								5,	25, 202 4
		Risk Score Report - As of June 30, 2	024					Risk	Page 1 Status
are inhe controls actions This Ris	rently p , to miti are take k Score	nrive by taking risks, but falter when risks are not managed effectively. resent in the work we do at CaISTRS, which is why we implement inter gate these inherent risks. However, the possibility of residual risk, aftern to mitigate risk, does exist. Report identifies the inherent risks and residual risks in each of the rish ISTRS and any corresponding changes since the last reporting period,	nal er all	controls in likelihood Residual Risk rema	out any acti n place to re or impact.	educe	high	dium 2	41-50 31-40 21-30 11-20
Decemb				-	remove o		very	low 2	1-10
	tegic als	Goal 1: Trusted stewards (G1: TS) Goal 2: Leading innovation and managing change (G2: LI) Goal 3: Sustainable organization (G3: S0)		tegic ctives	A, B, C, D, A, B, C, D, A, B, C, D		Risk Responses	Avoid Reduce Share Accept	
:	1	Pension Funding Investments				Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
Fund p	erform	ance objectives not achieved as set in the Investment Policy	and Man	agement	Plan.	25	No Change	19	No Change
residua new Cl	Il risk s O. This	nerent risk score for the category remained at 25, which is in ali core remained at 19, which is in alignment with the low-risk ran risk is not deemed to materially change Investments goal of act	ge (yello	w band) o	f the heat	•	•		
A	30%	The fund will not achieve the actuarially expected return over the long term (30 years/absolute return), which may prevent CalSTRS from reaching full funding by 2046.	G1: TS	A, B, C	Reduce	20	No Change	16	No Change
В	40%	CaISTRS will not be able to implement strategies and tools necessary to manage risk associated with a more complex and volatile investment environment, which may hinder Investments Branch ability to capitalize on value added investment opportunities.	G1: TS	A, B, C, D	Reduce	32	No Change	24	No Change
С	20%	The fund will not add value above the total fund benchmarks return over the long term (Relative return), which may create stakeholder uncertainty in CalSTRS ability to effectively manage risk and implement investment strategies.	G1: TS	A, B, C	Reduce	20	No Change	15	No Change
D	10%	There is a risk that the transition to a new CIO could result in a disruption to operations, a loss of confidence of stakeholders, investors, business partners and employees, and an adverse shift in culture caused by a lack of transition support and/or poor transition plan.	G1: TS	A, B, C	Reduce	24	New	12	New
:	2	Pension Funding Actuarial				Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
Actuari	al met	hodologies and assumptions vary from experience.				22	No Change	14	J -3
		sidual risk score for this category decreased by three points to 1 roward is due to the fact that the board adopted new actuarial a	,	U			0 0	,	•
Sub-Risk	Weight	Sub Risk Statement	Strategic	Strategic	Risk				
A	80%	Over the long-term actual experience significantly differs negatively from actuarial assumptions, which could result in the inability to achieve full funding by 2046.	Goal G1: TS	Objective A	Response	24	No Change	16	-4
В	10%	There is a risk that actuarial assumptions negatively differ from actuarial experience, caused by incorrect information underlying the actuarial assumptions, which could result in the inability to achieve full funding.	G1: TS	А	Reduce	18	No Change	9	No Change
С	10%	Inappropriate measures of actuarial obligations and costs, caused by invalid actuarial methodologies, could result in the inability to achieve full funding by 2046.	G1: TS	А	Reduce	9	No Change	6	No Change

	Risk Score Report - As of June 30, 20	24			Ris	k Status	Page
are inherently p controls, to miti actions are take This Risk Score	nrive by taking risks, but falter when risks are not managed effectively. In the work we do at CalSTRS, which is why we implement interning at these inherent risks. However, the possibility of residual risk, after en to mitigate risk, does exist. Report identifies the inherent risks and residual risks in each of the risk alSTRS and any corresponding changes since the last reporting period, 2023.	al Risk with controls all likelihoo Residua Risk ren impleme	nout any actions or in place to reduce d or impact.	high me low	dium	41-50 31-40 21-30 11-20 1-10	
Strategic Goals	Goal 1: Trusted stewards (G1: TS) Goal 2: Leading innovation and managing change (G2: LI) Goal 3: Sustainable organization (G3: SO)	Strategic Objectives	A, B, C, D, E A, B, C, D, E, F A, B, C, D	Risk Responses	Avoid Reduce Share Accept		

3	Pension Funding Contribution Rate	Inherent Risk Score	Inherent Period	Residual Risk Score	Residual Period Change
			Change		
Insufficient cont	tribution rates to amortize unfunded actuarial obligation.	20	No Change	15	No Change

The overall residual risk score for this category remains at 15 and in alignment with the low-risk range (yellow band) of the heat map. The 2023 actuarial valuation was presented to the board in May 2024. Funding levels have improved since the previous valuation and the funding plan remains ahead of the original funding plan schedule to reach full funding by 2046.

Sub-Risk	Weight	Sub Risk Statement	Goal	Objective	Response				
A	70%	The board's limited authority to change contribution rates per AB 1469 could result in insufficient contributions to reach full funding by 2046.	G1: TS	A	Reduce	24	No Change	20	No Change
В	30%	Failure of the board to exercise their authority to adequately fund the Defined Benefit Program to its fullest extent could result in insufficient contributions to reach full funding by 2046.	G1: TS	A, D	Reduce	12	No Change	6	No Change
4	1	Pension Administration				Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	-	accurate delivery of benefits and services due to inadequate stems, staff actions or data.	or failure	e of proce	esses,	35	No Change	25	No Change

The overall residual risk score for this category remains at 25 and in alignment with the medium-risk range (orange band) of the heat map. The START Team made changes to the START system to comply with new and existing legislative mandates including the 1099R Tax Document process enhancement for Calendar Year 2023 and implementation of additional changes for AB 1667 legislation. Audit Services completed a total of 65 audits in the 6-month audit plan from January 1, 2024 through June 30, 2024. The Pension Solution project solicited feedback from employer partners about the timing of New File Formats (NFF) and the potential changes to it from the Creditable Compensation Simplification proposal. The project will finalize a project decision in FY24/25 and communicate to employers that CalSTRS will maintain the old file format at go-live. The current analysis confirmed the positive trend towards proper classification of compensation by employers.

Sub-Risk	Weight	Sub Risk Statement	Strategic Goal	Strategic Objective	Risk Response				
A	30%	CalSTRS is unable to ensure accurate and timely benefits due to the aged pension administration system's (START) failure to pay benefits timely.	G2: LI	A, C	Reduce	45	No Change	32	No Change
В		During the transition period, the loss of mainframe knowledgeable staff may result in the inability to continuously maintain START and properly service members until the new pension administration system is fully operational.	G2: LI	A	Reduce	45	No Change	32	No Change
С	20%	Inability to deliver timely benefits and services due to incomplete, inaccurate and late employer reporting.	G2: LI	А	Reduce	21	No Change	15	No Change
D	20%	Inaccurate benefit payments caused by current system limitations, manual processes and unknown system defects.	G2: LI	А	Reduce	24	No Change	16	No Change

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	Risk Score Report - As of June 30, 2	024					Risk	Status	
are inherently po	rive by taking risks, but falter when risks are not managed effectively. resent in the work we do at CalSTRS, which is why we implement intergate these inherent risks. However, the possibility of residual risk, after n to mitigate risk, does exist.	rnal coer all	ontrols i kelihood	out any actions or n place to reduce I or impact.		hig	ry high jh	41-50 31-40 21-30	
This Distriction	Donorsk tide outliff on the distriction of side of section of side of		esidual					44.00	
	Report identifies the inherent risks and residual risks in each of the ris			aining after		low	V	11-20	
December 31, 2	ISTRS and any corresponding changes since the last reporting period, 023.	C	•	nting actions and o remove or manage		ver	y low	1-10	
	Goal 1: Trusted stewards (G1: TS)		_	A, B, C, D, E			Avoid		
Strategic	Goal 2: Leading innovation and managing change (G2: LI)	Strate	gic	A, B, C, D, E, F	Risk		Reduce		
Goals	Goal 3: Sustainable organization (G3: S0)	Object	ives	A, B, C, D	Respons	ses	Share		
							Accept		

5	Financial Reporting	Inherent Risk Score	Inherent Period Change	Residual Risk Score	
	a material misstatement of the financial statements and/or deviation from US ed Accounting Principles caused by failures of internal controls.	20	No Change	8	No Change

The overall residual risk score for this category remains at 8 and in alignment with the very low risk range (blue band) of the heat map. The score reflects the unmodified opinion given by the external auditors over the 2022-2023 financial statements. They also did not report any findings to management or the board as a result of the audit. The risk statement for this category has been modified to include US Generally Accepted Accounting Principles (GAAP).

Sub-Risk	Weight	Sub Risk Statement		Strategic Objective	Risk Response				
A	100%	Information received from subsidiary systems is recorded incorrectly in the general ledger, which could result in the financial statements being materially misstated and the external auditors issuing a modified opinion.	G2: LI	A, C	Reduce	20	No Change	8	No Change
							Inhoront		

6 Informa	tion Security	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
Loss of information security or compliand breaches.	e violations as a result of unauthorized or unintentional	49	No Change	38	No Change

The overall residual risk score for this category remains at 38 and in alignment with the high-risk range (red band) of the heat map. Security remains the highest residual score in our risk matrix, signifying the real and credible threat of the highly volatile cyber security landscape. CalSTRS renewed their Cyber insurance in July 2023. To highlight some of the mitigation efforts conducted by CalSTRS, ISO has deployed increasingly more difficult phishing exercises in response to the results of past exercises. ISO is also evaluating cyber-fraud tools and artificial intelligence to address emerging risks. ISO has finalized recruitment of a cyber-fraud specialist to assist with the program activities. The independent cyber security assessment was completed in December 2023, and the final auditors report was presented in March 2024.

Sub-Risk	Weight	Sub Risk Statement	Strategic Goal	_	Risk Response				
A		A highly volatile cyber-risk landscape and a limited number of staff could result in an information security breach or incident at CalSTRS.	G3: S0	D	Reduce	50	No Change	40	No Change
В		The absence of proper Information Security Program management and oversight could result in an information security breach or incident at CalSTRS.	G3: S0	D	Reduce	36	No Change	24	No Change
С	4%	A lack of employee security awareness could result in an information security breach or incident at CalSTRS.	G3: S0	D	Reduce	40	No Change	24	No Change
D	4%	A highly volatile cyber-risk landscape and insufficient resources could result in increased cyber-fraud risk as it relates to a security breach or incident at CalSTRS.	G3: S0	D	Reduce	40	No Change	27	No Change

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	Risk Score Report - As of June 30, 20)24			Ris	k Status	<u> </u>
are inherently p	rive by taking risks, but falter when risks are not managed effectively. resent in the work we do at CalSTRS, which is why we implement intern gate these inherent risks. However, the possibility of residual risk, after n	al Risk with controls	Risk rout any actions or in place to reduce d or impact.	high	/ high	41-50 31-40 21-30	
This Biol Coors	Report identifies the inherent risks and residual risks in each of the risk	Residua	l Risk aining after	IIIe	JIUIII		
	ISTRS and any corresponding changes since the last reporting period,		nting actions and	low		11-20	
December 31, 2	023.	controls risk.	to remove or manage	ver	/ low	1-10	
	Goal 1: Trusted stewards (G1: TS)		A, B, C, D, E		Avoid		
Strategic	Goal 2: Leading innovation and managing change (G2: LI)	Strategic	A, B, C, D, E, F	Risk	Reduce		
Goals	Goal 3: Sustainable organization (G3: S0)	Objectives	A, B, C, D	Responses	Share		
		•		•	Accept		

7 Operational	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
Inability to achieve business objectives due to lack of compliance with internal controls, lack of accessibility to technology systems, or loss of critical staff knowledge.	32	No Change	19	No Change

The overall residual risk score for this category remains at 19 and in alignment with the low-risk range (yellow band) of the heat map. Technology Services is in the process of migrating all eligible on-premise, and vendor hosted applications to the CalSTRS AWS Cloud solution with a target date of December 2025. Mission critical position rosters were verified and updated in Q2, all mission critical positions have operational action plans in place with succession management strategies identified, which aids in business continuity, succession planning and general workforce strategy. The existing Knowledge Transfer (KT) program has been archived and the new self-service program has been built and is accessible upon request until org-wide roll out occurs in 2024/25. Three KT pilot programs for CIO, Risk Management, and Compliance were launched in Q3 and are set to complete in 2024/2025. CalSTRS continues to engage with Guidehouse, our DEI consultants to measure efforts within the organization against Global DEI Benchmarks. Guidehouse delivered a change management plan in Q4 to project and executive sponsors which outlines work through 2026.

Sub-Risk	Weight	Sub Risk Statement	Strategic Goal	Strategic Objective	Risk Response				
A	30%	In the event of a disaster, and/or full or partial disruption to the CalSTRS datacenter, CalSTRS may not be able to provide mission critical business processes to our members due to inaccessibility to technology systems.	G3: S0	A, D	Reduce	36	No Change	24	No Change
В	20%	CalSTRS lacks the ability to meet critical business functions due to recruitment challenges.	G3: S0	A	Reduce	28	No Change	15	No Change
С		CalSTRS is unable to meet critical business functions or maintain service levels due to potential loss of subject matter experts and lack of CalSTRS knowledge transfer.	G3: S0	A	Reduce	32	No Change	21	No Change
D	10%	Staff and leadership turnover could result in loss of long-term business stability and sustainability.	G3: S0	A	Reduce	24	No Change	18	No Change
E	15%	CalSTRS may fail to identify risks caused by staff not being fully engaged for various reasons including competing priorities, which could result in CalSTRS being unprepared for future risks.	G1: TS	E	Reduce	36	No Change	15	No Change
F	10%	CalSTRS may not establish or maintain the proper health and safety strategies, measures, training, etc., resulting in compromised employee health and safety.	G3: S0	A	Reduce	32	No Change	21	No Change
G	5%	CalSTRS is unable to complete the Headquarters Expansion Project within the established scope, schedule and budget due to delays with construction (i.e. inspections, approvals or materials) and the additional costs/timeframes associated with those delays.	G3: S0	С	Reduce	24	No Change	18	No Change

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	Risk Score Report - As of June 30, 20	24			Risl	k Status	
Organizations thrive by taking risks, but falter when risks are not managed effectively. are inherently present in the work we do at CalSTRS, which is why we implement inters controls, to mitigate these inherent risks. However, the possibility of residual risk, after actions are taken to mitigate risk, does exist. This Risk Score Report identifies the inherent risks and residual risks in each of the riscategories at CalSTRS and any corresponding changes since the last reporting period, December 31, 2023.		al Risk with controls likelihoo	h m	ery high gh nedium w ery low	41-50 31-40 21-30 11-20 1-10		
Strategic Goals	Goal 1: Trusted stewards (G1: TS) Goal 2: Leading innovation and managing change (G2: LI) Goal 3: Sustainable organization (G3: SO)	Strategic Objectives	A, B, C, D, E A, B, C, D, E, F A, B, C, D	Risk Respons	Avoid Reduce Share Accept		
8	Reputational		Inher	Inheren	Residua	al Res	sidual

8	Reputational	Inherent Risk Score	Period	Residual Risk Score	Residual Period Change
Loss of confidence	in CaISTRS as a respected fiduciary of public funds.	32	No Change	20	J -2

The overall residual risk score for this category decreased by two points to 20 and is in alignment with the low risk range (yellow band) of the heat map. The activities encompassing this risk category are being actively performed by our staff. The enterprise-wide initiatives are continuing to progress towards completion. For example, Pension Solution now has a launch date of fall 2025 after the signing of a new contract with Sagitec and the acquisition of additional project management resources. In addition, CalSTRS continues to market 100 Waterfront to potential tenants with the completion of the HQE project.

Sub-Risk	Weight	Sub Risk Statement	Strategic Goal	Strategic Objective	Risk Response				
A	25%	A board or staff member engages in unethical behavior resulting in reputational damage.	G3: S0	D, E	Avoid	28	No Change	24	No Change
В	30%	CalSTRS is unable to implement transformational efforts, which could impact stakeholders, members, staff and public confidence.	G2: LI	А	Reduce	40	No Change	18	↓ -6
С	20%	Investments may be perceived as conducting business in an imprudent and unethical manner due to CalSTRS inability to transform the financial markets to fully integrate sustainability considerations.	G1: TS G2: LI	A, B, D A	Reduce	30	No Change	24	No Change
D		There is a risk that CalSTRS may need to correct inaccurate reporting of business and financial information which may result in a loss of public trust and harm to our reputation.	G1: TS G2: LI	A, B, D	Reduce	30	No Change	16	No Change
E	10%	CalSTRS is unable to meet member service expectations due to resource constraints resulting from competing priorities.	G2: LI	А	Reduce	21	No Change	12	No Change

Page 6 Risk Score Report - As of June 30, 2024 Risk Status Inherent Risk Organizations thrive by taking risks, but falter when risks are not managed effectively. Risks very high 41-50 Risk without any actions or are inherently present in the work we do at CalSTRS, which is why we implement internal controls in place to reduce 31-40 high controls, to mitigate these inherent risks. However, the possibility of residual risk, after all likelihood or impact. actions are taken to mitigate risk, does exist. 21-30 medium Residual Risk This Risk Score Report identifies the inherent risks and residual risks in each of the risk Risk remaining after 11-20 low categories at CalSTRS and any corresponding changes since the last reporting period, implementing actions and December 31, 2023. controls to remove or manage 1-10 very low risk. A. B. C. D. E Goal 1: Trusted stewards (G1: TS) Avoid Strategic Strategic Risk Goal 2: Leading innovation and managing change (G2: LI) A, B, C, D, E, F Reduce Goals Goal 3: Sustainable organization (G3: S0) **Objectives** A, B, C, D Share Responses Accept

9 Transformational Change

Inherent Risk Score Change

CalSTRS is unable to accomplish major transformational change initiatives.

Inherent Period Change

Change

32 4 -4 24 -4

The overall inherent risk score for the category decreased by four points to 32, which is in alignment with the high-risk range (red band) of the heat map. In addition, the overall residual risk score decreased by four points to 24, which is in alignment with the medium-risk range (orange band) of the heat map. The risk category changed to reflect the progress and current phase of the Pension Solution project, the project being on track to reach the implementation goal, new business subject matter expert resources have been onboarded and are performing well, vendor resources are performing as expected, and the expanded Project Management Office team with the new vendor team has established frequent meetings with each workstream team to ensure proper processes are being established and followed. These factors drove decreases in inherent and residual impact and probability scores across four of our six sub-risks.

Sub-Risk	Weight	Sub Risk Statement	Strategic Goal	Strategic Objective	Risk Response				
A	40%	CalSTRS is unable to successfully implement a new pension administration system and transform the associated data and business processes within the established scope, schedule and budget due to ongoing delays.	G2: LI	A	Reduce	36	J -9	28	-8
В	15%	There is a risk that vendors could experience staffing issues which may result in schedule delays or cost increases to the Pension Solution project.	G2: LI	A	Reduce	32	No Change	28	No Change
С	15%	Loss of CalSTRS subject matter experts and challenges associated with replacing them may result in the inability to successfully implement Pension Solution.	G2: LI	А	Reduce	28	J -4	15	-3
D	20%	The procured vendor does not follow the agreed upon project-related processes to provide the results and functionality necessary to meet CalSTRS' business needs.	G2: LI	А	Reduce	28	J -4	24	-3
E	5%	Lack of cohesive project governance and communication practices within business areas could result in uninformed decision-making on transformational efforts.	G2: LI	А	Reduce	24	No Change	18	↓ -3
F	5%	Inability of the Pension Solution Project to achieve desired results due to lack of readiness to the transformed business processes.	G2: LI	A, C, F	Reduce	28	No Change	15	No Change

10 Third Parties	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
CalSTRS failure to appropriately manage risks associated with third parties, resulting in operational disruption, financial loss, reputational damage, compliance violations or inability to achieve strategic goals.	29	J -3	20	-1

The overall residual risk score decreased by one to 20, which is in alignment with the low-risk range (yellow band) of the heat map. The reduction is a product of the continued progress of the development of the Third Party Risk Management framework which has resulted in the completion of the Third Party Risk Management Policy which was signed by the CEO on 11/6/23 and passed the Labor Union approval process on 12/14/23. The policy has a to be determined effective date pending the completion and approval of the Third Party Risk Management framework and related tools.

Sub-Risk	Weight	Sub Risk Statement	Strategic Goal	_	Risk Response				
A	64%	An absence of third-party risk management program governance could result in duplication of efforts or assurance gaps which could result in operational disruption, financial loss, reputational damage, compliance violations or failure to reach strategic goals.	G1: TS G2: LI	E E	Reduce	32	No Change	21	No Change
В		There is a risk that CalSTRS does not perform adequate due dilligence of third parties prior to awarding a contract which could result in failure to identify risks involved in outsourcing a specific service(s).	G1: TS G2: LI	E E	Reduce	24	No Change	18	No Change
С		There is a risk that CalSTRS fails to thoroughly perform regular due diligence of third parties which could result in operational disruption, financial loss, reputational damage or compliance violations.	TBD	TBD	Reduce	24	NA	18	NA