



March 15, 2022

Hon. Ken Cooley
Assembly Member, Eighth District
1021 O Street, Suite 8310
Sacramento, California 95814

Hon. Jordan Cunningham
Assembly Member, 35th District
1021 O Street, Suite 5350
Sacramento, California 95814

Dear Assembly Members Cooley and Cunningham:

This analysis responds to the Assembly Rules Committee request for the LAO to analyze financing and other considerations related to AB 1400 (Kalra), which would create a single-payer health care delivery system known as “CalCare,” and ACA 11 (Kalra), which includes tax provisions related to the financing of CalCare. The committee’s request asked the LAO to prepare a comprehensive fiscal analysis of AB 1400; discuss the tax proposals in ACA 11; and consider other issues, including a review of legal barriers relevant to the implementation, feasibility, and sustainability of CalCare.

The letter begins with an overview of CalCare and its intended financing mechanisms and a summary of key provisions of AB 1400 and ACA 11 relevant to our analysis. We then provide our analysis estimating the cost to state government of CalCare. In this section, we develop estimates for both low-cost and high-cost scenarios, making note of our key assumptions under each of the scenarios. Next, we provide an estimate of funding available for CalCare, encompassing an estimate of funding that could be redirected from existing health care programs combined with new tax revenues authorized by ACA 11. Putting together our CalCare cost estimate with our estimate of currently available funding—inclusive of redirected funds—we arrive at our estimated funding shortfall for CalCare (\$70 billion to \$193 billion). We conclude with a discussion of several key legislative considerations, reflecting a number of major trade-offs, uncertainties, and challenges introduced by CalCare. Given the short time line, our findings should be considered preliminary and would be subject to refinement and revision with further analysis. Moreover, given the scope of changes CalCare would introduce, some elements of fiscal uncertainty likely could not be reduced with further analysis. We focus on the key financing and policy issues that we were able to identify and analyze within the requested time line. We include a select listing of academic references we relied on for this analysis as an attachment to this letter.


Legislative Analyst’s Office
California Legislature
Gabriel Petek, Legislative Analyst
925 L Street, Suite 1000, Sacramento, CA 95814
(916) 445-4656

OVERVIEW OF CALCARE AND INTENDED FINANCING MECHANISMS

Assembly Bill 1400 would create a single-payer health care program in California known as CalCare. CalCare would be governed by a board and funded through the CalCare Trust Fund, established by AB 1400 for this purpose. CalCare would not become operational unless and until the CalCare board delivers a fiscal analysis (due by July 1, 2024) demonstrating revenue is more likely than not to be sufficient to cover the program costs within eight years of CalCare implementation. Following the release of such fiscal analysis, the Legislature would need to provide additional statutory approval of CalCare implementation. The remainder of this section describes the major design features of CalCare, including intended financing mechanisms.

Health Care Coverage

The following bullets provide an overview of the major coverage provisions of AB 1400.

- ***Provides Health Care Coverage to All State Residents.*** CalCare coverage would be available to all state residents, regardless of immigration status.
- ***Eliminates Premiums and Cost Sharing for Services Provided Through CalCare.*** CalCare beneficiaries could not be required to pay a premium, copayment, or other form of cost sharing for benefits covered under CalCare.
- ***Prohibits Alternative Health Care Coverage of Benefits Offered Through CalCare.*** Health insurers operating in the state—which we define to include both health plans regulated by the Department of Managed Health Care and health insurance companies regulated by the Department of Insurance—would be prohibited from covering health care services and products covered by CalCare.
- ***Covers Nearly All Health Care Services and Products.*** While the CalCare board could add additional benefits, AB 1400 requires coverage of the following benefits:
 - ***Hospital Services.*** This would include inpatient, outpatient, and emergency services.
 - ***Professional Medical Care, Primary Care, and Preventive Services.*** This would include services provided by various health professionals such as physicians and nurse practitioners and services such as maternity and newborn care; pediatrics; the services currently available through the early periodic screening, diagnostic, and treatment services available within Medi-Cal (the state’s Medicaid program serving low-income individuals); and chronic disease management.
 - ***Dental Services.*** This would include preventive, curative, and restorative dental services.
 - ***Prescription Drugs and Medical Devices.*** Prescription drugs would be available based on a prescription drug formulary—or list of drugs that readily would be reimbursable by CalCare. Over-the-counter drugs would not be covered by CalCare. Medical devices would include various forms of assistive technology

and medical equipment and appliances, including, for example, eyeglasses, hearing aids, and prosthetics.

- ***Long-Term Services and Supports (LTSS)***. LTSS generally comprise institutional care in nursing homes and home- and community-based services (HCBS) such as home care and personal care services. CalCare would cover all LTSS currently available through Medi-Cal. This would include, for example, nursing facility stays, home health care, personal care services similar to what is currently provided through the In-Home Supportive Services Program, developmental services such as those currently provided through the Department of Developmental Disabilities, case management, and adult day health care. LTSS would be available to individuals with functional limitations. Assembly Bill 1400 establishes an advisory committee to design the parameters of the LTSS and supports benefit.
- ***Mental Health and Substance Use Disorder Services***. This benefit coverage would include preventive, inpatient, and outpatient services and would be at least as extensive as mental health and substance use disorder services coverage currently available through Medi-Cal.
- ***Laboratory and Diagnostic Services***. Laboratory and diagnostic services are tests used to check whether a person’s health is normal. Common laboratory and diagnostic services include testing for cholesterol, sexually transmitted diseases, and taking x-rays to check for broken bones. CalCare would cover laboratory and diagnostic services.
- ***Medical Transportation***. This would include emergency transportation as well as nonemergency transportation for individuals with disabilities or low incomes.

Provider Payments

Authorizes the Use of Certain Facility and Other Provider Payment Methodologies.

Assembly Bill 1400 requires different payment methodologies for institutional providers (which include health care facilities such as hospitals, nursing homes, and others) and noninstitutional providers (such as physicians, dentists, psychologists, and personal care aides). Assembly Bill 1400 requires that payment to institutional providers be made through “global budgets” where a periodic lump sum payment is paid to each facility generally based on its operating expenses. For noninstitutional providers, AB 1400 would allow payment either on a fee-for-service basis or in the form of a salary.

Intended Financing Mechanisms

Under AB 1400 and its companion financing resolution, ACA 11, CalCare would be funded through the following two mechanisms described in this section.

Redirect Federal Funding That Supports Existing Health Care Programs to CalCare.

Public programs such as Medi-Cal, Medicare (the federal health care program primarily for seniors), and the Patient Protection and Affordable Care Act (health benefit exchange tax credits)

fund over 50 percent of existing statewide health care expenditures. Rather than maintaining these as separate programs, under AB 1400 and to the greatest extent federally permissible, these public programs would be integrated under CalCare. In addition to operationally integrating these public health care programs, AB 1400 intends to redirect the federal, state, and local funding currently supporting these existing programs to CalCare, reducing the net funding needs of CalCare compared to what they would otherwise be. In the final section of this letter, we discuss the uncertainty around whether the federal government, which oversees and provides most of the funding for the three major public programs just referenced, would approve the redirection of federal funding to CalCare.

Impose Three New Taxes. ACA 11 would establish a package of new taxes to fund CalCare. Specifically, ACA 11 includes three new taxes:

- **Gross Receipts Tax.** A 2.3 percent tax on every qualified business’ gross receipts above \$2 million. Gross receipts include all revenue received by a business from any source, including sales, rents, royalties, and investments.
- **Payroll Tax.** A tax on wages and salaries paid to workers which has two components: (1) a 1 percent tax on the portion of payroll above \$49,900 per worker and (2) a 1.25 percent tax on all payroll of employers with 50 or more workers.
- **Personal Income Tax.** Surcharge tax rates on personal income, as outlined in Figure 1. Personal income is all income earned in California by individuals, including wages and salaries, business profits, rents, and investment gains. The same tax rates would apply to single and married taxpayers.

Figure 1

ACA 11 Personal Income Tax Surcharge

Taxable Income	Surcharge Rate
\$149,509 but not over \$299,508	0.50%
\$299,509 but not over \$599,012	1.00
\$599,013 but not over \$1,299,499	1.50
\$1,299,500 but not over \$2,484,120	1.75
\$2,484,121 and above	2.50

COST ESTIMATE

This section describes our cost estimate to state government for CalCare. Unless otherwise noted, all our estimates reflect what costs would be in calendar year 2022 if CalCare were fully operational by the beginning of the year. Accordingly, the estimates generally reflect what the ongoing annual costs of CalCare would be in terms of 2022 prices. We generally do not account for the likely significant, limited-term costs of setting up CalCare and do not project how CalCare could change health care cost *growth* over the long term. However, in the final section, we briefly provide some considerations related to the initial establishment of CalCare and its potential impact on long-term health care expenditure growth.

Bottom Line

CalCare Estimated to Cost Between \$494 Billion and \$552 Billion. We estimate the total cost to state government of CalCare to be between \$494 billion and \$552 billion. This cost range reflects our low-cost and high-cost scenarios, respectively, in which we vary key assumptions affecting the cost of CalCare. Figure 2 compares our estimates of CalCare expenditures relative to statewide health care expenditures under the existing system impacted by CalCare. Below, we describe how the cost of CalCare would compare to existing impacted statewide health care expenditures in California. (We note that under our estimates, about \$10 billion in health care expenditures [primarily on over-the-counter drugs] would remain private expenditures under CalCare. Throughout the rest of this letter, we refer to statewide health care expenditures as excluding these expenditures not impacted by CalCare.)

Figure 2

Comparison of Our Low- and High-Cost Estimates Under CalCare Relative to Existing Statewide Health Expenditures

(In Billions)

Expenditure Category	Existing System ^a	Cal-Care	
		Low-Cost Estimate ^{a,b}	High-Cost Estimate ^{a,b}
Hospital	\$155	\$157	\$168
Physician and clinic	112	111	124
Long-term services and supports ^c	77	98	106
Drugs	38	33	44
Dental	19	19	27
Other	18	18	23
Net cost of insurance ^d	40	—	—
Investment	17	17	17
Government administration	8	17	17
Publicly funded Medicare premiums currently paid by private parties	—	16	16
Payment of gross receipts tax on direct health care services	—	8	9
Increased payroll taxes paid by state	—	2	2
Totals	\$485	\$494	\$552

^a Does not include \$10 billion in existing health expenditures (primarily on over-the-counter drugs) which would remain private expenditures under CalCare.

^b Reflects what ongoing expenditures would be with CalCare at full implementation. This does not include any temporary costs that would be incurred while implementing the program such as job transition assistance for displaced workers.

^c Long-term services and supports are available to people with functional limitations that interfere with their activities of daily living.

^d Overhead costs of providing health insurance such as insurer administrative costs and earnings. By effectively eliminating private health insurance, this cost would be eliminated under CalCare.

CalCare Could Cost Between \$9 Billion and \$67 Billion More Than Existing Statewide Health Care Expenditures. Compared to statewide health care expenditures under the existing system, we estimate that CalCare could reflect an increased cost of \$9 billion (2 percent) under our low-cost scenario and an increased cost of \$67 billion (14 percent) under our high-cost scenario.

Private Health Care Expenditures Largely Would Disappear. Nearly all private health care expenditures under the existing system would disappear under CalCare and generally be replaced with public expenditures on health care.

Cost Estimate Is Subject to Extraordinary Uncertainty. The range of cost estimates cited above reflects a plausible range of the potential cost of CalCare and the change in statewide health care expenditures under CalCare. However, given the enormous uncertainty involved, the ultimate costs of CalCare could be lower or higher than our range indicates by tens of billions of dollars. Key drivers of uncertainty include a lack of detailed data on certain components of existing health care expenditures, the unprecedented nature of the transformation of the state's health care delivery and financing system that would occur under CalCare, and gaps and disagreements in the research around the impacts CalCare's specific changes would have on costs. For example, there is significant uncertainty regarding the impacts on health care utilization as a result of the elimination of managed care. As another example, there is uncertainty regarding the extent to which there would be constraints on the supply of providers given the expansion of health care coverage.

Estimate Methodology, Key Assumptions, and Uncertainties

Estimate Reflects What a Fully Operational CalCare Would Cost in 2022. As previously noted, our estimate reflects what we assume the cost of CalCare would be in 2022 if it were operational for all of 2022. Accordingly, as of January 1, 2022, we assume all state residents are enrolled in the program, the necessary information technology systems are operational, all the financing arrangements are in place, and provider payment methodologies and rates are fully established and set at levels approximating what they would be in the long-term. In reality, establishing CalCare could take years of planning, preparation, and investment. Moreover, AB 1400 would require additional steps be taken, including the completion of the fiscal analysis described above and further statutory approval, before CalCare could be implemented. By only estimating the costs of a fully operational CalCare program, we do not attempt to estimate the likely significant costs of setting up the program. (We do, however, discuss how the state might build up the reserves necessary to sustain CalCare in years when tax revenues dip under a recession or health care expenditures prove higher than anticipated later in this letter.)

CalCare Costs Estimates Under Low-Cost and High-Cost Scenarios. As previously noted, we estimate CalCare costs under a low- and high-cost scenario to reflect the extraordinary uncertainty of how the changes under CalCare could impact statewide health care expenditures. Our low- and high-cost scenarios do not cover the entire range of what CalCare possibly could cost, but instead reflect a plausible range of potential CalCare costs. As shown in Figure 3 on the next page, we vary a number of key assumptions between our two scenarios (while some assumptions are fixed across the scenarios). The assumptions that vary by scenario include, for example, assumptions about the level of provided payment rates and whether constraints in the supply of health care services (such as due to there being too few providers) would limit total service utilization under CalCare.

Figure 3

LAO CalCare Ongoing Cost Assumptions and Scenarios

Adjustment	Affected Services and Providers	Assumptions ^{a,b}	
		Low Scenario	High Scenario
Provider Payment Rates	Facilities (such as hospitals and nursing homes). Non-HCBS providers (such as physicians and dentists). HCBS providers (such as personal care workers and home health aides). Prescription drugs.	Reimbursed at cost. Reimbursed at Medicare payment levels. Reimbursed at rates approximately equivalent to existing average rates across payers. Reimbursed at levels approximately equivalent to Medicaid rates.	
Elimination of Managed Care	All services, health care administration, and health insurer earnings.	Managed care is eliminated in California, eliminating managed care plan administrative costs and earnings, and increasing health care service utilization by a percentage based on CBO estimates under a national single-payer model.	
Expanding Coverage to Uninsured Residents	All services and health care administration.	All uninsured state residents would gain CalCare coverage.	
Expansion of LTSS	LTSS.	Non-Medi-Cal enrollees gain access to the same coverage of LTSS as current Medi-Cal enrollees but need services at about one-third of the level of Medi-Cal enrollees. All associated increases in statewide LTSS expenditures occurs within HCBS.	
Elimination of Cost Sharing	All services except over-the-counter drugs.	Higher utilization of an amount based on estimates from the CBO.	Higher utilization of an amount based on estimates from the RAND Health Insurance Experiment.
Payment of Beneficiaries' Medicare Premiums	N/A	CalCare would pay beneficiaries' Part A, Part B, and Part D premiums.	
Administrative Costs	Health care administration.	CalCare administrative expenditures equal 3 percent of total CalCare expenditures. (Because total expenditures differ between our low- and high- cost scenarios, the assumption results in different CalCare administrative expenditure amounts depending on the scenario.)	
Supply Constraints	All services except drugs and HCBS.	Health care providers are not able to accommodate a significant portion of the increased demand for services resulting from the changes under CalCare.	Health care providers are able to fully accommodate the increased demand for services resulting from the changes under CalCare.
Increased State Costs for Payroll Taxes Under ACA 11	N/A	The state no longer would provide health insurance coverage to employees. Instead the state would be required to pay payroll taxes required under ACA 11.	
Increased State Costs for Payment of Gross Receipts Tax Under ACA 11	All services.	Gross receipts tax applies to direct health care services and CalCare bears the full cost of these taxes.	

^a Both scenarios assume federal approval of redirecting federal funding. If redirection is not approved, we assume federal health care programs would operate alongside CalCare rather than be incorporated. Removing federal health programs from CalCare would significantly reduce CalCare costs but would also reduce funding by a similar amount.

^b Ongoing CalCare costs at full implementation. Neither scenario include temporary costs that would be incurred while implementing the program.

HCBS = home- and community-based services; CBO = Congressional Budget Office; LTSS = long-term services and supports; and N/A = not applicable.

Existing Health Expenditures Under Current System

The first step to estimating the total costs of CalCare is to estimate statewide health care expenditures under the existing system. We estimate current health care expenditures from all funding sources and across all services to be \$485 billion in 2022. Of this amount, about \$277 billion reflects health care expenditures made by public entities, with the remaining \$208 billion reflecting private health care expenditures. Federal funding supports about \$212 billion of publicly funded health care expenditures. (These estimates do not include health care expenditures that occur through the federal Department of Veterans Affairs, the Department of Defense, or the Indian Health Service since we assume these programs would continue to operate outside of CalCare. Furthermore, we do not account for the tax benefits provided for job-based health care coverage in our estimate of public versus private health care expenditures.)

Cost Adjustments to Account for Changes Under CalCare

The next step of estimating the costs of CalCare is to adjust existing health expenditures to account for the changes that would occur under CalCare. As shown in Figure 4 on the next page, with all our adjustments, we estimate the total cost of CalCare to be \$494 billion under our low-cost scenario and \$552 billion under our high-cost scenario. Below, we provide an overview of the individual adjustments we make.

Elimination of Cost Sharing Would Increase Costs. Under the existing health care system, individuals typically pay a share of the cost of the health care services they use in the form of a deductible or copayment (if uninsured or using an uncovered benefit, they often would be responsible for paying the entire service cost). We estimate that the amount spent on health care in the form of cost sharing currently reflects about 10 percent of total health care expenditures. Under CalCare, all cost sharing would be eliminated for benefits covered by the program. Cost sharing serves to limit utilization of health care services since it requires individuals to bear a cost for the services they utilize. With no cost sharing, this disincentive would no longer exist and their demand for services likely would increase. We assume the elimination of cost sharing under CalCare would lead to a \$40 billion (roughly 8 percent) increase in total health care expenditures compared to the existing system under the low-cost scenario and a \$47 billion (roughly 9 percent) increase under the high-cost scenario. (We also note that the amount currently spent on cost sharing generally would shift from a private to publicly funded health care expenditure.)

Expansion of LTSS Would Increase Costs. LTSS are available to people with functional limitations that interfere with their activities of daily living and include, for example, nursing home stays, personal care services, case management services, and adult day health care. CalCare would cover an extensive array of LTSS, including all the above services and more. We estimate that expanding coverage of LTSS under CalCare would increase costs by about \$19 billion (nearly 4 percent) compared to total health care expenditures under the existing system.

Figure 4

Adjustments to Existing Statewide Health Care Expenditures to Arrive at CalCare Cost Estimate
 Calendar Year 2022 (In Billions)

Existing Health Care Expenditures		
Existing health care expenditures that would be impacted by CalCare ^a	\$485	
	CalCare Cost Scenarios	
Adjustments to Existing Expenditures	Low	High
Elimination of cost sharing	\$40	\$47
Comprehensive LTSS coverage	19	19
Payments of beneficiaries' Medicare premiums	16	16
Higher net state health care administration costs	8	9
Payment of gross receipts tax on direct health care services	8	9
Coverage of the uninsured	4	4
Increased payroll taxes paid by the state	2	2
Elimination of managed care	-23	-23
Provider supply constraint on utilization	-30	—
Provider and product reimbursement levels	-35	-16
Total Adjustments	\$9	\$67
Estimated Cost Under CalCare^b	\$494	\$552

^a Does not include \$10 billion in existing health expenditures (primarily on over-the-counter drugs) which would remain private expenditures under CalCare.

^b Reflects what ongoing expenditures would be with CalCare at full implementation. This does not include any temporary costs that would be incurred while implementing the program, such as job transition assistance for displaced workers.

LTSS = long-term services and supports.

New Costs to Pay for Medicare Premiums. Medicare requires beneficiaries to pay premiums for medical care and preventive services and prescription drugs (and, for a small subset of beneficiaries, for hospitals services and covered LTSS). We assume that CalCare would pay these premiums to the federal government on beneficiaries' behalf at a cost of \$16 billion, which reflects a 3 percent increase above what costs would be if CalCare did not pay these premiums. While AB 1400 directs CalCare to provide premium assistance for Medicare's prescription drug benefit, the bill does not direct CalCare to provide premium assistance for medical care and preventive services or hospital services and LTSS. However, these benefits would be covered by CalCare and AB 1400 explicitly does not allow for a requirement that beneficiaries pay premiums in order to receive CalCare benefits. Given that the federal government likely would not be willing to both forego premium revenues *and* provide a similar level of funding for Californians' Medicare coverage as today, we assume that CalCare would pay all the premiums required under Medicare.

New Costs to Administer CalCare. We estimate that the total cost of administering CalCare would be around \$16 billion, which would reflect 3 percent of total health care expenditures under CalCare. We base this estimate off of Congressional Budget Office assumptions for the cost of administering a national single-payer program as well as what administrative

expenditures tend to be for advanced countries that have health care systems resembling a single-payer health care system. Our estimates reflect a net increase in state health care administration costs—relative to today—of \$8 billion under the low-cost scenario and \$9 billion under the high-cost scenario.

Costs of Gross Receipts Tax on CalCare Services. As discussed in the next section, ACA 11 would establish a new gross receipts tax (GRT) as one of the financing mechanisms for CalCare. As ACA 11 in its current iteration does not provide an explicit exemption for the application of the GRT to direct health care services provided under CalCare, we assume that it would apply. We also assume that health care providers would not be required to absorb the cost of this tax on services that they provide, meaning that the payment of the tax would be made by CalCare and would be added to the calculation of the total cost of CalCare. We assume that CalCare costs would increase by \$8 billion under the low-cost scenario and \$9 billion under the high-cost scenario to reflect the payment of the GRT on health care services.

Expanding Coverage to the Uninsured Would Increase Costs. We estimate that currently there are about 3.2 million uninsured state residents who would gain health care coverage under CalCare at a cost of roughly \$4 billion annually (reflecting less than a 1 percent increase in total health care expenditures). While uninsured individuals use health care services under the current system, researchers believe they use fewer services than they otherwise would if they were insured. The increase in cost of covering the uninsured largely reflects this estimate upward adjustment in service utilization.

Costs of Payroll Taxes on State Government. As described below, the state no longer would provide health insurance coverage to employees. Instead the state would be required to pay payroll taxes required under ACA 11. We estimate the cost of these taxes to be \$1.6 billion. (These costs would be more than offset by the reduction in costs associated with providing health insurance coverage.)

Elimination of Managed Care, on Net, Would Lower Costs. About two-thirds of Californians receive health care coverage through managed care plans. Under CalCare, managed care essentially would be eliminated, which we estimate would result in lower net costs of around \$23 billion compared to total existing health care expenditures. We assume the elimination of managed care would have two major effects on health care expenditures. First, existing spending that supports managed care plan administration and earnings would disappear, resulting in about \$40 billion (8 percent) in savings compared to total health care expenditures today. Second, the elimination of managed care largely would eliminate the mechanisms managed care plans currently have in place for controlling service utilization. We assume the elimination of these mechanisms would increase the cost of CalCare by around \$17 billion (4 percent) relative to total current health care expenditures.

Changes in Reimbursement Rates Would Lower Costs. Under the existing system, provider reimbursement rates vary significantly depending on whether the payer is a private insurer, Medicare, or Medi-Cal. Under CalCare, the state would establish provider reimbursement rates administratively. We expect that provider payment rates for facilities, providers, and medical products and devices (including prescription drugs) would be significantly lower under CalCare

than under the existing system, resulting in savings of \$35 billion (7 percent) in the low-cost scenario and \$16 billion in the high-cost scenario (3 percent) relative to total current health care expenditures. Figure 5 summarizes our estimated changes in costs due the adoption of lower reimbursement rates than currently are paid on average under the existing system.

Figure 5

Assumed Changes to Reimbursement Rates Under CalCare by Major Service Type

Percent Change to Existing Statewide Average Reimbursement Rates

Service Type	CalCare Cost Scenarios	
	Low Cost	High Cost
Hospitals	-4%	-3%
Physicians and Clinics	-6	-3
Prescription Drugs	-44	-18
Nursing Homes	-8	-6
HCBS Workers	4	8
Other	-7	-3

HCBS = home- and community-based services.

Job Transition Assistance for Displaced Workers. To help workers who are displaced from their jobs in the health care sector, AB 1400 requires that at least 1 percent of CalCare’s budget be spent on job transition assistance for the first five years after which benefits first become available. If CalCare were to spend 1 percent of its annual budget, we estimate that CalCare would spend as much as around \$5 billion annually for its first five years to provide job transition assistance. This estimate assumes no ramp up in overall CalCare costs over time after the program begins paying for services. If there were to be a ramp up, funding for job transition assistance could be lower than we estimate. Because our estimates of health care expenditures under CalCare are intended to reflect ongoing expenditures, we do not incorporate this cost into our total costs reflected elsewhere in this letter.

Public Sector Employees and Retirees

CalCare Would Replace Public Employees Existing Benefits. When accounting for the state and various local governments, there are more than 5,000 governmental entities in California. According to the U.S. Census Annual Survey of Public Employment and Payroll, government in California employs 1.6 million full-time public employees with a total annualized payroll cost of \$145.5 billion in March 2020. Although these public employees perform a variety of jobs across the state and receive varying levels of total compensation, they often receive a compensation package that consists of (1) salary, (2) health benefits for active employees and their eligible dependents, and (3) retirement benefits (often including pension and retiree health benefits). Public employee health benefits often are generous and historically have been considered a major feature that distinguishes public sector compensation from private sector compensation,

especially in cases where the public sector cannot offer comparable wages to the private sector. Our analysis assumes that the CalCare benefit would be viewed as a benefit equal to—or exceeding—the benefit currently offered. This is an important assumption because there are certain legal determinations that can protect public employees’ access to benefits offered to them as part of their employment. Consequently, the state—and other local governments—no longer would provide health insurance benefits directly, but would pay payroll taxes on behalf of employees as part of CalCare. (Our estimate of the net cost of CalCare reflects the savings to state government of not providing health insurance benefits to state-funded employees directly as well as the costs of the new payroll costs.)

FINANCING ESTIMATE

Existing Health Care Program Funding

Between \$239 Billion and \$260 Billion in Existing Public Funding for Health Care Potentially Could Be Redirected to CalCare. Existing public funding for health care that can be redirected reduces the amount of new revenues that would be needed to support CalCare. Figure 6 on the next page breaks down the sources of this redirected funding under two different scenarios. The following bullets describe the major sources of funding that we assume would be redirected.

- ***Between \$179 Billion and \$187 Billion in Federal Funding.*** We estimate that the state could redirect between \$179 billion and \$187 billion in federal funding that currently supports health care expenditures in California to CalCare. These estimates assume the federal government would approve the redirection and the range reflects different mechanisms for redirecting federal funding, which could have different impacts on the amount of federal funding available to the state. The two mechanisms we assume are block grants (for the low-financing availability scenario) and cost-based reimbursement (for the high scenario), each of which brings trade-offs. These two mechanisms are for illustrative purposes—other mechanisms are plausible as well. In a later section, we discuss some of the implications if the federal government were *not* to approve the state’s request to redirect federal funding from existing health care programs.
- ***State Funding.*** We assume between \$52 billion and \$65 billion in state funding that currently supports health care expenditures could be redirected to CalCare. Most of this funding currently supports Medi-Cal, though a significant portion supports state (and to a limited extent, local) employee and retiree health benefits. The redirection of some of this funding would require future legislative action as well as voter approval for the redirection of certain funds, such as the Proposition 56 (2016) tobacco tax revenues dedicated to Medi-Cal.
- ***Local Funding.*** We assume about \$9 billion in local funding that currently supports the Medi-Cal program would be redirected to CalCare. This includes revenues dedicated by the state to local governments through either 1991 or 2011 realignment, as well funds that local, public health care providers currently use within Medi-Cal.

While AB 1400 and ACA 11 do not make all the changes necessary to redirect these local funds, we assume follow-up legislation, where necessary, would authorize the redirection of this funding.

Figure 6

Estimate of Existing Public Funding That Could Be Redirected to CalCare

(In Billions)

	Low Scenario				High Scenario			
	Federal	State	Local	Total	Federal	State	Local	Total
Medi-Cal	\$72	\$43	\$9	\$124	\$77	\$43	\$9	\$130
Medicare	99	—	—	99	99	—	—	99
Health Benefit Exchange (Covered California)	8	1	—	9	10	—	—	10
Public Employee and Retiree Health Benefits ^a	—	4	—	4	—	18	—	18
Other ^b	—	3	—	3	—	3	—	3
Totals	\$179	\$52	\$9	\$239	\$187	\$65	\$9	\$260

^a Includes state workers, including those at the public universities and colleges, and local employees whose health benefits are funded through the state's K-12 education funding formulas.

^b Primarily consists of the redirection of Department of Developmental Services funding to CalCare.

New Tax Revenues

New Taxes Estimated to Raise \$120 Billion to \$164 Billion. Altogether, the new taxes proposed in ACA 11 probably would raise between \$120 billion and \$164 billion under current economic conditions. The breakdown of these estimates across the three taxes are shown in Figure 7.

Figure 7

Estimates of ACA 11 Tax Revenues Under Current Economic Conditions

(In Billions)

	Low	High
Gross receipts tax	\$95	\$133
Payroll tax	18	22
Personal income tax	7	9
Totals	\$120	\$164

Taxpayer Response a Key Uncertainty. A primary reason for the range in our revenue estimates is that predicting how taxpayers would respond is difficult. In general, taxable activities decline when tax rates increase. These declines can result from an actual reduction in economic activity, such as less business growth or reduced hiring. In many cases, however, they can arise from taxpayers changing their accounting practices, investment strategies, or business organization in ways that reduce their tax costs without significantly altering overall economic activity. Our estimates incorporate all of these types of responses. We base these estimates on a review of research on taxes applied to broad categories of economic activity, such as those in

ACA 11. Overall, while there could be a meaningful reduction in activities taxed by ACA 11, we anticipate that the vast majority of existing economic activity in the state would continue.

Funding Shortfall

Redirected Funding and Tax Revenues Would Be Insufficient to Pay for CalCare. Figure 8 shows the estimated funding shortfall in each scenario (and across both financing scenarios). As shown, the estimated funding shortfall under these scenarios ranges from \$70 billion (in the low-cost, high-financing scenario) to \$193 billion (in the high-cost, low-financing scenario).

Figure 8

CalCare Faces an Estimated Funding Shortfall
(In Billions)

Cost Scenarios	Low Cost		High Cost	
	Low Financing	High Financing	Low Financing	High Financing
CalCare cost estimate ^a	\$494		\$552	
Available Financing Scenarios	Low Financing	High Financing	Low Financing	High Financing
Redirected funding from existing public programs	\$239	\$260	\$239	\$260
New tax revenues under ACA 11	120	164	120	164
Financing Subtotal	(\$359)	(\$424)	(\$359)	(\$424)
Funding Shortfall^b	\$135	\$70	\$193	\$128

^a Ongoing CalCare costs at full implementation including state costs to pay (1) new gross receipts tax on direct health care services and (2) new payroll taxes, as both established by ACA 11. This does not include any temporary costs that would be incurred while implementing the program, such as job transition assistance for displaced workers.

^b Remaining differences between estimated CalCare costs and the estimated amount of new and redirected financing in the respective scenarios.

Long-Term Financial Sustainability

Multiple factors pose challenges for the long-term financial sustainability of CalCare. In particular: (1) year-to-year fluctuations in revenues and costs would necessitate sizeable reserves and (2) whether growth in revenues and costs would be balanced over time is unclear.

Revenues Would Vary With Economic Conditions. The revenues raised under ACA 11 would grow over time. This growth, however, would fluctuate from year to year with changing economic conditions. Most of the time, annual revenue growth probably would fluctuate by a few billion dollars around a long-term trend. During recessions, however, these annual fluctuations could be greater, exceeding \$10 billion. This revenue volatility poses a challenge for the financing of CalCare—albeit one that could be overcome with proper planning. That said, ACA 11 tax revenues would be considerably more predictable than existing state General Fund tax revenues. A key reason for this relative stability is that the GRT applies the same tax rate to all receipts above \$2 million. In contrast, the personal income tax (the largest General Fund tax) applies much higher rates to the volatile incomes of high-income taxpayers.

Costs Also Would Vary From Year to Year. CalCare costs also would vary from year to year with changes in claims volume and health care cost pressures. Over time, the costs of CalCare generally would increase with overall health care costs. We estimate that CalCare costs typically would grow by at least \$20 billion to \$30 billion annually. However, there could be smaller or larger fluctuations in any given year.

Reserves Needed to Smooth Out Year-to-Year Fluctuations. The State Constitution prohibits the state from borrowing in years in which revenues were insufficient to cover CalCare costs. Given this limitation and year-to-year fluctuations in both revenues and costs, maintaining a substantial reserve for CalCare would be required. Although ACA 11 includes a mechanism for the Legislature to adjust tax rates to cover funding shortfalls, there could be practical barriers to making these adjustments more often than every few years. As such, maintaining a reserve of 10 percent to 15 percent of annual costs would help CalCare avoid funding shortfalls over time.

CalCare's Uncertain Effect on Long-Term Health Care Expenditures. In recent decades, statewide health care expenditures have grown faster than other areas of the state's economy. This high health care cost growth has been driven by increases in health care utilization—as the state population ages, for example—and by higher price inflation for health care than for other goods and services. Under CalCare, the state would have significantly greater control over health care provider payment rates than today. To the extent the state effectively used this control to contain the growth of health care prices, growth in statewide health care expenditures under CalCare could be lower than they otherwise would be. However, whether statewide health care expenditures would be lower under CalCare than the existing system would depend heavily on how CalCare affects service utilization levels and the supply of services. Even with a significant reduction in long-term health care price inflation, if service utilization ultimately increases as significantly as we estimate in our high-cost scenario described above, statewide health care expenditures could be higher under CalCare than they otherwise would be for a decade or more.

Growth in CalCare Costs Could Outpace Long-Term Revenue Growth. Whether CalCare would be financially sustainable over the long term without the approval of higher rates or new revenues would depend on whether the long-term growth of CalCare costs would align with the long-term growth in funding dedicated to CalCare. Structural shortfalls could arise if either of the following sources of funding do not grow at a similar pace as CalCare costs: (1) funding redirected to CalCare, such as from the federal government, and (2) the tax revenues dedicated to CalCare. The likelihood of CalCare costs growing slower or faster than available funding is highly uncertain.

KEY CONSIDERATIONS

CalCare would advance a number of key legislative goals. It would allow the state to achieve universal health care coverage, potentially allow the state to make progress on a number of affordability challenges, and reduce health care system fragmentation and complexity. However, CalCare would introduce a number of major trade-offs, uncertainties, and challenges, which we focus on for the remainder of this section.

Federal Funding

Whether the Federal Government Would Allow the Redirection of Federal Funding for Existing Federal Health Care Programs Is Highly Uncertain. As previously discussed, CalCare financing would depend heavily on the redirection of federal funding from existing federal health care programs to CalCare. While our CalCare financing estimate assumes the federal government would provide necessary approval of this redirection (as well as assuming

the federal programs largely would be subsumed operationally under CalCare), whether the federal government would in fact provide necessary approval is highly uncertain. Federal approval of the redirection of federal funds likely would have to take the form of federal statutory changes from Congress, as the waiving of federal health care program rules through existing waiver authorities within federal law does not appear to be viable.

If Federal Programs Operated Outside of CalCare, Costs Would Be Significantly Lower. Under AB 1400, we assume that federal health care programs generally would continue to operate alongside CalCare if the federal government rejected the redirection of the federal (and in some cases, state and local) funding to CalCare. As a result, while up to between \$232 billion and \$239 billion in redirected funding would not be available to CalCare in this scenario, we assume that CalCare program costs would be lower by a similar amount.

State-Local Relationship

How Local Role in Delivering Health Care Services and the Related Financing for These Services Would Change Under CalCare Is Unclear. Under the existing system, local governments provide certain health care services, such as particular behavioral health services, and the state provides local governments with a financing mechanism for this service provision. Our estimate of available funding in existing programs that can be redirected for use in CalCare assumes the availability of certain local funds. However, how the existing state-local arrangements—in terms of state-local financing and service provision—would change under CalCare is unclear. Were CalCare enacted, the Legislature would need to take action to align these existing systems with CalCare.

Other Potential Legal Risks

In addition to the risk of the federal government potentially not approving the redirection of federal funding to CalCare, implementation of CalCare could face a number of other legal risks. Most notably, federal rules limit state authority to regulate employer-sponsored health benefits, particularly for employers who “self-insure” by assuming the financial risk associated with their employees’ health care rather than transferring the risk to a health insurer. These federal limits on states’ regulatory authority potentially could limit the state’s ability to consolidate existing employer-sponsored health benefits under CalCare, as envisioned by AB 1400. Under AB 1400, health insurers—including those who participate in the employer-sponsored health insurance market—would be prohibited from covering benefits available through CalCare. The courts could determine that AB 1400’s broad prohibition on health insurers from covering health care benefits offered by CalCare represents a violation of federal law limiting state authority to regulate employer-sponsored insurance. While other jurisdictions in the United States that have considered single-payer have developed mechanisms to address this issue, there remains substantial uncertainty about the state’s legal ability to consolidate existing employer-sponsored health benefits under CalCare.

Setting Up CalCare Would Take Significant Time and Resources

Scale of CalCare Would Be Unprecedented. The scale and scope of CalCare as a state government program would be unprecedented. When operational, CalCare would be responsible for overseeing and funding around 15 percent of the economic activity in the state. CalCare would be between four and five times as large as the largest existing state program, Medi-Cal, in terms of total expenditures. Establishing a program of the scale and scope of CalCare could take years of planning and resources. Policies related to the enrollment of beneficiaries, the scope of covered benefits, and provider reimbursement rates all would have to be established. Information technology systems for tracking and reimbursing more than 100 million health care claims and encounters would have to be developed. Negotiations with the federal government would have to take place to establish the rules around the merger of federal health care programs and the redirection of federal health care funding into CalCare. We do not attempt to estimate the cost of these efforts to set up CalCare, which could be at least tens of billions of dollars.

Startup Funds Would Be Needed. The initial estimates of the costs and financing of CalCare are subject to significant uncertainty. Because of this, CalCare would need a startup reserve to cover unanticipated cost overages or funding shortfalls in the early years of implementation. Our estimates suggest that a startup reserve of 20 percent to 25 percent of annual costs would be prudent.

Potential Health Care Delivery System Impacts

CalCare would fundamentally transform health care financing and delivery in California. Below, we describe some of the potential impacts of CalCare, many of which ultimately would be affected by the detailed program design and how the program is implemented in practice.

CalCare Would Shift Some Health Care Spending From Overhead to Direct Service Provision. Direct health care services are services delivered directly to a patient by a health care professional. Overhead includes government and health insurer administrative expenditures as well as health insurer earnings and represents nearly 10 percent (\$48 billion) of existing health care expenditures in California. Under CalCare, we estimate that total overhead would fall to a little more than 3 percent, the vast majority of which would reflect government administrative expenditures. Direct health care service expenditures statewide would increase by as much as around \$60 billion in our high-cost scenario. Accordingly, CalCare would result in a significant shift away from overhead to direct health care service provision.

Potentially Lower Provider Payment Rates Under CalCare Could Create Shortfalls in the Quantity and/or Quality of Services Provided... Assembly Bill 1400 establishes provider payment methodologies but does not explicitly prescribe their levels. Rather, CalCare would establish payment levels through rate-setting processes and negotiations with providers. Nevertheless, AB 1400 calls for cost-based reimbursement for health care facilities and establishes a rebuttable presumption that Medicare rates are reasonable for other providers, both of which generally would entail lower reimbursement rates than today. Accordingly, for all services except HCBS, we assume provider payment rates would be lower under CalCare than average rates across payers under the existing system. With lower payment rates, providers likely would provide fewer services than today. At the same time, we assume AB 1400 provisions such

as the elimination of managed care and cost sharing, expanded coverage to the currently uninsured, and coverage of LTSS dramatically would increase demand for health care services. With higher demand and potentially lower supply from lower payment rates than today, CalCare could create shortfalls in the quantity and/or quality of health care available to Californians. (We explicitly assume such shortfalls in our low CalCare cost scenario described above.) Such shortfalls could take the form of difficulty in finding providers accepting new patients, longer wait times for services, and less interaction time between providers and patients. While CalCare could raise provider payment rates or take other actions to ameliorate such shortfalls, doing so would be costly or could bring other trade-offs. Ultimately, given CalCare's intended payment rates, comprehensive benefit package, and removal of major existing mechanisms which currently serve to limit health care utilization, a shortfall of in the supply of care to the amount demanded is likely.

...Exacerbating Existing Health Care Workforce Challenges... Currently, the state faces a number of health care workforce challenges—some of which were exacerbated by the COVID-19 pandemic—which reduce access to health care. By potentially lowering provider payment rates compared to today, CalCare could exacerbate the state's workforce challenges to the extent providers respond by retiring early, reducing how much patient care they provide, or migrating out of state. Furthermore, lower payment rates could shrink the health care workforce pipeline to the extent prospective providers would no longer find that the benefits (including compensation) of becoming a health care professional outweigh the time and cost of completing the necessary training.

...However, Other Changes Under CalCare Likely Would Offset at Least a Portion of These Potential Negative Impacts. In our assessment, other changes under CalCare at least partially would offset the above potential negative effects. First, we assume that demand for health care would be higher than under the existing system. Especially over the long term, care providers could find ways to efficiently provide more services to offset the reduction in payment rates. Second, CalCare likely would significantly simplify the administrative processes providers currently must maintain to comply with the rules of multiple health insurers and other payers in order to receive payment for the services they deliver. Because CalCare likely would reduce system complexity, providers likely would be able to devote time and resources saved on administration to additional care delivery (as described earlier).

Changes Under CalCare Remove Some Current Incentives for Quality Care. By moving away from the managed care and related value-based payment systems that dominate health care delivery under the existing system, CalCare—while likely increasing service utilization overall—could encourage greater utilization of lower-quality care compared to today.

Impact on the Economy Is Unclear

CalCare's effects on the state's economy would be complex. Employers, workers, and consumers would be better off in some ways, while they would be worse off in other ways. In addition to this complexity, the task of estimating CalCare's economic effects is complicated by a lack of quality empirical research on the extent and scope of potential economic effects. As a result, determining the overall effect on the state's economy is not possible. To illustrate this,

consider potential effects on employment—a topic about which no firm conclusions can be drawn despite being relatively well studied.

Under CalCare, employers' costs for health insurance for their workers could go down by around \$130 billion per year, which would encourage more hiring. At the same time, employers would be facing new tax costs of a similar magnitude. The distribution of savings and costs, however, would be complex. For instance, employers that currently do not offer health insurance would face new costs with no commensurate savings. This would cause them to cut costs elsewhere, such as through reduced employment. Further, detaching health insurance from employment could change people's decisions about whether to pursue self-employment or whether to join the labor force at all. In light of these various factors, we cannot say how employment would change overall under CalCare.

Impact on Existing State Tax Revenues

As with effects on the economy, the impact of CalCare on state revenues from existing taxes is unclear. Some factors could increase revenues from existing taxes. For example, profits of some businesses may go up as a result of reduced costs for employee health insurance, resulting in higher income tax and corporation tax payments. Also, businesses may pass on part of their new tax costs under CalCare to consumers through higher prices. These higher consumer prices could, in turn, mean higher sales tax revenue. On the other hand, some factors could decrease revenues from existing taxes. For example, businesses may shift to less economically efficient business structures to minimize their GRT costs. This could reduce the incomes against which those businesses pay income and corporation taxes. Also, faced with an additional income tax surcharge under CalCare, higher-income taxpayers could alter their accounting or financial practices to reduce their taxable incomes. This could reduce revenue collection under existing personal income tax rates.

Impact on Public Sector Employees and Retirees

Change in Benefits Could Increase Pressure on Other Compensation. Under CalCare, all California residents would receive the same healthcare package—regardless of their employment status. As such, access to healthcare through public employment no longer would be a defining feature of public employment compensation packages that recruits and retains public workers. This could create pressure on public employers to increase other elements of public employee compensation to address recruitment and retention issues.

CalCare Likely Would Result in Significant Budgetary Savings to Public Employers and Increased Compensation for Employees. CalCare likely would result in significant annual savings to public employers because they no longer would pay for active or retired employees' health benefits. Although there likely would be pressure for governmental employers to increase other elements of compensation, on net, CalCare likely would reduce annual state and local government employee compensation costs across the state by billions of dollars annually. In the case of the state as an employer, in 2022, we estimate that the state will spend a total of \$6.2 billion—the equivalent of about one-quarter of salary costs—towards active and retired employee health benefits. Accordingly, if the state did not increase other elements of

compensation, CalCare would reduce state employer costs by \$6.2 billion in 2022. Similarly, state employees will pay about \$1 billion towards health premiums today and to prefund the health benefit they will receive in retirement. As a result of CalCare, employees would no longer have to pay these costs for their active and retiree health care—meaning that about 4.5 percent of their pay, on average, no longer would be withheld to pay for these costs. This effective increase in state employee take home pay would not increase state costs.

Some Uncertainty as to Effects on Existing Retiree Health Liabilities and Obligations.

Most governmental employers have very few assets set aside to prefund retiree health benefits. Instead, governments historically have paid for these benefits on a pay-as-you-go basis after employees retire. Consequently, most governmental employers have some level of unfunded liability associated with retiree health benefits earned in the past by employees. In most cases, CalCare would at least substantially reduce existing unfunded liabilities, resulting in significant savings to governmental employers over the long run and improved financial conditions.

How the State Could Attempt to Control Costs

Various options would be available to the Legislature to contain health care costs as well as address either a temporary or structural CalCare funding shortfall, each bringing the trade-off of a negative impact on access to health care services. While some of these strategies would require legislative action to amend AB 1400, others likely would be available by way of administrative action by the CalCare board. The following bullets describe some, though not all, cost containment strategies that ultimately could be used were CalCare to face a temporary or structural funding shortfall.

- ***Require Cost Sharing.*** The Legislature could amend AB 1400 to require cost sharing in the form of deductibles or copayments for services that beneficiaries utilize. This could generate significant savings by directly transferring a portion of funding responsibility to beneficiaries for the CalCare services they use and also deter beneficiaries from seeking care they do not deem critical. However, consideration as to the structure of cost-sharing would be important. Specifically, the Legislature could consider how to structure payments to ensure care is affordable and accessible as well as encourages higher-quality care.
- ***Limit the Scope of Coverage for Benefits.*** Limiting the scope of benefits available through CalCare could significantly contain program costs. For example, the CalCare board likely could take administrative action to limit which conditions and levels of severity trigger eligibility for a given benefit, such as a high-cost drug. Alternatively, the Legislature could make changes to which benefits are covered by CalCare, such as by removing dental services as a CalCare benefit.
- ***Introduce Administrative Mechanisms for Controlling Costs.*** CalCare removes key mechanisms health insurers currently use to control costs, such as requiring patients to seek a referral from their primary care physician before visiting a specialist and requiring prior authorization before receiving a high-cost service. Such mechanisms for controlling costs generally are prohibited by AB 1400. The Legislature could take

action to remove or modify these AB 1400 limitations as a means of containing CalCare costs.

- **Utilize Waitlists.** Waitlists are a mechanism for controlling costs that currently is used in Medi-Cal for certain HCBS programs. The state could consider imposing waitlists in order to reduce CalCare costs.
- **Reduce Provider Reimbursement Levels.** The CalCare board could take action to reduce provider reimbursement levels.

My colleagues and I would be happy to provide a briefing for you to go through our analysis and answer any questions that you may have. In the interim, if you have any questions, please feel free to contact my colleague, Mark Newton (Mark.Newton@lao.ca.gov), on issues related to the CalCare cost estimate and health care-related issues, and my colleague, Brian Uhler (Brian.Uhler@lao.ca.gov), on issues related to CalCare financing in general, ACA 11, and economic impacts.

Sincerely,

A handwritten signature in blue ink that reads "Gabriel Petek". The signature is fluid and cursive.

Gabriel Petek
Legislative Analyst

Attachment

Agersnap, Ole and Owen Zidar (2021). “The Tax Elasticity of Capital Gains and Revenue-Maximizing Rates.” *American Economic Review: Insights* 3:399-416.

Agrawal, David and Laura Zimmermann (2019). “Production and Evasion Responses with Limited State Capacity.” *International Growth Centre Working Paper S-89411-INC-1*.

Baicker, K. et al. (2013) “The Oregon Experiment—Effects of Medicaid on Clinical Outcomes.” *New England Journal of Medicine*.

Baker, Andrew, David Larcker, and Charles Wang (2022). “How Much Should We Trust Staggered Difference-in-Difference Estimates?” *Journal of Financial Economics* 144:370-395.

CBO’s Single-Payer Health Care Systems Team. (2020) “How CBO Analyzes the Costs of Proposals for Single-Payer Health Care Systems That Are Based on Medicare’s Fee-for-Service Program.” *Working Paper Series*, Congressional Budget Office.

Cutro, V., Einav, L., Finkelstein, A., Levin, J. Bhattacharya, J. (2019) “Health Care Spending and Utilization in Public and Private Medicare.” *American Economic Journal: Applied Economics*.

de Chaisemartin, Clement and Xavier D’Haultfoeuille (2022). “Two-Way Fixed Effects and Differences-in-Differences with Heterogeneous Treatment Effects: A Survey.” *National Bureau of Economic Research Working Paper 29691*.

Finkelstein, A. et al. (2012) “The Oregon Health Insurance Experiment: Evidence from the First Year.” *Quarterly Journal of Economics*.

Fuse Brown, E.C. and McCuskey, E.Y. (2019) “Could States Do Single-Payer Health Care?” *Health Affairs*.

Gruber, J. (1998) “Health Insurance and the Labor Market.” *National Bureau of Economic Research*.

Hansen, Benjamin, Keaton Miller, and Caroline Weber (2021). “Vertical Integration and Production Inefficiency in the Presence of a Gross Receipts Tax.” *National Bureau of Economic Research Working Paper 28478*.

Healthy California for All Commission. (2021) “Estimated Effects of Unified Financing in California: Summary of Methods and Assumptions.”

Jakobsen, Katrine and Jakob Sogaard (2021). “Identifying Behavioral Responses to Tax Reforms: New Insights and a New Approach.” Mimeo, Center for Economic Behavior and Inequality, University of Copenhagen.

Kennedy, J. Wood, E.G., Frieden, L. (2017) “Disparities in Insurance Coverage, Health Services Use, and Access Following Implementation of the Affordable Care Act: A Comparison of Disabled and Nondisabled Working-Age Adults.” *The Journal of Health Care Organization, Provision, and Financing*.

Kronick, R. and Neyaz, S.H. (2019) “Private Insurance Payments to California Hospitals Average More Than Double Medicare Payments.” West Health Policy Center.

Lavecchia, Adam and Alisa Tazhitdinova (2021). “Permanent and Transitory Responses to Capital Gains Taxes: Evidence from a Lifetime Exemption in Canada.” *National Bureau of Economic Research Working Paper 28514*.

Manning, W.G. et. al. (1985) “Health Insurance and the Demand for Medical Care: Evidence From a Randomized Experiment.” *American Economic Review*.

Olson, C.A. (2002) “Do Workers Accept Lower Wages in Exchange for Health Benefits?” *Journal of Labor Economics*.

Neisser, Carina (2021). “The Elasticity of Taxable Income: A Meta-Regression Analysis.” *The Economic Journal* 131:3365-3391.

Rauh, Joshua and Ryan Shyu (2021). “Behavioral Responses to State Income Taxation of High Earners: Evidence from California.” *National Bureau of Economic Research Working Paper 26349*.

Xing, Jing, Katarzyna Bilicka, and Xipei Hou (2022). “How Distortive Are Turnover Taxes? Evidence from Replacing Turnover Tax with VAT.” *National Bureau of Economic Research Working Paper 29650*.