLC) monthly reports

Action Item	Owner	Target Date	Revised	Status	Comments
No actions required at this time.					

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Daily Liquidity Report (Risk 1)	Risk Group, Asset Allocation	Monitors the daily sources and uses of liquidity.
Hedge Fund Leverage/Liquidity/Concentration Report (Risk 2)	Risk Group	Monthly reporting and review of Hedge Fund Leverage, Liquidity, and Concentration.

MARKET RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Jase Auby	● ↔	November 2015

GOAL	OVERALL RISK	OBJECTIVE
Maintain market risk exposures consistent with investment objectives.	Too little or too much exposure to market risk could each lead to undesirable investment outcomes.	Sustain appropriate level of risk necessary to meet investment objectives.

SUMMARY

Market risk is being appropriately monitored and mitigated such that the risk owner accepts all risks. No additional mitigation strategies are planned at this time. Key mitigations include the Investment Policy Statement (IPS), Risk Signals, Value at Risk (VaR) Report, and Risk Budget.

Risk Description	Mitigations
1. Improper asset allocation	<ul style="list-style-type: none"> ▪ Strategic Asset Allocation (SAA) study sets policy (every 5 years) ▪ Tactical Asset Allocation (TAA) over/underweighting within +/- 5% bands (continuously monitored, rebalanced monthly) ▪ Monthly risk signals (Bubble, Environmental, Valuation, Political Risk, etc.) ▪ Daily monitoring of market returns and volatility (both implied and realized) ▪ Investment Policy Statement (IPS)
2. Inadequately considering tail risk	<ul style="list-style-type: none"> ▪ Monthly VaR reports - assess predicted VaR versus benchmark and its history
3. Active portfolios deviate inefficiently from benchmark, resulting in material underperformance	<ul style="list-style-type: none"> ▪ Tracking error guidelines in IPS ▪ Risk Budget
4. Private Markets fundings happen slower than anticipated, resulting in Trust underweight to those asset classes, and potential underperformance in an up-market	<ul style="list-style-type: none"> ▪ Quarterly floating weights since 2014

Action Item	Owner	Target Date	Revised	Status	Comments
No actions required at this time.					

MARKET RISK REPORT

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Investment Policy Statement (Risk 1, 3, 4)	Asset Allocation, Investment Compliance	IPS sets asset allocation (reviewed every 5 years) and investment guidelines.
Risk Signals (Risk 1)	Risk Group	Monthly monitoring of economic environment, asset class bubbles, valuations, etc.
VaR Report (Risk 2)	Risk Group	Monthly monitoring of historic and predicted VaR versus the benchmark.
Risk Budget (Risk 3)	Risk Group	Monthly budgets and tracks historic and predicted tracking error by profit center and asset class.

PENSION BENEFIT ADMINISTRATION RISK REPORT

RISK OWNER

RISK LEVEL/TREND

REPORTING DATE

Barbie Pearson



November 2015

GOAL

OVERALL RISK

OBJECTIVE

Accurate delivery of benefits to TRS members, retirees and beneficiaries, including systems monitoring and controls related to accurate calculations and benefit payments to others.

Ineffective delivery of benefits could lead to inaccurate information, inaccurate benefits/ payments, dissatisfied members, retirees, or beneficiaries, and loss of credibility, adverse public perception, increased scrutiny, and oversight.

Process 98% of initial annuity payments to TRS retirees when first due.

SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts a majority of the risks. Additional mitigation strategies are planned to further reduce the risk related to manual processes and inflexible systems, employment after retirement intentional misreporting, disruption with accuracy and timeliness of benefit delivery, and inability to monitor employee performance and overall service delivery performance. Key mitigations include quarterly testing, verification process, TRS Policy Decision Repository, cross-training/training, and prioritizing workload.

Risk Description	Mitigations	
1. data entry errors (Action Item 1)	<ul style="list-style-type: none"> ▪ system edits and reports ▪ documented processes and procedures ▪ verification process ▪ performance evaluations/feedback ▪ review exception reports ▪ research ▪ separation of duties ▪ secondary review/verification 	<ul style="list-style-type: none"> ▪ internal audits and quarterly testing ▪ periodic quality checks ▪ attend fraud and/or ethics training ▪ audit trails ▪ training ▪ criminal history background checks ▪ disciplinary action
2. system goes down affecting payment processing (e.g., annuity payroll, refunds, death claims) (new risk)	<ul style="list-style-type: none"> ▪ nightly backups ▪ business continuity plan 	<ul style="list-style-type: none"> ▪ arrangement with Comptroller to manually process payments
3. comptroller systems go down (new risk)	<ul style="list-style-type: none"> ▪ rely on comptroller's business continuity plan 	<ul style="list-style-type: none"> ▪ ongoing communication
4. payments issued incorrectly (manual) (new risk)	<ul style="list-style-type: none"> ▪ verification process ▪ secondary review 	<ul style="list-style-type: none"> ▪ review duplicate payment report ▪ quarterly benefit testing by Internal Audit

PENSION BENEFIT ADMINISTRATION RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> ▪ review random sample of payments when signing vouchers 	
5. payments issued incorrectly (electronic) (new risk)	<ul style="list-style-type: none"> ▪ review random sample of payments when signing vouchers ▪ review duplicate payment report ▪ quarterly benefit testing by Internal Audit ▪ research ▪ separation of duties 	<ul style="list-style-type: none"> ▪ secondary review/verification ▪ audit trails ▪ training ▪ disciplinary action ▪ review exception reports
6. payments are sent late (new risk)	<ul style="list-style-type: none"> ▪ training ▪ cross-training 	<ul style="list-style-type: none"> ▪ built-in system schedules ▪ publicize voucher calendars
7. incorrect/incomplete information received from reporting entities (new risk)	<ul style="list-style-type: none"> ▪ training ▪ web page dedicated to reporting entities and it includes reporting information, procedures, and instructions 	<ul style="list-style-type: none"> ▪ reporting entity workshops ▪ reporting entities audited by Internal Audit ▪ reporting entity warrant holds
8. collusion between Benefit Services departments to issue a refund, create a retirement or death benefit (new risk)	<ul style="list-style-type: none"> ▪ separation of duties ▪ verification process ▪ secondary review ▪ TRS hiring process ▪ criminal history background checks 	<ul style="list-style-type: none"> ▪ ethics policy ▪ audit trails ▪ attend fraud and/or ethics training ▪ training ▪ disciplinary action
9. member account information altered to benefit internal staff or external individual (new risk)	<ul style="list-style-type: none"> ▪ documented policies and procedures ▪ separation of duties ▪ review random sample of payments when signing voucher ▪ annual user classification review ▪ internal review of system access when staff moves, adds or changes ▪ research 	<ul style="list-style-type: none"> ▪ secondary review/verification ▪ audit trails ▪ attend fraud and/or ethics training ▪ criminal history background checks ▪ training ▪ disciplinary action ▪ review exception reports
10. manual processes and inflexible systems allow the possibility of more errors or delays in processing (new risk) (Action Item 9)	<ul style="list-style-type: none"> ▪ verification process ▪ secondary review 	<ul style="list-style-type: none"> ▪ separation of duties ▪ work with IT to resolve system issues

PENSION BENEFIT ADMINISTRATION RISK REPORT

Risk Description	Mitigations	
11. employment after retirement intentional misreporting (internal/external fraud) (new risk) (Action 10)	<ul style="list-style-type: none"> ▪ training for reporting entities ▪ internal/state audits 	<ul style="list-style-type: none"> ▪ SAO fraud hotline
12. receive forged information (external fraud) (new risk)	<ul style="list-style-type: none"> ▪ notarized documents ▪ confidentiality policy ▪ documented policies and procedures 	<ul style="list-style-type: none"> ▪ make management aware of possible problems ▪ original signatures checked ▪ research
13. employment after retirement rules are complex (new risk)	<ul style="list-style-type: none"> ▪ internal training ▪ training for reporting entities ▪ legal services advice ▪ annual review of Employment After Retirement brochure 	<ul style="list-style-type: none"> ▪ <i>TRS News</i> ▪ <i>TRS Update</i> ▪ ad-hoc email communications ▪ TRS rules review
14. altered or forged warrants (new risk)	<ul style="list-style-type: none"> ▪ notarized documents ▪ confidentiality policy ▪ documented policies and procedures ▪ management/supervisor oversight/review 	<ul style="list-style-type: none"> ▪ research ▪ make management aware of possible problems ▪ forgery process through Comptroller's office
15. complexity of the pension plan	<ul style="list-style-type: none"> ▪ documented policies and procedures ▪ review applicability of rules, policies, and procedures 	<ul style="list-style-type: none"> ▪ TRS Policy Decision Repository ▪ automated systems ▪ training
16. sustained reliance on legacy information systems (e.g., level of staff effort to maintain systems, performance issues)	<ul style="list-style-type: none"> ▪ TEAM Program implementation ▪ system performance monitoring and diagnostics 	<ul style="list-style-type: none"> ▪ regular maintenance of systems ▪ documented policies and procedures
17. conflicting priorities due to TEAM Program implementation	<ul style="list-style-type: none"> ▪ backfills ▪ streamline work processes 	<ul style="list-style-type: none"> ▪ cross-training ▪ prioritize workload
18. spikes in retirement or other service areas due to legislative changes create backlog	<ul style="list-style-type: none"> ▪ cross-training ▪ prioritize workload ▪ streamline work processes 	<ul style="list-style-type: none"> ▪ overtime ▪ proactive member communication
19. disruption with accuracy and timeliness of benefit delivery during transitional phase of TEAM Program implementation (Action Items 4-7)	<ul style="list-style-type: none"> ▪ ongoing member communication ▪ documented processes and procedures including interim processes ▪ TEAM Connect ▪ user acceptance testing 	<ul style="list-style-type: none"> ▪ Organizational Change Management Project (TEAM) ▪ Decommissioning Legacy Systems Project (TEAM) ▪ interdepartmental communication

PENSION BENEFIT ADMINISTRATION RISK REPORT

Risk Description	Mitigations
20. inability to monitor employee performance and overall service delivery performance against set metrics during transitional phase of TEAM Program implementation (Action Items 8-10)	<ul style="list-style-type: none"> ▪ heightened awareness of occurrence ▪ continue to research issue ▪ business representation on decommissioning of Legacy Systems project

Action Item	Owner	Target Date	Revised	Status	Comments
1. Research skills-based testing for benefit counselors (Risk 1)	Benefit Counseling, Human Resources	9/2014	9/2015	Complete	Coordinated with Human Resources to begin testing with September 2015 new hires.
2. Eliminate majority of manual processes by automating them in TRUST Phase 1 and 2 (Risk 10)	Benefit Services, HP	5/2018		In Progress	Some implementation will occur during Phase 1 and the remainder in Phase 2.
3. Full payroll with implementation of Phase 1 of TRUST (Risk 11)	Benefit Services, HP	9/2016		In Progress	
4. Develop interim processes for Phase 1 (Risk 19)	Benefit Services, Core Program Team	5/2015	9/2016	Planned	This action item has been incorporated into business procedures and training.
5. User acceptance testing for Phase 1 (Risk 19)	Core Program Team	6/2015	2/2016	Planned	For Phase 1 only.
6. Business Procedures and Training Project (TEAM) (Risk 19)	BPT Project Team	9/2015	10/2016	Planned	This is for Phase 1 training and includes having all TRS staff trained for Go Live Phase 1.
7. Training (Risk 19)	Benefit Services	9/2015	9/2016	Planned	All business staff should have training completed for Phase 1 prior to Go Live.
8. Replicate current reports in TRUST for performance and turnaround time (Risk 20)	Information Technology, Benefit Services	9/2015	9/2016	Ongoing	The majority of the reports will be generated for employee performance in Microsoft Dynamics (CRM). TRUST

TRS Stoplight Report Category

PENSION BENEFIT ADMINISTRATION RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
					will provide high-level statistical reporting. For Phase 1 only, Phase 2 will be completed in 5/2018.
9. During detailed level requirements specify employee performance and business processing monitoring reports needed out of the workflows (Risk 20)	Benefit Services, Core Program Team, Core Management Team	2/2015	9/2016	Ongoing	Phase 1 reporting only, Phase 2 will be completed 5/2018.
10. Create ad-hoc reports (Risk 20)	Information Technology, Benefit Services	9/2015	9/2016	Planned	For Phase 1 only, Phase 2 will be completed in 5/2018.

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Quarterly Testing (Risk 1, 4, 5)	Benefit Processing, Internal Audit	Ongoing quarterly testing of benefit payments and resolve any exceptions.
Verification Process (Risk 1, 4, 5, 8, 9)	Benefit Services	Ongoing secondary review.
TRS Policy Decision Repository (Risk 15)	Executive Management	Administrative decisions made to clarify application of laws and rules.
Cross-training/Training (Risk 1, 5, 6, 7, 8, 9, 13, 15)	Benefit Services Management	Training with new staff and refresher and cross-training with existing staff; within and across departments.
Prioritize Workload (Risk 17, 18)	Benefit Processing Management	Weekly management team meetings to review workload and age of documents in order to prioritize.

PENSION FUNDING RISK REPORT

RISK OWNER

RISK LEVEL/TREND

REPORTING DATE

Brian Guthrie



November 2015

GOAL

OVERALL RISK

Sustain a financially sound pension trust fund.

A lack of sound funding for the plan could lead to insufficient assets to pay for long-term benefits and financial obligations.

OBJECTIVES

- To manage an actuarially sound retirement system that maintains an amortization period of less than 31 years.
- Create a process to develop and implement an investment policy capable of achieving the trust’s actuarial assumed rate of return as measured on rolling 20-year periods.
- Develop and maintain a sound, professional and systematic risk management and capital allocation system.
- Create and maintain a highly capable and diversified external network of global investment, trading and consulting relationships.

SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts all risks. No additional mitigation strategies are planned at this time. Key mitigations include:

- Reviewing liabilities annually and mid-year during legislative sessions to assess financial status of the fund;
- Conducting periodic experience studies;
- Reporting and monitoring investment performance on a quarterly basis;
- Performing asset allocation studies and asset liability modeling (ALM) studies at least every 5 years and positioning TRS’ portfolio accordingly; and
- Educating Texas Legislature on importance of increased contribution rates, impact of any additional Cost-of-Living Adjustments (COLAs) and any increases in benefit calculations.

Risk Description	Mitigations	
<p>1. actual benefit payouts over the long-term exceed actuarial assumptions on a system-wide basis</p>	<ul style="list-style-type: none"> ▪ review liabilities annually to assess financial status of the fund ▪ conduct periodic experience studies to ensure that assumptions are still reasonable ▪ obtain actuarial audit every 5 years 	<ul style="list-style-type: none"> ▪ internal audit of COLA payments ▪ ensure quality of actuary (Request for Offer process, board selection) ▪ ensure all new benefit changes are properly costed ▪ verify that actual benefit payments are accurate

PENSION FUNDING RISK REPORT

Risk Description	Mitigations	
2. long-term investment returns below 8.0%	<ul style="list-style-type: none"> ▪ report and monitor investment performance on a quarterly basis ▪ perform asset allocation studies and ALM studies at least every 5 years and position portfolio accordingly ▪ actively manage fund assets both internally and externally to add value over passive benchmarks ▪ perform tactical allocation adjustments periodically for short-term changes to the market 	<ul style="list-style-type: none"> ▪ maintain a dedicated risk management and monitoring team within Investment Management Division ▪ independent general investment consultant monitors and verifies returns ▪ monitor dialogue regarding investment authority and educate stakeholders and legislators as necessary on the impact of investment authority changes
3. inadequate contribution rate over the long-term	<ul style="list-style-type: none"> ▪ educate Texas Legislature on importance of increased contribution rates, impact of any additional COLAs and any increases in benefit calculations ▪ verify the “Actuarially Required Contribution” (ARC) rate annually ▪ TEAM Program will result in full payroll being reported in addition to members eligible which could increase surcharge amounts due to the system 	<ul style="list-style-type: none"> ▪ communicate regularly with stakeholders regarding the contribution rates ▪ reductions in state rate automatically trigger reductions in member and district rates which guards against reductions ▪ reporting entity audits ▪ state rates and member rates are set to increase through 2017 ▪ school districts that don’t participate in OASDI¹ are contributing to the pension fund
4. significant changes in plan structure that increase unfunded liability (e.g., moving to a 401(K) type plan for new hires or benefit increases that negatively impact the plan)	<ul style="list-style-type: none"> ▪ educate and communicate with stakeholders regarding impact of potential changes ▪ participate and provide leadership in national dialogue on the value and risks of defined benefit plans and share TRS’ research and experience ▪ examine benefit design study 	<ul style="list-style-type: none"> ▪ educate and communicate with stakeholders on actual impact of Governmental Accounting Standards Board (GASB) 67 and 68 ▪ educate Texas Legislature on importance of increased contribution rates, impact of any additional COLAs and any increases in benefit calculations

Action Item	Owner	Target Date	Revised	Status	Comments
No actions required at this time.					

¹ Old-Age, Survivors, and Disability Insurance (OASDI)

PENSION FUNDING RISK REPORT

Monitoring Activities		
Key Mitigation	Monitored By	Comments
Review liabilities annually and mid-year during legislative sessions to assess financial status of the fund (Actuarial Valuation) (Risk 1, 2, 3)	Executive Director	Fiscal year 2015 Actuarial Valuation as of August 31, 2015; valuation will be reported to the Board in November 2015.
Conduct periodic experience studies (Risk 1, 2, 3)	Executive Director	Experience study for the five-year period ending August 31, 2014 was completed September 2015. Reporting will be done in fiscal year 2020 for five-year period ending August 31, 2019.
Report and monitor investment performance on a quarterly basis (Risk 2)	Chief Investment Officer	Reported to the Board on a quarterly basis including reports on individual investment units to the Investment Management Committee.
Perform asset allocation studies and ALM studies at least every 5 years and position portfolio accordingly (Risk 2)	Chief Investment Officer	Conducted in fiscal year 2014; reported and approved by the Board in September 2014 with minor adjustments to the current allocation. Implementation underway of strategic asset allocation.
Monitor dialogue regarding investment authority and educate stakeholders and legislators as necessary on the impact of investment authority changes (Risk 2)	Chief Investment Officer	
Educate Texas Legislature on importance of increased contribution rates, impact of any additional COLAs and any increases in benefit calculations (Risk 3, 4)	Executive Director	

PURCHASING & CONTRACTS RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Don Green		November 2015

GOAL	OVERALL RISKS	OBJECTIVES
Maintain effective procurement and contract management systems.	<ul style="list-style-type: none"> Inappropriate procurement practices could result in purchases of sub-standard products and services, unfavorable pricing or contract terms, and violation of laws. Ineffective contract monitoring could result in contractors not fulfilling their contractual obligations. 	<ul style="list-style-type: none"> Mitigate Procurement risk associated with processing purchases and contracts. Mitigate Contract Management risk through effective monitoring processes.

SUMMARY

Risks for this category include inadequate resources and loss of institutional knowledge, failure to receive timely information, unauthorized access to or release of confidential information, internal fraud, collusion, and competing priorities. Key mitigations include cross-training, team meetings, monitoring staff levels, documented processes and procedures, effective communication, review of procurements and contracts, cross-functional participation, and planning.

Additional mitigations related to procurement and contracting procedures and training are planned. An ongoing action item includes ensuring that sufficient resources exist throughout the TEAM Program initiative. Maintaining existing mitigations and separation of duties will be important during the transition to a new financial solution and over the course of the TEAM Program initiative.

Risk Description	Mitigations	
1. inadequate resources and loss of institutional knowledge (Action Item 3, 4, 5)	<ul style="list-style-type: none"> succession planning cross-training and rotation of duties monitor staffing levels provide positive and pleasant work environment staff development prioritize filling vacant positions 	<ul style="list-style-type: none"> generate opportunities for cross-training, team building and professional development to minimize turnover adequate funding for full-time equivalent (FTE) employees one-on-one and team meetings
2. failure to receive information in a timely manner (Action Item 4, 5)	<ul style="list-style-type: none"> effective communication planning 	<ul style="list-style-type: none"> update TRS procurement policy and procedures documented processes and procedures

PURCHASING & CONTRACTS RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> ▪ monitor statute/rule changes and reporting requirements 	<ul style="list-style-type: none"> ▪ inform staff of new requirements and convey existing procedures as opportunities arise
3. unauthorized access to or release of confidential information	<ul style="list-style-type: none"> ▪ documented processes and procedures ▪ management oversight ▪ ensure appropriate forms are included in contractual agreements ▪ fraud training 	<ul style="list-style-type: none"> ▪ review procurements ▪ screen prospective employees ▪ obtain legal review on matters involving confidentiality ▪ maintain contract for fraud hotline ▪ contract review
4. internal fraud (e.g., staff creates false invoice, purchase request, or vendor)	<ul style="list-style-type: none"> ▪ documented processes and procedures ▪ management oversight ▪ review procurements ▪ annual ethics compliance statement ▪ segregation of duties 	<ul style="list-style-type: none"> ▪ screen prospective employees ▪ contract review ▪ fraud training ▪ maintain proper controls ▪ audits
5. collusion with vendor/contractor on major contracts (e.g., healthcare contracts)	<ul style="list-style-type: none"> ▪ cross-functional participation on major contracts ▪ management oversight ▪ contract review ▪ annual ethics compliance statement 	<ul style="list-style-type: none"> ▪ segregation of duties ▪ documented processes and procedures ▪ fraud training ▪ audits
6. competing priorities/heavy workload (Action Item 2)	<ul style="list-style-type: none"> ▪ plan and prioritize work ▪ effective communication ▪ hiring for vacant positions 	<ul style="list-style-type: none"> ▪ contract administration tracking system (CATS) ▪ management oversight ▪ cross-training and rotation of duties
7. business units fail to comply with purchasing requirements including pursuing justification rather than competitive process (Action Item 4, 5)	<ul style="list-style-type: none"> ▪ multiple departments involved in purchasing processes ▪ state procurement manual ▪ contract management guide ▪ effective communication 	<ul style="list-style-type: none"> ▪ TRS voluntarily complies with state processes and rules ▪ contract administration manual ▪ audits
8. failure to maintain complete contract documentation (Action Item 4, 5)	<ul style="list-style-type: none"> ▪ effective communication ▪ checklists ▪ contract administration coordinator reviews 	<ul style="list-style-type: none"> ▪ quality assurance function for contracts ▪ audits ▪ adequate resources (people)

PURCHASING & CONTRACTS RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
1. Follow-up on contract administration audit recommendations	Purchasing & Contracts	9/2015		Complete	Reviewed and updated the contract administration policy.
2. Ensure sufficient resources exist throughout the TEAM Program development (Risk 6)	Purchasing & Contracts	Ongoing		In Progress	Resource limitations still exist and are currently being addressed.
3. Develop procurement and contracting procedures (Risk 1)	Purchasing & Contracts	10/2016		Planned	Utilize a project manager to assist with the development of procedures.
4. Develop procurement and contracting training (purchasing staff) (Risk 1, 2, 7, 8)	Purchasing & Contracts	10/2016		Planned	Planning includes requesting assistance from Human Resources.
5. Develop procurement and contracting training (agency staff) (Risk 1, 2, 7, 8)	Purchasing & Contracts	10/2016		Planned	Planning includes requesting assistance from Human Resources.

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Cross-Training (Risk 1)	Purchasing & Contracts Manager	Systematically ensure that multiple team members have the knowledge to perform each team task.	Ad-hoc as needed; standard processes, clauses are in place to create efficiencies.
One-on-one and team Meetings (Risk 1)	Purchasing & Contracts Manager	Actively solicit feedback from team members regarding workload levels and any possible issues affecting the Purchasing Team.	Ad-hoc as needed to discuss and comment on efficiencies.
Monitor staffing levels (Risk 1)	Department Manager	Review overtime reports and workload metrics to determine appropriate staffing levels.	Reports are submitted to support and justify requests for additional positions.
Documented processes and procedures (Risk 2, 3, 4, 5)	Purchasing Staff, Contract Administration Coordinator, Purchasing & Contracts Manager	Maintain documented processes and procedures. Note any changes to current Purchasing Team processes and/or procedures and ensure that these are captured in the team procedures and/or Contract Administration Manual.	Ad-hoc as needed; contract administration manual is typically updated annually.
Effective communication (Risk 2, 6, 7, 8)	Purchasing & Contracts Manager, Contract	Ensure that e-mail, Intranet, and/or phone are used to share necessary information in a timely manner	Daily communication via multiple methods. Discuss workload, priorities, and other procurement issues.

PURCHASING & CONTRACTS RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
	Administration Coordinator	to meet the need(s) at hand. Meet one-on-one or as a team to verify priorities and gauge workloads.	
Review of procurements (Risk 3, 4)	Purchasing & Contracts Manager, Contract Administration Coordinator	Ensure all procurements are in accordance with established processes and procedures.	Standardized forms, checklists, and spreadsheets for contracts allows reviewer to easily identify missing or required information; pre-contract and post-contract reviews are conducted.
Contract review (Risk 3, 4, 5, 8)	Purchasing & Contracts Manager, Contract Administration Coordinator	Perform periodic review of contracts to ensure that contract requirements, appropriate documentation, deliverables, and payments are in accordance with the terms of the contract and contained in the contract file.	Contracts greater than \$10,000 require completion of a risk assessment questionnaire, which is numerically scored to determine level of monitoring throughout the contract period.
Cross-functional participation (Risk 5, 7)	Divisional Management, Legal Services, Internal Audit, Purchasing & Contracts Manager	Active involvement throughout the contracting process by Divisional Management, Legal Services, Internal Audit, and Procurement.	Cross-functional participation from various departments has been very effective.
Contract Administration Tracking System (CATS) (Risk 6)	Purchasing & Contracts Manager, Contract Administration Coordinator, Purchasing Staff	Use contract expiration reports to plan for the renewal or re-solicitation of expiring contracts and allows the Contract Administration Coordinator to monitor and review higher risk contracts.	Reports processed from CATS provide 3-4 months advance notice of renewal dates expiring and allows the Contract Administration Coordinator to schedule contract reviews.
Planning (Risk 2, 6)	Purchasing & Contracts Manager, Purchasing Staff	Maintain regular contact with contract sponsors to obtain knowledge and status of upcoming contracts.	Routine communication ensures planning can begin on future contracts.

TEAM PROGRAM RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Ken Welch		November 2015

GOAL	OVERALL RISK	OBJECTIVE
Implement cost effective, efficient, and sustainable processes and systems that enable TRS to serve its members, employers, and annuitants.	System design, implementation and functionality of the new processes and systems do not meet the growing demands of TRS in service of its members. Program/project implementation schedule and cost exceeds original estimates.	Implement modern pension and benefit information systems that allow TRS staff to serve our members and deliver accurate benefits effectively and timely by August 2018.

SUMMARY

Risks identified for the TEAM Program involve people, processes, project management, and change. Management is actively pursuing mitigations for these risks. A summary of activities since the last board reporting in June 2015 include the following:

- Sent final Report Formatting Guide to all Reporting Entities (REs) and software providers.
- Regularly scheduled Detailed Level Requirements (DLR) sessions have completed; finalizing acceptance of remaining artifacts.
- Rebaselined the Pension Line of Business project to include 20-day delay to Phase 1A (Omnibus Bill, Reporting Entity Reporting 7/8 delay, and Phase 1A validation changes)
- Issued Statement of Work for the Website Redesign and are in negotiations with a finalist.
- Round three of TEAM Huddles have begun.
- Received approval from Comptroller’s Office to proceed with Request for Offer (RFO) for the Financial System Replacement project.
- Engaged Cognizant to provide management and support of user acceptance testing (UAT).
- Completed set-up of Legacy UAT environment and turned over to Quality Assurance (QA).

Risk Description (key risks)	Mitigations
1. conflicting priorities between existing work and TEAM Program-related assignments (e.g., audits taking place at the same time as user acceptance testing)	<ul style="list-style-type: none"> ▪ resource plan sent monthly ▪ provide internal audit with TEAM schedule ▪ IT governance process (prioritization for service requests that require IT resources)

TEAM PROGRAM RISK REPORT

Risk Description (key risks)	Mitigations
2. ineffective decision-making (i.e., decisions not made timely, decisions made too swift which causes us to revisit, and/or made at inappropriate level)	<ul style="list-style-type: none"> ▪ decision log ▪ escalate issues if needed
3. lack of resources for Phase II (i.e., people or skill sets) (Action Item 1)	<ul style="list-style-type: none"> ▪ TRS/TEAM staffing plans
4. plan changes (e.g., legislative, rule, regulatory, federal, etc.)	<ul style="list-style-type: none"> ▪ plan changes are largely outside the control of the CMT and Program Management; therefore, we accept this risk
5. inaccurate planning estimates (i.e., cost and schedule)	<ul style="list-style-type: none"> ▪ This risk is owned by HP. Planning estimates are dependent on the plans put together by HP and largely outside the control of CMT and Program Management; therefore we accept this risk.
6. failure to manage change (e.g., scope, schedule, budget)	<ul style="list-style-type: none"> ▪ communicate, monitor, and enforce the change control process ▪ monthly internal budget meetings (quarterly Legislative Budget Board reporting)
7. lack of vendor staff with appropriate skill sets	<ul style="list-style-type: none"> ▪ This risk is owned by our vendors.
8. if the schedule were to shift by a month, TRS could not absorb it because their resources are maxed out, even though the resource levels are above their commitment in the RFO (new risk)	<ul style="list-style-type: none"> ▪ none at this time
9. lack of TRS experience with large scale user acceptance testing (UAT)	<ul style="list-style-type: none"> ▪ This risk was transferred to Cognizant.

Risk Description (other risks)
• internal TEAM governance structure operating inefficiently (e.g., inability to manage conflicting requirements between user departments)
• TEAM Project meetings have too many additional TRS staff attending (inefficient meetings and use of resource time)
• lack of patience to adhere to contracted schedule and methodology (TRS schedules and vendor schedules conflict to discuss project-related topics)
• change in executive leadership/board resulting in different priorities
• ineffective communication
• unknown interdependencies in schedule/project
• not following TEAM governance process could impact decisions, scope and schedule (new risk)
• lack of resources (e.g., conference rooms, training rooms)

TRS Stoplight Report Category

TEAM PROGRAM RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
1. Hire TEAM FTEs as outlined in the staffing plan approved by the TRS Board of Trustees (Risk 3)	TEAM Project Sponsors & Managers	Ongoing		In Progress	CMT is currently looking at staffing needs for Phase 2. If any additional resource needs are identified, they will be presented to the Executive Steering Committee.

TRS-AFFORDABILITY RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Katrina Daniel		November 2015

GOAL	OVERALL RISK	OBJECTIVE
Facilitate financial soundness of TRS-ActiveCare in order to provide affordable health care benefits.	Inadequate funding by the state and participating entities and/or unanticipated external forces could affect affordability.	Manage the revenues, expenses, and benefits of TRS-ActiveCare in a way that contributes to its financial soundness.

SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts all risks. Key mitigations include the TRS board has the authority to change benefits and/or premiums at any time, continuous monitoring and analysis of actual funding and trends to ensure adequate funding on an annual basis, contract/vendor monitoring, and participating districts' incentive to provide affordable health coverage by contributing above the minimum.

Risk Description	Mitigations	
1. change in state or federal healthcare policy (Action Item 1)	<ul style="list-style-type: none"> ▪ proposed legislation reviewed by TRS analysts ▪ alternatives identified by TRS and other stakeholders ▪ interim select committee on TRS-Care and TRS-ActiveCare 	<ul style="list-style-type: none"> ▪ fiscal notes prepared ▪ active communication with legislators and stakeholders ▪ participating entities may increase their contributions above the required minimum
2. inadequate state funding or required entity funding (Action Item 1)	<ul style="list-style-type: none"> ▪ alternatives identified by TRS and other stakeholders ▪ adjust premiums 	<ul style="list-style-type: none"> ▪ districts have an incentive to provide affordable health coverage by contributing above the required minimum
3. funding shortage due to incorrect assumptions for cost trends, population, payroll growth, etc., underestimate liabilities when setting premium rates	<ul style="list-style-type: none"> ▪ continuous monitoring and analysis of actual experience and trends ▪ adjust premiums 	<ul style="list-style-type: none"> ▪ seek emergency funding under extreme circumstances ▪ change benefits
4. catastrophic claims due to natural disasters or pandemic	<ul style="list-style-type: none"> ▪ seek greater short-term provider discounts ▪ TRS and vendor business continuity plans 	<ul style="list-style-type: none"> ▪ seek emergency funding under extreme circumstances
5. legislative coverage mandates increase claims costs (including the Affordable Care Act (ACA))	<ul style="list-style-type: none"> ▪ monitor proposed legislation ▪ adjust premiums 	<ul style="list-style-type: none"> ▪ change benefits

TRS-AFFORDABILITY RISK REPORT

Risk Description	Mitigations	
6. violation of contract terms by vendors, vendor/provider fraud, or limited vendor competition	<ul style="list-style-type: none"> ▪ use reputable vendors ▪ robust vendor procurement process ▪ external independent claims audits ▪ obtain/review SSAE¹ 16 reports ▪ continuous vendor monitoring and monthly reporting ▪ performance guarantees and financial penalties, suspension, termination ▪ customer satisfaction surveys ▪ large \$ claims reviewed by internal staff 	<ul style="list-style-type: none"> ▪ continuous claims monitoring to identify anomalies ▪ third party verification (independent healthcare consultants & auditors) ▪ vendor signed code of conduct statements ▪ alert management ▪ quarterly vendor meetings ▪ confidentiality agreements ▪ healthcare consultants and vendors' business continuity plans
7. internal fraud	<ul style="list-style-type: none"> ▪ management/supervisor review and oversight ▪ restricted or limited file/system access ▪ secured storage ▪ required fraud and/or ethics training ▪ documented policies and procedures ▪ audit trails ▪ alert management ▪ monthly review & audit of databases 	<ul style="list-style-type: none"> ▪ back-up data ▪ criminal background checks ▪ make staff aware of issues/consequences ▪ secondary review/verification ▪ internal system controls ▪ fraud hotlines (SAO, internal) ▪ separation of duties

Action Item	Owner	Target Date	Revised	Status	Comments
1. Draft <i>TRS-ActiveCare Affordability Study</i> (Risk 1, 2)	Chief Health Care Officer	8/2014	11/2014	Complete	Study completed in November 2014.

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
TRS board has the authority to change benefits and/or premiums at any time (Risk 3, 5)	TRS staff and Gabriel, Roeder, Smith (GRS)	TRS staff makes recommendation to the board on at least an annual basis.	Some changes may require 60-day participant notification before implementation due to the ACA.

¹ Statement on Standards for Attestation Engagements (SSAE) No. 16, Reporting on Controls at a Service Organization, American Institute of Certified Public Accountants (AICPA)

TRS-AFFORDABILITY RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Continuous monitoring and analysis of actual experience and trends to ensure adequate funding on an annual basis (Risk 3)	GRS, TRS staff, Vendors	<ol style="list-style-type: none"> 1. Claims data is submitted monthly to GRS by the vendors and projections are updated by GRS based on actual claims experience. 2. Quarterly vendor meetings to review plan claims experience. 3. Quarterly fluctuation analysis to detect any abnormal activity/cost trend. 	GRS models plan finances with projections several years in advance and provides ad hoc models for any considered benefit changes.
Contract/vendor monitoring (Risk 6)	TRS staff and GRS	Independent external claims and rebate audits, quarterly and annual vendor reviews, and other periodic ad hoc reports.	TRS staff is in daily contact with the vendors regarding a multiplicity of topics so emergent issues are resolved quickly.

TRS-CARE FUNDING RISK REPORT

RISK OWNER

RISK LEVEL/TREND

REPORTING DATE

Katrina Daniel



November 2015

GOAL

OVERALL RISK

OBJECTIVE

Facilitate long-term soundness of TRS-Care in order to provide sustainable retiree health care benefits.	Inadequate funding and/or unanticipated external forces would affect solvency of the program over the next biennium, requiring significant premium increases or benefit reductions.	Manage the revenues, expenses, and benefits of TRS-Care in a way that contributes to its long-term sustainability.
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SUMMARY

The mitigations in place appropriately reduce risks to a level that the risk owner accepts for a majority of the risks. Action items to reduce the likelihood of the risk include educating participants and other stakeholders and enhancing data analytics. Key mitigations include TRS board authority to change benefits and/or premiums at any time, continuous monitoring and analysis of actual experience and trends to ensure adequate funding for a minimum two-year cycle, and contract/vendor monitoring.

Risk Description	Mitigations	
1. change in state or federal policy and funding (Action Item 1)	<ul style="list-style-type: none"> ▪ proposed legislation reviewed by TRS analysts ▪ alternatives identified by TRS and other stakeholders 	<ul style="list-style-type: none"> ▪ fiscal notes prepared ▪ active communication with legislators and stakeholders
2. inability to align policy and funding with the cost of providing health care benefits (Action Item 3)	<ul style="list-style-type: none"> ▪ proposed legislation reviewed by TRS analysts ▪ alternatives identified by TRS and other stakeholders ▪ fiscal notes prepared 	<ul style="list-style-type: none"> ▪ interim select committee on TRS-Care and TRS-ActiveCare ▪ active communication with legislators and stakeholders
3. changes in Medicare (Action Item 2)	<ul style="list-style-type: none"> ▪ monitor any changes and/or reductions ▪ educate participants and other stakeholders ▪ adjust premiums 	<ul style="list-style-type: none"> ▪ change benefits ▪ seek emergency funding
4. funding shortage due to incorrect assumptions for cost trends, population, payroll growth, etc., underestimate liabilities when setting premium rates	<ul style="list-style-type: none"> ▪ continuous monitoring and analysis of actual experience and trends to ensure adequate funding for a minimum two-year cycle ▪ adjust premiums ▪ maintaining contingency reserves 	<ul style="list-style-type: none"> ▪ continuous monitoring of Medicare Advantage and Part D participation ▪ change benefits ▪ seek emergency funding under extreme circumstances

TRS-CARE FUNDING RISK REPORT

Risk Description	Mitigations	
5. catastrophic claims due to natural disasters or pandemic	<ul style="list-style-type: none"> ▪ request emergency appropriation from legislature ▪ TRS and vendor business continuity plans 	<ul style="list-style-type: none"> ▪ seek greater short-term provider discounts ▪ seek emergency funding under extreme circumstances
6. legislative coverage mandates increase costs (including the Affordable Care Act (ACA))	<ul style="list-style-type: none"> ▪ monitor proposed legislation ▪ adjust premiums 	<ul style="list-style-type: none"> ▪ change benefits
7. violation of contract terms by vendors, vendor/provider fraud, or limited vendor competition	<ul style="list-style-type: none"> ▪ use reputable vendors ▪ robust procurement process ▪ external independent claims audits ▪ obtain/review SSAE¹ 16 reports ▪ continuous vendor monitoring and monthly reporting ▪ performance guarantees and financial penalties, suspension, termination ▪ healthcare consultants and vendors' business continuity plans 	<ul style="list-style-type: none"> ▪ alert management ▪ continuous claims monitoring to identify anomalies ▪ large \$ claims audited by internal staff ▪ third party verification (independent healthcare consultants & auditors) ▪ customer satisfaction surveys ▪ signed code of conduct statements ▪ quarterly vendor meetings ▪ confidentiality agreements
8. internal fraud	<ul style="list-style-type: none"> ▪ management/supervisor oversight ▪ management/supervisor review ▪ restricted or limited file/system access ▪ secured storage ▪ attend fraud and/or ethics training ▪ documented policies and procedures ▪ audit trails ▪ separation of duties 	<ul style="list-style-type: none"> ▪ monthly review & audit of databases ▪ back-up data ▪ alert management ▪ criminal background checks ▪ make staff aware of issues/consequences ▪ secondary review/verification ▪ internal system controls ▪ fraud hotlines (State Auditor's Office, internal)

Action Item	Owner	Target Date	Revised	Status	Comments
1. Update <i>TRS-Care Sustainability Study</i> (Risk 1)	Chief Health Care Officer	8/2014	11/2014	Complete	Study completed in November 2014.

¹ Statement on Standards for Attestation Engagements (SSAE) No. 16, Reporting on Controls at a Service Organization, American Institute of Certified Public Accountants (AICPA)

TRS-CARE FUNDING RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
2. Educate participants and other stakeholders (Risk 3)	Chief Health Care Officer	4/2016		In Progress	
3. Enhance data analytics (Risk 2)	Chief Health Care Officer	10/2016		Planned	

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
TRS board has the authority to change benefits and/or premiums at any time (Risk 3, 4, 6)	TRS staff and Gabriel, Roeder, Smith (GRS)	TRS staff makes recommendation to board on at least an annual basis.	Some changes may require 60-day participant notification before implementation due to the ACA.
Continuous monitoring and analysis of actual experience and trends to ensure adequate funding for a minimum two-year cycle (Risk 4)	GRS, TRS staff, Vendors	<ol style="list-style-type: none"> 1. Claims data is submitted monthly to GRS and financial projections are updated based on actual experience. 2. Quarterly vendor meetings to review plan experience. 3. Quarterly fluctuation analysis to detect any abnormal activity/cost trend. 	GRS models plan finances with projections several years in advance and provides ad hoc models for any considered benefit changes.
Contract/vendor monitoring (Risk 7)	TRS staff and GRS	Independent external audits, quarterly/annual vendor reviews, and other periodic ad hoc reports.	TRS staff is in daily contact with the vendors regarding a multiplicity of topics so emergent issues are resolved quickly.