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CALIFORNIA ASSEMBLY BILL 567: OLIVER WYMAN ACTUARIAL REPORT

Commissioned by the California Department of Insurance

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Overview

In December 2022, the Assembly Bill ("**AB**") 567 (Calderon, Chapter 746, Statutes of 2019) Long Term Care Insurance Task Force ("**Task Force**") submitted a Feasibility Report[1] to the Insurance Commissioner, Governor, and Legislative Assembly outlining recommendations for establishing a culturally competent[2] statewide long-term care ("**LTC**") insurance program in California ("**Program**").

This Actuarial Report summarizes the actuarial analysis to assess the cost and viability of the Program recommendations made by the AB 567 Task Force ("**Actuarial Analysis**"). A team from Oliver Wyman Actuarial Consulting, Inc. ("Oliver Wyman" or "we") performed this Actuarial Analysis; however, we are neither members of the Task Force nor allowed to vote on issues associated with AB 567.

This report is organized into the following five sections, which provide results and key considerations from the Actuarial Analysis:

1. **AB 567 background**: This section provides an overview of the Task Force and scope of AB 567
2. **Overview of Program design recommendations**: This section summarizes the five Program designs recommended by the Task Force
3. **Results of the Actuarial Analysis for the recommended Program designs**: This section highlights the results of the Actuarial Analysis for the five Program designs and alternative scenarios recommended by the Task Force
4. **Fiscal Impact on California's Medicaid Program**: This section details our analysis of the potential fiscal impact of the recommended Program designs on the California Medicaid Program ("**Medi-Cal**"), including California's In-Home Supportive Services Program ("**IHSS**")
5. **Methodology and assumptions**: This section outlines methodology and key assumptions underlying the Actuarial Analysis

Abbreviations and defined terms used throughout this report are bolded the first time they appear and are defined in the glossary of terms in **Appendix A**.

A Feasibility Report Supplement describing refinements to the Task Force's recommended Program designs since the publication of the Feasibility Report is included in **Appendix B**.

Detailed actuarial results are included in **Appendix C**.

Task Force recommended next steps are outlined in **Appendix D**.

[1] Text in blue font signifies a hyperlink to additional information (external to this report).

[2] Cultural competence may be defined as the integration and transformation of knowledge about individuals and groups of people into specific standards, policies, practices, and attitudes used in appropriate cultural settings to increase the quality of services; thereby producing better outcomes.

1. AB 567 background

In recognition of California's aging population, AB 567 (Calderon, Chapter 746, Statutes of 2019) was passed by California's Legislative Assembly and Senate, and approved by Governor Newsom in October 2019. AB 567 established the Task Force in the California Department of Insurance ("**CDI**") to explore the feasibility of developing and implementing a culturally competent statewide insurance program for long-term care services and supports ("**LTSS**")[3].

1.1. Task Force

The Task Force is comprised of 15 members (volunteers and government agency representatives) with expertise spanning many facets of the LTC industry. The Task Force includes representation from a health policy expert, LTC providers, family caregivers, health professionals, a senior/consumer organization, actuaries, the LTC insurance industry, an LTC workers organization, and California government agencies (Department of Aging, Department of Health Care Services, and Department of Insurance). Task Force members were appointed by various California authorities, including the Insurance Commissioner, the Governor, the Speaker of the Assembly, and the Senate Committee on Rules.

The individuals from Oliver Wyman who performed the Actuarial Analysis of the Task Force's Program design recommendations are not members of the Task Force, nor are they permitted to vote on the issues associated with AB 567.

Task Force members, as of the publication of this report, and their roles are presented in Exhibit 1.1.

Exhibit 1.1: Current AB 567 Task Force members and roles

Task Force member	Task Force role
Aron Alexander	Representative of residential care facilities for the elderly
Jamala Arland	Representative from the LTC insurance industry
Dean Chalios	Representative of hospice and palliative care providers
Anastasia Dodson	California Department of Health Care Services Director Michelle Baass designee
Joe Garbanzos	Representative of a senior/consumer organization
Ahmad Kamil (chair)	California Insurance Commissioner Ricardo Lara designee
Eileen Kunz	Representative of an LTC provider association
Laurel Lucia	Representative of a nongovernment health policy expert
Lydia Missaelides	Representative of adult day services providers

[3] LTC (long-term care) is typically used in the context of private insurance (i.e., LTC insurance), whereas LTSS (long-term services and supports) is typically used in the context of academia and government programs. These terms are used interchangeably in this report.

Task Force member	Task Force role
Doug Moore	Representative of independent providers of in-home personal care services
Parag Shah	Certified actuary with expertise in LTC insurance
Sarah Steenhausen	California Department of Aging Director Susan DeMarois designee
Dr. Karl Steinberg	Representative of LTC health professionals
Tiffany Whiten	Representative of family caregivers
Brandi Wolf	Representative of an employee organization that represents LTC workers

The recommended Program designs analyzed in this report reflect the views of both current and former Task Force members, except for the Task Force members from the California Department of Health Care Services ("**DHCS**") and the California Department of Aging ("**CDA**"), whose roles were to provide technical assistance.

Former Task Force members and their roles are listed in Exhibit 1.2.

Exhibit 1.2: Former AB 567 Task Force members and roles

Task Force member	Task Force role
Dr. Lucy Andrews	Representative of hospice and palliative care providers
Susan Bernard	California Insurance Commissioner Ricardo Lara designee
Blanca Castro	Representative of a senior/consumer organization
Grace Cheng Braun	Representative of adult day services providers
Becky Duffey	Representative of adult day services providers
Sutep Laohavanich	California Department of Aging Director Susan DeMarois designee
Kim McCoy Wade	Former California Department of Aging Director
Michael Mejia	Representative of residential care facilities for the elderly

The Task Force's mandate, as outlined in AB 567, included the activities listed below. In December 2022, the Task Force submitted a Feasibility Report to the Insurance Commissioner, Governor, and Legislative Assembly that described their recommended Program design options in conjunction with this mandate and provided a qualitative analysis of the respective degrees of feasibility. This Actuarial Report describes Oliver Wyman's Actuarial Analysis of the Task Force's recommended Program designs.

1. Explore how a Program could be designed and implemented to expand the options for people who are interested in insuring themselves against the risk of costs associated with functional or cognitive disability, and require LTSS.
2. Explore options for the design of the Program, including eligibility, enrollment, benefits, financing, administration, and interaction with the Medi-Cal program and other publicly funded resources. In exploring these options, the Task Force shall consider all of the following:

a. Whether and how a Program could be included as a benefit in the state disability insurance program structure, possibly through a nominal increase in the payroll tax, and whether the Program could be structured in the same manner as California's Paid Family Leave ("**PFL**") benefits.

b. Allowing for enrollment in the Program of working adults who would make voluntary premium contributions either directly or through payroll deductions through their employer.

c. To the extent feasible, requiring a mandatory enrollment with a voluntary opt-out option.

d. Giving working adults the opportunity to plan for future LTC needs by providing a basic insurance benefit to those who meet work requirements and have developed functional or equivalent cognitive limitations.

e. Helping individuals with functional or cognitive limitations remain in their communities by purchasing nonmedical services and supports, including home health care and adult daycare.

f. Helping offset the costs incurred by adults with chronic and disabling conditions. The Program need not be designed to cover the entire cost associated with an individual's LTC needs.

3. Evaluate how benefits under the Program would be coordinated with existing private health care coverage benefits.
4. Evaluate the demands on the LTC workforce as the need for LTC in California grows, and how the LTC workforce can be prepared to meet those demands.
5. Consider the establishment of a joint public and private system to make LTC accessible to as many individuals within California as possible.
6. Make recommendations related to key regulatory provisions necessary for the public to access existing LTC insurance programs and participate in future LTC insurance programs, whether those programs are recommended by the Task Force or otherwise.

1.2. Actuarial Subcommittee

At Task Force Meeting 17 in November 2022, the Task Force voted to establish an Actuarial Subcommittee to serve in an advisory capacity for the Actuarial Analysis. A subset of the Task Force volunteered to participate on this subcommittee. As of the publication of this report, Actuarial Subcommittee members include:

- Jamala Arland
- Ahmad Kamil
- Laurel Lucia

- Parag Shah
- Brandi Wolf

Actuarial staff from the California Department of Insurance also participated in Actuarial Subcommittee meetings.

Responsibilities of the Actuarial Subcommittee included:

- Serving as an advisory group to Oliver Wyman's Actuarial Analysis
- Sharing perspectives on Oliver Wyman's data sources, modeling methodologies, and actuarial assumptions
- Providing feedback and offering suggestions throughout the actuarial modeling process
- Reviewing the Actuarial Analysis for reasonability and comprehensiveness
- Assisting with Actuarial Analysis status updates to the full Task Force
- Performing an initial review of Oliver Wyman's Actuarial Report

While the Actuarial Subcommittee supported the development of this Actuarial Report, as described above, this report is considered a Statement of Actuarial Opinion from Oliver Wyman's actuarial staff, not the Actuarial Subcommittee. Refer to **Section 7** for additional reliances and limitations.

2. Overview of Program design recommendations

In response to AB 567, the Task Force recommended five Program designs be assessed as part of the Actuarial Analysis. These designs, along with considerations and rationale supporting the Task Force's recommendation, are described in detail in the Feasibility Report.

The CDI also published a Frequently Asked Questions document to accompany the Feasibility Report.

Exhibit 2.1 provides an overview of the five recommended Program designs.

Exhibit 2.1: Description and overview of the recommended Program designs

Design	Description	Overview
1	Supportive LTC benefits	• $36,000 over two years in supportive LTC benefits for California's adult population (ages 18+) • Examples of supportive benefits include caregiver support, adult day care ("**ADC**"), meal delivery, transportation, durable medical equipment, home assessment, and minor home modifications – Formal home care and facility care are not covered
2	Home care and residential care facilities ("**RCF**") benefits for older adults	• $110,400 over two years in targeted benefits for California's older adult population (ages 65+) • Covered services are the same as Design 1 *plus* formal home care and care in an RCF • This design attempts to limit duplication with Medi-Cal by not having lower-income individuals contribute to the Program or receive vesting credits – Lower-income individuals may be eligible for LTSS benefits from Medi-Cal – Individuals who are below the income limit in some years will still vest if they accumulate enough vesting credits over their working lifetime
3	Lower-range comprehensive LTSS benefits	• $36,000 over one year in comprehensive benefits for California's adult population (ages 18+) • Covered services are the same as Design 2 • Inspired by the WA Cares Fund design, with select updates
4	Mid-range comprehensive LTSS benefits	• $81,000 over 18 months in comprehensive benefits for California's adult population (ages 18+) • Covered services include those covered in Designs 2 and 3 *plus* care in a skilled nursing facility ("**SNF**")

Design	Description	Overview
5	Higher-range comprehensive LTSS benefits	• $144,000 over two years in comprehensive benefits for California's adult population (ages 18+) • Covered services are the same as Design 4

Exhibit 2.2 summarizes key benefits, covered services, eligibility, enrollment, financing, and coordination/interaction elements of each Program design.

A comprehensive Program design "straw man" is provided in Appendix B of the Feasibility Report. Additionally, Appendix C of the Feasibility Report summarizes other design elements that were discussed by the Task Force but did not receive broad support and thus may not be reflected in the five recommended Program designs.

For the Actuarial Analysis, certain design elements recommended by the Task Force and outlined in the Feasibility Report were modified or excluded, as described in **Section 3.5**. **These modifications are not reflected in Exhibit 2.2 below.**

The Task Force also recommended that several financial sensitivities (i.e., alternative scenarios) be performed for various Program design elements to inform potential changes to the five recommended Program designs. **Section 3.2** summarizes the results for these alternative scenarios. **Appendix B** outlines the changes recommended by the Task Force based on the results of the alternative scenarios.

Exhibit 2.2: Summary of Program designs[4]

Design element	Design 1: Supportive LTC benefits	Design 2: Home care and RCF benefits for older adults	Design 3: Lower-range comprehensive LTSS benefits	Design 4: Mid-range comprehensive LTSS benefits	Design 5: Higher-range comprehensive LTSS benefits
Program benefits	• Maximum $36,000 ($1,500 per month for two years) • Benefit inflation based on Consumer Price Index ("**CPI**") • Reimbursement benefits • No elimination period ("**EP**") • Individual coverage	• Maximum $110,400 ($4,600 per month for two years)[5] • Benefit inflation based on CPI • Reimbursement benefits with 50% cash alternative[6] • 90-day EP • Individual coverage	• Maximum $36,000 ($3,000 per month for one year)[5] • Benefit inflation based on CPI • Reimbursement benefits • No EP • Individual coverage	• Maximum $81,000 ($4,500 per month for 18 months)[5] • Benefit inflation based on CPI • Reimbursement benefits with 50% cash alternative[6] • No EP • Shared benefit pool with spouses or domestic partners	• Maximum $144,000 ($6,000 per month for two years)[5] • Benefit inflation based on CPI • Reimbursement benefits with 50% cash alternative[6] • No EP • Shared benefit pool with spouses or domestic partners

[4] Text in green font signifies a unique Program design element (i.e., a feature that is not consistent across at least three of the five recommended Program designs).

[5] The Task Force recommended removing the monthly benefit maximum on Designs 2 through 5 for select higher-cost services, including durable medical equipment and home modifications.

[6] The Task Force recommended that beneficiaries be permitted to change their benefit type one time (e.g., switch from cash to reimbursement).

Design element	Design 1: Supportive LTC benefits	Design 2: Home care and RCF benefits for older adults	Design 3: Lower-range comprehensive LTSS benefits	Design 4: Mid-range comprehensive LTSS benefits	Design 5: Higher-range comprehensive LTSS benefits
Covered services	• Supportive LTC services[7], including: – Caregiver support – ADC – Meal delivery – Transportation – Durable medical equipment – Home assessments and minor home modifications	• Supportive LTC services, formal home care services, and RCF • Reimbursement to informal or family caregivers subject to completion of certified caregiver training[8] • Limited/contingent preventative benefits[9] (e.g., wellness programs)	• Supportive LTC services, formal home care services, and RCF • Reimbursement to informal or family caregivers subject to completion of certified caregiver training[8] • Limited/contingent preventative benefits[9] (e.g., wellness programs) • Coverage for California's Program for All-Inclusive Care for the Elderly ("**PACE**")[10]	• Supportive LTC services, formal home care services, RCF, and SNF • Reimbursement to informal or family caregivers subject to completion of certified caregiver training[8] • Preventative benefits[9] • Coverage for PACE[10]	• Supportive LTC services, formal home care services, RCF, and SNF • Reimbursement to informal or family caregivers subject to completion of certified caregiver training[8] • Preventative benefits[9] • Coverage for PACE[10]

[7] Design 1 does not cover formal home care or facility care. Caregiver support benefits include (but may not be limited to) training, respite care, and financial support.

[8] Minimum training requirements that do not discourage benefit utilization must be defined in a culturally competent manner.

[9] Preventative benefits and services would be available to vested individuals before satisfying benefit eligibility criteria. The specific preventative benefits and services that will be covered have yet to be defined and are not reflected in this Actuarial Analysis.

[10] The Task Force recommended that individuals be able to use Program benefits under Designs 3 through 5 to cover PACE monthly capitated fees. Specifics regarding the Program's coordination with PACE have yet to be defined and are not reflected in this Actuarial Analysis.

Design element	Design 1: Supportive LTC benefits	Design 2: Home care and RCF benefits for older adults	Design 3: Lower-range comprehensive LTSS benefits	Design 4: Mid-range comprehensive LTSS benefits	Design 5: Higher-range comprehensive LTSS benefits
Eligibility and enrollment	• Benefits available at ages 18+ • Benefit eligibility criteria of inability to perform 2 of 6 activities of daily living ("**ADLs**") or severe cognitive impairment • 5-year vesting period with pro-rating of benefits • Full domestic (i.e., within U.S.) portability[11]	• Benefits available at ages 65+ • Benefit eligibility criteria of inability to perform 2 of 6 ADLs or severe cognitive impairment • 5-year vesting period with pro-rating of benefits • Partial portability (grade from 100% to 50% over 5 years) within U.S.[11] • Grade up benefits over the first 20 years for inter-generational equity	• Benefits available at ages 18+ • Benefit eligibility criteria of inability to perform 2 of 6 ADLs or severe cognitive impairment • 10-year vesting period with pro-rating of benefits • Partial portability (grade from 100% to 50% over 5 years) within U.S.[11] • Grade up benefits over the first 20 years for inter-generational equity	• Benefits available at ages 18+ • Benefit eligibility criteria of inability to perform 2 of 6 ADLs or severe cognitive impairment • 10-year vesting period with pro-rating of benefits • Full domestic portability[11] • Grade up benefits over the first 20 years for inter-generational equity	• Benefits available at ages 18+ • Benefit eligibility criteria of inability to perform 2 of 6 ADLs or severe cognitive impairment • 5-year vesting period with pro-rating of benefits and a voluntary option to top-up benefits if unable to fully vest • Full domestic and international (i.e., outside U.S.) portability • Grade up benefits over the first 20 years for inter-generational equity

[11] As noted in Appendix B, the Task Force recommended that Designs 1 through 4 be expanded to include international portability based on the preliminary actuarial results presented at the September 7, 2023 Task Force Meeting.

Design element	Design 1: Supportive LTC benefits	Design 2: Home care and RCF benefits for older adults	Design 3: Lower-range comprehensive LTSS benefits	Design 4: Mid-range comprehensive LTSS benefits	Design 5: Higher-range comprehensive LTSS benefits
Financing	• Progressive payroll tax with income-based tax for self-employed – Consider alternative funding options[12] • Contributions begin at age 18, with no maximum age • Contribution cap • Contribution waiver[13] • Contributions split between employee and employer[14] • Invest in U.S. treasuries, bonds, stocks, and other equities[15]	• Progressive payroll tax with income-based tax for self-employed • Contributions begin at age 18, with no maximum age • Contribution cap • Contribution waiver[13] • Lower-income individuals do not contribute or vest • Contributions split between employee and employer[14] • Invest Program revenue in U.S. treasuries, bonds, stocks, and other equities[15]	• Progressive payroll tax with income-based tax for self-employed • Contributions begin at age 18, with no maximum age • Contribution cap • Contribution waiver[13] • Contributions split between employee and employer[14] • Invest Program revenue in U.S. treasuries, bonds, stocks, and other equities[15]	• Progressive payroll tax with income-based tax for self-employed • Contributions begin at age 18, with no maximum age • No contribution cap • Contribution waiver[13] • Contributions split between employee and employer[14] • Invest Program revenue in U.S. treasuries, bonds, stocks, and other equities[15]	• Progressive payroll tax with income-based tax for self-employed • Contributions begin at age 18, with no maximum age • Contribution cap • Contribution waiver[13] • Contributions split between employee and employer[14] • Invest Program revenue in U.S. treasuries, bonds, stocks, and other equities[15]

[12] An assessment of alternative funding sources beyond payroll taxes and self-employed income taxes is excluded from this Actuarial Analysis.

[13] Contributions are waived on income below a specified threshold, regardless of the individual's total income level (i.e., a 0% tax rate applies to earned income below the threshold). Except under Design 2, individuals with income below this threshold still receive vesting credit if they meet the minimum worked hours requirement.

[14] The baseline modeling assumption is that Program contributions are split 50%/50% between employees and employers and that employer contributions are not subject to contribution caps or contribution waivers.

[15] The California state constitution currently only allows for investment in U.S. Treasuries and California municipal bonds, so a constitutional amendment would be required to facilitate this recommendation.

Design element	Design 1: Supportive LTC benefits	Design 2: Home care and RCF benefits for older adults	Design 3: Lower-range comprehensive LTSS benefits	Design 4: Mid-range comprehensive LTSS benefits	Design 5: Higher-range comprehensive LTSS benefits
Coordination and interaction	• Program pays before Medi-Cal and should not influence Medi-Cal eligibility	• Opt-out for individuals who purchase eligible private insurance before Program effective date[16] • Reduced contributions for individuals who purchase eligible private insurance after Program effective date[16] • Program pays before Medi-Cal and should not influence Medi-Cal eligibility	• Opt-out for individuals who purchase eligible private insurance before Program effective date[16] • Reduced contributions for individuals who purchase eligible private insurance after Program effective date[16] • Program pays before Medi-Cal and should not influence Medi-Cal eligibility	• Opt-out for individuals who purchase eligible private insurance before Program effective date[16] • Reduced contributions for individuals who purchase eligible private insurance after Program effective date[16] • Program pays before Medi-Cal and should not influence Medi-Cal eligibility	• Opt-out for individuals who purchase eligible private insurance before Program effective date[16] • Reduced contributions for individuals who purchase eligible private insurance after Program effective date[16] • Program pays before Medi-Cal and should not influence Medi-Cal eligibility

[16] Program effective date is assumed to be the beginning of the calendar year following the Governor's approval of any proposed legislation.

3. Results of the Actuarial Analysis for the recommended Program designs

This section summarizes the results of the Actuarial Analysis for the five Program designs and financial sensitivities (i.e., alternative scenarios) recommended by the Task Force in the Feasibility Report. An analysis of the impact on Program solvency (i.e., Program fund balance) due to changes in certain key assumptions is also included below. The alternative scenarios and assumption sensitivities provided in this section are not exhaustive; the sources of uncertainty that could affect the Program and our Actuarial Analysis are numerous and include factors internal and external to the Program. The Actuarial Analysis includes estimates of Program revenues and expenditures projected many years into the future. Actual Program revenues and expenditures will inevitably vary from the estimates shown throughout this report.

The actuarial estimates provided in this report are intended to assist the California Legislature in evaluating the feasibility of establishing a new public LTC program. If the Legislature proceeds with such legislation, it may choose to adopt some, all, or none of the Task Force's recommendations. Given that there are currently numerous unknowns regarding a potential new LTC program (including, but not limited to, specific design elements, administration, and coordination with other programs), should a new public LTC program be established, the contribution rate estimates in this report are not intended to, and should not, be used for setting the tax rate without further refinement. As of the date of this Actuarial Report, the Legislature has not made any decisions with regard to establishing a new public LTC program in California.

In analyzing the cost and viability of a Program, it is important to consider interaction between Program funding, Medi-Cal funding (California's state Medicaid program), and the state budget. An assessment of the potential fiscal impact on Medi-Cal under each recommended Program design is provided in **Section 4**. The Task Force recommended that a federal demonstration waiver from the Centers for Medicare and Medicaid Services ("**CMS**") be pursued to allow the state to retain any federal Medicaid savings (and Medicare savings, if applicable) attributable to the Program. Further, the Task Force proposed that any funds retained as a result of this waiver, if approved, be held in a trust fund to benefit the Program's enrollees. This additional financing, if realized, could have a material impact on the required Program contribution rate. For the Actuarial Analysis, we did not assume any financing sources besides a payroll tax or self-employed income tax.

3.1. Baseline results

Results are based on two primary metrics: Contribution Rate and Program Fund Balance, as defined below.

- **Contribution Rate**: a single, level tax rate (payroll tax rate for employed; income tax rate for self-employed) that applies beginning at age 18, with no maximum age.

- **Program Fund Balance**: at a given date, the Program Fund Balance represents cumulative Program revenues less cumulative Program expenditures. A negative Program Fund Balance indicates a funding deficit.
  - Program revenues are comprised of tax contributions to the Program and returns on invested assets.
  - Program expenditures are comprised of benefit payments and administrative expenses incurred under the Program.

For the Actuarial Analysis, we assumed a 75-year projection period beginning on January 1, 2025. Using a 75-year projection period is standard for determining actuarial balances for public insurance programs, as established by the Social Security Administration and CMS. Program Contribution Rates are calculated to achieve a Program Fund Balance of zero at the end of the 75-year projection period (i.e., as of December 31, 2099). Prolonged Program solvency beyond 75 years requires additional upfront funding (i.e., a higher required Contribution Rate) to avoid a funding deficit after calendar year 2099. Refer to **Section 3.6** for further discussion of this methodology.

Additional detail on methodology and assumptions underlying the Actuarial Analysis is provided in **Section 5**.

3.1.1. Estimated Contribution Rates

Exhibit 3.1 summarizes the estimated Contribution Rates for each of the five Program designs recommended by the Task Force (i.e., the baseline scenarios). This exhibit demonstrates the potential trade-off between affordability of Program contributions, accessibility of Program benefits, and comprehensiveness of Program benefits. Designs 4 and 5 are more accessible and have more comprehensive Program benefits, which necessitates a higher Contribution Rate. Design 2 also has more comprehensive benefits but is the only design with a benefit eligibility age of 65 and income-based vesting criteria, both of which serve to reduce the required Contribution Rate.

While we expect higher Contribution Rates would be required to cover Program expenditures beyond 75 years, in practice, the Program Contribution Rate could be set to the 75-year estimates shown in Exhibit 3.1 initially and then adjusted before the end of the 75-year period as part of the ongoing monitoring of the Program.

Exhibit 3.1: Estimated Contribution Rate by Program design

Design	Description	Estimated Contribution Rate[17]
1	Supportive LTC benefits	**0.60%**
2	Home care and RCF benefits for older adults	**1.15%**
3	Lower-range comprehensive LTSS benefits	**0.65%**
4	Mid-range comprehensive LTSS benefits	**1.60%**
5	Higher-range comprehensive LTSS benefits	**3.00%**

Certain Program design elements recommended by the Task Force or methodologies underlying the estimated Contribution Rates in Exhibit 3.1 may be challenging to realize. Exhibit 3.2 summarizes the impact to the estimated Contribution Rates of alternative scenarios for the Program investment strategy, employer contribution level, and Contribution Rate methodology. As shown in Exhibit 3.2, estimated Contribution Rates are anticipated to be materially higher if any of these three components are altered.

Exhibit 3.2: Estimated Contribution Rates under select alternative scenarios

	Estimated Contribution Rate[17]				
Scenario	**Design 1**	**Design 2**	**Design 3**	**Design 4**	**Design 5**
Baseline scenario	**0.60%**	**1.15%**	**0.65%**	**1.60%**	**3.00%**
Invest in U.S. Treasuries only	0.79%	1.61%	0.87%	2.16%	3.94%
25% employer contribution (75% employee contribution)[18]	0.70%	1.32%	0.76%	1.84%	3.49%
Establish a reserve at the end of the 75-year projection period	0.76%	1.57%	0.83%	2.10%	3.84%

The changes outlined in Exhibit 3.2 were applied independently. The combined impact of these alternative scenarios will not equal the additive impact of the individual scenarios shown in this exhibit. For example, only investing in U.S. Treasuries generates reduced investment income, which compounds over time. This necessitates significantly higher Contribution Rates when coupled with other alternative scenarios that reduce Program revenues (e.g., reduced employer contributions). The required Contribution Rates are further increased if a reserve is established at the end of the 75-year projection period to cover future Program expenditures for individuals enrolled in the Program as of December 31, 2099.

The Program design elements and methodologies captured in Exhibit 3.2 represent components of the baseline scenario that may be challenging to implement due to external factors such as policymaker and public support, as described below.

[17] Contribution Rates are rounded to mitigate implied specificity.

[18] The significance of this impact is driven by the baseline assumption that contribution caps and contribution waivers do not apply to employer contributions.

1. **Program Fund Balance is invested in U.S. Treasuries, bonds, stocks, and equities.** Investing in bonds (excluding California municipal bonds), stocks, and other equities would require a state constitutional amendment, which may be challenging to obtain. Estimated Contribution Rates are materially higher absent this state constitutional amendment.
2. **Contribution Rates are split 50%/50% between employees and employers.** Although the Task Force recommended a payroll tax with an employer-paid portion, there is recognition that it will be challenging to garner support for an employer-paid tax from the business community. Reducing employer contributions may encourage employers to support a Program but has a material impact on the estimated Contribution Rates.
3. **Contribution Rates are set to achieve a zero-ending Fund Balance (on December 31, 2099).** Significant unfunded liabilities accrue beginning in 2100, which could hinder long-term Program solvency. Establishing a reserve at the end of the 75-year projection to cover future Program expenditures for individuals enrolled in the Program as of December 31, 2099 materially increases estimated Contribution Rates. Absent this reserve, we do not expect the current Contribution Rates will be sufficient to fund projected Program benefits for individuals enrolled in the Program as of December 31, 2099.

We expect that if more than one of the above Program design elements or methodologies were changed as part of the Program implementation, other actions would be taken to balance Program affordability and solvency either as part of the initial implementation or ongoing monitoring of the Program (e.g., other design elements may be revised, pursuit of a state constitutional amendment to allow investment in stocks, bonds, and equities would be prioritized, etc.).

Results for all alternative scenarios requested by the Task Force are provided in **Section 3.2**.

Appendix C includes an illustration of the annual employee and employer share of contributions under each of the five Program designs using the baseline Contribution Rates in Exhibit 3.1 and illustrative annual wages. This appendix also contains calendar year projections of the Program Fund Balance and Program cash flows under the baseline scenario for each of the five recommended designs.

3.1.2. Program design projection statistics

Exhibit 3.3 summarizes the proportion of the California population expected to meet vesting requirements and the projected number of new Program beneficiaries under each of the five Program designs. These summary statistics are shown for three representative years within the 75-year projection period—2035, 2050, and 2099.

Appendix C contains exhibits illustrating the number of Californians anticipated to be covered under each Program design by calendar year.

Exhibit 3.3: Projected Program design summary statistics for calendar years 2035, 2050, and 2099

Design	Proportion of Californians expected to vest			Projected new beneficiaries		
	2035	2050	2099	2035	2050	2099
1	54%	62%	64%	179,100	355,800	476,100
2	48%	57%	62%	54,900	189,300	303,800
3	43%	55%	58%	100,600	282,200	424,500
4	43%	55%	58%	110,600	306,200	448,500
5	54%	62%	64%	156,000	356,100	474,700

Exhibit 3.3 highlights key eligibility differences between each of the five recommended Program designs. In particular:

- **Vesting requirements**: Designs 1, 2, and 5 have a shorter vesting period than Designs 3 and 4 (i.e., 5 years versus 10 years), so more Californians are expected to vest under Designs 1, 2, and 5. Because Design 2 has a contribution exclusion whereby lower-income individuals do not contribute or receive vesting credit, this design has a lower expected vesting rate than Designs 1 and 5 despite having the same vesting period.
- **Benefit eligibility criteria**: Projected new beneficiaries are lower for designs with more strict vesting requirements. Additionally, there are fewer new beneficiaries projected for Design 2 compared to the other designs because Design 2 has a 90-day EP and does not pay benefits to individuals until age 65.

For each design, the average benefits paid per Program beneficiary are expected to be close to the maximum benefit amount available. This is driven by our expectation that most Program beneficiaries will use the maximum monthly benefit amount (e.g., $3,000 under Design 3) while on claim because monthly LTSS costs generally exceed monthly Program benefits, particularly in California. In the first 20 years of the Program, the average benefits paid per Program beneficiary will be lower due to the intergenerational equity provision, which reduces the maximum lifetime benefit amount available to Program beneficiaries. For Designs 2 and 3, the average benefits paid per Program beneficiary will be lower because these designs offer partial portability so individuals who move outside of California are expected to receive reduced benefits, which reduces the overall average benefits paid.

3.1.3. Illustrative tax progressivity construct

The Task Force recommended that the Program be financed by a progressive tax rate; however, specific progressivity tiers were not defined in the Feasibility Report. As a simplification for the Actuarial Analysis, we developed a single, level Contribution Rate, as described above. Exhibit 3.4 provides an illustrative progressivity construct for Design 3. This illustrative example was not developed to achieve a zero-ending Program Fund Balance and should not be misconstrued as a recommendation. Rather, it is just one example of how the level Contribution Rates in Exhibit 3.1 could be used to define a progressive tax rate structure. If a progressive tax structure is proposed, it would be prudent to confirm that it is actuarially equivalent to the level Contribution Rates shown in Exhibit 3.1.

Exhibit 3.4: Illustrative tax progressivity construct for $300,000 annual wage in 2025

	Progressive tax structure		Level tax structure	
Taxable income	**Contribution Rate**	**Contribution**	**Contribution Rate**	**Contribution**
$0 – $30,000	0.00%	$0	0.00%	$0
$30,001 – $60,000	0.25%	$75	0.65%	$195
$60,001 – $120,000	0.45%	$270	0.65%	$390
$120,001 – $240,000	0.70%	$840	0.65%	$780
$240,001 – $400,000	0.95%	$570	0.65%	$390
$400,001+	0.00%	$0	0.00%	$0
Total	0.59%	$1,755	0.59%[19]	$1,755

[19] For this illustration, no distinction is made between the employer versus employee portion of the Contribution Rate; the total tax rate is less than 0.65% due to the application of the contribution waiver and contribution cap.

3.2. Alternative scenario results

As a next step in the Feasibility Report, the Task Force expressed interest in exploring several alternative scenarios (i.e., financial sensitivities) for various Program design elements to inform potential changes to the recommended Program designs.

Exhibit 3.5 describes the alternative scenarios recommended by the Task Force. The alternative scenarios outlined in this exhibit are not exhaustive of all possible permutations of Program design features.

Exhibit 3.6 summarizes the additive change in the estimated Program Contribution Rates from each alternative scenario. Changes to Program design elements were applied one at a time. The combined impact of changing multiple Program design elements simultaneously will not equal the additive impact of the individual alternative scenarios shown in this exhibit. The results in Exhibit 3.6 are shown to two decimal places to highlight small differences; this level of precision should not be misinterpreted as implying that these Contribution Rate estimates are certain or exact.

Based on the results of these alternative scenarios, the Task Force recommended revisions to the five Program designs outlined in the Feasibility Report. These changes are described in **Appendix B**.

Exhibit 3.5: Alternative scenario descriptions

Scenario	Description
Design 1 monthly maximum benefit	• Assess the financial impact of reducing the Design 1 benefit maximum from $1,500 to $1,000 per month
Design 2 approved care setting	• Assess the financial impact of revising Design 2 to cover formal home care only (i.e., remove RCF coverage)
Design 2 elimination period	• Assess the financial impact of reducing the Design 2 EP from 90 days to 30 days or 0 days
Design 5 vesting period	• Assess the financial impact of increasing the Design 5 vesting period from 5 years to 10 years
Portability	• Assess the financial impact of including full or partial international portability for all Program designs (maintain the baseline divesting criteria)
Benefit eligibility age	• Assess the financial impact of a range of Program benefit eligibility ages, including 18+, 30+, 40+, 50+, and 65+
Investment strategy[20]	• Assess the financial impact of an investment strategy that only includes U.S. Treasuries • Assess the financial impact of an investment strategy comprised of 75% U.S. Treasuries and 25% California municipal bonds

[20] These two alternative investment strategies would **not** require an amendment to Article XVI, Section 17 of the California Constitution.

Scenario	Description
Contribution caps	• Assess the financial impact of a range of contribution caps (e.g., various multiples of the Social Security contribution limit), including the impact of not having a contribution cap
Contribution waivers[21]	• Assess the financial impact of a range of contribution waiver thresholds (e.g., proxies for 138% of the federal poverty level ("**FPL**")) for Designs 1, 3, 4 and 5
Contribution exclusion[21]	• Assess the financial impact of a range of contribution exclusion thresholds (e.g., proxies for 138% of the FPL) for Design 2
Program opt-out provision transition date	• Assess the financial impact of changing the deadline for the purchase of opt-out-eligible private insurance policies from the Program effective date to the beginning of the year preceding the Program effective date[22] • Assess the financial impact of removing the opt-out provision
Employer contributions	• Assess the financial impact of reducing the employer contribution level from 50% to 25% or 0%[23] • Assess the financial impact of applying the contribution cap to employer contributions • Assess the financial impact of exempting small businesses from any employer-paid portion of a payroll tax[24]
Establish Program reserve	• Assess the financial impact of establishing a reserve at the end of the 75-year projection period to support payment of future Program expenditures for individuals enrolled in the Program as of December 31, 2099

[21] For all designs, an individual's wages/self-employed income below a specified threshold ($30,000 for baseline actuarial modeling purposes) are not subject to the Program Contribution Rates; for Design 2, individuals with wages/self-employed income below the specified threshold do not contribute and do not receive vesting credits.

[22] Program effective date is assumed to be the beginning of the calendar year following the Governor's approval of any proposed legislation.

[23] Because the employer-paid portion of the Contribution Rate is not subject to the Program contribution caps and contribution waivers, the total combined employer-paid and employee-paid Contribution Rate differs depending on the percentage that is funded by employers.

[24] For the purpose of this alternative scenario, small businesses are defined as employers with fewer than 50 employees.

Exhibit 3.6: Change in Program design Contribution Rates from alternative scenarios (additive)

Scenario	Description	Design 1	Design 2	Design 3	Design 4	Design 5
Baseline	Refer to **Section 2** for detail	**0.60%**	**1.15%**	**0.65%**	**1.60%**	**3.00%**
Design 1 monthly maximum benefit	$1,000 monthly maximum benefit	-0.20%	N/A	N/A	N/A	N/A
Design 2 approved care setting	Home care only	N/A	-0.11%	N/A	N/A	N/A
Design 2 elimination period	No elimination period	N/A	+0.26%	N/A	N/A	N/A
	30-day elimination period	N/A	+0.20%	N/A	N/A	N/A
Design 5 vesting period	10-year vesting period with prorating of benefits	N/A	N/A	N/A	N/A	-0.35%
Portability	Full international portability	+0.00%	N/A	N/A	+0.01%	Baseline
	Partial international portability	N/A	+0.01%	+0.00%	N/A	N/A
Benefit eligibility age[25]	Benefits available at ages 18+	Baseline	+0.07%	Baseline	Baseline	Baseline
	Benefits available at ages 30+	-0.00%	+0.07%	-0.00%	-0.00%	-0.01%
	Benefits available at ages 40+	-0.01%	+0.06%	-0.01%	-0.01%	-0.03%
	Benefits available at ages 50+	-0.02%	+0.05%	-0.02%	-0.04%	-0.07%
	Benefits available at ages 65+	-0.06%	Baseline	-0.05%	-0.12%	-0.22%

[25] Establishing an older benefit eligibility age trades off accessibility of Program benefits for financial feasibility. The estimated Contribution Rate differential for younger eligibility ages (e.g., less than 50) is not significant as the likelihood of needing LTC services decreases substantially at lower ages.

Scenario	Description	Design 1	Design 2	Design 3	Design 4	Design 5
Investment strategy[26]	Invest in U.S. Treasuries only	+0.19%	+0.46%	+0.22%	+0.56%	+0.94%
	Invest in U.S. Treasuries and California municipal bonds	+0.16%	+0.38%	+0.18%	+0.46%	+0.78%
Contribution caps[27]	No income cap	-0.02%	-0.02%	-0.01%	Baseline	-0.04%
	Income for contribution capped at $500,000	-0.00%	-0.00%	-0.00%	+0.02%	+0.00%
	Income for contribution capped at $400,000	Baseline	Baseline	Baseline	+0.02%	Baseline
	Income for contribution capped at $200,000	+0.02%	+0.02%	+0.01%	+0.05%	+0.04%
Contribution waivers[28]	$20,000 contribution waiver	-0.04%	N/A	-0.05%	-0.12%	-0.23%
	$35,000 contribution waiver	+0.02%	N/A	+0.03%	+0.06%	+0.12%
	$50,000 contribution waiver	+0.09%	N/A	+0.10%	+0.24%	+0.46%
Contribution exclusion[28]	$20,000 contribution exclusion	N/A	+0.05%	N/A	N/A	N/A
	$35,000 contribution exclusion	N/A	-0.16%	N/A	N/A	N/A
	$50,000 contribution exclusion	N/A	-0.29%	N/A	N/A	N/A

[26] Investing in bonds (excluding California municipal bonds), stocks, and other equities would require a state constitutional amendment, which may be challenging to obtain. The estimated Contribution Rates are materially higher absent this state constitutional amendment due to limitations on the Program investment strategy.
[27] Instituting a contribution cap in excess of the Social Security limit has a relatively small impact on estimated Contribution Rates and helps balance the "value proposition" for high earners, which may encourage their support for a Program; however, these impacts will increase under a progressive tax rate structure.
[28] Adjusting the contribution waiver threshold/exclusion has a material impact on the estimated tax rate as it impacts all Program participants. These impacts would increase further if the employer contribution were subject to contribution waivers.

Scenario	Description	Design 1	Design 2	Design 3	Design 4	Design 5
Program opt-out provision transition date[29]	No opt-out (i.e., no private insurance exemption)	Baseline	-0.02%	-0.02%	-0.09%	-0.13%
	Opt-out on or before Program effective date	+0.02%	Baseline	Baseline	Baseline	Baseline
	Opt-out one year prior to Program effective date	N/A	-0.00%	-0.00%	-0.02%	-0.03%
Employer contributions[30]	0% employer contribution (100% employee contribution)	+0.23%	+0.40%	+0.26%	+0.56%	+1.17%
	25% employer contribution (75% employee contribution)	+0.10%	+0.17%	+0.11%	+0.24%	+0.49%
	Exemption for small businesses (i.e., fewer than 50 employees)	+0.12%	+0.23%	+0.13%	+0.32%	+0.61%
	Contribution cap applied to employer contributions	+0.01%	+0.02%	+0.01%	N/A	+0.05%
Establish Program reserve	Establish a reserve at the end of the 75-year projection period	+0.16%	+0.42%	+0.18%	+0.50%	+0.84%

[29] Allowing a one-time opt-out is not anticipated to substantially impact Program solvency; however, the impact is dependent on the demographics of those who opt out and will increase with a progressive tax rate structure and higher contribution caps.

[30] Reducing employer contributions may encourage employers to support a Program but has a material impact on estimated Contribution Rates. The significance of this impact is driven by our baseline assumption that contribution caps and contribution waivers do not apply to employer contributions.

3.3. Considerations for current retirees

The Actuarial Analysis assumes that the Program is financed via a payroll tax or income-based tax for the self-employed, per the Task Force's recommendation. Given this financing mechanism, individuals who are retired as of the Program effective date do not contribute, are not able to receive vesting credits, and therefore will not be eligible for benefits under the Program.

The Feasibility Report outlined multiple additional revenue sources that could be used to extend Program benefits to current retirees, including:

- **Personal income tax**. If Program contributions are based on total personal income (i.e., inclusive of payroll earnings, investment income, and any other income), existing retirees could satisfy the Program vesting requirement through non-payroll income.
- **Premium contributions**. Current retirees could contribute to the Program via fixed premiums assessed on a recurring basis (e.g., annually).
- **Lump sum buy-in**. Upon Program launch, current retirees could pay a one-time assessment (potentially in installments over several years) to participate in the Program.
- **California's General Fund revenue**. In lieu of having current retirees contribute directly to the Program, funding for current retirees could be sourced from California's General Fund revenue.

Assessing the required Program contributions for each of these alternative revenue sources is outside the scope of this report. However, as part of the Actuarial Analysis, we estimated the number of current retirees as of the Program effective date and quantified their expected future Program benefits and expenses, assuming they participate in the Program.

For this assessment, current retirees are defined as individuals who meet the following criteria[31]:

- Californians ages 75 or older as of December 31, 2024, based on California population information provided by the California Department of Finance ("**DoF**"), or
- Californians ages 65 to 74 as of December 31, 2024 who are not projected to vest or receive equivalent Program benefits in our baseline projections.

Using these criteria, we estimate that there will be approximately 7 million current retirees as of the assumed Program effective date (January 1, 2025).

Exhibit 3.7 summarizes the present value of expected Program expenditures (benefits paid and expenses incurred) for current retirees under each of the five recommended Program designs, should coverage be extended to current retirees. Present values are calculated using the projected net investment earned rate ("**NIER**") implied by the baseline investment strategy described in **Section 5.2**. The present value of estimated expenditures for current retirees is approximately 15% to 25% of

[31] Additional details regarding the California population projections and vesting assumptions underlying the Actuarial Analysis are provided in **Section 5.2**.

the present value of estimated Program expenditures for Program participants (excluding current retirees).

Exhibit 3.7: Present value of expenditures for current retirees by Program design ($ billions)

Design	Description	Present value of Program expenditures
1	Supportive LTC benefits	$40.0
2	Home care and RCF benefits for older adults	$76.2
3	Lower-range comprehensive LTSS benefits	$38.2
4	Mid-range comprehensive LTSS benefits	$82.8
5	Higher-range comprehensive LTSS benefits	$116.9

Appendix C contains calendar year projections of Program expenditures for current retirees under each Program design.

For this analysis, we applied the Program designs recommended by the Task Force. In particular, current retirees are assumed to be subject to the Program vesting requirements, intergenerational equity provision, and contribution exclusion (Design 2 only). Given that the contribution revenue source(s) to extend coverage to current retirees has not yet been determined, our analysis required the following simplifying assumptions:

- **Vesting requirement**: Current retirees are assumed to earn Program vesting credits as long as they remain in our California population projection throughout the vesting period (i.e., do not emigrate or die). For example, under Design 3, if a current retiree is projected to be in California in calendar year 2030, they would be eligible for 50% of the Program benefits. If they are still in California by 2035, they would qualify for 100% of the Program benefits.
- **Contribution exclusion (Design 2 only)**: To proxy the impact of the Design 2 contribution exclusion on current retirees, we estimated the percentage of Californians aged 65 and older with an income below 138% of the FPL based on the data from the California Data Dashboard for Aging[32]. We then reduced the number of individuals in our current retiree projections proportionally. Approximately 5.7 million current retirees are assumed to be covered under Design 2.
- **Program opt-out provision**: We assume that no current retirees would choose to opt out of the Program via the private insurance exemption. We expect that Program opt outs will be driven by the expected value proposition of the Program for a given individual, which we are not able to estimate without additional information regarding potential revenue sources to be used for current retirees.

[32] *Data Dashboard for Aging*, CDA (https://letsgethealthy.ca.gov/mpa-data-dashboard-for-aging/#demographics-dashboard).

When considering the feasibility of alternative revenue sources for current retirees, it is important to keep the following in mind:

- **Pre-funding**: The likelihood of needing LTSS increases with age, which minimizes pre-funding of Program benefits for current retirees. One potential approach to mitigate this risk is to require a lump sum buy-in for current retirees.
- **Affordability**: Certain revenue sources (particularly premium contributions or a lump sum buy-in) may not be affordable for current retirees. As an illustration, dividing the present value of Program expenditures in Exhibit 3.7 by the number of current retirees we estimate to be covered under each design produces a lump sum buy-in ranging from about $5,500 to $16,500, depending on the design. This illustration assumes that there is no differentiation in the lump sum buy-in based on a current retiree's age or other characteristics.
- **Subsidization**: It may be prudent to consider the extent to which non-current retirees subsidize Program expenditures for current retirees if they are included in the Program. For example, additional revenue could be collected from other sources (e.g., California's General Revenue Fund) in lieu of requiring a higher Contribution Rate for all Program participants to cover anticipated Program expenditures for current retirees.

3.4. Assumption sensitivity testing

Program results are highly dependent on the underlying projection assumptions. To understand how deviations in key assumptions may impact Program solvency, we tested a range of assumption sensitivities. The assumption sensitivities analyzed in this section are not exhaustive; the sources of uncertainty that could affect the Program and our Actuarial Analysis are numerous and include factors internal and external to the Program. In assessing the feasibility of implementing a Program, it is important to consider how, and if, various Program design features could be adjusted in the future should experience emerge differently than anticipated.

Exhibit 3.8 describes the assumption sensitivities performed as part of this Actuarial Analysis.

Exhibit 3.9 summarizes the change in the present value of the ending Program Fund Balance (on December 31, 2099) for each assumption sensitivity. This change represents the additional funding required as of the Program effective date (January 1, 2025) to ensure the Program is solvent at the end of the 75-year projection period. Changes to key assumptions were applied one at a time, except for the combined scenarios. The combined impact of changing multiple assumptions simultaneously will not equal the additive impact of the individual sensitivities shown in this exhibit.

Present values in Exhibit 3.9 are calculated using the projected NIER implied by the cash flows for the particular sensitivity. Our baseline investment strategy is used for all assumption sensitivities except those that quantify the impact of changes to certain investment assumptions (e.g., increase in yields), as described in Exhibit 3.8.

Under adverse sensitivities, the Program Fund Balance is projected to be depleted before the end of the 75-year projection period. For these sensitivities, we set the NIER equal to the average of the NIER in the calendar years preceding the Program Fund Balance depletion to ensure our present values are sensible.

To demonstrate the potential impact of the underlying investment strategy on results, a handful of sensitivities were also analyzed using the U.S. Treasury only investment strategy. Exhibit 3.10 provides the change in the present value of the ending Program Fund Balance for each of these sensitivities relative to the “invest in U.S. Treasuries only” alternative scenario.

The investment assumptions underlying the baseline strategy and the U.S. Treasury only strategy are described in **Section 5.2**.

Appendix C includes an illustration of the materiality of each sensitivity analyzed.

Exhibit 3.8: Assumption sensitivity descriptions

Sensitivity name	Description
Administrative expenses	• **3% uniform increase**: Assess impact of a 3% increase in administrative expenses (applied uniformly to the expense load on tax revenues and benefits) • **3% increase with shift in basis**: Assess impact of a 3% increase in administrative expenses (applied as a 4% increase on premium expenses and 1% decrease on benefit expenses)
Birth rate	• **20% increase**: Assess impact of a multiplicative 20% increase in expected births • **20% decrease**: Assess impact of a multiplicative 20% decrease in expected births
Immigration rate	• **20% increase**: Assess impact of a multiplicative 20% increase in expected immigration • **20% decrease**: Assess impact of a multiplicative 20% decrease in expected immigration
Emigration rate	• **20% increase**: Assess impact of a multiplicative 20% increase in emigration • **20% decrease**: Assess impact of a multiplicative 20% decrease in emigration
Active mortality	• **15% increase**: Assess impact of a multiplicative 15% increase in active mortality rates • **15% decrease**: Assess impact of a multiplicative 15% decrease in active mortality rates
Mortality improvement	• **No improvement**: Assess impact of removing mortality improvement
On-claim mortality	• **20% increase**: Assess impact of a multiplicative 20% increase in on-claim mortality rates • **20% decrease**: Assess impact of a multiplicative 20% decrease in on-claim mortality rates
Claim incidence	• **15% increase**: Assess impact of a multiplicative 15% increase in claim incidence rates • **15% decrease**: Assess impact of a multiplicative 15% decrease in claim incidence rates • **Shift incidence toward home care**: Assess impact of a multiplicative 15% increase in home care claim incidence rates and a multiplicative 35% decrease in facility claim incidence rates

Sensitivity name	Description
Adverse selection from Program opt outs	• **Higher adverse selection**: Assess impact of assuming a multiplicative 25% increase in the selection factors for those who opt out of the Program (i.e., individuals who opt out are assumed to be 25% more healthy than the baseline scenario so the remaining Program participants are less healthy) • **Lower adverse selection**: Assess impact of a multiplicative 25% decrease in the selection factors for those who opt out of the Program (i.e., individuals who opt out are assumed to be 25% less healthy than the baseline scenario so the remaining Program participants are healthier)
Morbidity improvement	• **Reflect morbidity improvement:** Assess impact of applying 1% morbidity improvement to claim incidence rates for 10 years
Recovery	• **20% increase**: Assess impact of a multiplicative 20% increase in claim recovery rates • **20% decrease**: Assess impact of a multiplicative 20% decrease in claim recovery rates
Benefit utilization	• **Reduce ultimate utilization**: Assess impact of reducing ultimate utilization from 100% to 95% • **Increased starting utilization**: Assess impact of increasing starting utilization rates to be more uniform across Program designs
Program opt outs	• **Reduce opt-out elections**: Assess impact of assuming fewer Californians opt out of the Program, with a larger reduction at higher income levels relative to the baseline scenario • **Increase opt-out elections**: Assess impact of assuming more Californians opt out of the Program, with a larger increase at higher income levels relative to the baseline scenario
Program benefit increases	• **3.5% benefit inflation**: Assess impact of a 1% increase in the inflation rate used for Program benefit increases (from 2.5% to 3.5%) • **1.5% benefit inflation**: Assess impact of a 1% decrease in the inflation rate used for Program benefit increases (from 2.5% to 1.5%)
Vesting	• **10% increase**: Assess impact of a multiplicative 10% increase in vesting probabilities • **10% decrease**: Assess impact of a multiplicative 10% decrease in vesting probabilities • **Alternative dollar-based minimum vesting requirement**: Assess impact of requiring individuals to make at least $6,500

Sensitivity name	Description
	annually to receive vesting credit (in lieu of a minimum number of hours worked)
Wages	• **20% increase in calendar year wage inflation**: Assess impact of a multiplicative 20% increase in calendar year wage growth (i.e., assume 3.0% calendar year wage inflation) • **20% decrease in calendar year wage inflation**: Assess impact of a multiplicative 20% decrease in calendar year wage growth (i.e., assume 2.0% calendar year wage inflation) • **Exclude COVID-19 years from wage distribution development**: Assess impact of developing starting wage distributions based on 2017 through 2019 data only
Program effective date	• **January 1, 2030 effective date**: Assess impact of assuming the Program is implemented on January 1, 2030. For this sensitivity, all Program design features are assumed to be unchanged (e.g., the Program initial monthly benefit amounts do not reflect 5 years of benefit inflation)
Combined scenarios	• **Environmental disaster**: Assess impact of catastrophic weather becoming commonplace in California, resulting in an economic downturn[33] • **Medical innovation**: Assess impact of medical innovations that reduce the likelihood of death from certain diseases (e.g., cancer), resulting in increased life expectancies, higher LTC claim incidence, and longer LTC claims[34]
Investment assumptions	• **70% bonds / 30% equity**: Assess impact of an investment strategy comprised of 70% bonds and 30% equity • **100% bonds / 0% equity**: Assess impact of an investment strategy comprised of 100% bonds and 0% equity • **Increase in yields**: Assess impact of increasing underlying U.S. Treasury rates by 100 basis points ("**bps**") and equity returns by 200 bps • **Decrease in yields**: Assess impact of decreasing underlying U.S. Treasury rates by 100 bps and equity returns by 200 bps

[33] The "environmental disaster" scenario combines the following single assumption sensitivities: 3% uniform increase in administrative expenses, 20% reduction in birth rate, 20% increase in emigration, 20% reduction in immigration, no mortality improvement, 1% increase in benefit inflation, increased starting utilization, 10% decrease in vesting, and 20% decrease in wage growth.

[34] The "medical innovation" scenario combines the following single assumption sensitivities: 15% increase in incidence, 20% reduction in on-claim mortality, 15% reduction in active mortality, and increased starting utilization.

Exhibit 3.9: Change in present value of ending Program Fund Balance from assumption sensitivities (additive; $ billion)
(Relative to baseline results)

Sensitivity	Description	Design 1	Design 2	Design 3	Design 4	Design 5
Baseline[35]	Refer to **Section 5** for detail	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
Administrative expenses	3% (additive) increase in administrative expenses, uniform	-$4.8	-$9.2	-$4.9	-$12.0	-$22.1
	3% (additive) increase in expenses, shifted toward claim expenses	-$5.1	-$9.8	-$5.2	-$12.8	-$23.5
Birth rate	20% increase in birth rate	+$3.4	+$7.2	+$3.8	+$9.2	+$17.5
	20% decrease in birth rate	-$3.3	-$7.1	-$3.7	-$9.1	-$17.1
Immigration rate	20% increase in immigration rate	+$0.9	+$2.5	+$1.0	+$3.2	+$5.3
	20% decrease in immigration rate	-$0.9	-$2.5	-$1.1	-$3.2	-$5.3
Emigration rate	20% increase in emigration	-$4.9	-$4.9	-$2.2	-$12.4	-$25.5
	20% decrease in emigration	+$5.6	+$5.2	+$2.4	+$14.1	+$29.3
Active mortality	15% increase in active mortality	+$6.8	+$19.3	+$6.4	+$14.4	+$24.3
	15% decrease in active mortality	-$7.2	-$20.5	-$6.7	-$15.0	-$25.1
Mortality improvement	No mortality improvement	+$14.2	+$42.2	+$13.9	+$32.0	+$52.7
On-claim mortality	20% increase in on-claim mortality	+$11.3	+$14.1	+$7.7	+$26.2	+$57.7
	20% decrease in on-claim mortality	-$11.4	-$14.6	-$7.7	-$26.7	-$58.4
Claim incidence	15% increase in claim incidence	-$15.4	-$24.5	-$12.8	-$29.9	-$50.9
	15% decrease in claim incidence	+$18.8	+$30.0	+$15.9	+$37.2	+$64.0
	Shift incidence toward home care (in lieu of facility care)	N/A	+$32.1	+$15.5	+$34.8	+$57.7

[35] Small variances from $0 in ending Program Fund Balance in year 2099 are due to rounding precision.

Sensitivity	Description	Design 1	Design 2	Design 3	Design 4	Design 5
Adverse selection from Program opt outs	Higher adverse selection	N/A	-$0.0	-$0.0	-$0.0	-$0.0
	Lower adverse selection	N/A	+$0.0	+$0.0	+$0.0	+$0.0
Morbidity improvement	Reflect morbidity improvement	+$11.2	+$18.5	+$9.5	+$22.2	+$38.0
Recovery	20% increase in recovery	+$12.2	+$1.6	+$3.1	+$8.7	+$17.1
	20% decrease in recovery	-$11.8	-$1.7	-$3.0	-$8.7	-$17.1
Benefit utilization	Reduce ultimate benefit utilization	+$2.4	+$3.1	+$1.9	+$6.0	+$11.0
	Increase starting benefit utilization	-$0.0	-$0.1	-$0.0	-$0.3	-$1.9
Program opt-outs	Reduce opt-out elections	N/A	+$2.0	+$2.0	+$7.3	+$10.5
	Increase opt-out elections	N/A	-$1.8	-$1.6	-$5.1	-$8.3
Program benefit increases	3.5% Program benefit inflation	-$45.1	-$144.8	-$72.3	-$177.7	-$303.7
	1.5% Program benefit inflation	+$52.9	+$110.4	+$56.8	+$141.1	+$250.9
Vesting	10% increase in vesting probabilities	-$10.6	-$17.0	-$8.8	-$20.8	-$35.3
	10% decrease in vesting probabilities	+$12.3	+$19.5	+$10.3	+$24.1	+$41.3
	Alternative dollar-based minimum vesting requirement	+$6.7	N/A[36]	+$10.7	+$26.8	+$55.3
Wages	20% increase in annual calendar year wage inflation	+$22.8	+$44.2	+$24.3	+$59.5	+$110.3
	20% decrease in annual calendar year wage inflation	-$16.7	-$33.3	-$17.6	-$43.7	-$79.9
	Exclude COVID-19 years from wage distribution development	-$3.6	-$6.2	-$3.7	-$8.8	-$16.5

[36] This assumption sensitivity was not performed for Design 2 because the contribution exclusion ($30,000) on this design minimizes the impact of replacing the 500 minimum worked hours requirement with a $6,500 minimum annual earnings requirement.

Sensitivity	Description	Design 1	Design 2	Design 3	Design 4	Design 5
Program effective date	Assume Program effective date is January 1, 2030	+$15.8	+$27.0	+$16.5	+$40.5	+$74.5
Combined scenarios	Environmental disaster	-$34.5	-$97.0	-$55.0	-$147.1	-$273.5
	Medical innovation	-$33.1	-$58.9	-$26.3	-$69.8	-$129.3
Investment assumptions	70% bonds / 30% equity asset allocation	+$16.4	+$38.2	+$17.6	+$44.7	+$74.4
	100% bonds / 0% equity asset allocation	-$25.1	-$59.8	-$26.7	-$68.8	-$113.1
	Increase in yields	+$20.5	+$47.1	+$21.9	+$55.5	+$92.8
	Decrease in yields	-$36.3	-$86.8	-$38.3	-$99.5	-$163.8

Exhibit 3.10: Change in present value of ending Program Fund Balance from assumption sensitivities (additive; $ billion)
(Relative to "invest in U.S. Treasuries only" alternative scenario results)

Sensitivity	Description	Design 1	Design 2	Design 3	Design 4	Design 5
Invest in U.S. Treasuries only[37]	Refer to **Section 5** for detail	**-$0.0**	**+$0.0**	**-$0.0**	**+$0.0**	**-$0.0**
Active mortality	15% increase in active mortality	+$16.1	+$46.9	+$15.2	+$34.3	+$56.6
	15% decrease in active mortality	-$18.0	-$52.5	-$16.6	-$37.0	-$60.5
On-claim mortality	20% increase in on-claim mortality	+$26.2	+$34.7	+$18.4	+$63.9	+$136.3
	20% decrease in on-claim mortality	-$28.5	-$36.9	-$19.2	-$68.9	-$150.0
Program benefit increases	3.5% Program benefit inflation	-$140.7	-$462.9	-$224.0	-$567.7	-$965.8
	1.5% Program benefit inflation	+$135.6	+$292.4	+$145.4	+$366.7	+$643.6
Wages	20% increase in annual calendar year wage inflation	+$69.9	+$144.5	+$75.7	+$188.2	+$339.3
	20% decrease in annual calendar year wage inflation	-$55.2	-$113.7	-$59.5	-$147.8	-$265.8
Investment assumptions	Increase in yields	+$36.5	+$86.4	+$37.8	+$98.2	+$161.8
	Decrease in yields	-$71.5	-$173.5	-$73.9	-$195.2	-$319.6

[37] Small variances from $0 in ending Program Fund Balance in year 2099 are due to rounding precision.

3.5. Modifications and exclusions

Certain design elements outlined in the Feasibility Report were modified or excluded for the Actuarial Analysis, as described in Exhibits 3.11 and 3.12, respectively.

Generally, design elements are excluded from the Actuarial Analysis where specifics have yet to be determined. Once specifics are known, it would be prudent to perform additional analysis to quantify the potential implications on required Program Contribution Rates.

Exhibit 3.11: Program design elements modified for Actuarial Analysis

Design element	Task Force recommendation	Actuarial Analysis approach
Vesting criteria	• Individuals must contribute for 5 or 10 years to be eligible for full Program benefits, with partial benefits available after 3 or 5 years, respectively.	• Task Force did not define the minimum number of hours that must be worked annually to earn vesting credit ("minimum worked hours requirement"). • We used 500 hours as the minimum worked hours requirement for modeling purposes. • We also assessed an alternative annual dollar-based minimum requirement of $6,500 for vesting credit (refer to **Section 3.4**).
Contribution cap	• Wages/self-employed income above a specified cap should not be subject to the Program Contribution Rate. • The cap should exceed the Social Security limit ($160,200 as of 2023)[38].	• We assumed $400,000 as the baseline contribution cap for modeling purposes (except on Design 4, as the Task Force recommended no contribution cap for this design). • We assessed a range of contribution caps (refer to **Section 3.2**).

[38] The Social Security limit changes each year as a function of the national average wage index (https://www.ssa.gov/oact/cola/cbb.html).

Design element	Task Force recommendation	Actuarial Analysis approach
Contribution waivers and exclusions	• For Designs 1, 3, 4, and 5, Program contributions should be waived for individuals with wages/self-employed income below a specified FPL. Individuals with income below the contribution waiver threshold still receive vesting credit if they meet the minimum worked hours requirement. • For Design 2, individuals with wages/self-employed income below the specified FPL will not contribute or receive vesting credits.	• We assumed contributions are waived on income earned below the specified threshold, regardless of the individual's total income level. • We assumed $30,000 as the baseline contribution waiver/exclusion threshold for modeling purposes. • We assessed a range of contribution waiver/exclusion thresholds[39] (refer to **Section 3.2**).
Benefit increases for inflation	• Assess Program benefit increases for inflation annually but do not automatically increase benefits except on Design 5.	• We assumed Program benefits increase annually for all designs, not just Design 5.

Exhibit 3.12: Program design elements excluded from Actuarial Analysis

Design element	Task Force recommendation	Potential Actuarial Analysis implications
Design 1 alternative funding sources	• Explore alternative revenue sources (beyond a payroll tax and self-employed income tax) for Design 1.	• Reflecting an additional revenue source beyond a payroll tax and self-employed income tax in the Actuarial Analysis would **reduce estimated Program Contribution Rates**. • Reflecting an alternative revenue source in lieu of payroll and self-employed income taxes would require further analysis.
PACE coordination	• Allow Program benefits to be used for PACE on Designs 3 through 5.	• Reflecting PACE coordination in the Actuarial Analysis may **slightly reduce**

[39] Flat denominations ($20,000, $30,000, $35,000, and $50,000) are used to proxy a range of FPLs; the 2023 FPL is $14,580, $19,720, $24,860, and $30,000 for 1-, 2-, 3-, and 4-person households, respectively (https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines). Most adult Californians up to 138% FPL will be eligible for Medi-Cal.

Design element	Task Force recommendation	Potential Actuarial Analysis implications
	• Specifics regarding the Program's coordination with PACE have yet to be defined.	**anticipated Program benefits** if Program beneficiaries are assumed to use PACE in lieu of other covered services because PACE's holistic approach to care delivery could improve beneficiaries' quality of life and may delay their need for additional Program benefits. • Additionally, **Program expenses may increase** depending on the complexity of coordination with PACE.
Preventative benefits	• Provide preventative benefits on Designs 2 through 5. • Specifics regarding the range of preventative benefits covered under each design have yet to be defined, including whether preventative services will be covered under a separate (limited) benefit (e.g., $5,000) or deducted from the same benefit pool as other Program services.	• Reflecting preventative benefits in the Actuarial Analysis could **reduce anticipated Program benefits** because preventative benefits are anticipated to improve beneficiaries' quality of life and may delay their need for additional Program services and lessen their claim severity. For example: – Preventative services may delay deterioration in an individual's ability to perform ADLs. – Preventative services may facilitate an individual living at home independently longer before needing formal LTSS. • Reflecting preventative benefits in the Actuarial Analysis could **increase in Program expenses** due to potential for fraud and increased coordination complexity with private insurance and other programs that cover preventative benefits.
Reduced Program contributions	• Individuals who purchase eligible private insurance after the Program effective date will qualify for reduced Program contributions.	• Capturing the reduced Program contribution provision in the Actuarial Analysis would **reduce Program tax revenue**. Wealthier individuals are more likely to purchase private

Design element	Task Force recommendation	Potential Actuarial Analysis implications
	• The definition of eligible private insurance has yet to be determined.	insurance, so the reduction in Program tax revenue is anticipated to be disproportionate to the number of individuals who qualify for this provision. • This provision would **reduce Program benefits** because the substitutive private insurance would be the first payer, thus reducing the costs borne by the Program. • Because substitutive private insurance may provide more comprehensive coverage than the Program, the reduced contribution should be developed based on an actuarial evaluation.
Design 5 voluntary top-up	• Provide individuals who are unable to fully vest on Design 5 a voluntary alternative Program contribution option to "top up" benefits. • Specifics regarding the alternative Program contribution option have yet to be defined.	• **Estimated Program Contribution Rates may increase** due to the high risk of adverse selection (i.e., those who choose to top up their benefits are more likely to need LTC and therefore use Program benefits).

3.6. Other considerations

Below is a list of other considerations for the Program that have not been quantitatively assessed as part of the Actuarial Analysis. This list of other considerations is not intended to be exhaustive.

1. Program funding approach
2. Environmental, Social, and Corporate Governance ("**ESG**")-compliant investments
3. Future labor market shifts
4. Impact of LTSS on employers

3.6.1. Program funding approach

For the Actuarial Analysis, we assume the Program is funded on a pay-as-you-go basis over a 75-year projection period (through December 31, 2099), with some pre-funding from the Program's vesting requirement and intergenerational equity provision.

Under this approach, Program revenues are used to pay Program expenditures as they are incurred, and any Program expenditures payable after the 75-year projection period (e.g., future benefits for individuals who are enrolled in the Program as of December 31, 2099) are excluded from the baseline Contribution Rate calculation. Beyond 75 years, significant unfunded liabilities accrue, which could hinder long-term Program solvency.

This Program funding approach does not represent a recommended funding approach. As part of the Actuarial Analysis, we assess one alternative funding approach whereby a reserve is established at the end of the 75-year projection period to fund anticipated Program expenditures beyond December 31, 2099; however, other alternative funding approaches should also be considered.

Regardless of the Program funding approach used, Program solvency is highly dependent on the underlying assumptions, and future changes to the Program Contribution Rate may be needed if experience emerges differently than anticipated. Continuous monitoring of the Program Fund Balance and its solvency is crucial throughout the Program's lifetime.

3.6.2. ESG-compliant investments

While we do not have adequate data to assess the quantitative impact on bond and equity yields of an investment strategy prioritizing allocation into ESG-compliant investments, qualitative considerations related to ESG-compliant investments include, but are not limited to, the following:

- **Administration**. Would the Program investment manager(s) be able to identify, select, purchase, and monitor ESG-compliant investments?
- **Risk versus return profile**. Would ESG-compliant investments improve the risk-return profile of the Program's investment portfolio?
- **Goals**. How would ESG-compliant investing fit within the Program's broader goals?

3.6.3. Future labor market shifts

Shifts in the labor market would impact Program revenues and expenditures. Generally, if more individuals participate in the labor force, Program revenues and expenditures will increase. The materiality of any labor market shift on the Program depends on workforce demographics, including (but not limited to) age, wage level, and proportion of individuals on payroll versus self-employed. For example, an increase in labor force participation for older workers might increase Program expenditures by more than the corresponding increase in Program revenues, given the shorter timeframe during which these workers would pay Program contributions.

The labor force participation assumptions underlying the Actuarial Analysis are described in **Section 5.2.2.1**.

3.6.4. Impact of LTSS on employers

Much of the cost of informal caregiving is borne by individuals, but there are also costs to employers, such as:

- Lost hours due to employee time-off
- Loss of employees from the workforce
- Deterioration in performance or work quality
- Overall reduction in productivity

A 2011 survey estimated that full-time employees missed over 126 million workdays per year due to caregiving demands, costing the U.S. economy $25.2 billion annually in lost productivity.[40]

Having access to Program benefits could reduce the demand for informal caregivers, which in turn could increase workforce participation (e.g., individuals may not need to take as much time off work or leave the workforce to be an informal caregiver if their loved ones have access to Program benefits) and improve productivity.

[40] *Caregiving Costs U.S. Economy $25.2 Billion in Lost Productivity.* Gallup-Healthways. (https://news.gallup.com/poll/148670/caregiving-costs-economy-billion-lost-productivity.aspx).

4. Fiscal impact on California's Medicaid Program

This section summarizes the results of our quantitative assessment of the potential fiscal impact of the Program on Medi-Cal, including the IHSS program.

Medi-Cal provides health coverage, including LTSS, for children and adults with limited income at no cost (or low cost) to the covered individual. Medi-Cal is jointly funded by California and the federal government. California's regular federal medical assistance percentage ("**FMAP**") is 50% for most beneficiaries and administrative costs. Enhanced FMAP is available for certain populations, programs, and time periods (including for some LTSS beneficiaries).

[In progress]

As part of the Feasibility Report, the Task Force recommended that the Program coordinate with Medi-Cal as follows:

- The Program should pay LTSS benefits before Medi-Cal, because Medi-Cal is the payer of last resort by federal law.
- Coordination of benefits between the Program and Medi-Cal should allow for concurrent benefits if they are non-duplicative. That is, if an individual's LTSS needs exceed the Program's maximum benefit, the remaining services for a Medi-Cal eligible individual could be covered by Medi-Cal, subject to Medi-Cal eligibility rules, provider enrollment requirements, and reimbursement rates. There may also be situations where certain services are covered by Medi-Cal but not by the Program, or where the individual is eligible to receive benefits under Medi-Cal but not the Program, in which case the individual would receive these services through Medi-Cal.
- The Program should not influence the Medi-Cal eligibility determination process (e.g., benefits received from the Program should not be deemed income when determining Medi-Cal eligibility).
- The Program should not exclude individuals on the basis that they are eligible for Medi-Cal (whether in the past, present, or future). Said differently, the Program should not be designed with the intent of carving out individuals who may be eligible for Medi-Cal[41].
- A federal demonstration waiver from CMS should be pursued to allow the state to retain any federal Medicaid savings (and Medicare savings, if applicable) attributable to the Program.

The Task Force also recommended a handful of other next steps related to Medi-Cal, which are outlined in **Appendix D**.

[41] Design 2 is an exception to this recommendation because it intentionally targets individuals who are less likely to qualify for Medi-Cal as a means of limiting duplication with Medi-Cal and reducing Program costs.

4.1. Fiscal impact results

Exhibit 4.1 summarizes the estimated total (including both state and federal) fiscal impact to Medi-Cal under each of the five recommended Program designs, except Design 2[42]. Results are shown on a present value basis as of January 1, 2025. Fiscal impacts were measured over the entire 75-year projection period and discounted using the projected NIER implied under the baseline investment strategy, which is detailed in **Section 5.2**.

Exhibit 4.1: Estimated present value fiscal impact to Medi-Cal by Program design ($ billions)
(Total, including both state and federal impact)

Design	Description	Present value fiscal impact
1	Supportive LTC benefits	$[##]
2	Home care and RCF benefits for older adults	N/A[42]
3	Lower-range comprehensive LTSS benefits	$[##]
4	Mid-range comprehensive LTSS benefits	$[##]
5	Higher-range comprehensive LTSS benefits	$[##]

Projection results for the estimated fiscal impact on Medi-Cal by calendar year are included in **Appendix C**.

4.2. Modeling methodology and assumptions

Our estimates for the Program's fiscal impact on Medi-Cal were developed based on our understanding of how Medi-Cal will interact with a new public LTSS program in California. To support our analysis, we received summarized historical data for fiscal years 2017 through 2021 from DHCS and related divisions. However, data was not readily available to support all assumptions required for our analysis, in which case we relied on other publicly available data[43,44,45].

An assessment of the potential impact of future changes to any federal regulations, executive orders, or state insurance laws that govern Medi-Cal was outside the scope of our analysis.

In developing our estimate for the Medi-Cal fiscal impact, we used the baseline assumptions underlying our Actuarial Analysis, as described in **Section 5.2**. In particular, we did not revise any of our actuarial assumptions to vary by income level (e.g., 138% of the FPL). Further, we did not attempt

[42] Design 2 attempts to limit duplication with Medi-Cal by not having lower-income individuals participate in the Program. As a result, we expect the fiscal impact of Design 2 on Medi-Cal to be primarily driven by LTSS costs associated with those who "spend down" their income and assets to qualify for Medi-Cal. We did not explicitly quantify this for Design 2.
[43] *The 2023-24 Budget: Analysis of the Medi-Cal Budget* (https://lao.ca.gov/reports/2023/4675/Medi-Cal-Budget-Analysis-021023.pdf).
[44] *Medi-Cal Enrollment Update* (https://www.dhcs.ca.gov/dataandstats/Documents/Medi-Cal-Enrollment-March2023.pdf).
[45] *California Long-Term Services and Supports Dashboard* (https://www.dhcs.ca.gov/services/Pages/LTSS-Dashboard.aspx).

to quantify secondary Program impacts that could influence future Medi-Cal eligibility and expenditures, including, but not limited to, the following:

- Heightened awareness around public LTSS programs could increase LTSS utilization, which may result in individuals becoming eligible for Medi-Cal earlier.
- Availability of Program benefits, including preventative benefits, could improve health outcomes and result in lower Medi-Cal LTSS utilization.
- Increased demand for LTSS could drive up service costs and impact nursing home provider rates.

To the extent the California Legislature considers implementing a Program, it may be prudent to study these considerations in further detail to better understand their potential impact on the results of our Actuarial Analysis.

4.2.1. Medi-Cal eligible population

Medi-Cal eligibility for LTSS is currently based on income, assets, physician approval, and medical necessity, though the Medi-Cal eligibility asset limit will be eliminated in 2024, which is expected to increase Medi-Cal enrollment. Comprehensive Medi-Cal eligibility criteria is available on the DHCS website[46].

Because the benefit eligibility criteria for Medi-Cal is anticipated to be less restrictive (i.e., easier to satisfy) than the Program's benefit eligibility criteria (inability to perform 2 of 6 ADLs for at least 90 days or severe cognitive impairment), we assume that any individuals who meet the benefit eligibility criteria for the Program would also be able to satisfy the non-income/asset-related eligibility criteria for Medi-Cal.

[In progress]

4.2.2. Medi-Cal covered services

With regard to LTSS, Medi-Cal offers a broad array of coverage for facility care and HCBS. For facility coverage, Medi-Cal provider types include SNFs, intermediate care facilities and related providers, sub-acute facilities, and pediatric sub-acute facilities. Two-thirds of California's nursing facility residents rely on Medi-Cal to pay for their care. For HCBS, a variety of Medi-Cal waiver and State Plan programs provide services such as personal care services, care coordination, chore services, protective supervision, and respite care.

Medi-Cal HCBS programs include IHSS, Community Based Adult Services ("**CBAS**"), the Assisted Living Waiver, the Home and Community Based Alternatives Waiver, the Multipurpose Senior Services Program ("**MSSP**"), the Medi-Cal Waiver Program, and the California Community Transitions Project. Other HCBS programs include Medi-Cal Home Health benefits and the Medicaid funded programs administered by the Department of Developmental Services. IHSS is the largest HCBS program in

[46] *Do You Qualify for Medi-Cal Benefits?* DHCS (https://www.dhcs.ca.gov/services/medi-cal/Pages/DoYouQualifyForMedi-Cal.aspx).

California, with close to 700,000 authorized recipients in 2022. IHSS provides personal care services to Medi-Cal eligible individuals who meet IHSS program eligibility criteria. Under IHSS, county social workers assess the beneficiary's need for assistance with ADLs and authorize a specific number of IHSS provider hours each month for that beneficiary.[47]

We performed our fiscal impact analysis of Medi-Cal on an aggregate basis and did not attempt to develop or allocate impacts on a program level (e.g., CBAS, MSSP, IHSS) or care setting (e.g., HCBS, SNF). If the Legislature decides to proceed with a public LTC program in California, it may be prudent to assess the potential fiscal impact to specific Medi-Cal programs and care settings on a more granular basis.

[In progress]

[47] Additional information on the IHSS eligibility requirements and benefits can be found at https://www.cdss.ca.gov/in-home-supportive-services.

5. Methodology and assumptions

This section summarizes methodology and key assumptions underlying the Actuarial Analysis. Certain simplifying modeling approaches and assumptions were applied based on software or data limitations, which are not expected to materially impact the Actuarial Analysis.

Our assumptions underlying the Actuarial Analysis are best estimate with no explicit margin for adverse deviations.

5.1. Modeling methodology

To project Program contribution rates, benefit payments, and administrative expenses, we developed an actuarial model using Moody's Analytics AXIS™ software. Program revenues and expenditures are projected for 75 years, beginning from an assumed Program effective date of January 1, 2025, through December 31, 2099. A 75-year projection has been established by the Social Security Administration and CMS as the standard projection period for determining the actuarial balance of a public insurance program.

The model produces annual Program cash flows for the California population, including revenues in the form of tax contributions and investment income earned on invested assets, and expenditures in the form of benefits paid and administrative expenses incurred. These cash flows are contingent on various assumptions, which are outlined in **Section 5.2**. The Program is assumed to be funded on a pay-as-you-go basis, with Program revenues used to pay Program expenditures as they are incurred; no actuarial reserve is established for future liabilities.

The projection is initiated with a starting population calibrated to the 2024 California population sourced from the California DoF's Report P-1C[48] and adjusted based on our discussions with the DoF, as described in **Section 5.2.1**. The modeled population was stratified by gender, age band, income type, wage/self-employed income band, and Program entry year, as outlined in Exhibit 5.1.

Exhibit 5.1: Modeled population stratification

Characteristic	Variability
Gender (at birth)	• Male • Female
Age band	• 5-year age bands (from age 0 to age "99+")
Income type	• Wage-earned income • Self-employed income

[48] *Report P-1C: Total Estimated and Projected Population for California by Sex and 5-year Age Group: July 1, 2020 to 2060*, California Department of Finance (https://dof.ca.gov/wp-content/uploads/sites/352/2023/07/P1C_State_Age-Group_Sex.xlsx). For the Actuarial Analysis, we used an earlier iteration of this report given timing constraints. We reviewed the updated population projections and do not expect a material impact to the results; however, it would be prudent to quantitatively confirm this as a next step.

Characteristic	Variability
Wage/self-employed income bands (annual)[49]	• $0 to $9,999 • $10,000 to $14,999 • $15,000 to $24,999 • $25,000 to $34,999 • $35,000 to $49,999 • $50,000 to $74,999 • $75,000 to $99,999 • $100,000 to $149,999 • $150,000 to $199,999 • $200,000 to $299,999 • $300,000 to $399,999 • $400,000 to $499,999 • $500,000+
Entry year[50]	• Yearly from 2024 through 2099 • Reflects current population and new entrants from births or immigration

5.2. Assumptions

This section details assumptions underlying the Actuarial Analysis. Assumptions are grouped into four categories:

- **Demographic assumptions**: assumptions related to the projection of the California population (e.g., birth rates)
- **Economic assumptions**: assumptions related to economic variables (e.g., wage inflation)
- **Actuarial assumptions**: assumption related to other uncertain variables required to calculate Program revenues and benefits (e.g., mortality)
- **Investment assumptions**: assumptions related to the Program investments (e.g., investment returns)

Unless otherwise specified, the assumptions and approaches outlined below apply to both the baseline scenario and alternative financial scenarios.

5.2.1. Demographic assumptions

Demographic assumptions are used to estimate changes in the California population over time. The starting California population is increased by the number of births and immigrants and decreased by emigrants and deaths, the latter of which is covered in **Section 5.2.3**.

[49] For modeling purposes, the mid-point of each wage/self-employed income band is assumed as the starting average wage/self-employed income for all individuals within that band, with the exception of the $500,000+ wage/self-employed income band, for which we assume an average starting annual wage/self-employed income of $1,100,000 based on payroll wage data from the California Employment Development Department ("**EDD**").

[50] Population deaths are modeled via mortality assumptions and individuals that exhaust all Program benefits (i.e., claim the maximum available benefits) exit the population via model mechanics.

5.2.1.1. Starting population

The California population as of year-end 2024 was used as the starting point in our model and is based on state population estimates by age, gender, and calendar year from the California DoF's Report P-1C, adjusted per discussions with the California DoF.

5.2.1.2. Birth rate

The number of births in California from 2025 to 2060 are based on projected birth rates from the California DoF's Report P-1C, adjusted per discussions with the California DoF. Birth counts in calendar years 2061 and later are assumed to remain constant at the 2060 level.

5.2.1.3. Migration

Net migration to California for 2025 to 2060 is based on the California DoF's Report P-CC[51], adjusted per discussions with the California DoF. Net migration counts in calendar years 2061 and later are assumed to remain constant at the 2060 level.

The ratio of foreign-to-domestic emigration was provided by the California DoF and kept constant for the entire projection period.

The model does not track the legal status of California immigrants or emigrants.

5.2.2. Economic assumptions

Economic assumptions encompass labor force participation (including Program vesting probabilities), wage levels, and wage inflation. These assumptions influence the Program tax base, anticipated revenue, and expected future benefit payments.

5.2.2.1. Labor force participation

The proportion of individuals in the California labor force relative to the total California population are combined with wage and self-employed income distributions, described in **Section 5.2.2.3**, to determine projected Program contributions. The proportion of individuals in the labor force is based on the Employment Projections in the 2021 Social Security Trustees report[52]. Additionally, the Local Area Unemployment Statistics[53] published by the Bureau of Labor Statistics were used to adjust the labor force participation rate to be California-specific.

Labor force calculations do not consider workers' legal status.

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[51] *Report P-CC: Projected Total Population and Components of Change, 2020-2060*, State of California Department of Finance (https://dof.ca.gov/wp-content/uploads/sites/352/2023/07/P_CC_Components-of-Change.xlsx). For the Actuarial Analysis, we used an earlier iteration of this report given timing constraints. We reviewed the updated population projections and do not expect a material impact to the results; however, it would be prudent to quantitatively confirm this as a next step.

[52] *Employment Projections in the 2021 Social Security Trustees Report*, Polina Vlasenko (https://www.ssa.gov/oact/NOTES/pdf_studies/study126.pdf).

[53] *States and selected areas: Employment status of the civilian noninstitutional population, January 1976 to date, seasonally adjusted,* Bureau of Labor Statistics (https://www.bls.gov/web/laus/ststdsadata.txt).

5.2.2.2. Vesting criteria

To estimate the proportion of Californians that satisfy partial or full vesting criteria, we developed a vesting assumption by Program entry age and number of Program years using the 2006 Social Security Earnings Public-Use Microdata file[54].

We assume that Program participants must work at least 500 hours per year to satisfy the vesting criteria.

5.2.2.3. Wages

Starting wage and self-employed income distributions are based on data from 2017 to 2022 from the California DoF.

Two components of wage inflation are modeled, as follows:

- **Career progression inflation**: Captures the general trend for an individual's salary to increase over time as they progress through their career. This component of wage inflation was developed based on an assessment of the change in average wages and self-employed income by age band using (a) California wage and self-employed income distributions from 2022 and (b) projected California wage and self-employed income distributions as of 2027, both of which were provided by the California DoF.
- **Calendar year inflation**: Captures the general trend for wages to track with annual inflation. The following calendar year inflation rates are assumed for modeling:
  - 2025: 2.90% per annum
  - 2026+: 2.50% per annum

The Program contribution cap and contribution waiver/exclusion thresholds are assumed to inflate over time consistent with the calendar year wage inflation assumption.

5.2.2.4. Program benefit inflation

The Task Force recommended that Program benefit increases be based on a CPI but did not define a specific CPI source for this assessment as part of the Feasibility Report. For modeling purposes, we assume benefits are increased annually by 2.5%, based on historical trends in CPI observed from multiple sources[55].

[54] *Earning Public-Use File, 2006,* Social Security Administration Research, Statistics, and Policy Analysis (https://www.ssa.gov/policy/docs/microdata/epuf/index.html).

[55] CPI sources include U.S. Bureau of Labor Statistics (CPI-U, CPI-U: Nursing homes and adult day services in U.S. city average, all urban consumers, and CPI-U: Care of invalids and elderly at home in U.S., city average, all urban consumers), Bureau of Economic Analysis (Personal Consumption Expenditures), and California's Department of Industrial Relations (https://www.dir.ca.gov/oprl/CPI/EntireCCPI.PDF).

5.2.3. Actuarial assumptions

Actuarial assumptions for mortality and morbidity determine the California population expected to receive Program benefits. We used pre-COVID-19 experience to develop our actuarial assumptions, without adjustments for short-term or long-term effects from the pandemic[56].

5.2.3.1. Mortality

Mortality is the probability that an individual will die and is assumed to differ for individuals that are healthy ("active mortality") versus disabled ("on-claim mortality"). Aggregate mortality for both healthy and disabled individuals is referred to as "total mortality".

5.2.3.1.1. Total mortality

California total mortality rates are based on the Centers for Disease Control and Prevention 2019 California life tables[57] and used in conjunction with our on-claim mortality assumption to derive active mortality rates.

To assess reasonableness of the total mortality rates implied by our on-claim mortality and derived active mortality assumptions, projected lives by calendar year were compared to California population projections provided by the California DoF.

5.2.3.1.2. On-claim mortality

On-claim mortality rates were developed based on Oliver Wyman's proprietary LTC intercompany experience data.

Because the recommended benefit eligibility criteria for the Program is the same as that used for private LTC insurance, we assume that once a Program enrollee satisfies the benefit eligibility criteria, their on-claim mortality experience will be similar to that for private LTC insureds.

5.2.3.1.3. Active mortality

Active mortality rates were derived based on the differential between California total mortality rates and Oliver Wyman's assumption for on-claim mortality rates. To assess reasonableness, we benchmarked the resulting active mortality rates against Oliver Wyman's proprietary LTC intercompany experience data as well as various industry sources, including the Society of Actuaries ("**SOA**") and LIMRA Individual LTC Policy Persistency Study (2000-2016) and the SOA 2012 Individual Annuity Mortality table.

[56] Recent LTC experience is trending back to pre-COVID levels and short-term effects of the pandemic are believed to be worn off or immaterial to Program projections. While there could be long-term COVID impacts, we still do not have enough data to support assumption adjustments.

[57] *Table CA-1. Life table for the total population: California, 2019,* Centers for Disease Control and Prevention (https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/70-18/).

5.2.3.1.4. Mortality improvement

Mortality improvement is assumed to apply throughout the entire projection period and is based on the SOA Mortality Improvement Scale MP-2021.

5.2.3.2. Morbidity

Morbidity is comprised of three primary components: claim incidence, claim recovery, and benefit utilization. Claim incidence is the probability that a healthy individual will become disabled[58]; claim recovery is the probability that a disabled individual will become healthy; and benefit utilization is the percentage of Program benefits expected to be used by a disabled individual relative to the maximum amount allowable in a given period.

5.2.3.2.1. Claim incidence

Claim incidence rates were developed based on Oliver Wyman's proprietary LTC intercompany experience data. Adjustment factors were applied to capture anticipated differences between LTC insureds and the general California population that will participate in the Program. These adjustment factors were developed using a variety of data sources, including general population prevalence studies.

For Designs 4 and 5, claim incidence rates were increased to capture the impact of offering a shared benefit pool for spouses and domestic partners[59].

Adverse selection factors were also applied to capture the anticipated morbidity impact of Program opt-outs by individuals with eligible private insurance. Because individuals generally have to undergo some degree of underwriting to qualify for private insurance, we expect individuals who opt out of the Program to be relatively healthier than those who remain in the Program. This adverse selection is expected to wear off over time given the fixed opt-out window.

No morbidity improvement is assumed.

5.2.3.2.2. Claim recovery

Claim recovery rates were developed based on Oliver Wyman's proprietary LTC intercompany experience data.

[58] For the purpose of our assumptions, an individual is assumed to be disabled once they meet the Program's benefit eligibility criteria, regardless of their vesting status; however, Program benefits are only paid to vested individuals. To be eligible for Program benefits, individuals must be certified by a licensed health care practitioner as (i) being unable to perform (without substantial assistance from another individual) at least 2 ADLs for a period of at least 90 days due a loss of functional capacity or (ii) requiring substantial supervision to protect such individual from threats to health and safety due to severe cognitive impairment. The six standard ADLs include bathing, dressing, toileting, transferring, continence, and eating.

[59] Under Designs 4 and 5, vested individuals can only share Program benefits if their spouse or domestic partner is not otherwise enrolled or covered under the Program.

Because the recommended benefit eligibility criteria for the Program is the same as that used for private LTC insurance, we assume that once a Program enrollee satisfies the benefit eligibility criteria, their claim recovery experience will be similar to that for private LTC insureds.

5.2.3.2.3. Benefit utilization

Initial benefit utilization levels were developed using Genworth's Cost of Care surveys from 2012 to 2021, historical CPI information[60], and Oliver Wyman's proprietary LTC intercompany experience data. The initial benefit utilization levels are projected by calendar year based on the relationship between assumed Program benefit inflation and anticipated cost of care inflation.

Separate benefit utilization assumptions were developed for care received in California, outside of California but within the U.S., and internationally.

Utilization is not assumed to vary for those with full Program benefits and those who qualify for reduced Program benefits, either from the intergenerational equity provision or partial vesting.

5.2.3.3. Program opt-out elections

The proportion of Californians who opt out of the Program was developed using actuarial judgment and benchmarked against publicly available information on the number of individuals that opted out of the WA Cares Fund via the private insurance exemption. The opt-out assumption is intended to be agnostic of the specific definition of eligible private insurance that would qualify for the Program's opt-out provision, which is not yet determined.

We also considered the potential value proposition (benefits relative to premiums) of each recommended Program design relative to the value proposition of private insurance. If the value proposition of private insurance far outweighs that of the Program, this may incentivize individuals to purchase private insurance and opt out. As mentioned above, the definition of eligible private insurance that would qualify for the Program's opt-out provision is not yet determined, so illustrative LTC insurance policies were used in this assessment[61]. For additional detail on next steps related to the Program opt-out provision, refer to **Appendix D**.

5.2.3.4. Administrative expenses

Administrative expenses for the Program were developed based on our high-level review of other government programs and programs offering LTC benefits, including Social Security, Medicare, Medicaid, CalPERS Long Term Care Insurance Program, and private LTC insurance.

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[60] CPI sources include U.S. Bureau of Labor Statistics (CPI-U, CPI-U: Nursing homes and adult day services in U.S. city average, all urban consumers, and CPI-U: Care of invalids and elderly at home in U.S., city average, all urban consumers), Bureau of Economic Analysis (Personal Consumption Expenditures), and California's Department of Industrial Relations (https://www.dir.ca.gov/oprl/CPI/EntireCCPI.PDF).

[61] For this analysis, we focused on traditional (stand-alone) LTC products, but other private insurance products could also cover LTSS benefits, including combination LTC products (i.e., products that combine traditional LTC coverage with life insurance or annuity products), chronic illness riders, and short-term care insurance. Short-term care insurance is not sold in California as it is not differentiated from LTC.

Separate expense loads are assumed to apply to Program tax revenue and Program benefits, with the benefit loads varying for benefits administered in California, outside California but within the U.S., and internationally.

Exhibit 5.2 summarizes the baseline Program administrative expense loads.

Exhibit 5.2: Baseline administrative expense assumptions

Expense basis	Expenses as a percentage of Program tax revenue	Expenses as a percentage of Program benefits
California	3.00%	5.00%
Outside California but within U.S.	3.00%	6.00%
International	3.00%	6.75%

Given uncertainty around Program administration, expenses do not vary by Program design option or calendar year; however, simpler Program designs may be less costly to administer and Program expenses may be higher in earlier calendar years due to implementation costs. For additional detail on the next steps recommended by the Task Force regarding Program administration, refer to **Appendix D**.

5.2.4. Investment assumptions

Investment assumptions influence the investment income earned on the Program Fund Balance. The Task Force recommended investing the Program Fund Balance in U.S. Treasuries, bonds, stocks, and other equities[62]. Implementing this recommendation requires an amendment to the California state constitution, so we also assessed two alternative scenarios:

- Investment in only U.S. Treasuries
- Investment in U.S. Treasuries and California municipal bonds

A constitutional amendment would not be necessary under either of these alternative scenarios.

In developing our investment strategies, we performed a high-level assessment of asset and liability durations but did not implement strict asset-liability duration matching given the long duration of liabilities borne by the Program.

5.2.4.1. Asset allocation

Exhibit 5.3 summarizes the asset allocation assumptions for baseline modeling and the two investment-related alternative financial scenarios.

[62] The California Constitution (specifically Article XVI, Section 17) currently only allows for investment in U.S. Treasuries and California municipal bonds, so a constitutional amendment would be required to facilitate this recommendation.

Bonds, including California municipal bonds, are assumed to be Corporate A-rated.

For the "U.S. Treasuries and California municipal bonds" alternative scenario, a 25% allocation in California municipal bonds was confirmed to be feasible based on the volume of California municipal bonds available in the market.

Exhibit 5.3: Baseline and alternative scenario asset allocation assumptions

Asset category	Baseline scenario	Alternative scenario: only U.S. Treasuries	Alternative scenario: U.S. Treasuries and California municipal bonds
Bonds[63]	**85.00%**	**0.00%**	**25.00%**
3-year	4.25%	0.00%	0.00%
5-year	4.25%	0.00%	0.00%
10-year	17.00%	0.00%	7.50%
20-year	34.00%	0.00%	10.00%
30-year	25.50%	0.00%	7.50%
U.S. Treasuries	**0.00%**	**100.00%**	**75.00%**
3-year	0.00%	5.00%	5.00%
5-year	0.00%	5.00%	5.00%
10-year	0.00%	20.00%	12.50%
20-year	0.00%	40.00%	30.00%
30-year	0.00%	30.00%	22.50%
Equities	**15.00%**	**0.00%**	**0.00%**

For the investment assumption sensitivities, the proportion of bonds by maturity is similar to that for the baseline scenario.

5.2.4.2. Investment expenses

Investment expenses are assumed to be 0.10% of asset market value per annum based on industry benchmarks. Investment expenses do not apply for U.S. Treasuries and California municipal bonds. While we expect that there will be management costs associated with U.S. Treasuries and California

[63] Bonds refers to corporate A-rated bonds for the baseline scenario and California municipal bonds for the "U.S. Treasuries and California municipal bonds" alternative scenario. Nearly all outstanding California municipal bonds were observed to have a credit rating of A or higher.

municipal bonds, these management fees are anticipated to be de-minimis given the availability of direct purchase channels and a very thin liquidity spread resulting from large trading volumes.

5.2.4.3. Credit spreads

Credit spreads are relative to U.S. Treasuries and were developed from an Oliver Wyman study of credit spread data from 1999 to 2022 (excluding the outlier spread between October 2007 and June 2009). Credit spreads do not apply to the U.S. Treasury-only investment strategy.

Exhibit 5.4 summarizes our assumed credit spreads in bps. These credit spreads apply to both Corporate A-rated bonds and California municipal bonds.

Exhibit 5.4: Credit spread assumption

Bond maturity	Credit spread
3-year	94 bps
5-year	107 bps
10-year	129 bps
20-year	149 bps
30-year	147 bps[64]

5.2.4.4. Asset defaults

Based on an Oliver Wyman study, we assume an annual asset default rate of 0.13% for the modeled bond portfolio. Asset defaults do not apply to equities or U.S. Treasuries.

Nearly all outstanding California municipal bonds were observed to have a credit rating of A or higher. Thus, a 0.13% asset default rate was likewise assumed. We did not consider elements of financial contagion (i.e., the potential interdependency of a financial crisis in California impacting the solvency of the Program if the Program Fund Balance is invested in California municipal bonds).

5.2.4.5. Equity returns

Equities are assumed to return 10% per annum based on historical average S&P 500 returns.

[64] For A-rated corporate bonds, spreads for the 20-year tenor were consistently higher than spreads for the 30-year tenor from 2009 to 2022, likely driven by lower issue and trading volume on the 20-year tenor.

6. Distribution and use

Oliver Wyman was commissioned by the CDI to provide support associated with assessing the feasibility of developing and implementing a culturally competent statewide insurance program for LTSS. The primary audience for this report includes stakeholders from the CDI (including the Insurance Commissioner), members of the AB 567 Long Term Care Insurance Task Force, the Governor of California, the California Legislative Assembly, and members of the general public within the state of California.

Oliver Wyman shall not have any liability to any third party in respect of this report or any actions taken or decisions made as a consequence of the results, advice or recommendations set forth herein.

Recommendations contained in this report are those of the AB 567 Long Term Care Insurance Task Force (including both current and past members). Oliver Wyman is neither a member of the Task Force nor allowed to vote on issues associated with AB 567.

7. Reliances and limitations

The opinions expressed herein are valid only for the purpose stated herein and as of the date hereof. Information furnished by others, upon which all or portions of this report are based, is believed to be reliable but has not been verified. No warranty is given as to the accuracy of such information. Public information and industry and statistical data are from sources Oliver Wyman deems to be reliable; however, Oliver Wyman makes no representation as to the accuracy or completeness of such information and has accepted the information without further verification. No responsibility is taken for changes in market conditions or laws or regulations and no obligation is assumed to revise this report to reflect changes, events or conditions, which occur subsequent to the date hereof.

As between Oliver Wyman and the CDI, all decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the CDI. This report does not represent investment advice, nor does it provide an opinion regarding the fairness of any transaction to any and all parties.

The findings contained in this report contain predictions based on current data and historical trends. Any such predictions are subject to inherent risks and uncertainties. Oliver Wyman accepts no responsibility for actual results or future events.

The opinions expressed in this report are valid only for the purpose stated herein and as of the date of this report. No obligation is assumed to revise this report to reflect changes, events or conditions, which occur subsequent to the date hereof.

For our analysis, we relied on publicly available data and information, including information provided by the DoF and DHCS. Though we have reviewed the data for reasonableness and consistency, we have not independently audited or otherwise verified this data. Our review of data may not always reveal imperfections or inaccuracies. We have assumed that the data provided is both accurate and complete. The results of our analysis are dependent on this assumption. If this data or information is inaccurate or incomplete, our findings and conclusions might therefore be unreliable.

Where historical data was either (i) not available, (ii) not appropriate or (iii) not sufficiently credible to develop our actuarial assumptions, we supplemented it with external information, as we deemed appropriate. Although we believe these external sources may be more predictive of future experience than any other data of which we are aware, the use of external data adds to the uncertainty associated with our projections.

We developed our conclusions based on an analysis of data and on the estimation of the outcome of many contingent events. We developed our estimates from historical experience, with adjustments for anticipated changes. Our estimates make no provision for extraordinary future emergence of new types of losses not sufficiently represented in historical databases or which are not yet quantifiable.

The sources of uncertainty affecting our estimates are numerous and include both internal and external factors. Internal factors include items such as changes in provider reimbursement and claims adjudication practices. The most significant external influences include, but are not limited to,

changes in the legal, social, or regulatory environment, and the potential for emerging diseases. Uncontrollable factors such as general economic conditions also contribute to the variability.

While this analysis complies with applicable Actuarial Standards of Practice, users of this analysis should recognize that our projections involve estimates of future events and are subject to economic and statistical variations from expected values. We have not anticipated any extraordinary changes to the regulatory, legal, social, or economic environment or the emergence of new diseases or catastrophes that might affect our results. For these reasons, we provide no assurance that the emergence of actual experience will correspond to the projections in this analysis. Any changes in these external factors could have a material impact on the analysis. Even without a change in the environments relative to expected and the parameters around them, experience will vary from expected due to normal random fluctuations.

This report is considered a Statement of Actuarial Opinion under the guidelines promulgated by the American Academy of Actuaries. Dustin Plotkin and Stephanie Moench of Oliver Wyman developed this report and meet the qualification requirements of the American Academy of Actuaries to render the opinion contained herein.

Appendix A. Glossary of terms

The following list contains the definition of all abbreviations and select terms contained in this report:

AB: Assembly bill

Actuarial Analysis: Actuarial analysis to assess the cost and viability of the Program recommendations made by the AB 567 Task Force

ADC: Adult day care

ADLs: Activities of daily living

bps: Basis points

CBAS: Community-Based Adult Services

CDA: California Department of Aging

CDI: California Department of Insurance

CMS: Centers for Medicare and Medicaid Services

Contribution Rate: Level tax rate applied to payroll or self-employed income to finance Program benefits

CPI: Consumer Price Index

DHCS: California Department of Health Care Services

DoF: California Department of Finance

EDD: California Employment Development Department

EP: Elimination period

ESG: Environmental, Social, and Corporate Governance

FMAP: Federal medical assistance percentage

FPL: Federal Poverty Level

HCBS: Home and community-based services

IHSS: California's In-Home Supportive Services Program

LTC: Long-term care

LTSS: Long-term services and supports

MAGI: Modified Adjusted Gross Income

Medi-Cal: California's Medicaid Program

MSSP: Multipurpose Senior Services Program

NIER: Net investment earned rate

PACE: California's Program for All-Inclusive Care for the Elderly

PFL: California's Paid Family Leave Program

PMPM: Per-Member-Per-Month

Program: Culturally competent statewide long-term care insurance program in California that is being explored per AB 567

Program Fund Balance: Cumulative Program revenues (tax contributions and investment income) less cumulative Program expenditures (benefits paid and administrative expenses) at a given date

RCF: Residential care facility (including, but not limited, to residential care facilities for the elderly)

SNF: Skilled nursing facility

SOA: Society of Actuaries

Task Force: 15-member Long Term Care Insurance Task Force established by AB 567 to explore the feasibility of developing and implementing a culturally competent statewide insurance program for long-term care services and supports in California

Appendix B. Feasibility Report Supplement

As a next step in the Feasibility Report, the Task Force recommended several alternative scenarios be quantified as part of the Actuarial Analysis to understand the financial impact of certain Program design choices. With Program affordability and sustainability in mind, these alternative scenarios informed targeted refinements to the Task Force's recommended Program designs.

Following the completion of the preliminary Actuarial Analysis, Oliver Wyman commissioned a questionnaire (i.e., survey) to independently collect Task Force and public recommendations for potential Program design changes. The questionnaire was followed by a group discussion between the Task Force and public to align on refinements to the five Program designs along with next steps.

Based on this questionnaire and subsequent discussion, the only change that received prevalent support from the Task Force was to expand Designs 1 through 4 to include international portability. This change results in a de minimis increase to the estimated Contribution Rates (i.e., Contribution Rates increased by 0.5% or less multiplicatively).

Exhibit B.1 summarizes the Contribution Rates for the five revised Program designs (i.e., after expanding Designs 1 through 4 to include international portability). These Contribution Rates were developed using the same methodology and assumptions as described above.

Exhibit B.1: Estimated Contribution Rate by revised Program design

Design	Description	Estimated Contribution Rate
1A	Supportive LTC benefits	**0.60%**
2A	Home care and RCF benefits for older adults	**1.15%**
3A	Lower-range comprehensive LTSS benefits	**0.65%**
4A	Mid-range comprehensive LTSS benefits	**1.60%**
5A	Higher-range comprehensive LTSS benefits	**3.00%**

The Task Force also expressed interest in exploring several additional alternative scenarios (i.e., financial sensitivities) and other analyses as a next step following the completion of this Actuarial Report. The recommended analyses are listed below.

- Calculate the net cost of the Program to the state, inclusive of the fiscal impact on Med-Cal (refer to **Section 4** for an assessment of the potential fiscal impact of the Program on Medi-Cal).
- Assess the impact of removing the shared benefit pool for spouses or domestic partners from Designs 4 and 5.
- Analyze the impact of including coverage for PACE as an approved service under Design 2.
- Quantify the impact of applying the Program contribution waiver to employer contributions.
- Estimate the required Contribution Rates if current retirees participate in the Program (refer to **Section 3.3** for an assessment of the potential Program expenditures for current retirees).

- Quantify the potential cost savings to employers of having a Program (e.g., loss of employee hours as a result of time off for caregiving or people leaving the workforce entirely).

Finally, based on the results of the Actuarial Analysis, we asked the Task Force if they would like to amend their views on the most preferred Program design and other designs they support relative to the preferences they expressed as part of the Feasibility Report. Exhibit B.2 summarizes their amended preferences.

Exhibit B.2: Amended Task Force Program design preferences[65]

Design	Description	Vote counts			
		Preferred design – 1st choice	Preferred design – 2nd choice	Supported design[66]	Total
1	Supportive LTC benefits	0	1	1	2
2	Home care and RCF benefits for older adults	5	1	2	8
3	Lower-range comprehensive LTSS benefits	1	3	4	8
4	Mid-range comprehensive LTSS benefits	3	1	2	6
5	Higher-range comprehensive LTSS benefits	1	2	1	4

In addition to the Task Force, numerous members of the public participated in the Actuarial Analysis process by sharing their perspectives at Task Force and Actuarial Subcommittee meetings, responding to questionnaires, and providing written commentary to the CDI and Task Force.

As acknowledgment and appreciation for the public's continued participation in this process, we asked members of the public to select their most preferred and supported Program designs, similar to our ask of the Task Force. We received five responses from the public, which are summarized in Exhibit B.3 below.

[65] Counts do not add up to 15 because Task Force members from CDA, CDI, and DHCS were absolved from providing a recommendation and one additional Task Force member was unable to vote. The total vote count is out of a maximum possible vote count of 11.

[66] The "supported design count" does not include any Task Force members who selected the design as either their first or second most preferred options.

Exhibit B.3: General public Program design preferences

Design	Description	Vote counts			
		Preferred design – 1st choice	Preferred design – 2nd choice	Supported design[67]	Total
1	Supportive LTC benefits	1	0	0	1
2	Home care and RCF benefits for older adults	1	2	0	3
3	Lower-range comprehensive LTSS benefits	3	0	0	3
4	Mid-range comprehensive LTSS benefits	0	0	2	2
5	Higher-range comprehensive LTSS benefits	0	0	1	1

[67] The "supported design count" does not include any public members who selected the design as either their first or second most preferred options.

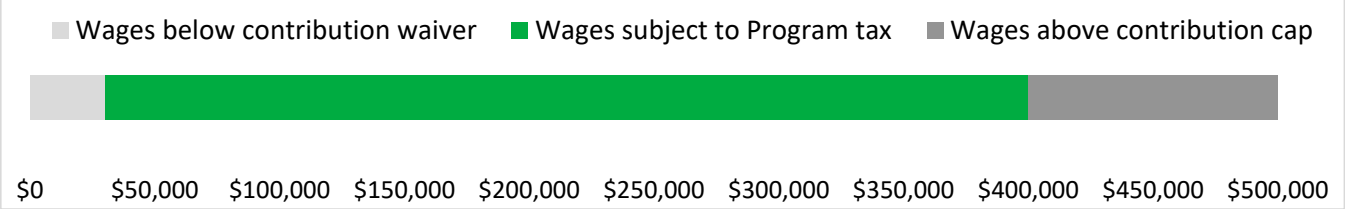
Appendix C. Detailed results

C.1. Illustrative annual contributions

For baseline modeling, we assumed that annual contributions are split 50%/50% between employees and employers, with no contribution caps or contribution waivers applied to the employer portion.

Exhibit C.1 illustrates how the Program contribution cap and contribution waiver would apply to employees' wages/self-employed income. The baseline modeling assumption is that contributions are waived on income below $30,000 and above $400,000, with the exception of Design 4, which does not have a contribution cap.

Exhibit C.1: Application of Program contribution cap and waiver for employees



Exhibits C.2 through C.4 illustrates the employee and employer share of contributions under each of the five Program designs using illustrative annual wages of $50,000, $100,000, and $500,000, respectively. These illustrations assume the baseline Contribution Rate shown above in Exhibit 3.1 of **Section 3.1.1**.

Self-employed individuals would pay the entire Contribution Rate subject to the Program contribution cap and contribution waiver (i.e., twice the employee contribution, not the sum of the employee and employer contributions, in the exhibits below).

Exhibit C.2: Estimated annual contribution for $50,000 annual wage

Design	Description	Employee contribution	Employer contribution
1	Supportive LTC benefits	$60	$150
2	Home care and RCF benefits for older adults	$115	$288
3	Lower-range comprehensive LTSS benefits	$65	$163
4	Mid-range comprehensive LTSS benefits	$160	$400
5	Higher-range comprehensive LTSS benefits	$300	$750

Exhibit C.3: Estimated annual contribution for $100,000 annual wage

Design	Description	Employee contribution	Employer contribution
1	Supportive LTC benefits	$210	$300
2	Home care and RCF benefits for older adults	$403	$575
3	Lower-range comprehensive LTSS benefits	$228	$325
4	Mid-range comprehensive LTSS benefits	$560	$800
5	Higher-range comprehensive LTSS benefits	$1,050	$1,500

Exhibit C.4: Estimated annual contribution for $500,000 annual wage

Design	Description	Employee contribution	Employer contribution
1	Supportive LTC benefits	$1,110	$1,500
2	Home care and RCF benefits for older adults	$2,128	$2,875
3	Lower-range comprehensive LTSS benefits	$1,203	$1,625
4	Mid-range comprehensive LTSS benefits	$3,760	$4,000
5	Higher-range comprehensive LTSS benefits	$5,550	$7,500

C.2. Program Fund Balance projections

Exhibit C.5 summarizes the projected Program Fund Balance by calendar year for each baseline Program design. The Program Fund Balance at a given date is calculated as cumulative Program revenues (i.e., tax contributions and investment returns) less cumulative Program expenditures (i.e., benefit payments and administrative expenses). For the Actuarial Analysis, Contribution Rates were set to achieve zero ending Program Fund Balance after the 75-year projection period (i.e., as of December 31, 2099).[68]

Exhibit C.5: Program Fund Balance by design, baseline scenario ($ billions)

Calendar year	Design 1	Design 2	Design 3	Design 4	Design 5
2025	$5.7	$9.9	$5.3	$12.8	$23.6
2026	11.9	20.9	11.2	26.9	49.8
2027	18.6	32.8	17.5	42.3	78.1
2028	25.2	45.1	24.1	58.1	106.7
2029	31.9	58.5	31.3	75.5	137.6
2030	39.2	73.1	39.0	94.0	170.6
2031	46.6	88.7	47.1	113.7	205.4
2032	54.3	105.2	55.6	134.4	241.9
2033	61.9	122.3	64.3	155.5	278.8
2034	70.0	140.6	73.5	177.9	317.8
2035	78.4	160.2	83.2	201.7	358.8
2036	87.1	180.7	93.4	226.5	401.3
2037	96.1	202.2	103.9	252.3	445.0
2038	105.0	224.0	114.4	278.1	488.2
2039	114.2	246.8	125.2	305.0	532.4
2040	123.7	270.5	136.4	332.8	577.5
2041	133.3	294.8	147.7	361.0	622.7
2042	143.1	319.4	159.0	389.5	667.6
2043	152.5	343.5	169.9	417.0	710.3
2044	162.1	367.7	180.7	444.4	752.5
2045	171.8	392.2	191.3	471.8	794.2
2046	181.5	416.3	201.9	499.0	834.6
2047	191.1	440.5	212.4	526.0	874.8
2048	200.3	463.8	222.4	552.0	912.9
2049	209.7	487.3	232.4	578.0	951.3

[68] Small variances from 0 in ending Program Fund Balance in year 2099 are due to rounding precision.

Calendar year	Design 1	Design 2	Design 3	Design 4	Design 5
2050	$219.2	$511.3	$242.3	$604.2	$990.3
2051	228.6	535.3	252.2	630.2	1,029.0
2052	238.1	559.2	261.8	655.9	1,067.7
2053	247.0	582.0	270.8	680.2	1,104.3
2054	256.1	604.9	279.8	704.6	1,141.3
2055	265.4	628.3	288.8	729.1	1,179.1
2056	274.5	651.8	297.6	753.6	1,217.2
2057	283.7	675.3	306.4	778.0	1,255.6
2058	292.3	697.6	314.5	801.0	1,292.0
2059	301.1	720.1	322.6	824.3	1,329.3
2060	309.9	743.0	330.8	847.9	1,367.7
2061	318.6	766.2	339.0	871.6	1,406.6
2062	327.3	789.4	347.1	895.4	1,446.2
2063	335.3	811.3	354.6	917.7	1,483.4
2064	343.4	833.3	362.1	940.3	1,521.3
2065	351.5	855.8	369.7	963.3	1,560.1
2066	359.4	878.2	377.2	986.2	1,599.1
2067	367.1	900.2	384.7	1,009.0	1,638.1
2068	373.9	920.2	391.2	1,029.7	1,673.3
2069	380.7	939.7	397.7	1,050.3	1,708.5
2070	387.3	959.1	404.1	1,070.6	1,743.5
2071	393.5	977.6	410.2	1,090.3	1,777.6
2072	399.2	994.8	416.0	1,109.2	1,810.4
2073	403.8	1,008.9	420.6	1,124.9	1,837.7
2074	408.0	1,021.6	424.8	1,139.6	1,863.4
2075	411.8	1,033.1	428.6	1,153.2	1,887.2
2076	414.8	1,042.7	431.7	1,164.9	1,908.1
2077	417.0	1,050.0	434.1	1,174.5	1,925.6
2078	417.6	1,053.1	434.7	1,179.5	1,935.0
2079	417.4	1,053.8	434.5	1,181.9	1,940.1
2080	416.3	1,052.1	433.2	1,181.4	1,940.4
2081	413.8	1,047.2	430.6	1,177.1	1,934.3
2082	409.9	1,038.7	426.6	1,168.6	1,921.4
2083	403.8	1,024.6	420.1	1,153.5	1,897.1
2084	396.3	1,006.5	412.0	1,133.7	1,864.9
2085	387.2	984.4	402.1	1,108.9	1,824.5

Calendar year	Design 1	Design 2	Design 3	Design 4	Design 5
2086	$376.1	$957.5	$390.3	$1,078.3	$1,774.5
2087	362.9	925.3	376.3	1,041.5	1,714.4
2088	347.1	886.1	359.5	996.8	1,640.8
2089	329.3	841.1	340.3	945.5	1,556.5
2090	309.1	789.8	318.9	887.4	1,460.8
2091	286.3	732.1	294.9	821.9	1,352.9
2092	260.9	667.5	268.2	748.8	1,232.8
2093	232.5	595.2	238.6	667.2	1,098.5
2094	201.5	515.7	206.3	577.7	951.2
2095	167.7	428.6	171.2	480.0	790.4
2096	130.6	333.7	133.0	373.5	615.1
2097	90.2	230.8	91.8	258.3	425.4
2098	46.7	119.7	47.6	133.9	220.6
2099	0.0	0.0	0.0	0.0	0.0

C.3. Program cash flow projections

Exhibits C.6 through C.10 provide projected Program cash flows by calendar year for the first 25 years of the Program (through 2049) and in 10-year increments thereafter.

Exhibit C.6: Program cash flows for Design 1, baseline scenario ($ billions)

Calendar year	Program revenues		Program expenditures	
	Tax contributions	Investment returns	Benefit payments	Expenses
2025	$5.7	$0.1	$0.0	$0.2
2026	6.0	0.4	0.0	0.2
2027	6.2	0.8	0.0	0.2
2028	6.0	1.2	0.4	0.2
2029	6.3	1.5	0.8	0.2
2030	6.6	1.9	1.0	0.2
2031	6.8	2.3	1.3	0.3
2032	6.9	2.7	1.7	0.3
2033	6.8	3.2	2.0	0.3
2034	7.0	3.7	2.3	0.3
2035	7.3	4.1	2.7	0.4
2036	7.6	4.6	3.1	0.4
2037	7.8	5.1	3.5	0.4
2038	7.6	5.7	4.0	0.4
2039	7.9	6.2	4.4	0.5
2040	8.3	6.7	4.9	0.5
2041	8.5	7.2	5.5	0.5
2042	8.7	7.7	6.1	0.6
2043	8.6	8.1	6.6	0.6
2044	8.9	8.5	7.2	0.6
2045	9.3	8.9	7.8	0.7
2046	9.6	9.3	8.5	0.7
2047	9.9	9.7	9.2	0.8
2048	9.7	10.1	9.8	0.8
2049	10.1	10.5	10.4	0.8
2050-2059	116.2	126.0	139.9	10.8
2060-2069	145.0	163.6	213.4	15.6
2070-2079	177.5	192.4	311.3	21.9
2080-2089	214.2	185.7	457.1	30.9
2090-2099	258.3	93.1	638.6	42.1

Exhibit C.7: Program cash flows for Design 2, baseline scenario ($ billions)

Calendar year	Program revenues		Program expenditures	
	Tax contributions	Investment returns	Benefit payments	Expenses
2025	$10.1	$0.2	$0.0	$0.3
2026	10.6	0.7	0.0	0.3
2027	10.9	1.4	0.0	0.3
2028	10.6	2.0	0.1	0.3
2029	11.2	2.7	0.1	0.3
2030	11.7	3.5	0.3	0.4
2031	12.1	4.4	0.5	0.4
2032	12.5	5.3	0.7	0.4
2033	12.2	6.3	1.0	0.4
2034	12.7	7.3	1.3	0.4
2035	13.3	8.4	1.7	0.5
2036	13.8	9.5	2.2	0.5
2037	14.2	10.7	2.9	0.6
2038	14.0	12.0	3.6	0.6
2039	14.6	13.2	4.4	0.7
2040	15.3	14.5	5.3	0.7
2041	15.8	15.7	6.4	0.8
2042	16.2	17.0	7.7	0.9
2043	16.1	18.0	9.1	1.0
2044	16.8	19.1	10.6	1.1
2045	17.6	20.2	12.2	1.2
2046	18.1	21.2	13.9	1.3
2047	18.7	22.3	15.4	1.4
2048	18.5	23.3	17.0	1.4
2049	19.3	24.3	18.5	1.5
2050-2059	225.3	297.2	269.0	20.8
2060-2069	284.5	397.2	430.7	31.3
2070-2079	348.1	481.3	669.3	46.1
2080-2089	419.7	471.7	1,036.0	68.1
2090-2099	506.6	238.4	1,490.7	95.4

Exhibit C.8: Program cash flows for Design 3, baseline scenario ($ billions)

Calendar year	Program revenues		Program expenditures	
	Tax contributions	Investment returns	Benefit payments	Expenses
2025	$5.4	$0.1	$0.0	$0.2
2026	5.6	0.4	0.0	0.2
2027	5.8	0.7	0.0	0.2
2028	5.7	1.1	0.0	0.2
2029	5.9	1.5	0.0	0.2
2030	6.2	1.9	0.3	0.2
2031	6.4	2.3	0.4	0.2
2032	6.6	2.8	0.6	0.2
2033	6.5	3.3	0.9	0.2
2034	6.8	3.8	1.1	0.3
2035	7.1	4.4	1.4	0.3
2036	7.3	4.9	1.8	0.3
2037	7.5	5.5	2.2	0.3
2038	7.4	6.1	2.7	0.4
2039	7.8	6.7	3.2	0.4
2040	8.1	7.3	3.8	0.4
2041	8.4	7.9	4.5	0.5
2042	8.7	8.5	5.3	0.5
2043	8.6	9.0	6.1	0.6
2044	9.0	9.5	7.1	0.6
2045	9.4	9.9	8.0	0.7
2046	9.7	10.4	8.7	0.7
2047	10.0	10.8	9.5	0.8
2048	10.0	11.2	10.4	0.8
2049	10.4	11.6	11.2	0.9
2050-2059	122.8	137.7	158.2	12.0
2060-2069	157.7	172.8	238.1	17.3
2070-2079	194.7	200.5	334.8	23.7
2080-2089	235.2	193.0	489.1	33.3
2090-2099	283.8	95.6	675.0	44.8

Exhibit C.9: Program cash flows for Design 4, baseline scenario ($ billions)

Calendar year	Program revenues		Program expenditures	
	Tax contributions	Investment returns	Benefit payments	Expenses
2025	$12.9	$0.2	$0.0	$0.4
2026	13.6	1.0	0.0	0.4
2027	14.0	1.7	0.0	0.4
2028	13.6	2.6	0.0	0.4
2029	14.3	3.5	0.0	0.4
2030	15.0	4.5	0.6	0.5
2031	15.5	5.6	1.0	0.5
2032	16.0	6.7	1.4	0.6
2033	15.6	8.0	1.9	0.6
2034	16.3	9.3	2.5	0.6
2035	17.1	10.6	3.2	0.7
2036	17.6	12.0	4.1	0.7
2037	18.2	13.4	5.1	0.8
2038	17.9	14.9	6.1	0.9
2039	18.8	16.4	7.3	0.9
2040	19.6	17.9	8.7	1.0
2041	20.3	19.3	10.2	1.1
2042	21.0	20.8	12.0	1.2
2043	20.9	22.0	14.0	1.3
2044	21.8	23.2	16.1	1.5
2045	22.9	24.4	18.3	1.6
2046	23.6	25.6	20.2	1.8
2047	24.4	26.7	22.2	1.9
2048	24.3	27.8	24.1	2.0
2049	25.4	28.9	26.1	2.1
2050-2059	300.4	346.5	372.1	28.5
2060-2069	386.6	448.6	567.6	41.6
2070-2079	477.1	537.4	824.6	58.2
2080-2089	576.1	530.4	1,258.2	84.7
2090-2099	695.2	267.2	1,790.8	117.2

Exhibit C.10: Program cash flows for Design 5, baseline scenario ($ billions)

Calendar year	Program revenues		Program expenditures	
	Tax contributions	Investment returns	Benefit payments	Expenses
2025	$23.9	$0.4	$0.0	$0.7
2026	25.1	1.8	0.0	0.8
2027	25.9	3.2	0.0	0.8
2028	25.2	4.8	0.7	0.8
2029	26.5	6.5	1.2	0.9
2030	27.8	8.2	2.0	0.9
2031	28.8	10.1	3.1	1.0
2032	29.6	12.1	4.1	1.1
2033	28.9	14.4	5.2	1.1
2034	30.2	16.6	6.6	1.2
2035	31.6	18.9	8.1	1.4
2036	32.7	21.3	10.0	1.5
2037	33.7	23.8	12.2	1.6
2038	33.3	26.2	14.7	1.8
2039	34.8	28.7	17.3	1.9
2040	36.4	31.1	20.3	2.1
2041	37.6	33.5	23.6	2.3
2042	38.9	35.8	27.2	2.6
2043	38.7	37.7	30.9	2.8
2044	40.5	39.6	34.8	3.0
2045	42.5	41.4	38.8	3.3
2046	43.7	43.0	42.8	3.5
2047	45.2	44.7	46.0	3.7
2048	45.0	46.3	49.2	3.9
2049	47.1	47.8	52.4	4.1
2050-2059	557.0	563.2	689.3	52.9
2060-2069	717.6	726.1	990.5	74.0
2070-2079	887.2	878.4	1,430.9	103.1
2080-2089	1,071.9	872.1	2,178.3	149.3
2090-2099	1,293.0	439.7	3,083.8	205.4

C.4. Californians covered under each Program design

Exhibits C.11 through C.15 illustrate the number of Californians anticipated to be covered under each Program design. These exhibits encompass the following four cohorts of Californians:

- **Below age 18**: California residents younger than age 18
- **Exclusions (e.g., current retirees)**: California residents who are retired as of the Program effective date or when they immigrate to California after the Program effective date (for modeling purposes, we assume individuals age 75 or older are retired)
  - For Design 2 only, this cohort also includes California residents age 18 or older who are below the contribution exclusion threshold, which is assumed to be $30,000 (in 2025) for modeling purposes
- **Vesting and age requirements not met**: California residents ages 18 or older who have not satisfied vesting requirements (including those who are unemployed, i.e., not on payroll and not self-employed)
  - For Design 2 only, this cohort also includes California residents less than age 65 who have satisfied vesting requirements but do not meet the benefit eligibility age
- **Vesting and age requirements met**: Program enrollees who have satisfied vesting requirements and meet the benefit eligibility age

Other Californians who may not receive benefits under certain Program designs include:

- Those who move internationally (all designs except Design 5)[69]
- Those who opt out with private insurance (all designs except Design 1)
- Those whose LTC needs require formal home care or facility care (Design 1)
- Those whose LTC needs require care in a SNF (Designs 2 and 3)

[69] As noted in Appendix B, the Task Force recommended that Designs 1 through 4 be expanded to include international portability based on the preliminary actuarial results presented at the September 7, 2023 Task Force Meeting.

Exhibit C.11: Californians covered under Design 1, baseline scenario (in millions)

- Contribution Rate: **0.60%**
- Program initial lifetime maximum benefit amount (2025): **$36,000**
- Proportion of Californian population expected to vest by 2050: **62%** (**23.8 million**)

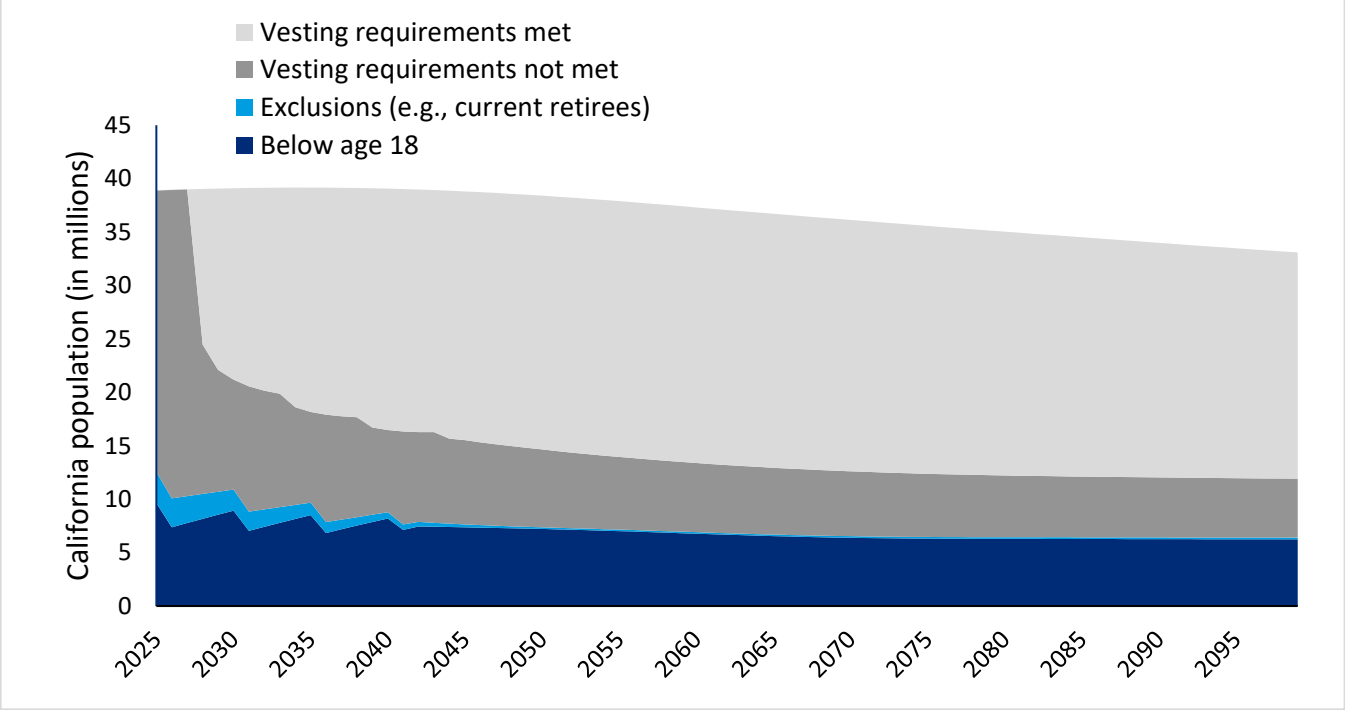
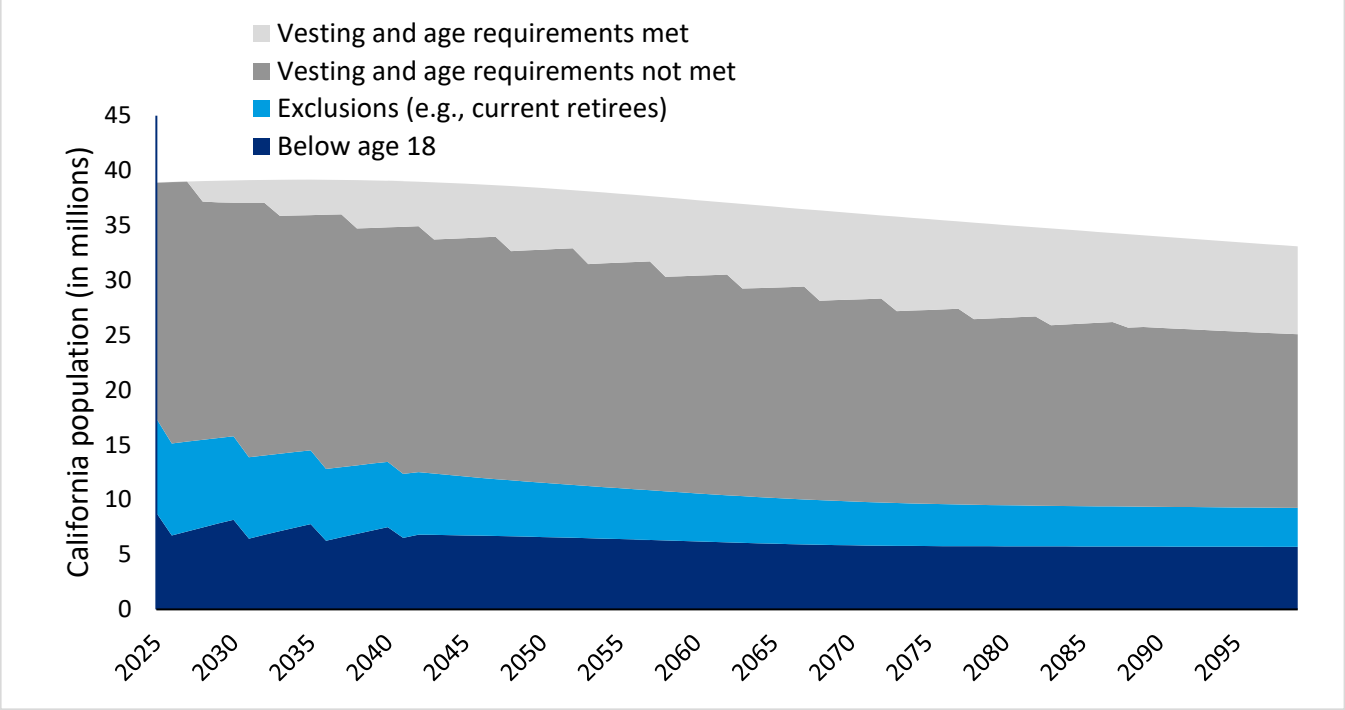


Exhibit C.12: Californians covered under Design 2, baseline scenario (in millions)

- Contribution Rate: **1.15%**
- Program initial lifetime maximum benefit amount (2025): **$110,400**
- Proportion of Californian population expected to vest by 2050: **57%** (**22.0 million**)[70]



[70] Includes Californians who have met vesting requirements regardless of their age; however, individuals are not eligible for benefits until age 65 under Design 2.

Exhibit C.13: Californians covered under Design 3, baseline scenario (in millions)

- Contribution Rate: **0.65%**
- Program initial lifetime maximum benefit amount (2025): **$36,000**
- Proportion of Californian population expected to vest by 2050: **55%** (**21.1 million**)

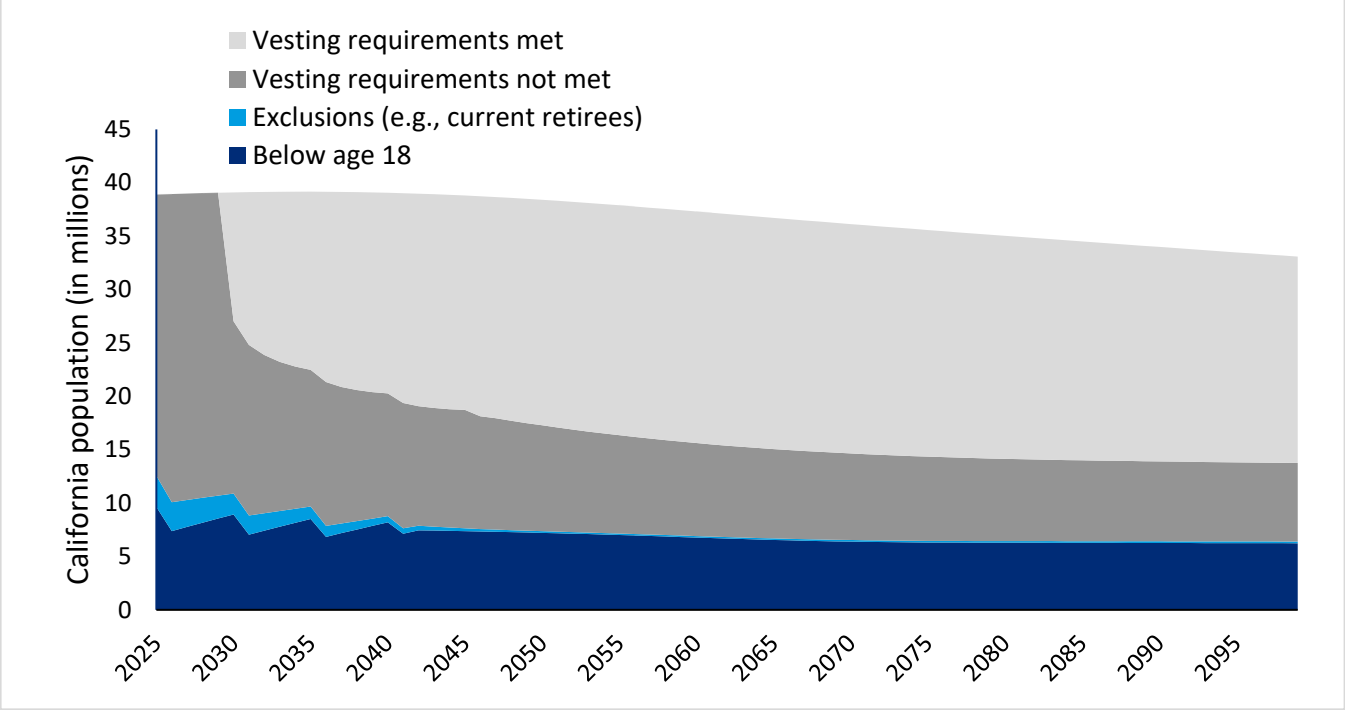


Exhibit C.14: Californians covered under Design 4, baseline scenario (in millions)

- Contribution Rate: **1.60%**
- Program initial lifetime maximum benefit amount (2025): **$81,000**
- Proportion of Californian population expected to vest by 2050: **55%** (**21.1 million**)

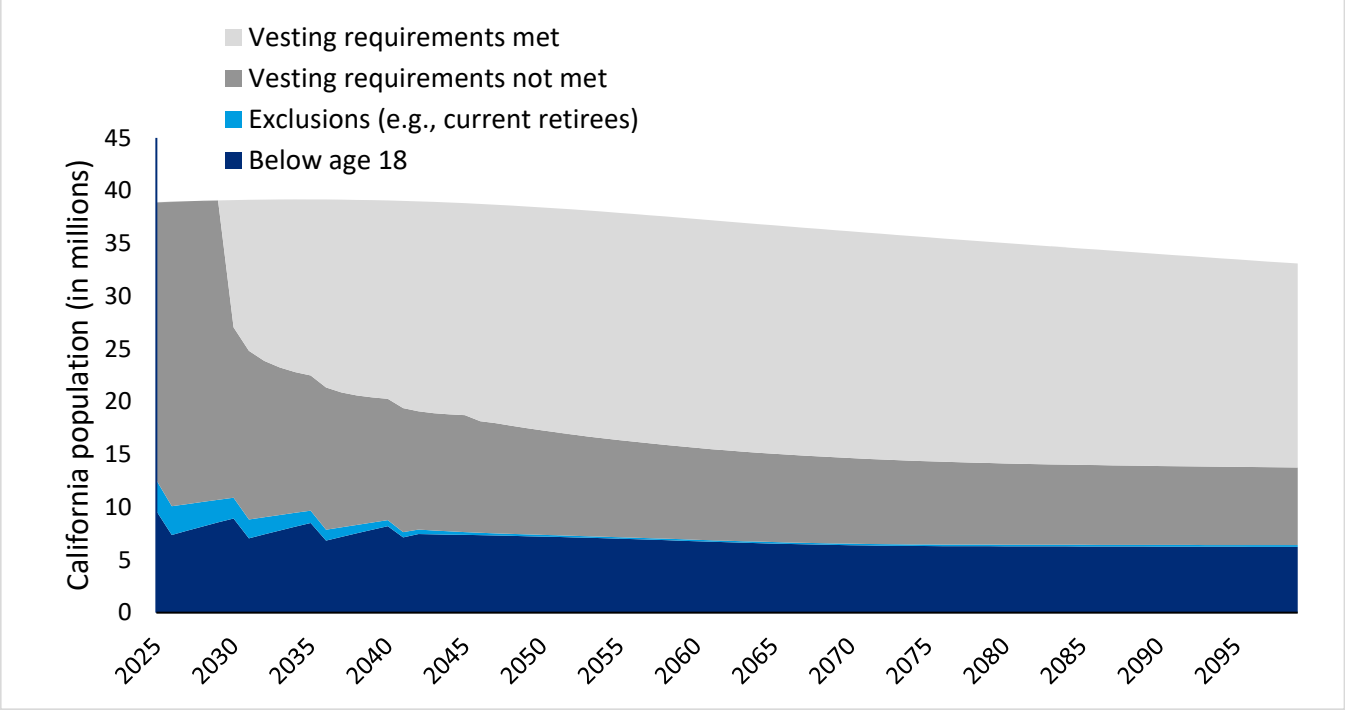
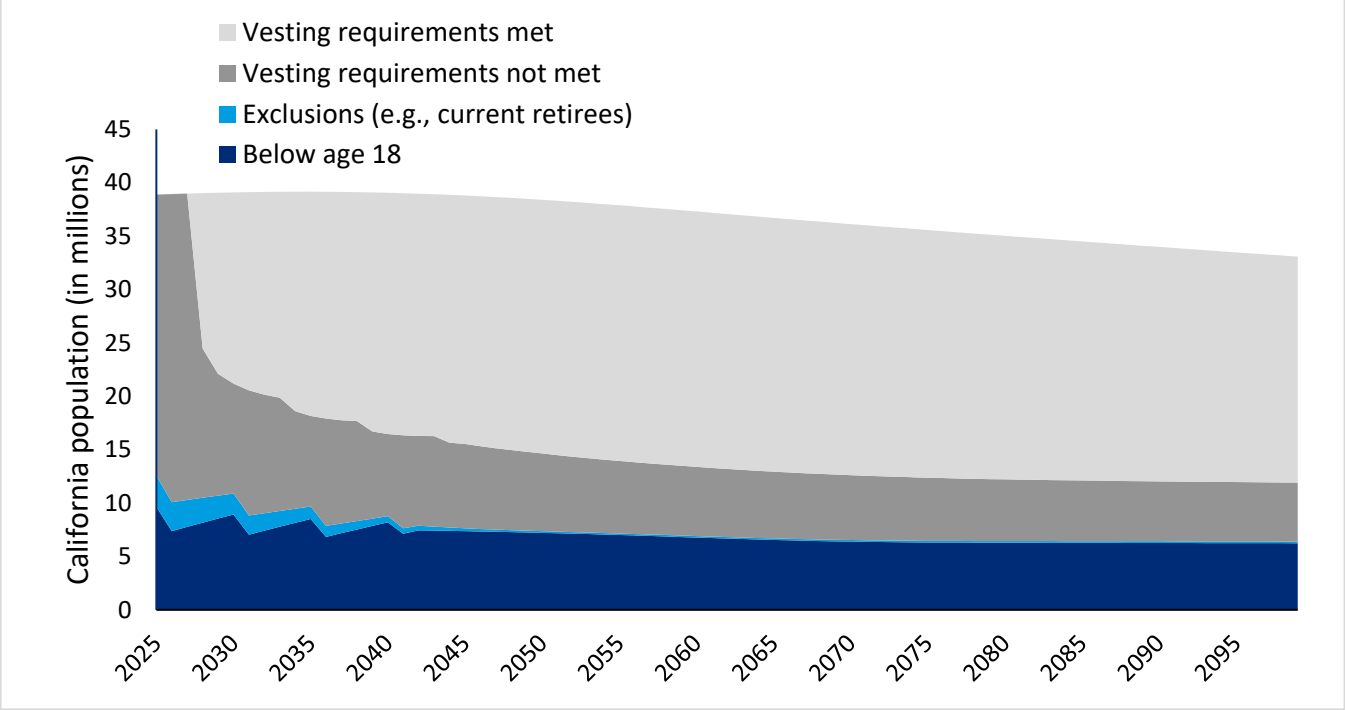


Exhibit C.15: Californians covered under Design 5, baseline scenario (in millions)

- Contribution Rate: **3.00%**
- Program initial lifetime maximum benefit amount (2025): **$144,000**
- Proportion of Californian population expected to vest by 2050: **62%** (**23.8 million**)



C.5. Current retiree expenditure projections

Exhibit C.16 provides projected Program benefits and expenses for current retirees as of the Program effective date, assuming they participate in the Program. Results are shown by calendar year for the first 25 years of the Program (through 2049) and in 10-year increments thereafter.

Exhibit C.16: Program expenditures for current retirees, baseline scenario ($ billions)

Calendar year	Design 1	Design 2	Design 3	Design 4	Design 5
2025	$0.0	$0.0	$0.0	$0.0	$0.0
2026	0.0	0.0	0.0	0.0	0.0
2027	0.0	0.0	0.0	0.0	0.0
2028	1.7	1.2	0.0	0.0	4.5
2029	3.0	2.1	0.0	0.0	5.5
2030	3.0	3.1	2.0	4.5	8.7
2031	3.8	4.9	2.6	5.9	11.3
2032	4.8	5.6	3.1	7.0	12.0
2033	4.8	6.2	3.6	8.0	12.6
2034	4.7	6.8	4.1	9.0	13.1
2035	4.6	7.3	4.6	10.0	13.4
2036	4.5	7.8	4.9	10.8	13.6
2037	4.4	8.3	5.0	10.9	13.6
2038	4.3	8.7	5.0	11.0	13.4
2039	4.1	9.1	5.1	11.0	13.2
2040	3.9	9.3	5.0	10.8	12.7
2041	3.7	9.4	4.9	10.5	12.1
2042	3.5	9.4	4.8	10.2	11.5
2043	3.2	9.4	4.6	9.8	10.8
2044	3.0	9.3	4.4	9.3	10.0
2045	2.7	9.1	4.1	8.7	9.3
2046	2.4	8.8	3.7	7.9	8.5
2047	2.2	8.1	3.2	6.9	7.4
2048	1.9	7.3	2.8	5.9	6.3
2049	1.7	6.5	2.4	5.0	5.3
2050-2059	6.5	25.3	7.8	16.0	17.1
2060-2069	0.2	0.7	0.2	0.3	0.4
2070-2079[71]	0.0	0.0	0.0	0.0	0.0

[71] No Program expenditures are anticipated for current retirees after 2079 given our assumed ultimate age of 120.

C.6. Assumption sensitivity materiality illustrations

Exhibits C.17 through C.21 illustrate the comparative materiality of the assumption sensitivities included in Exhibit 3.9. These illustrations only include the top 25 most material assumption sensitivities, where materiality is defined as the change in the present value of the ending Program Fund Balance and is quantified relative to baseline scenario results.

A handful of sensitivities were analyzed using the U.S. Treasury-only investment strategy. As mentioned above, only investing in U.S. Treasuries generates reduced investment income, which compounds over time, magnifying the impact of the assumption sensitivities relative to results that reflect the baseline investment strategy. These sensitivities are excluded from the illustrations in Exhibits C.17 through C.21 to maintain an apples-to-apples comparison.

Exhibit C.17: Assumption sensitivity impacts for Design 1

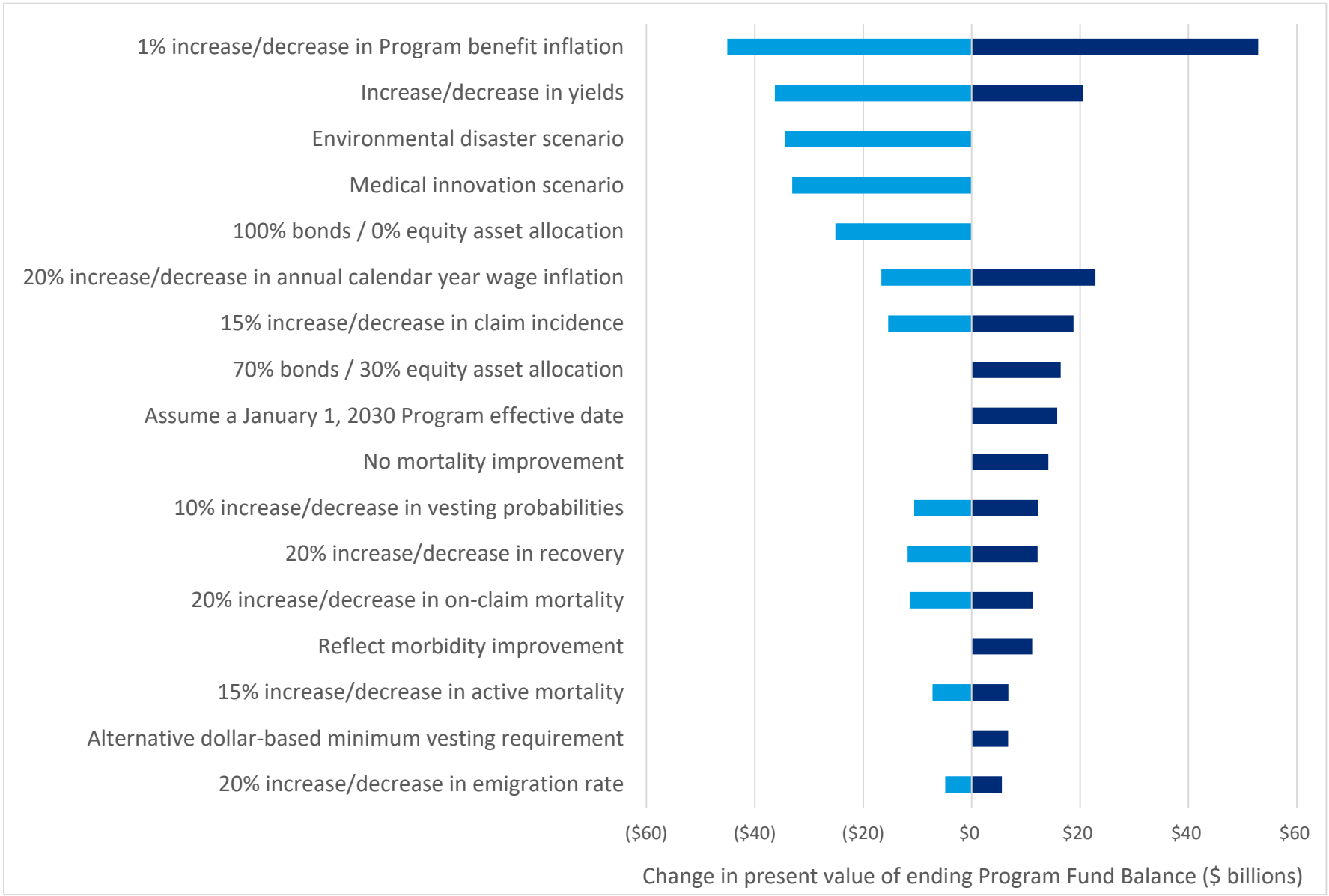


Exhibit C.18: Assumption sensitivity impacts for Design 2

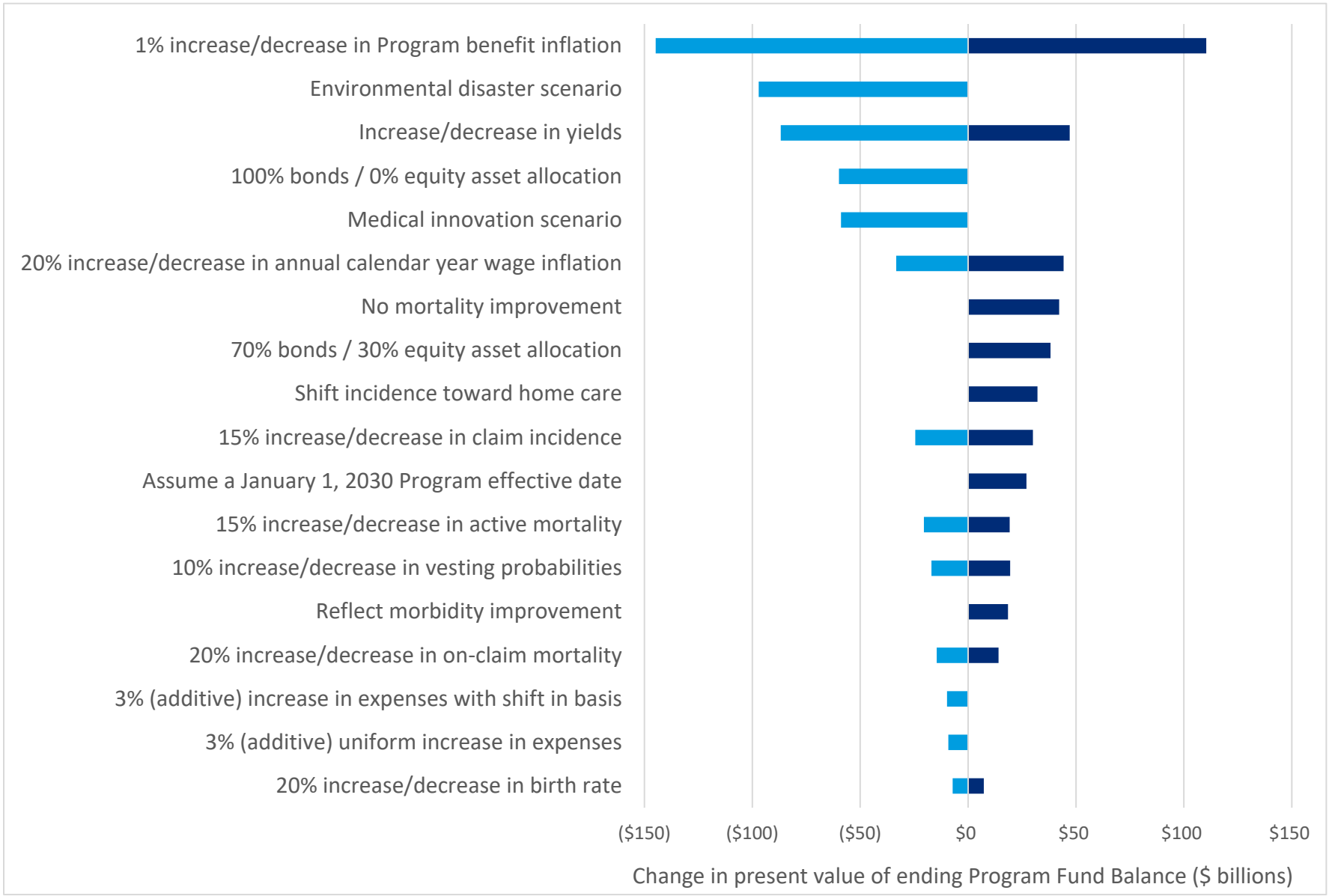


Exhibit C.19: Assumption sensitivity impacts for Design 3

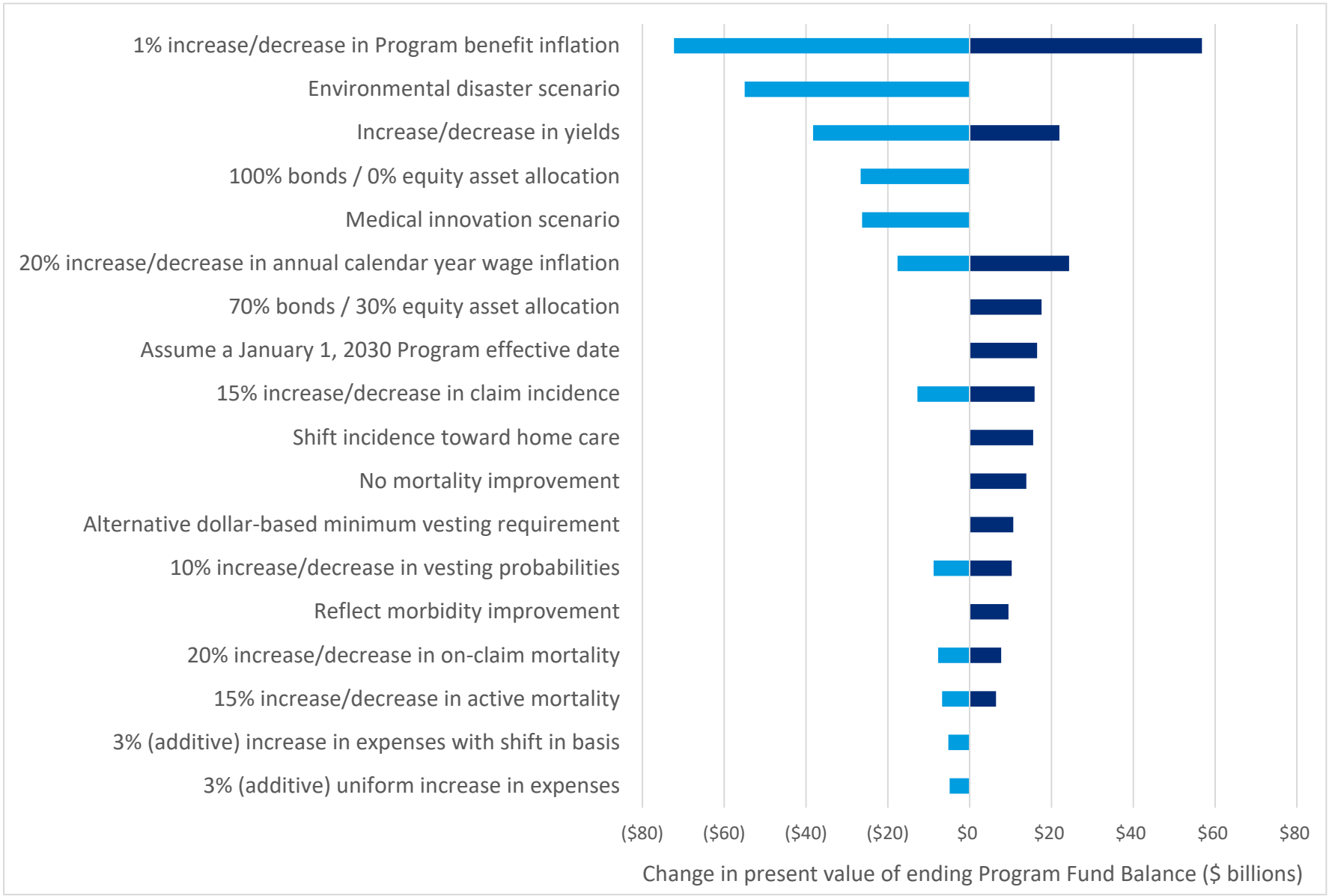


Exhibit C.20: Assumption sensitivity impacts for Design 4

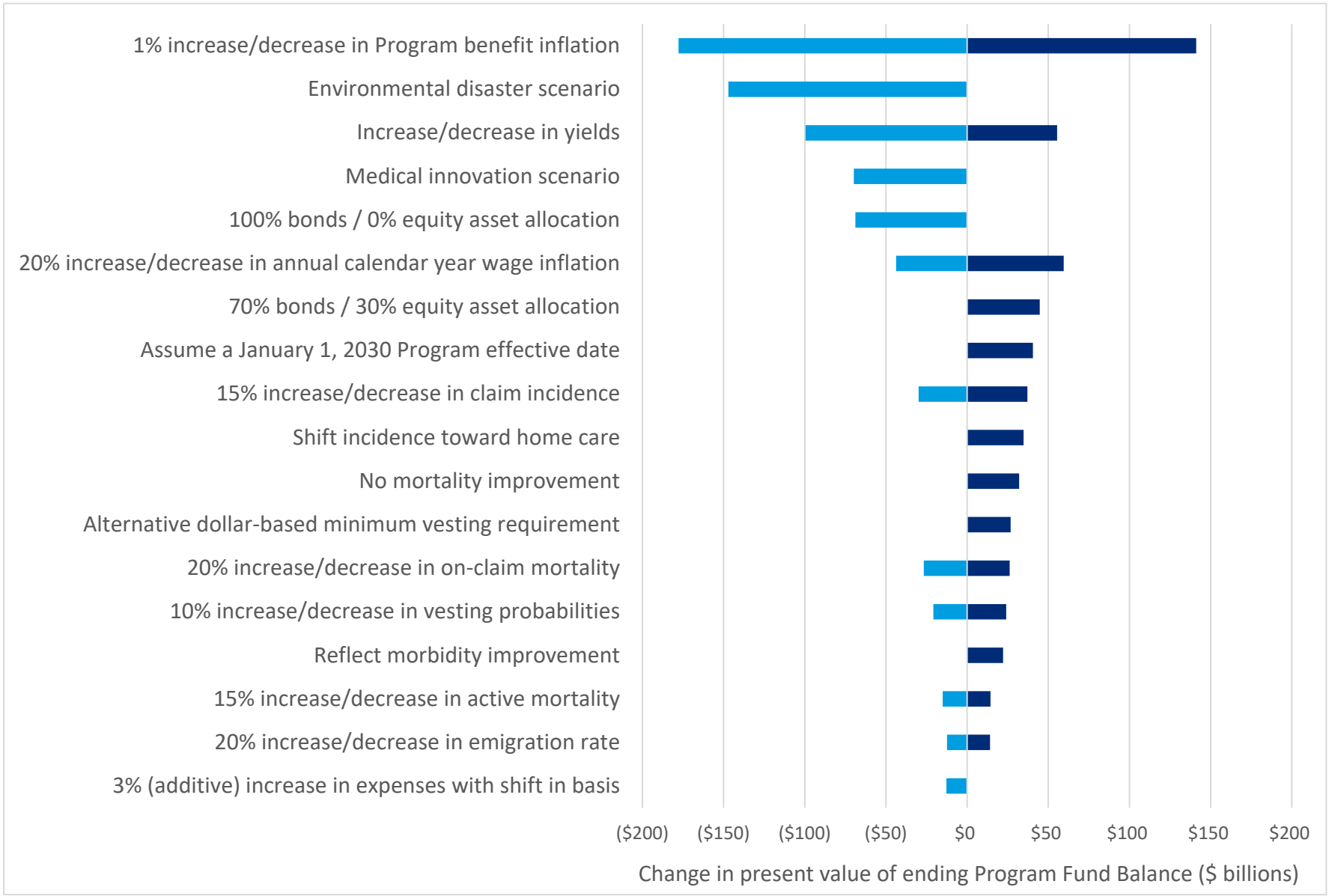
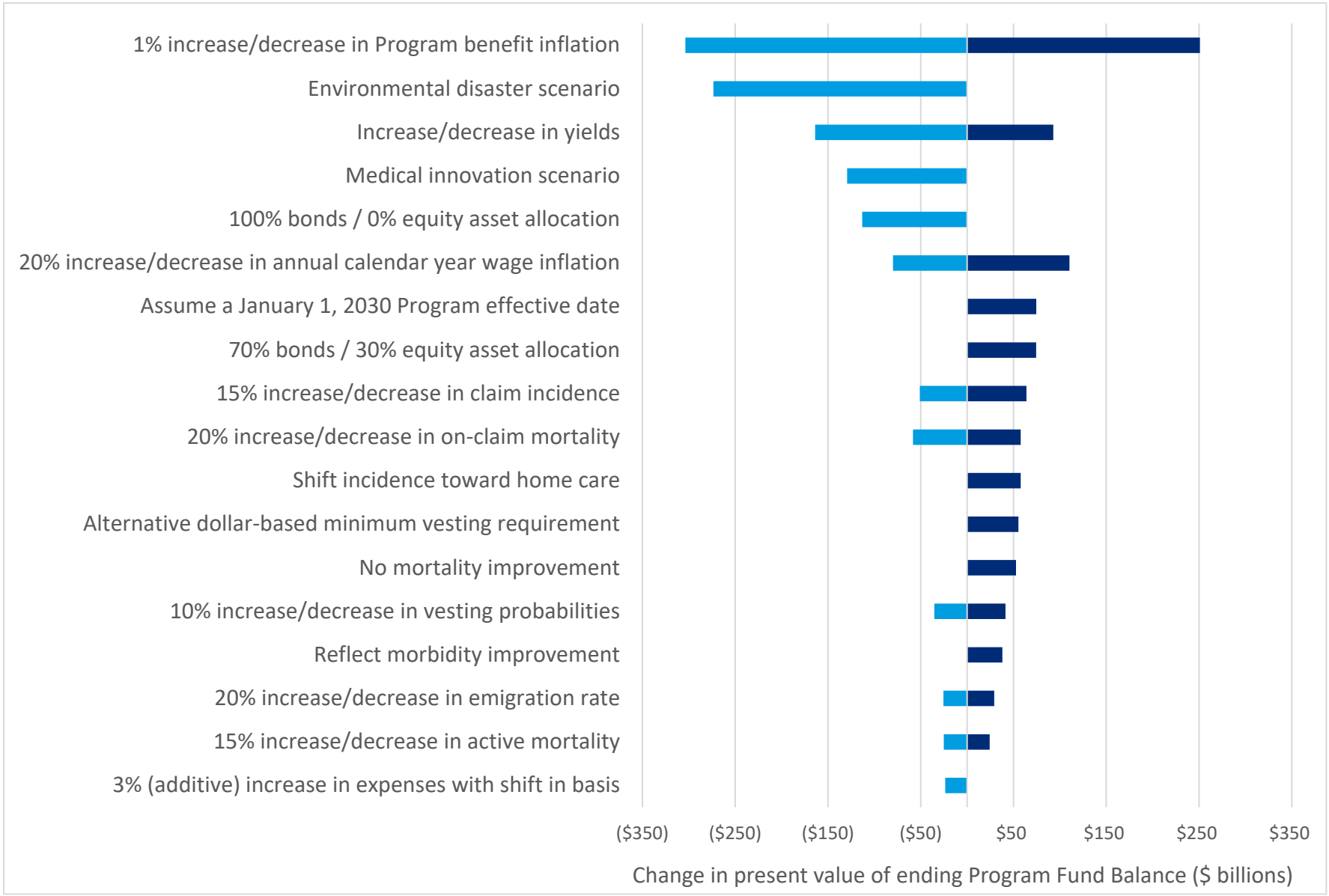


Exhibit C.21: Assumption sensitivity impacts for Design 5



C.7. Medi-Cal fiscal impact results

Exhibits C.22 through C.25 provide projections of the estimated total Medi-Cal fiscal impact (including both state and federal funding) under each Program design (except Design 2) during the first 15 years of the Program and in 10-year increments beginning in 2040.

Each exhibit includes the following information:

- **Column A:** Estimated number of Program beneficiaries that are also eligible for Medi-Cal
- **Column B:** Average Program benefits paid to Medi-Cal eligible Program beneficiary
- **Column C:** State and federal Medi-Cal fiscal impact resulting from Medi-Cal eligible enrollees receiving benefits under the Program

Design 2 is excluded from this analysis as this design attempts to limit duplication with Medi-Cal by not having lower-income individuals participate in the Program. As a result, we expect the fiscal impact of Design 2 on Medi-Cal to be primarily driven by LTSS costs associated with those who "spend down" their income and assets to qualify for Medi-Cal. We did not explicitly quantify this for Design 2.

Exhibit C.22: Medi-Cal fiscal impact under Program Design 1 [In progress]

Calendar Year	(A) Medi-Cal eligible Program beneficiaries	(B) Average Program benefits per Medi-Cal eligible beneficiary ($)	(C) = (A) x (B) Medi-Cal fiscal impact ($ billions)
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040-2049			
2050-2059			
2060-2069			
2070-2079			
2080-2089			
2090-2099			

Exhibit C.23: Medi-Cal fiscal impact under Program Design 3 [In progress]

Calendar year	(A) Medi-Cal eligible Program beneficiaries	(B) Average Program benefits per Medi-Cal eligible beneficiary ($)	(C) = (A) x (B) Medi-Cal fiscal impact ($ billions)
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040-2049			
2050-2059			
2060-2069			
2070-2079			
2080-2089			
2090-2099			

Exhibit C.24: Medi-Cal fiscal impact under Program Design 4 [In progress]

Calendar year	(A) Medi-Cal eligible Program beneficiaries	(B) Average Program benefits per Medi-Cal eligible beneficiary ($)	(C) = (A) x (B) Medi-Cal fiscal impact ($ billions)
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040-2049			
2050-2059			
2060-2069			
2070-2079			
2080-2089			
2090-2099			

Exhibit C.25: Medi-Cal fiscal impact under Program Design 5 [In progress]

Calendar year	(A) Medi-Cal eligible Program beneficiaries	(B) Average Program benefits per Medi-Cal eligible beneficiary ($)	(C) = (A) x (B) Medi-Cal fiscal impact ($ billions)
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040-2049			
2050-2059			
2060-2069			
2070-2079			
2080-2089			
2090-2099			

Appendix D. Task Force recommended next steps

As described in Appendix B, the Task Force expressed interest in exploring several additional alternative scenarios (i.e., financial sensitivities) and other analyses as a next step following the completion of this Actuarial Report. The recommended analyses are listed below.

1. Calculate the net cost of the Program to the state, inclusive of the fiscal impact on Med-Cal (refer to **Section 4** for an assessment of the potential fiscal impact of the Program on Medi-Cal).
2. Assess the impact of removing the shared benefit pool for spouses or domestic partners from Designs 4 and 5.
3. Analyze the impact of including coverage for PACE as an approved service under Design 2.
4. Quantify the impact of applying the Program contribution waiver to employer contributions.
5. Estimate the required Contribution Rates if current retirees participate in the Program (refer to **Section 3.3** for an assessment of the potential Program expenditures for current retirees).
6. Quantify the potential cost savings to employers of having a Program (e.g., loss of employee hours as a result of time off for caregiving or people leaving the workforce entirely).

Additionally, in conjunction with their recommended Program designs, the Task Force recommended several next steps regarding open items to be addressed following the publication of the Feasibility Report. While certain next steps were addressed as part of this Actuarial Report (e.g., financial analysis of alternative scenarios), the timeline for completing other open items has yet to be determined.

The outstanding next steps from the Feasibility Report are listed below.

1. **Separate working groups**. The Task Force recommended the establishment of six separate working groups to examine a range of topics that could influence certain aspects of the Program. These working groups would be comprised of individuals with expertise pertaining to the specific topic and should include a diverse range of perspectives. The timing and membership for each working group have not yet been determined—next steps for each working group will be assessed at a later date. Given potential resource constraints and competing priorities, the Task Force recommends prioritizing the working groups as follows, with working groups 1 and 2 established as early as possible:
    a. **Working group 1**: Program outreach and education, including outreach to sovereign tribal communities to ensure they are aware of the Program and their choice of opting into the Program.
    b. **Working group 2**: Program coordination with substitutive and supplemental (complementary or wrap-around) private insurance.
    c. **Working group 3**: Assessment of LTSS needs for individuals with developmental and acquired disabilities in early adulthood.

d. **Working group 4**: Program coordination with PACE.

e. **Working group 5**: Program coordination with existing LTSS programs and resources in California (beyond Medi-Cal), including potential integration with existing outreach, care coordination, and care access programs, such as Aging and Disability Resource Connections, the Health Insurance Counseling and Advocacy Program, and the No Wrong Door System administered by CDA.

f. **Working group 6**: Program coordination with Medicare Advantage plans.

2. **Coordination and interaction**. Certain aspects of Program coordination and interaction require additional exploration, as follows:

   a. A federal demonstration waiver from CMS should be pursued to allow the state to retain federal Medicaid savings (and Medicare savings, if applicable) attributable to the Program. If approved, any funds received from the waiver should be held in a trust fund to benefit the Program's members.

   b. The Program's coordination and interaction with LTSS benefits provided by the United States Department of Veterans Affairs should be further explored. Program provisions should be refined, as needed, based on new findings.

   c. Further assessments need to be performed to determine how best the Program can coordinate with California's IHSS program, within the federal requirement of Medicaid as the payer of last resort.

   d. Further assessments need to be performed to determine how best the Program can coordinate with Medicare.

   e. For the proposed Program opt-out provisions, a definition of the insurance products eligible for either opt out or reduced Program contributions (e.g., type of insurance, minimum benefits, etc.) is yet to be determined. Further, a recurring recertification process needs to be established for individuals that opt out of the Program or qualify for reduced contributions, including defining the frequency at which individuals will be required to demonstrate that they continue to be covered by eligible private insurance.

   f. Developments in other states related to public LTSS financing should be monitored, particularly in relation to the development of any supplemental private insurance products, to ensure uniformity across states to the extent practicable.

3. **Eligibility and enrollment**. Further exploration is required regarding potential Program variances for sovereign tribal communities that opt into the Program (e.g., allowing Program contributions for tribal communities to be covered by alternative revenue sources that are only available to tribes).

4. **Benefits and services**. The Task Force recommended that the Program offer preventative measures (with variation by design option), but the specific preventative benefits and services that the Program will cover have yet to be defined. Additionally, the Task Force has not yet

aligned on whether preventative measures will be covered under a separate (limited) benefit (e.g., $5,000) or deducted from the same benefit pool as other Program services.

5. **Administration**. The required administrative functions will need to be confirmed based on the ultimate Program design, which may include identifying staff and resource needs, determining whether existing infrastructure in California could be expanded upon to support the Program, and deciding if a new board, department, or agency is required to administer the Program. Expanding current infrastructure or creating a new board, department, or agency would require legislation. As part of this effort, it may be prudent to assess whether there are opportunities to leverage the administrative framework in the private insurance industry to execute certain administrative functions for the Program.

6. **Financing**. The Task Force identified several aspects of the Program financing that require additional exploration, as follows:

    a. To allow Program funds to be invested in bonds, stocks, and other equities, a voter-approved amendment to the California Constitution is required (specifically Article XVI, Section 17 of the California Constitution). Exploration of potential efforts to support a constitutional amendment is required.

    b. Further exploration of taxation considerations for Program benefits is required. It is anticipated that reimbursement benefits paid to Program beneficiaries would not be subject to state or federal personal income tax. However, payment to Program service providers, including informal or family caregivers who receive income from the Program, would be subject to personal or corporate income taxes. Additional discussions with taxation subject matter experts are required to confirm tax treatment for Program benefits, particularly for any cash benefits provided under the Program.

    c. Implications of California's Gann Limit[72] on the Program and its financing mechanisms should be evaluated.

    d. Further exploration is needed to consider alternative revenue sources that could allow existing retirees (as of Program launch) to contribute to (and receive benefits from) the Program.

7. **LTSS Workforce**. The Task Force identified several aspects related to the Program workforce that require additional exploration, as follows:

    a. The Task Force recommended that the Program establish minimum training requirements for informal or family caregivers to become certified caregivers. While the specifics of the training requirements have yet to be defined, the Task Force recommended that the

[72] The Gann Limit is a constitutional spending cap approved by voters via Proposition 4 in a 1979 special election. The limit applies to both state spending and spending by local governments. At the state level, the limit is tied to California's 1978-79 spending level, adjusted for changes in population and per capita personal income.

minimum standards be established in a culturally competent manner that does not discourage benefit utilization.

b. The Task Force recommended that the Program provide financial support for family caregivers through certified caregiver reimbursement, but further research is needed to develop a family caregiver reimbursement model for the Program.

c. The Task Force made several recommendations related to the LTSS workforce that are tangential to the core Program design but paramount to the Program's successful rollout and viability. This included identifying ways that the Program could positively influence or improve caregiver wages and benefits, investing in caregiver training programs, supporting caregiver career progression, promoting career opportunities (e.g., community college programs), and expanding the LTSS workforce. Further, the Task Force recommended that the Program explore opportunities to leverage automation and technology to supplement the workforce. Finally, as part of the Program's administration, the Task Force recommended establishing LTSS workforce governance and oversight processes and ensuring that caregivers have access to unions and other forms of workforce representation.