

Options for Reinvesting Savings from Restored Federal Cost- Sharing Reduction Payments

Examining the Effects of Two Policy Alternatives
on Spending and Enrollment in the Individual
Health Insurance Market

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Preface

Earlier research established that the federal government would likely save money if federal cost-sharing-reduction (CSR) payments under the Affordable Care Act to insurers were restored, but total health insurance enrollment—and, in particular, enrollment on the individual market—would decrease. This report describes the analysis of what would happen if federal lawmakers used the savings from restoring CSR payments to provide additional federal financial assistance or to finance reinsurance. We ask whether individual market enrollment would remain stable or grow relative to the status quo in which insurers engage in silver loading. With silver loading, insurers load the costs of CSR payments to the premiums for silver plans sold on the exchange, or those sold both on and off the exchange. Additionally, we examine how these scenarios would affect premiums and out-of-pocket premium spending. We present results for the United States and California.

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Summary

Under the Affordable Care Act (ACA), insurers are required to offer subsidies that reduce cost-sharing for eligible exchange enrollees who have incomes below 250 percent of the federal poverty level (FPL) and are enrolled in silver-tiered exchange plans.¹ Under the original implementation of the ACA, the federal government made payments to insurers to cover the costs of subsidizing the cost-share reductions (CSRs). In late 2017, the Trump administration decided that federal payments to insurers for CSRs were unlawful and halted such payments. A new congressional appropriation would be needed to reinstate federal CSR funding under the current administration's policy. Insurers are still required to provide CSR subsidies to qualifying enrollees, despite the fact that the federal government is no longer making CSR payments to insurers. As a result, most states and insurers adopted a practice known as *silver loading* to fund CSRs, by which insurers load the costs of CSR subsidies to the premiums for silver plans sold on the exchange or those sold both on and off the exchange. When insurers increase the costs of silver premiums, advance premium tax credits (APTCs), which lower premium costs for eligible exchange enrollees, also increase because they are set based on the premium for the second-lowest-cost silver plan. Our previous analysis and a Congressional Budget Office (CBO) analysis projected that halting CSR payments will substantially *increase* net federal spending on subsidies as a result of higher APTC spending (Rao and Nowak, 2019; CBO, 2018a).

Federal CSR payments could be reinstated in the future. Although the House of Representatives filed a lawsuit against the U.S. Department of Health and Human Services (HHS) in 2014 arguing that CSR payments should not be made because they lacked an explicit appropriation, that case (*U.S. House of Representatives v. Azar*, 2018) has been resolved and does not prohibit the federal government from making CSR payments in the future (Keith, 2019). The recent HHS-issued Notice of Benefit and Payment Parameters for 2020, which provides revised regulations and updated guidance each year on the implementation of the ACA's individual-market rules, notes that the administration asked Congress to appropriate funds for CSR payments (HHS, 2019). Additionally, several insurers have sued the Trump administration over the termination of federal CSR payments and won. In these cases, judges at the Court of Federal Claims found that the ACA requires HHS to make timely CSR payments to insurers regardless of whether Congress has appropriated such funds. As of March 2019, the lawsuits address payments for only the 2017 and 2018 plan years, and the parties involved have not come to an agreement about the amount to which the insurers are entitled. These lawsuits could pave the way for insurers to seek payment for 2019 and beyond (Keith, 2019).

¹ Health insurance exchange plans are offered in four metal tiers: bronze, silver, gold, and platinum. Bronze plans have the highest deductibles and co-payments while platinum plans have the lowest.

Based on our prior analysis and the CBO analysis, reinstating CSR payments would decrease federal spending—however, reinstatement would also lead to lower enrollment on the individual market and higher numbers of uninsured (Rao and Nowak, 2019; CBO, 2018a). In this report, our goal is to examine the effects of reinvesting the savings from restored federal CSR payments in either enhanced APTC and CSR subsidies or in reinsurance for the individual market.

This report should be of interest to national and California state policymakers. We estimated the effects of restored federal payments for CSRs and related reinvestments at the national level and for California, using the COMPARE microsimulation model.

We considered three policy scenarios: a silver loading status quo scenario and two alternatives for reinvesting the savings from reinstated CSR payments. We designed the alternative scenarios to have no net change in the federal deficit relative to the status quo scenario. These scenarios are:

1. **Status quo:** Silver loading is permitted; costs of CSR payments are loaded onto silver plans.
2. **Restored federal payments for CSRs, enhanced subsidies:** CSR costs are not loaded onto premiums, because direct payments from the federal government to insurers cover these costs. Subsidy-eligible individuals with incomes up to 300 percent of the FPL receive enhanced CSR and APTC subsidies.
3. **Restored federal payments for CSRs, reinsurance:** CSR costs are not loaded onto premiums, because direct payments from the federal government to insurers cover these costs. The federal government makes reinsurance payments to individual market insurers, which lower premiums on the individual market.

We estimated the effects of these scenarios on health insurance enrollment, marketplace premiums, average out-of-pocket premiums, and federal spending on subsidies and federal reinsurance payments in 2020. We found that health insurance coverage nationally would increase by 0.4 million relative to the status quo in our restored CSR payments with enhanced subsidy scenario and would increase by 0.3 million in our restored CSR payment with reinsurance scenario. In contrast, we found that insurance coverage would decrease in California under our alternative scenarios relative to the status quo. This difference is largely driven by differences in subsidy eligibility and individual market enrollment by income. In particular, low-income subsidized enrollees benefit under the enhanced subsidy scenario. Unsubsidized enrollees, including individuals with incomes below 138 percent of the FPL in states that did not expand Medicaid, benefit under reinsurance. Because California is a Medicaid expansion state and because it extends Medicaid eligibility to recent immigrants who are ineligible in most states, California has few individuals with incomes below 138 percent of the FPL who benefit from enhanced subsidies or reinsurance.

At the population level, enrollment changes are similar under our enhanced subsidy and reinsurance scenarios relative to the status quo. However, different groups benefit under these scenarios. In both the California and national models, individual market enrollment among individuals with incomes over 400 percent of the FPL (who are ineligible for subsidies) increases by about a third in the restored CSR payment with reinsurance scenario because reinsurance leads to significant decreases in unsubsidized premiums. We found that, under the enhanced subsidy scenario, individual market enrollment increased for individuals with incomes up to 300 percent of the FPL, which is the population eligible for enhanced subsidies in that scenario.

Among the population enrolled on the individual market in the status quo, we find that out-of-pocket premium spending would generally decrease under the enhanced subsidy scenario for subsidy-eligible individuals with incomes up to 300 percent of the FPL but would increase for subsidy-eligible individuals with incomes above 300 percent of the FPL and for unsubsidized individuals. In our restored CSR payment with reinsurance scenario, we find that out-of-pocket premium spending would increase for the subsidized population relative to the status quo, but such spending would decrease for the unsubsidized population.

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Abbreviations

ACA	Affordable Care Act
APTC	advance premium tax credit
CBO	Congressional Budget Office
CHIP	Children’s Health Insurance Program
CSR	cost-sharing reduction
CMS	Centers for Medicare and Medicaid Services
FPL	federal poverty level
HHS	U.S. Department of Health and Human Services
MEPS	Medical Expenditure Panel Survey
SIPP	Survey of Income and Program Participation

1. Introduction

Under the Affordable Care Act (ACA), insurers are required to offer subsidies that reduce cost-sharing for eligible exchange enrollees who have incomes below 250 percent of the federal poverty level (FPL) and are enrolled in silver-tiered exchange plans.¹ Under the original implementation of the ACA, the federal government made payments to insurers to cover the costs of subsidizing the cost-share reductions (CSRs). In late 2017, the Trump administration decided that federal payments of CSRs were unlawful and halted the practice. A new congressional appropriation would be needed to reinstate federal CSR funding under the current administration's policy. Insurers are still required to provide CSR subsidies to qualifying enrollees, despite the fact that the federal government is no longer making CSR payments to insurers. As a result, most states and insurers adopted a practice known as *silver loading* to fund CSRs, in which the costs of CSR subsidies are loaded onto the premiums for silver plans sold on the exchange or those sold both on and off the exchange.²

Silver loading effectively passes some of the costs of providing CSRs back to the federal government because advance premium tax credits (APTCs), which lower premium costs for eligible exchange enrollees, are set based on the premium for the second-lowest-cost silver plan. APTCs are set by specifying an expected premium contribution for subsidy-eligible individuals and families with incomes between 100 percent and 400 percent of the FPL. Expected premium contributions increase with the FPL. APTC amounts are the difference between an individual's or family's expected premium contribution and a benchmark premium—the second-lowest-cost silver plan available to an individual or family.³

Therefore, when insurers increase the costs of silver premiums through silver loading in response to discontinued federal payments for CSRs, APTCs also increase. In fact, our previous analysis and a Congressional Budget Office (CBO) analysis estimated that halting CSR payments will substantially *increase* net federal spending on subsidies as a result of higher

¹ Health insurance exchange plans are offered in four metal tiers: bronze, silver, gold, and platinum. Bronze plans have the highest deductibles and co-payments while platinum plans have the lowest.

² In 2018, 43 states used silver loading to fund CSRs; five used *broad loading* (the practice in which the costs of CSR subsidies are spread among all metal-tiered individual market plans); and North Dakota, Vermont, and the District of Columbia did not allow insurers to adjust premiums to account for discontinued CSR payments. In 2019, the number of states allowing or requiring silver loading increased to 45 (Keith, 2018).

³ For individuals who are subject to increased premiums as a result of tobacco use, the benchmark premium is that for a non-tobacco user. Most states allow insurers to charge tobacco users up to 1.5 times the premiums faced by non-tobacco users. Because tobacco users can face significant surcharges but receive premium subsidies based on premiums without the surcharge, their out-of-pocket premium cost spending can be much higher than out-of-pocket premium cost spending for non-tobacco users with similar incomes.

APTC spending (Rao and Nowak, 2019; CBO, 2018a). While APTC amounts are set based on the cost of a benchmark plan, an individual or family can apply an APTC to any exchange plan. For subsidized enrollees, increased silver premiums and APTCs do not change what enrollees pay for a silver plan because their income-based premium contribution is the same. Subsidized enrollees who choose coverage outside of the silver tier face lower net premium costs, as premiums for bronze, gold, and platinum plans are unaffected by silver loading,⁴ but APTCs increase. This can lead to some consumers becoming eligible for zero premium bronze plans, which is the tier with the lowest actuarial value available; or being able to upgrade to a gold plan, which is more generous than a silver plan, for less than the net cost of a silver plan.

Federal CSR payments could be reinstated in the future. While the House of Representatives filed a lawsuit against the U.S. Department of Health and Human Services (HHS) in 2014 arguing that CSR payments should not be made because they lacked an explicit appropriation, that case (*U.S. House of Representatives v. Azar*, 2018) has been resolved and does not prohibit the federal government from making CSR payments in the future (Keith, 2019). The recent HHS-issued Notice of Benefit and Payment Parameters for 2020, which provides revised regulations and updated guidance each year on the implementation of the ACA's individual-market rules, notes that the administration has asked Congress to appropriate funds for CSR subsidies (HHS, 2019). In addition, several insurers have sued the Trump administration over the termination of federal CSR payments and won. In these cases, judges at the Court of Federal Claims found that the ACA requires HHS to make timely CSR payments to insurers regardless of whether Congress has appropriated such funds. As of March 2019, the lawsuits address payments for only the 2017 and 2018 plan years, and the parties involved have not come to an agreement about the amount the insurers are entitled to. These lawsuits could pave the way for insurers to seek payment for 2019 and beyond (Keith, 2019).

Based on our prior analysis and the CBO analysis, reinstating CSRs would decrease federal spending, but it would also lead to lower enrollment on the individual market and higher numbers of uninsured (Rao and Nowak, 2019; CBO 2018a). In this report, we examine the effects of reinvesting the savings from restored federal CSR payments in either enhanced APTC and CSR subsidies or in reinsurance for the individual market.

We estimated the effects of restored federal payments for CSR subsidies and related reinvestments at the national level and for California, using the COMPARE microsimulation model. COMPARE is a RAND-developed tool that uses economic theory and data to estimate how people will respond to health insurance policy changes.

⁴ Silver loading can have secondary effects on the bronze, gold, and platinum premiums if it changes the composition of individual market enrollees. For example, increased APTCs that result from silver loading could make younger or healthier individuals more likely to enroll in the individual market, which would lead to decreased premiums for non-silver plans.

We considered three policy scenarios:

1. **Status quo:** Silver loading is permitted and the costs of CSR payments are loaded onto silver plans. We designed this scenario in such a way that the cost to the federal government for providing APTCs under silver loading would be \$10 billion more than the cost to the federal government for CSR and APTCs if federal CSR payments were restored, which matches the CBO estimate (Hall, 2018). We discuss this further in the methods section and include results in which the silver loading amount is set endogenously in COMPARE in Appendix B.
2. **Restored federal payments for CSRs, enhanced subsidies:** CSR costs are not loaded on to premiums, as direct payments from the federal government to insurers cover these costs. Subsidy-eligible individuals with incomes up to 300 percent of the FPL receive enhanced CSR and APTC subsidies. We designed these subsidies so that the total federal spending on APTCs and CSR payments in this scenario would be the same as the total spending under the status quo, silver loading scenario. The enhanced subsidies are as follows:
 - The required contribution for APTC-eligible individuals is reduced to
 - \$0 for individuals with incomes up to 200 percent of the FPL
 - 50 percent of the required contribution under the status quo ACA for individuals with incomes between 200 percent and 300 percent of the FPL.
 - CSR subsidies for eligible individuals enrolled on silver-tired plans result in effective actuarial values of
 - 94 percent (no change from status quo ACA) for individuals with incomes up to 150 percent of the FPL
 - 90 percent for individuals with incomes between 150 percent and 200 percent of the FPL
 - 80 percent for individuals with incomes between 200 percent and 300 percent of the FPL.

We describe how APTCs are calculated under the status quo and enhanced subsidy scenario in more detail in Chapter 2.

3. **Restored federal payments for CSRs, reinsurance:** CSR costs are not loaded on to premiums, as direct payments from the federal government to insurers cover these costs. The federal government makes reinsurance payments to individual market insurers, which lower premiums on the individual market. We designed this scenario so that the estimated total federal spending on APTC and CSR subsidies, plus the cost of reinsurance, would be the same as the total APTC spending under our status quo silver loading scenario. For the California scenario, we assume that states receive reinsurance payments in proportion to the population of the state relative to the nation.

We estimated the effects of these scenarios on health insurance enrollment, marketplace premiums, average out-of-pocket premiums, and federal spending on subsidies and federal reinsurance payments in 2020.

Chapter 2 of this report describes the methods that we use to estimate the effects of these alternative scenarios, and Chapter 3 presents the results. In the final chapter, we discuss the implications of our findings.

2. Methods

We used RAND’s COMPARE model to estimate the effects of policies in which federal payments of CSR subsidies are restored and the resulting savings to the federal government are reinvested in enhanced subsidies or reinsurance. COMPARE is a microsimulation model that uses nationally representative, publicly available data and economic theory to estimate changes in health insurance enrollment and health care spending in response to policy changes. The primary data sources are the Survey of Income and Program Participation (SIPP), Medical Expenditure Panel Survey (MEPS), and Kaiser Family Foundation/Health Research Educational Trust Survey. In the model, individuals choose among insurance plans based on a utility maximization framework, and employers choose whether to offer insurance to their employees. We regularly update the model to reflect population growth, health care cost growth, and policy changes. See Appendix A for further details on the COMPARE model.

For the California-specific analyses, we weighted the national-level COMPARE data to match the age, gender, race/ethnicity, poverty level, and health insurance composition of the California population using the public use microdata sample from the American Community Survey given 2017 market characteristics, a year in which CSR costs were paid by the federal government. If we were to run the model assuming CSR costs were paid (and the individual mandate penalty was in effect), we would reproduce insurance enrollment patterns observed in 2017. We also accounted for California’s specific health insurance policies in the model, including (1) eligibility for the Children’s Health Insurance Program (CHIP) goes up to 266 percent of the FPL; (2) legal permanent residents with incomes below 138 percent of the FPL are eligible for Medicaid, while in most states they are eligible for exchange subsidies but not for Medicaid; and (3) insurers cannot charge tobacco users higher premiums than non-tobacco users (in most states, tobacco users can be charged up to 1.5 times the premium for non-tobacco users). When we ran the model under alternative assumptions—such as under silver loading and enhanced subsidy or reinsurance scenarios—individuals’ enrollment decisions adjusted to reflect these factors. In addition, we adjusted non-group spending in California in the model so that we could reproduce differences between national and California non-group premiums. We derived our target from the 2017 benchmark premiums (Kaiser Family Foundation, 2018).

We projected the 2017 weights forward to 2020 using state-specific population projections from the University of Virginia Cooper Center’s Demographics Research Group (2018). We made further adjustments to the weights to ensure that subsidized marketplace enrollment, CSR enrollment, and the silver load amount match California’s 2017 experience, using detailed enrollment data from Covered California (undated), California’s insurance marketplace.

Silver Loading Scenario

In prior analysis, we estimated that federal spending on APTCs and CSRs would total \$68 billion in 2020 under a scenario in which federal payments of CSRs were restored (Rao and Nowak, 2019). The CBO estimated that spending on APTCs and CSRs would be about \$10–\$11 billion per year more in 2019–2021 with silver loading than it would in a scenario in which federal payments of CSRs were restored (Hall, 2018). In this report, we exogenously set the level of silver loading to be 31 percent (e.g., silver premiums were set to be 31 percent higher than the actuarially fair premium, relative to the premiums on the other metal tiers).⁶ As we later show, this resulted in federal spending on APTCs under our silver loading scenario of \$78 billion, or \$10 billion more than our previously published estimate, consistent with the CBO estimate.

Restored Federal CSR Payments with Enhanced Subsidy Scenario

We designed our restored federal CSR payments with an enhanced subsidy scenario based on the enhanced APTCs and CSRs that are currently offered in Massachusetts (Gasteier, 2019). We adjusted the CSR actuarial values and the required contributions used to determine the APTCs so that the total spending on APTCs and CSRs in this scenario was equal to the \$78 billion in spending in our silver loading scenario. APTCs are the difference between a benchmark silver premium, which is the second-lowest-cost silver plan in an area, and a required premium contribution, which is an applicable percentage multiplied by a family's income. Table 2.1 shows the applicable percentages in 2020 under the status quo and under our enhanced subsidy scenario, and Table 2.2 shows the effective actuarial values for CSR-eligible individuals under the status quo and enhanced subsidy scenarios.

⁶ In COMPARE, we typically assume perfect risk adjustment between metal tiers so that silver premiums are 7/6 of the cost of a bronze premium. In silver loading, we do not assume that this relationship holds. In our silver loading scenario in this analysis, the silver premiums were $(1.31 \times 7/6)$ the cost of a bronze premium.

Table 2.1. Applicable Percentage to Determine Premium Contribution Under Status Quo and Enhanced Subsidies, 2020

FPL	Percentage for Individuals at Low End of Income Group Range, Status Quo	Percentage for Individuals at High End of Income Group Range, Status Quo	Percentage for Individuals at Low End of Income Group Range, Enhanced Subsidies	Percentage for Individuals at High End of Income Group Range, Enhanced Subsidies
<138%	2.13	2.13	0	0
139%–149%	3.18	4.25	0	0
150%–199%	4.25	6.70	0	0
200%–249%	6.70	8.56	3.35	4.28
250%–299%	8.56	10.10	4.28	5.05
300%–400%	10.10	10.10	10.10	10.10

NOTE: The applicable percentage used to determine premium contributions is set on a sliding linear scale for individuals in each income range shown. The status quo numbers are from the U.S. Department of the Treasury (2018) and updated to 2020 according to 26 U.S. Code 36B.

Table 2.2. Effective Actuarial Values for Affordable Cost-Sharing Plans in Status Quo and for Enhanced Subsidy Scenario, 2020

FPL	Status Quo	Enhanced Subsidies
<150%	94%	94%
150%–199%	87%	90%
200%–249%	73%	80%
250%–299%	n/a	80%
300%–400%	n/a	n/a

n/a = People ineligible for cost-sharing reductions.

Restored Federal CSR Payments with Reinsurance Scenario

Reinsurance is a mechanism to stabilize insurance markets that reduces insurers’ risk by paying insurers for high-cost enrollees. The funding for reinsurance programs can come from different sources and can be allocated to insurers in different ways. For example, the ACA’s transitional reinsurance program from 2014 to 2016 was funded by a per-capita fee on employer and individual health plans and allocated to insurers with enrollees whose annual claims exceeded a threshold (or attachment point) for a certain percentage (or coinsurance) up to a maximum amount (Center for Consumer Information and Insurance Oversight, undated). Under the ACA 1332 waivers, several states have implemented different reinsurance programs that typically use federal savings in premium tax credits to fund reinsurance programs based on different parameters (Blumenthal et al., 2018).

We assumed that funding for federal reinsurance payments would be redirected from savings in APTC spending from the restored federal CSR payments. Rather than setting reinsurance parameters that could vary depending on state decisions, we modeled a stylized allocation by assuming that the reinsurance would be distributed to all insurers and would reduce individual

market premiums uniformly. We modeled federal reinsurance by reducing individual market premiums in proportion to the share of total federal reinsurance payments relative to total individual market premiums.

We adjusted the national model with different levels of federal reinsurance such that total federal spending on APTC and CSR subsidies plus the cost of reinsurance equaled the total APTC spending under the status quo silver loading scenario (\$78 billion). With an iterative process, we determined that a reinsurance amount of \$17 billion would result in federal budget neutrality. For California, we assumed the federal insurance dollars would be allocated to states in proportion to state populations, which was \$2.1 billion in reinsurance.

3. Results

Insurance Enrollment

Tables 3.1 and 3.2 show estimated insurance enrollment under status quo and alternative scenarios for the United States as a whole and for California. We find that, under the alternative scenarios relative to the status quo, total enrollment increases in the United States and decreases in California. Individual market enrollment increases among those with incomes below 300 percent of the FPL in the enhanced subsidy scenario and falls for those with incomes between 300 percent and 399 percent of the FPL. Because California is a Medicaid expansion state that extends Medicaid eligibility to recent immigrants with incomes below 138 percent of the FPL, California does not have any subsidy-eligible individuals with incomes below 138 percent of the FPL. One group that benefits under the enhanced subsidy scenario consists of subsidy-eligible individuals with incomes below 138 percent of the FPL. In the reinsurance scenario, enrollment falls for most groups that qualify for APTCs relative to the status quo, and increases for those who are not subsidy-eligible. In non-Medicaid expansion states, the population that is ineligible for subsidies and that benefits from reinsurance includes individuals with incomes below 100 percent of the FPL; in California, these individuals are eligible for Medicaid. We do see a small increase in individual market enrollment in California under the reinsurance scenario. However, this mostly comes at the expense of Medicaid enrollment as a small number of Medicaid-eligible individuals choose to enroll in the individual market when premiums decrease.

Table 3.3 shows transitions between insured and uninsured and between different metal tiers from the silver loading scenario to our alternative scenarios. In the national model, around half of enrollees remain on the same metal tier, while half transition to different metal tiers under our alternative scenarios. In California, the majority of enrollees remain in the same metal tier.

Table 3.1. National Health Insurance Enrollment for Individuals Under Age 65 in 2020

	Status Quo (silver loading) (millions)	Restored CSR Payments + Enhanced Subsidies (millions)	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance (millions)	Relative Change, CSR Payments + reinsurance
Total insured	242.9	243.3	0.2%	243.2	0.1%
Individual market					
Total	14.6	15.0	2.4%	15.1	3.1%
Individual market enrollment by income group					
<139% FPL	2.5	2.7	10.5%	3.0	18.6%
139–199% FPL	4.1	4.3	5.2%	4.1	–1.1%
200–299% FPL	3.9	4.0	3.6%	3.4	–11.1%
300–399% FPL	2.3	2.0	–12.9%	2.2	–6.9%
400%+ FPL	1.8	1.9	1.9%	2.5	34.4%
Individual market enrollment by age (in years) and subsidy eligibility					
<35	5.1	5.4	5.9%	5.1	0.7%
35–49	4.0	4.0	2.0%	4.1	2.6%
50+	5.6	5.6	–0.5%	5.9	5.6%
<35, subsidized	4.2	4.4	4.0%	3.7	–12.5%
35–49, subsidized	3.1	3.1	0.6%	2.8	–9.6%
50+, subsidized	3.9	3.8	–1.0%	3.8	–1.5%
Employer	154.6	154.6	0.0%	154.5	–0.1%
Medicaid	61.2	61.2	0.0%	61.2	–0.1%
Other	12.5	12.5	0.0%	12.5	0.0%
Uninsured	35.2	34.8	–1.0%	34.8	–0.9%

Table 3.2. California Health Insurance Enrollment for Individuals Under Age 65 in 2020

	Status Quo (Silver Loading) (millions)	Restored CSR Payments + Enhanced Subsidies (millions)	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance (millions)	Relative Change, CSR Payments + reinsurance
Total Insured	30.19	30.14	-0.2%	30.14	-0.2%
Individual market					
Total	1.84	1.77	-3.7%	1.89	2.7%
Individual market enrollment by income group					
<139% FPL	0.00	0.01	n/a	0.04	n/a
139–199% FPL	0.56	0.56	0.9%	0.60	7.0%
200–299% FPL	0.51	0.55	7.9%	0.38	-26.2%
300–399% FPL	0.27	0.17	-35.9%	0.17	-35.4%
400%+ FPL	0.50	0.47	-4.7%	0.69	39.1%
Individual market enrollment by age (in years) and subsidy eligibility					
<35	0.72	0.71	-1.3%	0.74	2.8%
35–49	0.50	0.45	-8.3%	0.47	-5.5%
50+	0.62	0.61	-2.8%	0.68	9.1%
<35, subsidized	0.54	0.53	-0.4%	0.42	-22.2%
35–49, subsidized	0.39	0.35	-9.8%	0.29	-25.4%
50+, subsidized	0.41	0.39	-4.6%	0.38	-6.6%
Employer	17.95	17.97	0.1%	17.92	-0.2%
Medicaid	8.74	8.73	-0.1%	8.67	-0.8%
Other	1.66	1.66	0.0%	1.66	0.0%
Uninsured	3.71	3.77	1.4%	3.76	1.4%

Table 3.3. Health Insurance Transitions from Status Quo (Silver Loading) Under Alternative Scenarios in Millions, 2020

	National		California	
	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance
Moved from insured to uninsured	0.5	1.1	0.10	0.15
Moved from uninsured to insured	0.9	1.4	0.26	0.31
Individual market plans				
Moved from higher to lower metal tier	2.8	2.0	0.25	0.24
Moved from lower to higher metal tier	4.4	4.1	0.13	0.08
Stayed on same metal tier	6.8	7.4	1.15	1.15

Premiums and Subsidies

Tables 3.4 and 3.5 show individual market premiums under the status quo and under our alternative scenarios. We find that silver premiums decrease in the alternative scenarios relative to the status quo in both the United States as a whole and in California. We find that non-silver premiums increase by 2 percent under the restored CSR payment with increased subsidy scenario in both the United States and California. This increase is likely driven by the fact that the enhanced subsidies include enhanced CSRs, which lead to increased utilization. We find that both silver and non-silver premiums decrease in the reinsurance scenarios.

Table 3.4. Individual Market Premiums for a 40-Year-Old Non-Smoker in the United States, 2020

	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Relative Change, CSR Payments + Reinsurance
Bronze	\$4,800	\$4,900	2%	\$4,500	-6%
Silver	\$7,300	\$5,700	-22%	\$5,200	-28%
Gold	\$6,400	\$6,500	2%	\$6,000	-6%
Platinum	\$7,200	\$7,300	2%	\$6,700	-6%

Table 3.5. Individual Market Premiums for a 40-Year-Old Non-Smoker in California, 2020

	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Relative Change, CSR Payments + Reinsurance
Bronze	\$4,400	\$4,400	2%	\$4,000	-10%
Silver	\$6,700	\$5,200	-22%	\$4,700	-30%
Gold	\$5,800	\$5,900	2%	\$5,400	-10%
Platinum	\$6,500	\$6,600	2%	\$6,000	-10%

NOTE: Because of rounding, the relative changes might not exactly match the changes.

Table 3.6 shows average out-of-pocket premium spending under our three scenarios for the United States and for California. We consider average spending only for individuals who are enrolled in non-group coverage on the same metal tier across all three scenarios. We see a large decrease in premium spending for individuals with incomes below 200 percent of the FPL enrolled on silver plans under the restored CSR payment with enhanced subsidy scenario in both the national and California models. Subsidized premium spending increases for the other metal tiers. Although the required premium contribution decreases in the restored CSR with enhanced subsidy scenario, the benchmark premium also decreases relative to silver loading. As a result, individuals pay more when they apply their APTCs toward non-silver plans. We do not see any

individuals enrolled in subsidized bronze plans across all scenarios with incomes below 200 percent of the FPL. This is because, in the enhanced subsidy scenario, individuals in this income range have no required contribution to purchase a silver plan, provided they are a non-smoker. We note that California does not allow insurers to charge different premiums by smoking status. Because there is no cost for subsidized enrollees up to 200 percent of the FPL to enroll in a silver plan under this scenario, we project that no one with incomes up to 200 percent of the FPL would enroll in the less-generous bronze plan.

Under the restored CSR with reinsurance scenario, enrollees on silver plans pay about the same amount as they would under the silver loading scenario because most enrollees pay their required premium contribution for a silver plan, which is the same in both cases. Some subsidy-eligible individuals with incomes that are 200–400 percent of the FPL pay less in the reinsurance scenario if they face premiums that are less than their required contribution. Average premium costs for subsidy-eligible individuals to purchase non-silver plans are higher under the reinsurance scenario than they are with silver loading.

Table 3.6. Out-of-Pocket Premiums for Individual Market Plans by Metal Tier and Income, 2020

	National			California		
	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance
Bronze						
Subsidized enrollees	\$200	\$1,600	\$2,200	\$600	\$2,300	\$2,500
139–199% FPL	n/a	n/a	n/a	n/a	n/a	n/a
200–400% FPL	\$200	\$1,600	\$2,200	\$600	\$2,300	\$2,500
Unsubsidized enrollees	\$7,600	\$7,700	\$7,100	\$6,700	\$6,800	\$5,900
Silver						
Subsidized enrollees	\$500	\$40	\$400	\$700	\$20	\$700
139–199% FPL	\$800	\$0	\$800	\$700	\$0	\$700
200–400% FPL	\$1,600	\$1,000	\$1,400	\$2,000	\$1,000	\$2,000
Unsubsidized enrollees	n/a	n/a	n/a	\$7,900	\$8,200	\$8,000
Gold						
Subsidized enrollees	\$700	\$1,600	\$2,000	\$1,500	\$2,700	\$2,900
139–199% FPL	\$1,000	\$1,600	\$2,600	\$300	\$900	\$1,800
200–400% FPL	\$2,200	\$3,500	\$3,800	\$2,200	\$3,700	\$3,700
Unsubsidized enrollees	\$9,300	\$9,000	\$9,200	\$7,500	\$7,600	\$6,400

NOTES: Out-of-pocket premiums are calculated for those who stay on the same metal tier under both scenarios. Premium payments were calculated per-capita. Because of the small sample sizes, out-of-pocket premiums are omitted for subsidized enrollees with incomes less than 139 percent of FPL and for those in platinum plans. n/a = Not applicable because there are no enrollees in the category in all three scenarios.

Table 3.7 shows out-of-pocket premiums for the three scenarios we considered by age and income. Under the enhanced subsidy scenario, we find that out-of-pocket premium spending will decrease for those younger than 50 years old in the national model and increase for those ages 50 and older. In California, out-of-pocket premium spending will increase for all age groups under

both the enhanced subsidy scenario and the reinsurance scenario. This might result from the fact that California has a higher proportion of enrollees in higher metal tier plans than the United States as a whole. (Kaiser Family Foundation State Health Facts, 2019). Recall that out-of-pocket spending for those in non-silver plans increases under the alternative scenarios. In addition, we find that subsidized enrollees experience higher out-of-pocket premiums in the reinsurance scenario in both the United States and in California; this is because subsidized individuals benefited from increased APTCs in the status quo as a result of silver loading.

Table 3.7. Out-of-Pocket Premiums for Subsidized Enrollees on Individual Market Plans by Age and Income, 2020

Age (in years) and income group	National			California		
	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance
<35	\$400	\$200	\$600	\$1,100	\$1,400	\$1,700
138–199% FPL	\$800	\$0	\$800	\$600	\$100	\$700
200–400% FPL	\$500	\$800	\$1,100	\$1,400	\$2,300	\$2,400
35–49	\$400	\$300	\$800	\$1,800	\$3,000	\$3,200
138–199% FPL	\$800	\$10	\$800	\$800	\$300	\$1,000
200–400% FPL	\$600	\$1,300	\$1,800	\$2,000	\$3,400	\$3,600
50+	\$500	\$1,100	\$1,600	\$900	\$2,700	\$3,000
138–199% FPL	\$700	\$0	\$700	\$700	\$200	\$900
200–400% FPL	\$500	\$2,400	\$2,900	\$1,000	\$3,500	\$3,800

NOTES: Out-of-pocket premiums are calculated for those who stay on the same metal tier under both scenarios. Premium payments were calculated per-capita. Because of the low sample sizes, out-of-pocket premiums are omitted for subsidized enrollees with incomes less than 139 percent of FPL and for those in platinum plans.

Federal Spending on APTCs

Table 3.8 shows federal spending on individual market subsidies and reinsurance. We designed both restored CSR payment scenarios to have the same total federal spending on subsidies and reinsurance as spending under the status quo (\$78 billion). We find that total federal spending in the California individual market would be less under our two alternative scenarios than under the status quo. This mirrors our finding that, under these alternative scenarios, individual market enrollment decreases in California while enrollment increases nationally. Therefore, it is not surprising that, although we designed our alternative scenarios not to increase spending at the national level, we find decreased spending in California.

Table 3.8. Federal Spending on APTCs, CSR Payments, and Reinsurance on the Individual Market, 2020 (in billions of dollars)

	National			California		
	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance
APTCs	78	68	52	7.8	6.7	4.2
CSRs	0	10	9	0.0	0.9	0.9
Reinsurance	0	0	17	0.0	0.0	2.1
Total federal spending on APTCs + CSR payments + reinsurance	78	78	78	7.8	7.6	7.2

NOTE: Because of rounding, total federal spending may not equal sum of APTCs + CSR payments + reinsurance.

4. Discussion

Limitations

Our analysis has several limitations. Most importantly, there is some state-to-state variation in health insurance policies that we did not account for in our national model. For example, in the silver loading scenario, we assumed that all states implemented silver loading and did not account for the fact that five states and the District of Columbia either do not permit insurers to increase premiums to cover the costs of discontinued CSR payments or they require insurers to load the costs of discontinued CSR payments onto premiums on all metal tiers, not just on silver plans. In addition, we did not account for existing state reinsurance programs.

Conclusions

We examined whether the savings that would result from restored federal payment of CSR subsidies could be reinvested in the individual market as enhanced tax credits or as reinsurance to increase health insurance coverage. We designed these scenarios so that total federal spending would be the same under all scenarios.

Restoration of Federal CSR Payments with Enhanced Subsidies

We found that relative to a status quo with silver loading, restored federal CSR payments with enhanced APTC and CSR subsidies for individuals with incomes below 300 percent of the FPL would:

- **increase enrollment for subsidy-eligible individuals with incomes up to 300 percent of the FPL and decrease enrollment in other groups.**
- **lead to a net increase in individual market enrollment in the United States and a net decrease in individual market enrollment in California.** This is largely driven by the fact that California has relatively more Medicaid-eligible individuals with incomes below 138 percent of the FPL than the United States does as a whole because it is a Medicaid expansion state and additionally extends Medicaid eligibility to legal permanent residents ineligible for federally matched Medicaid. Individuals with incomes below 138 percent of the FPL who are ineligible for Medicaid are more likely to enroll on the individual market in the enhanced subsidy scenario than they are under the status quo in which silver loading is in effect.
- **decrease silver premiums and increase non-silver premiums.**
- **decrease out-of-pocket premium costs for subsidy-eligible individuals with incomes up to 300 percent of the FPL to purchase a silver plan** and lead to little or no change in the costs to purchase a silver plan for individuals with incomes between 300 percent and 400 percent of the FPL. Premium subsidies are based on a maximum required premium contribution for a silver plan, which is lower in the enhanced subsidy scenario

than in the silver loading status quo. Therefore, out-of-pocket spending on silver plans is lower by design for individuals with incomes up to 300 percent of the FPL under the enhanced subsidy scenario than under the silver loading status quo.

- **increase out-of-pocket premium costs for subsidy-eligible individuals to purchase non-silver plans.** This is because non-silver premiums increase in the scenario while APTCs decrease as a result of decreased silver premiums. Therefore, the net cost of non-silver plans increases.

Restoration of Federal CSR Payments with Reinsurance

We found that, relative to a status quo with silver loading, restored federal CSR payments with reinsurance:

- **decrease individual market enrollment for subsidy-eligible individuals.**
- **increase individual market enrollment for individuals who are ineligible for subsidies.**
- **lead to a net increase in individual market enrollment in both the United States and California, but a net decrease in total enrollment California.** This is largely driven by the fact that California has relatively more Medicaid-eligible individuals with incomes below 138 percent of the FPL than the United States does as a whole because it is a Medicaid expansion state and additionally extends eligibility to many legal permanent residents, as noted earlier. Individuals with incomes below 100 percent of the FPL who are ineligible for exchange subsidies benefit from reinsurance in non-Medicaid expansion states in the U.S. model.
- **lead to a decrease in both silver and non-silver premiums.** The percentage drop in silver premiums is larger than the percentage drop in non-silver premiums. Reinsurance is an infusion of cash into the individual market, which decreases aggregate premiums.
- **increase out-of-pocket premium spending for subsidized individuals who purchase non-silver plans.** This is a result of the fact that while non-silver premiums decrease, the benchmark silver premium decreases more—and, therefore, so do APTCs. The amount that subsidized individuals would pay to enroll in a silver plan is about the same in the reinsurance scenario as under the status quo with silver loading.
- **decrease out-of-pocket premium spending for unsubsidized individuals.**

Overall, our results suggest that enrollment at the national level on the individual market could be increased while maintaining deficit neutrality if federal payments of CSR subsidies were restored and the savings were reinvested in enhanced subsidies or reinsurance. Our results for California suggest that Medicaid expansion states could experience somewhat lower individual market enrollment under these reinvestment scenarios owing to the fact that individuals with incomes under 138 percent of the FPL in such states would not benefit much from these alternatives. This also suggests that non-Medicaid expansion states with larger than average subsidy-eligible populations with incomes under 138 percent of the FPL or populations of low-income unsubsidized individual market enrollees could benefit disproportionately under these alternatives. In particular, subsidy-eligible individuals with incomes below 138 percent of

the FPL would benefit from enhanced subsidies, and low-income individuals ineligible for subsidies would benefit from reinsurance.

Another important variable that determines whether states would benefit if savings from restored federal CSR payments were reinvested in subsidies or reinsurance is the level of silver loading in the state. States with lower levels of silver loading benefit more from reinvestment than states with higher levels of silver loading.

While total individual market enrollment is similar under the two scenarios in which federal CSR payments are restored and reinvested, we find that different groups benefit relative to the status quo in these alternatives. In particular, subsidy-eligible individuals with incomes up to 300 percent of the FPL would have access to lower-cost health insurance plans and would be more likely to have health insurance coverage if federal CSR payments were reinstated and the savings were reinvested in enhanced subsidies for the population with incomes under 300 percent of the FPL. In contrast, subsidy-eligible individuals with incomes between 300 percent and 400 percent of the FPL would have to pay the same or more to maintain coverage in the enhanced subsidy scenario. Individuals who are not eligible for subsidies would also pay more. As a result, we would expect enrollment to decline for those with incomes over 300 percent of the FPL and for others who are ineligible for subsidies, such as low-income individuals in non-Medicaid expansion states.

In contrast, if federal CSR payments were reinstated and reinvested in reinsurance on the individual market, subsidy-eligible individuals with incomes up to 400 percent of the FPL would all pay the same or more to maintain coverage relative to the status quo in which silver loading is in effect. We estimate that health insurance enrollment would decline in this group as a result. Premiums faced by unsubsidized individuals would decline and health insurance enrollment would increase for this group as a result.

Appendix A. Detailed Methods

Overview of the National Model

COMPARE is a microsimulation model that uses economic theory, nationally representative data, and evidence from past experience to estimate how consumers and business will respond to health policy changes (Cordova et al., 2013). The model creates a synthetic population of individuals, families, and firms and assigns health expenditures using data from the April 2010 wave of the 2008 SIPP, the 2010–2011 MEPS, and the 2009 Kaiser Family Foundation/Health Research Educational Trust Survey. While the data sources predate the implementation of the ACA, we update them to reflect population growth based on factors reported by the U.S. Census Bureau and to reflect health care cost growth using the Centers for Medicare and Medicaid Services (CMS) National Health Expenditures Accounts (CMS, 2018b).

We assign each individual in the SIPP a spending amount using the spending of a similar individual from the MEPS. We then augment spending imputations with data on high-cost claims from the Society of Actuaries. These adjustments account for the fact that the MEPS underrepresents individuals with high spending. We also adjust the MEPS spending estimates to align with the National Health Expenditures Accounts estimates according to the procedure developed by researchers from the Agency for Healthcare Research and Quality (Sing et. al., 2006; Bernard, Selden, and Pylypchuk, 2015).

Individuals in COMPARE make health insurance enrollment decisions by weighing the costs and benefits of available options, an approach that economists refer to as “utility maximization.” The utility maximization framework accounts for the following:

- premium costs
- anticipated out-of-pocket health care spending
- the value of health care consumption
- the risk of incurring a financially devastating health care bill.

Premium costs are adjusted to account for tax credits, if such credits are available to the enrollee. All else being equal, higher premiums reduce an individual’s probability of enrolling in health insurance. In contrast, several factors encourage enrollment, such as a lower risk of catastrophic spending, reduced out-of-pocket spending, the avoidance of penalties (if they apply), and increases in health care utilization.

Businesses in the model make decisions by considering the value of health insurance to their workers. Tax credits for individual market coverage and Medicaid eligibility expansions may reduce the value of health insurance to workers, leading firms to drop insurance. However, mandates requiring individuals to enroll in insurance, as well as mandates requiring firms to

offer coverage, tend to increase the likelihood that an individual will enroll and that a firm will offer insurance. Starting in 2019, the individual mandate penalty under the ACA is eliminated.

We calibrate the model to ensure that it accurately predicts outcomes for years in which complete data exist. As new data emerge, we update the model to reflect this information. For example, we added an adjustment to our Medicaid enrollment algorithm to account for the “welcome mat” effect in which people who were previously eligible for Medicaid enrolled after the ACA’s Medicaid expansion.

Next, we describe the health insurance enrollment algorithm used in COMPARE to model the current law scenario, as well as recent adjustments to the model that we have incorporated to better match post-ACA experience (e.g., administrative reports on enrollment, subsidy payments, and tax collections). We then describe the adjustments made to produce California-specific estimates. We also discuss how our results compare with those of the CBO.

Health Insurance Enrollment Decisions

To model individual and family health insurance enrollment decisions under the ACA, COMPARE uses a utility-maximization approach, in which decisionmakers weigh the costs and benefits of available options. The utility-maximization framework accounts for the value of health care consumption, premium costs, expected out-of-pocket health care spending, and financial risk associated with out-of-pocket spending.

We scale each of these components of utility to dollars and assume that they are additively separable.⁷ We further assume that individuals’ utilities are separable in consumption and health. The health-related component of the utility function is modeled as follows:

$$U_{ijk}=u(H_{ij})-E(OOP_{ij})-P_{ij}-[0.5*r*VAR(OOP_{ij})]+Calibration_{jk}$$

Within this equation:

$u(H_{ij})$ is the utility associated with consuming health care services for individual i under insurance option j

k represents an individual’s demographic group based on age and income

$E(OOP_{ij})$ is the expected out-of-pocket spending

p_{ij} is the individual’s premium contribution (after adjusting for tax credits)

r is the coefficient of risk aversion.

⁷ This approach follows Goldman, Buchanan, and Keeler, 2000.

Possible health insurance enrollment choices (j) under the ACA may include employer coverage, Medicaid or CHIP coverage, an ACA-compliant individual market plan (including plans available on and off the marketplaces), or another source of coverage.⁸ Individuals can also choose to forgo insurance. Not all individuals will have access to all forms of coverage. For example, access to Medicaid is contingent on eligibility, and individuals will have access to employer coverage only if they (or their spouse or parent) work for a business that offers insurance.

The term $Calibration_{jk}$ is a factor that adjusts utilities to match enrollment patterns observed in pre-ACA data. The term accounts for nonpecuniary factors that may influence preferences for different types of insurance. Such factors include the convenience associated with enrolling in employer coverage and access constraints associated with Medicaid. Specific modeling strategies for each source of coverage j are described in the following sections.

Small-group employer coverage. Small employers in the model choose whether to offer coverage based on worker preferences and a small set of other factors, including the employer's industry and whether workers are unionized. Under the ACA, all small firms are part of a single risk pool with guaranteed issue, three-to-one rate banding on age, and restrictions that preclude insurers from charging different premiums to different groups other than based on geography, family size, tobacco use, and plan generosity.

In the current version of the model, small-group market regulations apply to all firms with 50 or fewer employees, regardless of year. Earlier versions of the model expanded the small-group market to include firms with 100 or fewer workers after 2015, as originally intended by the ACA. We revised the definition because the Protecting Affordable Coverage for Employees Act, signed into law in late 2015, amended the ACA's definition of *small employer* to include firms with one to 50 employees in perpetuity, unless states opt to extend the small-group market to firms with up to 100 workers (Pub. L. 114-60, 2015).

Small firms in the model are permitted to purchase a 60-percent, 70-percent, 80-percent, or 90-percent actuarial value plan on the ACA's regulated small-group market, which includes the Small Business Health Insurance Options marketplaces. Small firms in the model may retain grandfathered status, which exempts them from the ACA's rating regulations, although we assume that a certain percentage of small firms will lose grandfathered status each year.

The ACA also offers a small-business tax credit to small firms with low-wage workers who obtain coverage through the Small Business Health Insurance Options marketplaces. Because firms can take advantage of these credits for only two years, we assume that all small firms will have exhausted their tax credit eligibility by 2020.

Large-group employer coverage. Like small employers, large employers choose whether to offer coverage based on worker preferences and several other characteristics, including union

⁸ Other sources of coverage include Medicare for the non-elderly with qualifying conditions and military-related sources of coverage, such as TRICARE.

status and industry. We allow large firms that offer coverage to choose from among four different plans, which are distinguished by plan generosity and rated based on enrollees' expected health expenditures. We estimate premiums for the large-group market based on a regression. The firm's decision to offer is modeled using structural econometric techniques.

Medicaid. Through our calibration process, the model accounts for the fact that not all Medicaid-eligible individuals choose to enroll, perhaps because of stigma, lack of information, or transaction costs associated with enrolling. To account for the fact that the ACA increased Medicaid enrollment among the previously eligible population (Freaan, Gruber, and Sommers; 2017), we increase the calibration parameter by a factor of approximately \$200 in the post-2014 period. In our California model, we account for the fact that all lawful permanent residents with incomes below 138 percent of the FPL are Medicaid eligible while in most states, residents who have been in the United States for fewer than five years are eligible for exchange subsidies but ineligible for Medicaid. Additionally, we account for the fact that children ages 18 and younger with family incomes up to 266 percent of the FPL are eligible for CHIP in California.

Individual market. ACA-compliant individual market premiums are calculated endogenously in the model based on the health expenditure profile of those who choose to enroll. The total, unsubsidized premium is based on enrollees' age, smoking status, and market-rating reforms implemented under the ACA (U.S. Department of Health and Human Services, 2013). We model three-to-one rate banding on age for adults ages 21 and older, with a separate age-band for children and young adults younger than age 21. We also account for the ACA's risk-adjustment requirements, which transfer funds from plans with lower-than-average actuarial risk to plans with higher-than-average actuarial risk.

Under the ACA, the actual premium an enrollee pays is adjusted to account for tax credits available to qualifying individuals with incomes between 100 percent and 400 percent of the FPL who do not have affordable offers of insurance from another source (e.g., employer coverage, Medicaid). As a result, most individuals with incomes between 100 percent and 138 percent of the FPL are eligible for individual market subsidies in non-Medicaid expansion states, while most individuals in Medicaid expansion states are not. We apply the ACA's subsidy formula using the benchmark silver premium and the individual's income. Eligible individuals who have incomes between 100 percent and 250 percent of poverty can also receive CSR subsidies that help to lower out-of-pocket spending. As required by the ACA, individuals who receive CSR subsidies in COMPARE must be tax-credit eligible and purchase a silver plan (i.e., 70-percent actuarial value). With the CSR subsidies, the effective actuarial value of the plan is increased to 94 percent if income is below 150 percent of FPL, 87 percent if income is between 150 percent and 200 percent of FPL, and 73 percent if income is between 200 percent and 250 percent of FPL. Accordingly, out-of-pocket spending is adjusted downward to reflect the higher actuarial value of the plan. Note that out-of-pocket spending enters the individual's utility function; thus, individuals receiving CSR subsidies are more likely to purchase coverage.

Adjustments to Account for Post-ACA Experiences and Policies

CSRs. Given the Trump administration’s decision to halt federal payments for CSR subsidies, we assume in the model that insurers build the costs of the CSR payments into premiums for their silver plans. We take this into account in COMPARE by eliminating CSR payments from the federal government and loading the costs of CSR subsidies onto the premiums of silver non–group-market plans. Individuals who would have previously been eligible to receive CSR subsidies remain so.

Awareness of marketplace tax credits. HHS reported that approximately 14 percent of individual market enrollees are eligible for tax credits but forgo those credits by purchasing coverage outside of the marketplaces (HHS, 2016). HHS further estimates that 9 million people are potentially eligible for tax credits but remain uninsured. Because these findings suggest that some people may be unaware of their tax credit eligibility, we assume that 30 percent of individuals eligible for tax credits will not account for these credits in their health insurance enrollment decisions. With this assumption, we match HHS’s estimate that approximately half of all individual market enrollees receive tax credits. We did not include such a lack of awareness factor when modeling enrollment in California. We find that such a factor is not necessary to produce status quo estimates that are consistent with individual market enrollment and subsidy take-up in California. This makes sense given the outreach and education efforts of Covered California (undated) “to promote public awareness and inform consumers and small businesses about their options to obtain affordable health coverage through Covered California.” Because of this, nearly all subsidy-eligible individuals do, in fact, enroll in marketplace coverage and receive subsidies. The result of this outreach is that low-income Californians are more likely to take advantage of increased subsidies, whereas lower-income individuals at the national level may be unaware of the enhanced subsidies, and some who enrolled on the unsubsidized market may disenroll when premiums increase.

New rating curve. In May 2017, CMS updated the default age rating curve to adjust premium rating factors for children and young adults ages 20 and younger (Center for Consumer Information and Insurance Oversight, 2017). We use the revised rating curve in this analysis.

Adjustments to Model Alternative Scenarios with Restored CSR Payments

We model restored CSR payments by the federal government by removing the loaded costs from silver premiums and modeling the reinvestment of savings from APTCs into enhanced subsidies or reinsurance.

Weighting the National Model to California

For the California-specific analyses, we weighted the national-level COMPARE data to match the age, gender, race/ethnicity, poverty level, and health insurance composition of the

California population using the public use microdata sample from the American Community Survey given 2017 market characteristics, a year in which CSR costs were paid by the federal government. If we were to run the model assuming that CSR subsidies were paid (and the individual mandate penalty was in effect), we would reproduce insurance enrollment patterns observed in 2017.

We project the 2017 weights forward to 2020 using state-specific population projections from the University of Virginia Cooper Center's Demographics Research Group (2018). We make further adjustments to the weights to ensure that subsidized marketplace enrollment, CSR enrollment, and the silver load amount match California's 2017 experience, using detailed enrollment data from Covered California (undated). In addition, we adjusted nongroup spending in California in the model so that we could reproduce differences between national and California nongroup premiums. We derived our target from the 2017 benchmark premiums (Kaiser Family Foundation, 2018). Finally, based on the enrollment data from Covered California, California has a much higher proportion of individual market enrollees receiving subsidies than is the case nationally. Therefore, for California estimates, we do not assume that some proportion of tax-credit eligible individuals will not account for these credits in their health insurance enrollment decisions, as we do in the national model.

Comparison with CBO

Table A.1 compares our insurance estimates, assuming CSRs are not paid by the federal government and without the individual mandate, with those of the CBO (CBO, 2019). The analyses differ in the assignment of primary insurance category and estimated population size. We assign individuals to a primary insurance category while the CBO allows people to have more than one source of coverage. Therefore, CBO's estimates do not sum to population totals. For the estimated population size, we matched the population estimates published by the U.S. Census Bureau, which estimates that there will be 278 million non-elderly U.S. residents by 2020 (Vespa, Armstrong, and Medina, 2018).

Our estimated number without insurance is higher than CBO's. Furthermore, compared with the CBO, we estimate that fewer people will be enrolled in employer coverage, and fewer people will be insured in Medicaid. Estimates for individual market enrollment are similar across the two models.

Table A.1. Comparison with CBO, Insurance Enrollment in Millions

	COMPARE, 2020 No IM, CSRs Not Paid	CBO, 2020 No IM, CSRs Not Paid
Total insured		
Employer	154.6	159
Individual market	14.6	14
Medicaid	61.2	68
Other	12.5	11
Uninsured	35.2	32
Total population	278.1	273
Share uninsured (percentage)	12.7%	11.7%

NOTE: CBO allows multiple sources of coverage, so estimates do not sum to population totals. IM = individual mandate.

Appendix B. Changes in Premium Payments to Maintain Coverage

Table B.1 shows the percentage of individual market enrollees who would pay more or less in premiums to maintain coverage in the same metal tier under our alternative scenarios compared with the status quo. Whether someone will pay more or less under the different scenarios is driven by the metal tier in which they are enrolled, tobacco use status (in the United States), and whether their premiums are more or less than their required premium contribution. We also show the average increase or decrease in spending required to maintain coverage. In our national scenario, we find that those with incomes below 138 percent of the FPL would pay less to maintain coverage under the enhanced subsidy scenario while most groups with incomes above 138 percent of the FPL in both the United States and California pay more. However, this is largely driven by the fact that many people opt to purchase non-silver plans in the status quo under silver loading to take advantage of the relative value offered by non-silver plans compared with silver loaded plans. Out-of-pocket costs for these plans increase under the enhanced subsidy scenario. We find that subsidized enrollees in both the national and California models pay more under the restored CSR payment with reinsurance scenario than they pay under the status quo. While premiums decrease in this scenario, APTCs also decrease relative to the silver loading scenario. As we showed in Table 3.6, most subsidized individual market enrollees on benchmark silver plans would not experience a change in out-of-pocket premium spending, but subsidized enrollees on other metal tier plans would experience an increase in out-of-pocket premiums. Unsubsidized individuals pay more under the restored CSR with enhanced subsidy scenario and pay less under the restored CSR payment with reinsurance scenario.

Table B.1. Out-of-Pocket Premium Changes to Maintain Coverage from Status Quo (Silver Loading) Under Restored CSR Scenarios

	National		California	
	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance
Percentage paying more				
Subsidized enrollees	56%	65%	79%	95%
<139% FPL	4%	3%	n/a	n/a
139–199% FPL	53%	70%	76%	90%
200–299% FPL	78%	92%	73%	100%
300–400% FPL	91%	91%	100%	100%
Unsubsidized enrollees	100%	0%	100%	0%
Average payment increase				
Subsidized enrollees	\$2,200	\$3,200	\$1,900	\$2,800
<139% FPL	\$1,000	\$1,400	n/a	n/a
139–199% FPL	\$1,400	\$2,400	\$1,200	\$2,300
200–299% FPL	\$1,700	\$3,400	\$1,300	\$2,800
300–400% FPL	\$4,500	\$4,500	\$4,100	\$4,100
Unsubsidized enrollees	\$500	n/a	\$200	n/a
Percentage paying less				
Subsidized enrollees	31%	6%	19%	0%
<139% FPL	83%	17%	n/a	n/a
139–199% FPL	30%	6%	19%	0%
200–299% FPL	13%	2%	27%	0%
300–400% FPL	0%	0%	0%	0%
Unsubsidized enrollees	0%	100%	0%	100%
Average payment decrease				
Subsidized enrollees	–\$700	–\$1,000	–\$500	n/a
<139% FPL	–\$500	–\$1,100	\$0	n/a
139–199% FPL	–\$1,000	–\$700	–\$700	n/a
200–299% FPL	–\$500	–\$1,500	–\$300	n/a
300–400% FPL	n/a	n/a	n/a	n/a
Unsubsidized enrollees	n/a	–\$800	n/a	–\$2,600

NOTE: See Tables 3.1 and 3.2 for the enrollment in the status quo by income group.

Appendix C. Sensitivity Results

Sensitivity Using COMPARE Estimates of Savings from Restored CSR Payments

In this report, we constructed a silver loading baseline scenario in which the silver loading amount was set exogenously such that the funds available to reinvest in enhanced subsidies or reinsurance if federal CSR payments were restored matched CBO estimates. We described this in detail in Chapter 2. We designed those scenarios such that total federal spending on the individual market would be \$78 billion, which is \$10 billion more than our estimate that federal spending on individual market subsidies would total \$68 billion in 2020 if federal payments of CSRs were restored (Rao and Nowak, 2019). In that prior analysis, we estimated that total federal spending on individual market subsidies would be \$74 billion in 2020 under the silver loading status quo in a scenario in which the silver load amount was determined endogenously within the model. Therefore, using COMPARE, we estimated that restoring federal payments of CSR subsidies would lead to a decrease in federal spending of \$6 billion in 2020, which is less than CBO's estimate of \$10–\$11 billion in savings (Hall, 2018).

In the main report, we presented results showing the effects of reinvesting the savings from restored federal payments of CSRs in enhanced subsidies or in reinsurance where the amount available for reinvestment was based on CBO estimates. In this section, we present results in which the amount available for reinvestment is based on the RAND COMPARE estimates (see Tables C.1.–C.12). In general, the findings using the COMPARE spending estimates are similar to the findings in our main report that use CBO spending estimates. In these scenarios, we find that California experiences larger relative increases under the alternative scenarios than the United States as a whole. This is because when we allow the COMPARE model to endogenously estimate the silver loading level rather than setting it exogenously, we estimate lower levels of silver loading in California than the United States as a whole. In particular, we estimate that silver premiums in the United States are around 21 percent higher than they would be without silver loading and that California silver premiums are about 13 percent higher than they would be without silver loading. Therefore, Californians benefit less under silver loading than the United States as a whole and, as a result, see a greater benefit from restored federal CSR payments and reinvestment.

Table C.1. Enrollment Under the Status Quo and Alternative Scenarios for Individuals Under Age 65, 2020 (Millions), Sensitivity Based on COMPARE Spending Estimates (National)

	National				
	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Relative Change, CSR Payments + Reinsurance
Total insured	242.6	242.7	0.0%	242.8	0.1%
Individual market					
Total	14.3	14.4	0.8%	14.6	1.9%
Individual market enrollment by income					
<139% FPL	2.5	2.7	8.1%	2.8	13.7%
139–199% FPL	4.1	4.1	1.8%	4.0	–1.2%
200–299% FPL	3.7	3.8	1.2%	3.4	–9.4%
300–399% FPL	2.3	2.0	–12.1%	2.1	–7.0%
400%+ FPL	1.7	1.8	2.9%	2.2	26.9%
Individual market enrollment age (in years) and subsidy eligibility					
<35	5.0	5.0	1.5%	4.9	–0.9%
35–49	3.9	3.9	–0.6%	3.9	–0.3%
50+	5.6	5.5	–1.3%	5.8	3.5%
<35, subsidized	4.1	4.1	–0.2%	3.7	–10.6%
35–49, subsidized	3.0	3.0	–1.7%	2.8	–8.7%
50+, subsidized	3.8	3.8	–0.7%	3.8	–1.2%
Employer	154.6	154.6	0.0%	154.5	–0.1%
Medicaid	61.2	61.2	0.0%	61.2	0.0%
Other	12.5	12.5	0.0%	12.5	0.0%
Uninsured	35.3	35.4	0.1%	35.3	–0.1%

Table C.2. Enrollment Under the Status Quo and Alternative Scenarios for Individuals Under Age 65, 2020 (in Millions), Sensitivity Based on COMPARE Spending Estimates (California)

	California				
	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Relative Change, CSR Payments + Reinsurance
Total insured	29.98	30.09	0.4%	29.98	0.0%
Individual market					
Total	1.59	1.69	6.1%	1.63	2.6%
Individual market enrollment by income					
<139% FPL	0.00	0.01	n/a	0.02	n/a
139–199% FPL	0.54	0.56	2.2%	0.54	–1.0%
200–299% FPL	0.43	0.49	14.0%	0.38	–13.0%
300–399% FPL	0.22	0.17	–23.7%	0.17	–25.1%
400%+ FPL	0.39	0.46	16.8%	0.53	35.9%
Individual market enrollment age (in years) and subsidy eligibility					
<35	0.58	0.67	14.9%	0.62	5.6%
35–49	0.43	0.43	–1.0%	0.40	–6.3%
50+	0.58	0.60	2.6%	0.62	6.2%
<35, subsidized	0.45	0.50	12.5%	0.41	–7.8%
35–49, subsidized	0.34	0.32	–6.8%	0.28	–17.2%
50+, subsidized	0.41	0.39	–3.7%	0.38	–6.5%
Employer	18.00	18.04	0.2%	17.95	–0.3%
Medicaid	8.73	8.70	–0.3%	8.74	0.1%
Other	1.66	1.66	0.0%	1.66	0.0%
Uninsured	3.93	3.82	–2.8%	3.93	0.0%

NOTE: Results for the silver loading status quo for California differ slightly from our prior results in Rao and Nowak, 2019. We refined our modeling of California health care policy in this report to more fully account for CHIP eligibility and Medicaid eligibility for legal permanent residents in California.

Table C.3. Individual Market Premiums for a 40-Year-Old Non-Smoker in the United States, COMPARE-Based Estimates, 2020

	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Relative Change, CSR Payments + Reinsurance
Bronze	\$4,800	\$4,800	2%	\$4,500	–6%
Silver	\$6,800	\$5,700	–16%	\$5,200	–24%
Gold	\$6,400	\$6,500	2%	\$6,000	–6%
Platinum	\$7,200	\$7,300	2%	\$6,700	–6%

Table C.4. Individual Market Premiums for a 40-Year-Old Non-Smoker in California, COMPARE-Based Estimates, 2020

	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Relative Change, CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Relative Change, CSR Payments + Reinsurance
Bronze	\$5,000	\$4,700	-5%	\$4,400	-11%
Silver	\$6,500	\$5,500	-15%	\$5,200	-20%
Gold	\$6,600	\$6,300	-5%	\$5,900	-11%
Platinum	\$7,400	\$7,100	-5%	\$6,700	-11%

Table C.5. Federal Spending on APTCs, CSR Payments, and Reinsurance on the Individual Market, 2020 (in Billions), Sensitivity Based on COMPARE Spending Estimates

	National			California		
	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance	Status Quo (Silver Loading)	Restored CSR Payments + Enhanced Subsidies	Restored CSR Payments + Reinsurance
APTCs	74	65	55	7.2	6.5	5.1
CSRs	0	9	9	0.0	0.9	0.8
Reinsurance	0	0	11	0.0	0.0	2.1
Total federal spending on APTCs + CSR payments + reinsurance	74	74	74	7.2	7.4	8.1

NOTE: Because of rounding, total federal spending may not equal sum of APTCs + CSR payments + reinsurance.

Maintaining Silver Loading with Enhanced Subsidies or Reinsurance

We examined the effects (on enrollment, premiums, and spending) of the federal government offering enhanced subsidies or reinsurance (as described in the main report) while maintaining a policy that allows silver loading and in which federal CSR payments are not made. For these analyses, the silver loading level was set exogenously at 31 percent, the same as in the main report. Overall, we find that maintaining silver loading under our alternative scenarios increases enrollment but significantly increases costs. For example, silver loading with reinsurance leads to 1 million more individual market enrollees in the national model than silver loading alone. However, this increased enrollment comes at an additional cost of approximately \$10 billion at the national level compared with silver loading, enhanced subsidies, or reinsurance alone (\$88 billion compared with \$78 billion in APTC, CSR, and reinsurance spending).

When we allow silver loading levels to be set exogenously, we estimate lower levels of silver loading in California than in the United States as a whole—in particular, we estimate that under silver loading, silver premiums in California are 13 percent higher than they would otherwise be, while silver premiums in the United States as a whole are 21 percent higher. This is a result of the fact that, because California is a Medicaid expansion state, its insurers do not have to cover the costs of providing CSRs to most individuals with incomes between 100 percent and 138 percent of the FPL, who are eligible for Medicaid. In those sensitivity analyses, Californians benefit more than the average person in the United States when federal payments of CSRs are restored and the savings are reinvested in enhanced subsidies or reinsurance. It is important to note, however, that estimates from the Kaiser Family Foundation show that silver premiums were generally higher relative to non-silver plans compared with U.S. averages in 2018 and 2019 (Kaiser Family Foundation, 2019). This suggests that silver loading levels in California may not, in fact, be lower than the U.S. average. This suggests that our endogenous estimates of silver loading may not capture certain nuances of how silver loading levels are set in the short term. In the medium term, we would expect such effects as negotiations between insurers and state regulators to dominate. In the long term, we would expect the level to reach an equilibrium based on the number of CSR enrollees, their health care costs, and the total health care costs of all silver-tier enrollees.

Table C.6. Enrollment Under Silver Loading with Enhanced Subsidies and Silver Loading with Reinsurance Scenarios for Individuals Under Age 65, 2020 (in Millions)

	National		California	
	Silver Loading with Enhanced Subsidies	Silver Loading with Reinsurance	Silver Loading with Enhanced Subsidies	Silver Loading with Reinsurance
Total insured	243.4	243.7	30.4	30.4
Individual market, total	15.2	15.6	1.9	2.1
Individual market enrollment by income group				
<139% FPL	2.5	2.6	0.0	0.0
139–199% FPL	4.2	4.2	0.6	0.6
200–299% FPL	4.3	4.1	0.6	0.5
300–399% FPL	2.3	2.4	0.3	0.2
400%+ FPL	1.9	2.3	0.5	0.7
Individual market enrollment by age group (in years) and subsidy eligibility				
<35	5.5	5.3	0.8	0.8
35–49	4.1	4.3	0.5	0.6
50+	5.7	6.0	0.6	0.7
<35, subsidized	4.6	4.2	0.6	0.5
35–49, subsidized	3.2	3.1	0.4	0.4
50+, subsidized	3.9	3.9	0.4	0.4
Employer	154.5	154.5	18.0	18.0
Medicaid	61.2	61.2	8.7	8.7
Other	12.5	12.5	1.7	1.7
Uninsured	34.6	34.3	3.6	3.5

Table C.7. Individual Market Premiums for a 40-Year-Old Non-Smoker, Under Silver Loading with Enhanced Subsidies and Silver Loading with Reinsurance Scenarios, 2020

	National		California	
	Silver Loading With Enhanced Subsidies	Silver Loading With Reinsurance	Silver Loading With Enhanced Subsidies	Silver Loading With Reinsurance
Bronze	\$4,800	\$4,400	\$4,200	\$3,600
Silver	\$7,300	\$6,800	\$6,500	\$5,600
Gold	\$6,300	\$5,900	\$5,600	\$4,800
Platinum	\$7,100	\$6,700	\$6,400	\$5,500

Table C.8. Federal Spending on APTCs, CSR Payments, and Reinsurance on the Individual Market, 2020 (in Billions), Under Silver Loading with Enhanced Subsidies and Silver Loading with Reinsurance Scenarios

	National		California	
	Silver Loading with Enhanced Subsidies	Silver Loading with Reinsurance	Silver Loading with Enhanced Subsidies	Silver Loading with Reinsurance
APTCs	88	71	8.8	5.8
CSR payments	0	0	0.0	0.0
Reinsurance	0	17	0.0	2.1
Total federal spending on APTCs + CSR payments + reinsurance	88	88	8.8	7.9

NOTE: Because of rounding, total federal spending may not equal sum of APTCs + CSR payments + reinsurance.

Moderate Enhanced Subsidies with Enhanced Subsidy Awareness

In the main report, the enhanced subsidy scenario we present is more generous than the enhanced subsidies offered in Massachusetts. As a final set of sensitivity analyses, we consider enhanced subsidies that are similar in generosity to Massachusetts, shown in Table C.9, combined with increased awareness of subsidies. In particular, we consider changing 20 percent of individuals formerly counted as unaware of subsidies to now be aware of subsidies. Overall, we find that less-generous subsidies but increased awareness of subsidies could lead to similar levels of spending (\$79 billion versus \$78 billion) and individual market enrollment (15.2 million versus 15.0 million) at the national level compared with more-generous enhanced subsidies presented in the main report.

Table C.9. Applicable Percentage to Determine Premium Contribution Under Status Quo and Moderate Enhanced Subsidies, 2020

FPL	Percentage for Individuals at Low End of Income Group Range, Status Quo	Percentage for Individuals at High End of Income Group Range, Status Quo	Percentage for Individuals at Low End of Income Group Range, Enhanced Subsidies	Percentage for Individuals at High End of Income Group Range, Enhanced Subsidies
<138%	2.13	2.13	0	0
139%–149%	3.18	4.25	0	0
150%–199%	4.25	6.70	2.12	3.35
200%–249%	6.70	8.56	3.35	4.28
250%–299%	8.56	10.10	8.56	10.10
300%–400%	10.10	10.10	10.10	10.10

Table C.10. Enrollment Under Scenarios with Enhanced Subsidies and Increased Access for Individuals Under Age 65, 2020 (in Millions)

	National	California
Total insured	243.4	30.4
Individual market, total	15.2	1.8
Individual market enrollment, by income group		
<139% FPL	2.5	0.0
139–199% FPL	4.2	0.6
200–299% FPL	4.3	0.6
300–399% FPL	2.3	0.3
400%+ FPL	1.9	0.5
Individual market enrollment, by age group (in years) and subsidy eligibility		
<35	5.5	0.8
35–49	4.1	0.5
50+	5.7	0.6
<35, subsidized	4.6	0.6
35–49, subsidized	3.2	0.4
50+, subsidized	3.9	0.4
Employer	154.5	18.0
Medicaid	61.2	8.7
Other	12.5	1.7
Uninsured	34.6	3.6

Table C.11. Individual Market Premiums for a 40-Year-Old Non-Smoker, Under Enhanced Subsidies and Increased Access Scenarios for 2020

	National	California
Bronze	\$4,800	\$4,400
Silver	\$5,600	\$5,100
Gold	\$6,400	\$5,900
Platinum	\$7,200	\$6,600

Table C.12. Federal Spending on APTCs, CSR Payments, and Reinsurance on the Individual Market, 2020 (in Billions), with Silver Loading Under Enhanced Subsidies and Increased Access

	National	California
APTCs	69	5.2
CSR payments	10	0.9
Reinsurance	0	0.0
Total federal spending on APTCs + CSR payments + reinsurance	79	6.1

NOTE: Because of rounding, total federal spending may not equal sum of APTCs + CSR payments + reinsurance.

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