

Benefit Administration Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight	Category		
Benefit Administration	Deputy Executive Officer, Customer Service and Support	Pension & Health Benefits Committee	Operational		
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To ensure accurate and timely benefits and information to members, retirees, and beneficiaries.				
Risk Statement	CalPERS members, retirees, and beneficiaries may not receive timely and/or accurate benefits.				
Risk Analysis:					
The noted risk analysis is based on an understanding that the complexity of the Benefit Plan Design results in inherent risks that impact benefit calculations. In addition, we rely on employers to submit accurate reporting with limited oversight and limited ability to detect errors and track systemic issues.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Benefit Administration	Unlikely-Possible	Minor	Moderate-Fast	Low Impact Low Probability	
Risk Driver #1: Inaccurate employer reporting					
Effective Mitigations and Controls In Place:					
1.1 Business logic, system edits and data checks on employer data before it comes in (payroll reporting, enrollment, etc...)					
1.2 Tools and reports implemented for employers to identify and fix data issues					
1.3 Employer training through various mediums					
1.4 Employer response team					
1.5 Quality assurance reports					
1.6 Business partner identity account management					
1.7 Public Agency reviews					
Risk Driver #2: Inability to implement statutory and regulatory changes					
Effective Mitigations and Controls In Place:					
2.1 Robust employee training program for call center					
2.2 Employee communication tools					
2.3 Required second approvals and peer reviews					
2.4 Documentation and regular updates of desk procedures and process documents					
2.5 Internal audits					
Risk Driver #3: Inability to implement statutory and regulatory changes					
Effective Mitigations and Controls In Place:					
3.1 Appropriate governance of system change requests					
3.2 Legislative impact analyses					
3.3 Post chaptered legislation implementation process					
3.4 myCalPERS Project budget (expiring December 2017)					
3.5 Various employer and stakeholder communication tools					

Risk Driver #4: Complexity of the benefit plan design

- 4.1 Appropriate governance of system change requests
- 4.2 Legislative impact analyses
- 4.3 Post chaptered legislation implementation process
- 4.4 my|CalPERS Project budget (expiring December 2017)
- 4.5 Various employer and stakeholder communication tools

Risk Driver #5: Inaccurate benefit calculations completed through manual and automated processes**Effective Mitigations and Controls In Place:**

- 5.1 System testing
- 5.2 Peer review protocol
- 5.3 Clear procedures and process documents
- 5.4 Comprehensive training for all levels of staff
- 5.5 Internal audits
- 5.6 Quality assurance programs
- 5.7 Documentation of system functionality

Business Continuity Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight	Category		
Business Continuity	Deputy Executive Officer, Operations and Technology	Finance & Administration Committee	Operational		
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	CalPERS ability to recover and resume critical business functions in the event of a major business interruption.				
Risk Statement	Inability to recover timely and resume critical business functions following a major business interruption event.				
Risk Analysis:					
The risk analysis noted a lack of an enterprise-wide prioritized list of critical functions in the CalPERS General Business Continuity Plan; the inability to complete Disaster Recovery documents timely; the complexity and interdependencies of the systems used; and the limitations to testing recovery plans. Work has been done to analyze and prepare needed plans; but until those documents and projects are complete, the risk of not meeting recovery objectives remains.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Business Continuity	Likely	Major	Moderate-Fast	High Impact High Probability	
Risk Driver #1: Lack of agreed upon enterprise prioritization of critical business functions					
Effective Mitigations and Controls In Place:					
1.1 Consultant has been hired to identify critical business functions and define the resources, procedures, and data required to ensure recovery goals are met after a catastrophic event					
Future Mitigation:					
• Update master Business Continuity Program that accounts for enterprise priorities and can be executed post a major disruption (December 2016)					
Risk Driver #2: Outdated and untested Division Business Continuity Plans					
Effective Mitigations and Controls In Place:					
2.1 Annual review of division business continuity plans (BCPs)					
2.2 Division Business Continuity liaisons assist with updating their BCPs and communicating with OSSD Business Continuity staff					
Future Mitigation:					
• Update Division Business Continuity Plans (December 2016)					
Risk Driver #3: Inability to restore critical business systems within the expected recovery time objectives					
Effective Mitigations and Controls In Place:					
3.1 Annual disaster recovery exercises (completed June 2016)					
3.2 Dedicated off-site Emergency Operations Center (EOC)					
3.3 Contract with an external vendor to perform Disaster Recovery Services					
Future Mitigations:					
• A Spring 2017 Request for Proposal (RFP) will update and modernize CalPERS Disaster Recovery (DR) program and align recovery objectives with the 2016 updated Business Continuity Plans					
• Enter into a new Backup and Disaster Recovery Services contract (July 2017)					

Risk Driver #4: System changes are not recorded and reported timely to the disaster recovery vendor**Effective Mitigations and Controls In Place:**

- 4.1 Annual disaster recovery exercises (completed June 2016)
- 4.2 Vendor has up-to-date technical disaster recovery procedures and has the contractual obligation to bring up my|CalPERS within the documented recovery time objective
- 4.3 Embedded DR support staff in system change control boards to increase awareness and early detection of system customizations
- 4.4 Added DR impact and recovery documentation updates to change control forms

Future Mitigations:

- Perform table-top exercises twice per year to ensure Disaster Recovery documents are up-to-date (November 2016 and May 2017)
- Enter into a new Backup and Disaster Recovery Services contract (July 2017)

Risk Driver #5: Inability to react to an emergency situation**Effective Mitigations and Controls In Place:**

- 5.1 CalPERS has a defined Incident Command System
- 5.2 Biennial training, table-top exercises, and simulations
- 5.3 Emergency Response Program, including Floor Warden and Emergency Response Teams
- 5.4 CalPERS Executives and select Division Chiefs participate in training at the EOC to discuss management and operations issues and crisis management techniques
- 5.5 CalPERS Emergency Hotline dedicated for staff to call and receive the status of operations and other emergency information

Future Mitigation:

- Continued training, table-top exercises for CalPERS Team, Division Chiefs and Executives

Compliance Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight			Category
Compliance	Chief Financial Officer	Risk & Audit Committee			Strategic
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To comply with all applicable laws, regulations, and policies by promoting a culture of compliance and ethics through strengthening awareness and accountability.				
Risk Statement	Failure to comply with laws, regulations, and policies.				
Risk Analysis:					
The risk analysis noted constant change in laws, rules and regulations; the need for increased compliance and ethics education and training; and a lack of documented process and controls in place. While the organization has done much to mitigate these risks, the enterprise governance around these issues is still maturing.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Compliance	Possible	Major	Moderate-Fast	High Impact High Probability	
Risk Driver #1: Lack of staff awareness and knowledge of all applicable laws, regulations, and policies					
Effective Mitigations and Controls In Place:					
1.1 Education and communication on laws, regulations and policies					
1.2 Compliance monitoring, reporting, escalation and triage of issues					
1.3 Regular meetings with Compliance, Risk Management, Investment Office, Customer Services and Support, and Operations Support Services Division embedded risk and compliance liaisons					
1.4 Operational management of laws, rules and regulations through policies and procedures					
Future Mitigations:					
• Develop inventory of existing laws/rules, and embedded compliance ownership (June 2018)					
• Develop a centralized searchable database of compliance documents necessary to comply with relevant U.S. federal, State and local regulations (June 2018)					
• Continue to implement embedded risk and compliance liaisons within other Divisions (June 2017)					
• Establish Operating Event Framework (June 2017)					
• Enhance enterprise compliance capabilities and internal controls (June 2017)					
Risk Driver #2: Unethical behavior by staff, executive, or board member					
Effective Mitigations and Controls In Place:					
2.1 Established core values that promote an ethical culture					
2.2 Established ethics policies/ laws: Regulations Enacting Personal Trading Guidelines for CalPERS Employees Personal Trading, Statement of Economic Interests - Form 700, Conflict of Interest Code, California Public Employees' Retirement System Statement of Investment Policy for Insider Trading, and CalPERS Statement of Incompatible Activities Policy					
2.3 Mandated training: Working Values: Ethical Decision-Making, and CalPERS Ethics Training for Form 700/FPPC Filers					
2.4 State Whistleblower Hotline and CalPERS Ethics Helpline process to investigate issues					
2.5 Monitoring and reporting of Citizen's complaints from Citizen Complaint Line					
Future Mitigation:					
• Enhancement of Form 700 protocols and ethics training (June 2017)					
• Workshop on compliance and ethics training for Executives and Board Members (June 2017)					

Risk Driver #3: Lack of a centralized documentation of enterprise policies, processes, and controls**Effective Mitigations and Controls In Place:**

- 3.1 Enhanced roles and responsibilities for Integrated Assurance
- 3.2 Biennial completion of the State Leadership Accountability Act compliance report and semiannual Corrective Action Plan report
- 3.3 Third-party assurance over financial reporting
- 3.4 Established automated systems coded with rules for internal audits, compliance and risk management areas
- 3.5 Established Policy Management framework, which provides governance structure and includes standardized templates for enterprise policies
- 3.6 Annual review of Board delegations
- 3.7 Established delegated authority framework at Executive and Senior level

Future Mitigation:

- Validation of CalPERS policies to meet the standards established in the delegation and policy management framework (June 2017)

Data Management Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight			Category
Data Management	Chief Financial Officer	Finance & Administration Committee			Operational
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To ensure the integrity of CalPERS data and reporting through effective data governance and data quality.				
Risk Statement	Inaccuracy of data and reporting used to make business decisions.				
Risk Analysis:					
This risk analysis notes that data governance, which is now being addressed through several oversight committees and teams. This will strengthen the integrity and quality of data.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Data Management	Possible	Moderate	Moderate-Fast	Low Impact Low Probability	
Risk Driver #1: Lack of data policies, standards, architecture, and procedures					
Effective Mitigations and Controls In Place:					
1.1 Establishment of Data Governance Committee responsible for addressing consistent data usage across key CalPERS reports.					
1.2 Standardization of data established for Comprehensive Annual Financial Report (CAFR) and CalPERS Annual Retirement Summary and Details reports (CARS, CARD)					
Risk Driver #2: Collection of irrelevant, out of date, or erroneous data					
Effective Mitigations and Controls In Place:					
2.1 Establishment of Information Technology Services Branch Data Quality Team to define, monitor, and improve data quality.					
2.2 Change Advisory Board responsible for reviewing and approving Functional Optimization initiatives to promote data quality by addressing root caused gaps in data integrity.					
2.3 my CalPERS Steering Committee responsible for providing governance framework to establish proactive and corrective controls for data management.					
2.4 Availability of reports and system tools to assist employers with fixing data issues					
Risk Driver #3: Inadequate preventive or detective controls to ensure data is adequately and completely transmitted to another application system.					
Effective Mitigations and Controls In Place:					
3.1 Automated reconciliation of member activity across CalPERS financial systems					
3.2 Reconciliation of my CalPERS data with PeopleSoft to ensure integrated systems and the proper recording of business transactions.					
3.3 Business logic and data checks on employer data prior to being accepted into database.					
Future Mitigations:					
<ul style="list-style-type: none"> • Improved Contract Provisioning through reconciliations of terms and conditions in employer agreements (June 2018). • Reduction of manual data corrections by functional area through automated data corrections (September 2018). • Enhanced staff access controls by establishing procedures to limit access to sensitive data (April 2018). 					

Health Care Administration Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight		Category	
Health Care Administration	Deputy Executive Officer, Benefit Programs Policy and Planning	Pension & Health Benefits Committee		Strategic	
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To offer high quality, accessible, and affordable health care.				
Risk Statement	Inability to offer high quality, accessible, and affordable health care at a competitive price.				
Risk Analysis:					
There are inherent risks from rising healthcare and pharmaceutical costs, although CalPERS is mitigating these risks well and continues to offer high quality and affordable health care.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Health Care Administration	Possible	Moderate	Moderate-Fast	Low Impact Low Probability	
Risk Driver #1: Increases in health care costs					
Effective Mitigations and Controls In Place:					
1.1 Annual reports presented to the PHBC: Integrated Health Models, Population Health, and Health Care Cost					
1.2 Implementation of Triple Aim Strategies					
1.3 Dependent Eligibility Verification (on-going dependent eligibility reviews at least every 3 years)					
1.4 Eligible enrollees over 65 transitioned to Medicare					
1.5 Specific contractual provisions developed with all current health plans to promote and maintain healthy lifestyles, and					
Future Mitigations:					
• Explore feasibility to introduce incentives to promote access to qualify and preventive services, increase treatment adherence, and adopt healthy behaviors (2016-17 Business Plan, Goal A, June 2017)					
• Value Based Insurance Design development (planned for 2018)					
Risk Driver #2: Increases in pharmaceutical costs					
Effective Mitigations and Controls In Place:					
2.1 Evaluation of pharmacy benefits under medical management for cost saving opportunities and leverage Preferred Provider Organization /Pharmacy Benefit Manager PPO/PBM physician-led programs					
2.2 Evaluation of site of care opportunities for reducing cost of specialty infusion drugs					
2.3 Initiation of a new program for reducing specialty drug cost through physician education/incentives and leveraging PBM and PPO physicians					
2.4 Formulary management					
2.5 Annual market check of PBM prescription drug pricing terms by independent consultant					
2.6 PBM contract with price lock provisions					
Future Mitigation:					
• Leveraging CalPERS market position in developing pharmaceutical strategies that reduce costs (this is a 5 year strategy beginning in January 2017)					
Risk Driver #3: Public Agencies and Schools electing to leave the CalPERS Health Benefit Programs					
Effective Mitigations and Controls In Place:					
3.1 Annual evaluation and negotiations of Health Plan Premiums					
3.2 CalPERS Annual Education Forum for employers					
3.3 Increased competition by expanding health plan choices across public agency regions					

Future Mitigation:

- Provide employers with aggregate views of health data to identify major health care costs and assess impacts (December 2016)

Risk Driver #4: Unfavorable changes in state and federal regulations**Effective Mitigations and Controls In Place:**

- 4.1 Monitoring and tracking of state and federal legislation
- 4.2 Enhancement and strengthening of proactive outreach and education to federal and state congressional and legislative members
- 4.3 Identification and communication of policy issues/ballot initiatives (excise tax, drug relief) of interest to CalPERS health benefits

Future Mitigation:

- Appropriately assess the impacts of excise tax and execute and outreach plan that provides stakeholders information on the excise tax policy and other Affordable Care Act components (June 2017)

Risk Driver #5: Sustainability of the Health Care Fund**Effective Mitigations and Controls In Place:**

- 5.1 Evaluation of Portfolio Investment Strategy
- 5.2 Evaluation of Health Benefit Cost and Savings
- 5.3 Comprehensive asset allocation review of the HCF every four years
- 5.4 Maintaining a Risk Based Capital required reserve at 300% of the authorized control level
- 5.5 Annual resetting of the health care premiums through rate negotiations

Risk Driver #6: Inability to influence health care provider inefficiencies**Effective Mitigations and Controls In Place:**

- 6.1 Alignment of medical and pharmacy benefits across health plans to close clinical gaps in care, improve shared-decision making, control expensive specialty drugs, improve palliative care and support preventive care
- 6.2 Analysis of misuse of medical and pharmacy services including over and under utilization
- 6.3 Increased uptake of electronic health records through Meaningful Use

Future Mitigation:

- Assess the specialized hospital transition care management program to improve quality and reduce hospital readmissions for PPO Health Plan members with Long-Term Care policies (September 2016)

Risk Driver #7: Health plan contract management non-compliance**Effective Mitigations and Controls In Place:**

- 7.1 Contract management oversight, audits, and quarterly business reviews

Information Security Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight			Category
Information Security	Deputy Executive Officer, Operations and Technology	Finance & Administration Committee			Operational
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To ensure CalPERS information assets are safeguarded.				
Risk Statement	Failure to protect and secure information assets from cyber-attack or unauthorized access.				
Risk Analysis:					
There are inherent risks associated with the current cyber security climate and resource levels required to fully mitigate the risks, despite CalPERS comprehensive efforts to do so. Further mitigation opportunities exist through records retention policy adherence and staff's application of information security practices.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
	Likely	Extreme	Moderate-Fast	High Impact High Probability	
Risk Driver #1: Lack of staff awareness of information security practices					
Effective Mitigations and Controls In Place:					
1.1 Mandatory Information Security Training - annually for existing employees, and within 90 days of hire for new employees					
1.2 Signed Information Systems Security and Confidentiality Acknowledgement Agreement					
1.3 Online repository for Information Security Control Standards					
1.4 Information Security Awareness communications (Spark, email, Inside CalPERS, posters, and automated phone messages)					
1.5 Staff phishing email education and training exercises					
Future Mitigations:					
• Audience specific information security training (March 2017)					
• Interactive information security training (March 2017)					
Risk Driver #2: Inappropriate access to electronic information assets					
Effective Mitigations and Controls In Place:					
2.1 Periodic reviews performed to verify staff access has a justified business need					
2.2 Staff access to my CalPERS and other business systems deleted when no longer needed and when staff transfer to other divisions within CalPERS					
2.3 Role based access for my CalPERS and other business systems limit staff access to only functions needed to perform their job duties					
Future Mitigations:					
• Enhance tracking of CalPERS staff's my CalPERS activity (March 2017)					
• Security Roadmap Program - Enterprise Identity System to enhance the management of information access (June 2017)					
Risk Driver #3: Failure to adequately respond to a large scale data breach					
Effective Mitigations and Controls In Place:					
3.1 Security Roadmap Program - Security Information Event Management (SIEM) improved security response measures to reduce the risk that compromised systems result in data loss or impropriate access to data					
3.2 Annual independent penetration tests conducted					
3.3 Information Security Incident Response and Reporting Procedures established to identify, respond, and report Information Security Events and Incidents					
3.4 Annually conduct 3 security tabletop exercises which simulate an actual cyber security event and provides an environment where staff practice their incident and event response readiness					

Future Mitigations:

- Enhance risk mitigation strategies to enhance management of security events, access to information and data loss prevention to safeguard information assets (2016-17 Business Plan, Goal B, June 2017)
- Evaluate cybersecurity insurance to help offset the monetary damage CalPERS would incur in the event of a large scale data breach (January 2017)

Risk Drivers #4: Limited ability to detect unauthorized access**Effective Mitigations and Controls In Place:**

- 4.1 Security Roadmap Program - SIEM project detects suspicious activity
- 4.2 Monitoring of CalPERS systems for unauthorized activity performed 24/7

Future Mitigations:

- Security Roadmap Program - Two Factor Authentication will enhance the verification of the identities of people accessing CalPERS data (June 2017)
- Security Roadmap Program - Enterprise Identity System will improve the management of identities and access to data (June 2017)
- Enhance tracking of CalPERS staff's my|CalPERS activity (March 2017)

Risk Driver #5: Lack of adherence to data retention and records management policies**Effective Mitigations and Controls In Place:**

- 5.1 CalPERS Records Retention Policy
- 5.2 HIPAA Records Management Practice
- 5.3 ISOF Control Standards: Data Classification - Data classification standards and methods are adopted to protect the confidentiality, integrity, and availability of data.
- 5.4 ISOF Control Standards: Information Asset Ownership and Custodianship - Each information asset responsibility is inventoried and identified to include value, ownership, custodians, users, classification, categorization, and level of protection

Future Mitigation:

- Enterprise Information Asset Classification project (June 2018)

Risk Driver #6: Inappropriate physical access to information assets**Effective Mitigations and Controls In Place:**

- 6.1 CalPERS Physical Security Policy
- 6.2 CalPERS Badge Card Policy
- 6.3 Two-factor authentication (iris scanner, and special ITSB badge) required for access to sensitive Data Center areas
- 6.4 HIPAA Security - Staff Access to Protected Health Information Practice
- 6.5 ISOF Control Standards - Portable Devices (e.g. CD's, Laptops, Thumb drives, Smartphones)
- 6.6 All data storage capable devices are either sanitized (wiped) or destroyed
- 6.7 Certified confidential document destruction bins located in each division are locked and removed weekly for on-site, witnessed destruction
- 6.8 OSSD coordinates quarterly enterprise-wide Badge Access Reviews for all divisions
- 6.9 Building Safety and Security communications (email, Inside CalPERS, posters)

Future Mitigations:

- Periodic policy review (June 2018)
- Bi-Annual external physical audit (June 2019)

Operational Efficiency Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight			Category
Operational Efficiency	Deputy Executive Officer, Operations and Technology	Finance & Administration Committee			Operational
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To ensure business processes are operating in the most cost-effective and efficient manner.				
Risk Statement	Inability to meet CalPERS strategic and business objectives in a cost-effective and efficient manner.				
Risk Analysis:					
The noted risk analysis is based on: complexity, as recently-identified during planning efforts for the new Strategic Plan, as a key driver of risk in the organization due its inherent inefficiencies.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
	Possible	Moderate	Slow	Low Impact Low Probability	
Risk Driver #1: Lack of resources due to competing priorities					
Effective Mitigations and Controls In Place:					
1.1 CalPERS 2015-17 Business Plan					
1.2 Divisional Work Plans					
1.3 IT Governance Committees					
1.4 Rigorous budget process the meet Government Finance Officers Association					
1.5 CalPERS 2012-17 Workforce Strategic Plan					
Risk Driver #2: Utilization of performance data to make decisions					
Effective Mitigations and Controls In Place:					
2.1 Workforce Allocation System					
2.2 Business Intelligence					
2.3 Performance Measures					
Risk Driver #3: Inefficiencies due to decentralized and siloed operations					
Effective Mitigations and Controls In Place:					
3.1 Process improvement efforts, including Lean projects					
3.2 Internal communications and innovation, including Spark, CalPERS Insider, and cross-functional councils					
Risk Driver #4: System complexity					
Effective Mitigations and Controls In Place:					
4.1 Cost Effectiveness Measurement (CEM) evaluation					
Risk Drivers #5: Reliance on external vendors and contracting					
Effective Mitigations and Controls In Place:					
5.1 Automation of requisitions, including electronic approvals, with the implementation of PeopleSoft					
5.2 Knowledge transfer contract requirement					
Future Mitigation:					
• External Manager Monitoring, Expectations, and Reduction Strategy (June 2017)					

Pension Funding Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight			Category
Pension Funding	Chief Financial Officer, Chief Actuary, Chief Investment Officer	Finance & Administration Committee, Investment Committee			Strategic
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To ensure the sustainability of the pension system over multiple generations to deliver promised retirement benefits.				
Risk Statement	Failure to meet benefit obligations to current and future members and beneficiaries.				
Risk Analysis:					
This risk analysis notes the belief that the current mitigations are strong, but the inherent risks associated with Pension Funding create uncertainty the ability to fully and effectively mitigate associated risk drivers. The interdependencies among risk drivers also must be considered as mitigation measures for a single risk driver may negatively impact another risk driver. An example of this would be a reduction in the assumed rate of return and capital market conditions while increasing contribution rate that impact the employers ability to meet obligations.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Pension Funding	Possible	Major	Mod-Slow	High Impact High Probability	
Risk Driver #1: Accuracy of actuarial assumptions, including discount rate					
Effective Mitigations and Controls In Place:					
1.1 Integrated view of assets and liabilities					
1.2 Asset Liability Management process with four-year review designed to mitigate risks over the long-term					
1.3 Annual Funding Levels and Risk report for Board review					
Risk Driver #2: Length of amortization schedule					
Effective Mitigations and Controls In Place:					
2.1 Actuarial Amortization Policy					
Risk Driver #3: Asset cash flows and the liability cash flows are mismatched					
Effective Mitigations and Controls In Place:					
3.1 Treasury Management Policy to ensure liquidity needs are met by matching asset and liability cash flows over the short-term					
3.2 Treasury Management Treasury Reserve Policies					
3.3 Formation of enterprise treasury team with oversight of treasury and cash management					
Future Mitigation:					
• Implementation of Treasury Management system to automate reporting (March 2017)					
Risk Driver #4: Liability volatility and uncertainty					
Effective Mitigations and Controls In Place:					
4.1 Actuarial Smoothing Policy					
4.2 Funding Risk Mitigation Policy					

Risk Driver #5: Employer ability to meet funding obligations

Effective Mitigations and Controls In Place:

- 5.1 Review and enhancements to employer contracting process
- 5.2 Termination and cancellation processes
- 5.3 Increased employer education
- 5.4 Formation of contract management team to oversee collections and terminations

Future Mitigation:

- Enhanced employer monitoring process (June 2017)

Risk Driver #6: Adverse economic and capital market conditions negatively impact expected returns

Effective Mitigations and Controls In Place:

- 6.1 Strategic and tactical portfolio positioning includes broad diversification of assets
- 6.2 Investment Strategy Group, Portfolio Allocation Subcommittee.
- 6.3 Processes established by INVO Programs, including Asset Allocation and Investment Risk and Performance
- 6.4 CalPERS Board reporting controls in place, including biannual (February and August) CalPERS Trust Level Review, to provide summary level economic views, market analysis, portfolio risk, and performance for the CalPERS Funds.
- 6.5 INVO Roadmap Initiatives and Target Operating Model
- 6.6 Funding Risk Mitigation Policy

Future Mitigation:

- Explore alternative strategic allocation strategies such as through the use of asset segments to reduce overall risk in the total fund portfolio

Stakeholder Confidence					
Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight	Category		
Stakeholder Confidence	Deputy Executive Officer, Communications and Stakeholder Relations	Finance & Administration Committee	Strategic		
Strategic Plan and Goal Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To ensure CalPERS is recognized as a respected and trusted steward of the system and fiduciary in delivering retirement and health benefits by its members, employers and stakeholders.				
Risk Statement	Inability to maintain stakeholder confidence in CalPERS as a trusted fiduciary.				
Risk Analysis:					
The risk analysis notes the challenges of negative perceptions of defined benefit plans. Despite this, CalPERS has developed a mature engagement strategy that effectively addresses unbalanced reporting and flagging public perception as issues arise.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Stakeholder Confidence	Unlikely-Poss.	Major	Moderate	High Impact Low Probability	
Risk Driver #1: Negative, inaccurate, or unbalanced media reporting					
Effective Mitigations and Controls In Place:					
1.1 Implement a proactive, positive narrative of CalPERS actions and policies through all communications channels					
1.2 Respond and correct negative, inaccurate, or unbalanced reporting in a proactive and timely manner					
1.3 Develop and maintain good working relationships with media outlets covering CalPERS					
1.4 Author op-eds on key CalPERS actions, views, or policy changes where appropriate					
1.5 Monitor and report on the perception of CalPERS in the media to identify opportunities and challenges					
1.6 Leverage CalPERS leadership and program experts to help tell CalPERS story					
Risk Driver #2: Negative public perception of CalPERS investment, pension, and health benefit decisions					
Effective Mitigations and Controls In Place:					
2.1 Implement a proactive, positive narrative of CalPERS actions and policies through all communication channels					
2.2 Demonstrate the value of CalPERS programs and its impact on the CA and global economy through the economic impact of pension payments, California investments, ESG, corporate governance, proxy voting, and health care initiatives					
2.3 Leverage CalPERS Ambassador Program and member associations to help tell CalPERS story					
2.4 Fulfill all Public Record Act requests					
Risk Driver #3: Negative national perception of public defined benefit plans					
Effective Mitigations and Controls In Place:					
3.1 Involvement in national public pension associations: NASRA and NCPERS					
3.2 CalPERS research on retirement					
3.3 Dissemination of CalPERS reports on positive economic/retirement security impacts of defined benefit plans					
3.4 Federal consultants to engage with Federal level policy-makers on retirement security, health care, and investments					

Risk Driver #4: CalPERS failure to engage, educate, and inform members, employers, and stakeholders

Effective Mitigations and Controls In Place:

- 4.1 Outreach and engagement strategy to increase visibility and public presence of CalPERS leadership in the media and among stakeholders
- 4.2 Digital Communications Roadmap and toolkit
- 4.3 Employer information events: Executive Employer Visits, Employer Response Dialogue, CalPERS Educational Forum and School Employer Advisory Committee
- 4.4 Provide accurate information and guidance to members through CalPERS Benefits Education Events (CBEE)
- 4.5 Monthly Stakeholder Engagement Briefings for representatives from business partners such as employer associations, individual employer agencies, labor unions, retiree groups and health constituents
- 4.6 Surveying to assess stakeholder satisfaction
- 4.7 Forms and publications to effectively communicate vital issues to stakeholders
- 4.8 Live webcasts of board meetings
- 4.9 Webinars and webcasts, including Board education resources on our website to keep our stakeholders and members informed

Risk Driver #5: Inability to inform and shape legislation

Effective Mitigations and Controls In Place:

- 5.1 Inform legislative leaders, key committee chairs and vice chairs, and consultants about issues that could impact CalPERS reputation
- 5.2 Build alignment and relationships between CalPERS executive team and key legislative leaders
- 5.3 Hold periodic briefings to educate Legislative Members and staff on important CalPERS issues
- 5.4 Maintain a responsive and effective legislative constituent help desk within Legislative Affairs Division
- 5.5 Monitor proposed legislation and generate analysis to reasonably assess impacts to CalPERS and stakeholders

Future Mitigation:

- Elected Officials toolkit (February 2017)

Talent Management Enterprise Risk Profile					
Enterprise Risk	Owner	Oversight			Category
Talent Management	Deputy Executive Officer, Operations and Technology	Performance, Compensation, & Talent Management Committee			Strategic
Strategic Plan Goal and Objective	Pending approval 2017-22 CalPERS Strategic Plan.				
Functional Objective	To successfully recruit, develop, and retain an engaged, skilled, and competent workforce.				
Risk Statement	Inability to effectively recruit and retain a highly-skilled workforce to support the achievement of CalPERS business objectives.				
Risk Analysis:					
This risk profile acknowledges Talent Management as CalPERS' cornerstone to success, as well as the effect of increasing retirements at senior level positions. There remains a gap in CalPERS practices to capture institutional knowledge and fill hard-to-fill positions while adapting to a changing workforce.					
Residual Risk	Probability	Impact	Velocity	Rating	Trend
Talent Management	Unlikely-Possible	Moderate	Slow	High Impact Low Probability	
Risk Driver #1: Business needs and priorities of the organization do not align with those of the changing workforce					
Effective Mitigations and Controls In Place:					
1.1 CalPERS 2012-17 Workforce Plan					
1.2 Marketing campaign to candidates promoting CalPERS as a destination employer including participating at focused career fairs and outreach events and focused advertisement campaigns					
Future Mitigations:					
<ul style="list-style-type: none"> • An enterprise initiative to complete unit-level workforce assessments (June 2017) • A new enterprise Workforce Plan will be completed in alignment with the new 2017 Strategic Plan (July 2018) • CalPERS is expanding the Succession Planning Program to Staff Service Manager IIIs and equivalents to strengthen the talent pool for the Division Chief and Investment Director level positions (December 2016) • Develop and implement an Emerging Leader Program (2016-17 Business Plan, Goal B, July 2017) 					
Risk Driver #2: Loss of institutional knowledge due to staff turnover					
Effective Mitigations and Controls In Place:					
2.1 Knowledge transfer for multi-year consultant contracts					
2.2 CalPERS Informal Mentoring Program					
2.3 Executive Succession Planning Program					
Future Mitigation:					
<ul style="list-style-type: none"> • CalPERS is expanding the Succession Planning Program to Staff Service Manager IIIs and equivalents to strengthen the talent pool for the Division Chief and Investment Director level positions (December 2016) 					

Risk Driver #3: Restrictive state hiring practices

Effective Mitigations and Controls In Place:

- 3.1 Hiring manager education and support, including a Hiring Manager Toolkit
- 3.2 Lean Hiring Process pilot program to streamline the hiring process and recruitment activities
- 3.3 Participation in the state-wide Civil Service Improvement effort to modernize state recruitment and hiring practices
- 3.4 A list of "Hard to Recruit" classifications established to develop targeted recruitment strategies and activities
- 3.5 Utilization of search firms to source key senior leadership positions
- 3.6 Participation in targeted career fairs and advertising in non-traditional mediums to attract prospective employees
- 3.7 Participation in pre-recruitment activities to ensure candidates are willing to accept the compensation packages offered
- 3.8 Conduct a salary survey of comparable executive and investment management positions every two years (2013)

Future Mitigation:

- Develop recommendations to the incentive compensation programs and policies governed by the CalPERS Board (June 2017)
- CalPERS is in the process of implementing the Examination and Certification Online System (ECOS) for recruitment and hiring processes. (May 2017)

Risk Drivers #4: Employees do not possess adequate knowledge and skills

Effective Mitigations and Controls In Place:

- 4.1 Employee Performance and Development (EPAD) annual review process
- 4.2 Developmental and training opportunities
- 4.3 CalPERS Informal Mentoring Program
- 4.4 Education and training programs, including trainings for specialized staff in Investments and Actuarial Office (INVO Smart 2.0 and Actuarial Study Program)

Future Mitigations:

- Implement an internal, professional networking site, Illuminet, to provide staff with an online environment similar to LinkedIn to voluntarily share their knowledge, skills and certificates in a database repository (date TBD)
- Develop an upward mobility policy that is targeted to entry-level positions (date TBD)

Risk Drivers #5: Lack of employee engagement

Effective Mitigations and Controls In Place:

- 5.1 Ongoing Employee Enrichment programs including Wellness, Recognition and Corporate Citizenship/Outreach
- 5.2 Onsite fitness center, bicycle checkout, and day care center available to staff along with regular events throughout the year to encourage work/life balance
- 5.3 Organizational Health Index Employee Survey (April 2016)
- 5.4 New employee onboarding
- 5.5 Diversity and Inclusion events organized in part by our CalPERS Diversity and Inclusion Group and CalPERS Disability Advisory Committee

Future Mitigations:

- Develop and implement a plan to expand the Diversity and Inclusion Program to create outreach and engagement (2016-17 Business Plan, Goal B, June 2017)
- Assess the Organizational Health Index survey results and identify and address high priority improvements to CalPERS culture (2016-17 Business Plan, Goal B, June 2017)