



California's Social Safety Net Depends on a Healthy Tech Industry

*How Income Taxes on
California Tech Employees
and Companies Help Fund
Social Programs*

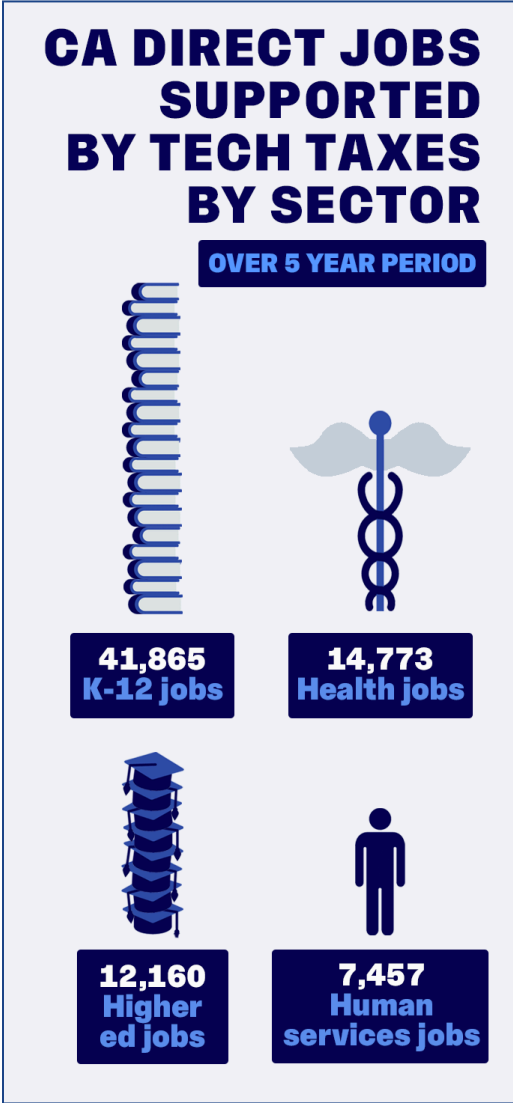
By Kaitlyn Harger



**CHAMBER
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EXECUTIVE SUMMARY

- At a time when California is facing a significant budget deficit and preparing to cut spending, few Californians understand how a thriving state tech economy helps support the state’s social safety net.
- Assuming a five-year average growth rate, the tech industry adds, on average, a minimum of \$2.6 billion to California’s annual state government revenue and over \$14.3 billion in revenue across a five-year period.
- Based on current spending patterns, from that \$2.6 billion in annual tax revenue growth from the tech industry, K-12 education in California receives \$916 million annually, health services receives \$614 million, higher education receives \$266 million, and human services receives \$270 million.
- Overall, the \$2.6 billion in additional annual tax revenue from the tech industry supports 20,577 additional jobs in California each year.
- The \$2.6 billion in additional annual funding could help avoid planned delays and cuts in 2024-25 to behavioral health services, support for foster children, and support for families needing stabilization due to mental illness, addiction, domestic violence, homelessness, and more.
- The additional spending in K-12 education could directly support 7,341 jobs in California annually or 41,865 jobs over a five-year period.
- The additional spending in healthcare could directly support 2,591 jobs in California on an annual basis and 14,773 across a five-year period.
- The additional higher education spending could support 2,132 jobs annually and a total of 12,160 jobs over a five- year period in California.
- Additional spending in human services could support 1,308 jobs annually and 7,457 jobs over a five-year period in California.



INTRODUCTION

California is facing a significant budget deficit, estimated to be \$73 billion by the Legislative Analyst's Office (LAO).¹ While the office's estimates of the size of the deficit differ, both Governor Gavin Newsom and LAO estimate the state will face a sizable deficit in the 2024-25 fiscal year.²

The budget deficit does not seem to be a one-time problem for the State. LAO's report analyzing the Governor's budget noted that the state's spending levels are likely unsustainable in future years as the Governor plans to manage the current deficit by delaying spending until later years, while new revenue is not expected to offset the spending.³

Additionally, the budget deficit could be upwards of \$80 billion by the 2027-28 fiscal year, as noted by Dan Walters in Cal Matters' Gut Check:

"The fine print in Newsom's own budget says the state's finances could be \$81 billion out of balance by 2027-28 as revenues stagnate, spending automatically increases on K-12 schools and community colleges due to a section of the state constitution, and the state's reserves are exhausted".⁴

Given the budget shortfall, California will be forced to make spending cuts or pull from emergency funds in order to balance the budget. The Governor's budget proposal already outlines areas where Californians can expect to see spending cuts, especially to social safety net programs like human services, as well as to education and health services.^{5 6} The proposed cuts include delays and/or cuts to healthcare worker wages, housing

¹ "The 2024-25 Budget Deficit Update", Budget and Policy Post, February 20, 2024.

<https://www.lao.ca.gov/Publications/Report/4850>

² Gov. Newsom unveiled his budget proposal for California on January 10th, 2024, estimating a \$38 billion budget deficit for the 2024-25 fiscal year. On January 13, 2024 California's Legislative Analyst's Office (LAO) produced a report that estimated the deficit to be \$58 billion. LAO has since updated their estimate to \$73 billion.

³ Legislative Analyst's Office, *The 2024-25 Budget: Overview of the Governor's Budget*, Gabriel Petek, January 2024, <https://www.lao.ca.gov/reports/2024/4825/2024-25-Overview-Governors-Budget-011324.pdf>

⁴ Dan Walters, "Gut check: Newsom's state budget proposal is already showing its shortcomings", *CalMatters*, February 6, 2024,

<https://calmatters.org/commentary/2024/02/newsom-state-budget-showing-shortcomings/>

⁵ Gavin Newsom, "Governor's Budget Summary 2024-25", January 10, 2024,

<https://ebudget.ca.gov/FullBudgetSummary.pdf>

⁶ Mikhail Zinshteyn and Sameea Kamal, "Digging out: Newsom outlines plan to covers tate budget deficit", *CalMatters*, January 10, 2024,

<https://calmatters.org/politics/2024/01/newsom-budget-california/>

programs, higher education, scholarship programs, crisis response programs for foster children, and homelessness support for children and disabled populations.^{7 8}

At a time when California is facing a sizable deficit, supporting industries that pay large amounts of tax dollars to the state could be advantageous—since tax revenue increases when these industries flourish.

One such industry is the technology sector.

Tech is sometimes criticized for increasing inequality in California, but less attention is paid to how California’s social safety net relies on the tech economy.⁹

The tech sector’s stock equity tax withholding plays an important role in California’s revenue system. According to an analysis by LAO, tech equity compensation is large enough to determine whether withholding receipts are above or below last year’s numbers. As LAO wrote:

*“Income tax withholding receipts for 2022-23 were about 3 percent lower than a year before. Without the boost in equity compensation withholding in the final quarter of 2022-23, **receipts would have been 4 percent lower**. For the current fiscal year, withholding receipts through September are running 1 percent higher than the same period last year. Without the boost in equity compensation in the first quarter of 2023-24, withholding receipts would instead be running about 1 percent lower.”¹⁰*

As tech stock prices increase, equity withholding also increases. So, **as California tech companies become more successful, California’s state tax revenue increases.**

⁷Ana B. Ibarra, “Newsom OK’d a minimum wage increase for health care workers. Now he wants to delay it”, *CalMatters*, January 11, 2024,

<https://calmatters.org/health/2024/01/california-health-minimum-wage-delay/>

⁸ Taryn Luna, “How Newsom plans to fix California’s projected \$37.9-billion budget deficit”, *Los Angeles Times*, January 10, 2024,

<https://www.latimes.com/california/story/2024-01-10/california-gavin-newsom-budget-2024-deficit>

⁹ Richard Florida, “Tech Made Cities Too Expensive. Here’s How to Fix It”, *Wired*, April 26, 2017,

<https://www.wired.com/2017/04/how-to-save-the-middle-class/>

¹⁰ Chas Alamo, “How Does Tech Company Equity Pay Affect Income Tax Withholding?”, *California Economy and Taxes*, Legislative Analyst’s Office, November 16, 2023,

<https://lao.ca.gov/LAOEconTax/Article/Detail/789>

According to estimates from LAO, California is expected to run budget deficits through at least 2028.¹¹ Given the expected future deficits and likely cuts to spending, **policymakers should consider the impact of policy on the tech industry's performance.** The regulatory framework under which the California tech industry operates will likely be an important determinant of tech's stock performance and thus tax withholding revenues in California.

The remainder of this paper will:

- Examine where California currently spends most of its revenue;
- Outline the process by which tech stock value impacts California's revenue collections;
- Show the potential annual revenue contribution of tech workers across typical one-year and five-year periods;
- Describe the direct impacts of additional state spending due to tech sector tax revenue, including jobs supported by additional government spending; and
- Detail the secondary and tertiary spillover effects that this government spending has on California's economy.

EDUCATION, HEALTH AND SOCIAL SAFETY NET

California funds several social safety net programs including food assistance programs like CalFresh, immediate cash assistance programs like CalWORKS, and the State Supplementary Payment (SSP) program, which provides supplemental income to those receiving Supplemental Security Income (SSI).

In addition to traditional social safety net programs like those described above, California also spends billions on its health and education systems. Medi-Cal, the state's Medicaid program, is expected to cover almost 14 million Californians in 2024, more than one in three people in the state.¹²

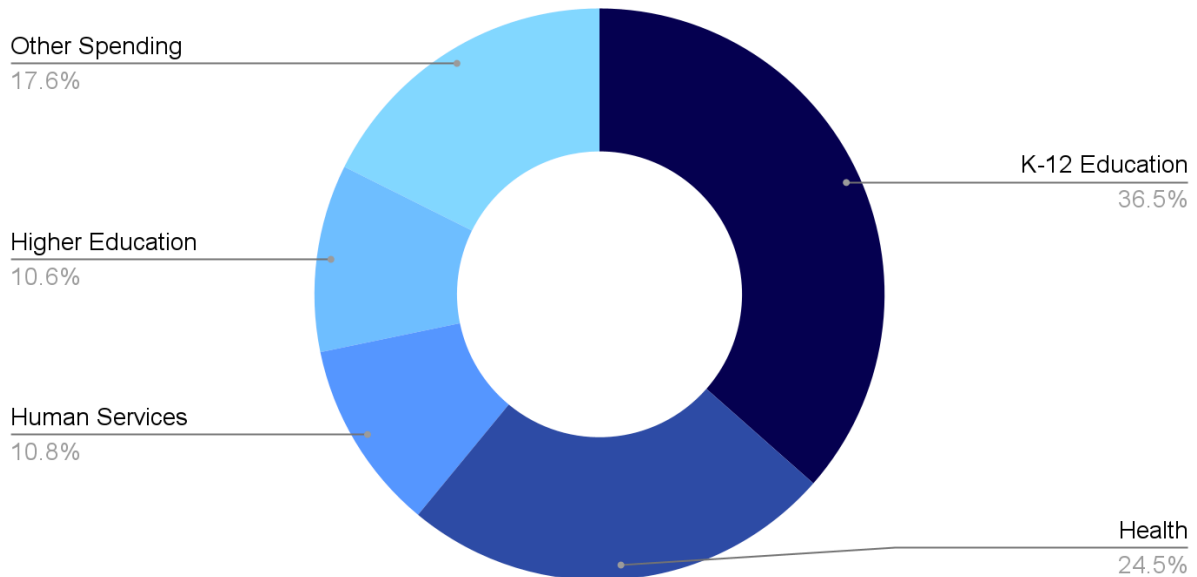
California's universal pre-K and K-12 school systems serve over 6 million students. While health and educational services are not considered traditional social safety net programs, they are integral to developing the skills needed to enter the workforce and thus are considered in this report.

¹¹ Legislative Analyst's Office, *The 2024-25 Budget: Overview of the Governor's Budget*, Gabriel Petek, January 2024, <https://www.lao.ca.gov/reports/2024/4825/2024>

¹² Gavin Newsom, "Governor's Budget Summary 2024-25", January 10, 2024, <https://ebudget.ca.gov/FullBudgetSummary.pdf>

Currently, California spends the majority of its General Fund revenue on education, health, and human services. The Governor’s Budget Summary describes expected spending by state agencies in the 2024-25 fiscal year.¹³ Figure 1 presents total spending on California's education, health, and human services sectors.¹⁴

Figure 1: General Fund Spending 2024-25



Taken together, education, health, and human services comprise over 82% of California’s general fund spending.¹⁵

¹³ Gavin Newsom, “Governor’s Budget Summary 2024-25”, January 10, 2024, <https://ebudget.ca.gov/FullBudgetSummary.pdf>

¹⁴ The other spending category is made up of the following expenditures by agency: legislative, judicial, executive, business, consumer services and housing, transportation, natural resources, environmental protection, corrections, labor and workforce development, government operations, non-agency departments, tax relief/local government, and statewide expenditures.

¹⁵ Gavin Newsom, “Governor’s Budget Summary 2024-25”, January 10, 2024, <https://ebudget.ca.gov/FullBudgetSummary.pdf>

IMPACT OF TECH WITHHOLDING ON CALIFORNIA REVENUE

The tech sector plays a unique role in funding California's revenue system since California is home to several major tech companies like Apple, Google, Nvidia, and Meta. As LAO notes:

"Including California's other large technology firms, the state's tech companies make up more than one-third of the total value of the Nasdaq 100 index, a list of the 100 most valuable companies listed on the Nasdaq stock exchange."¹⁶

The strength of California's revenue system is directly tied to the tech industry via corporate and personal income taxes. Businesses in California pay into the corporate income tax system, which generates over \$38 billion in revenue for California on an annual basis.¹⁷ Individuals in California pay personal income taxes on their wages and salaries as well as on income from some stock options.

Tech workers are usually compensated with both salaries and stock options. The tech industry's propensity to allocate stock options as part of their compensation packages means that tech companies' stock prices impact California's personal income tax revenue levels.

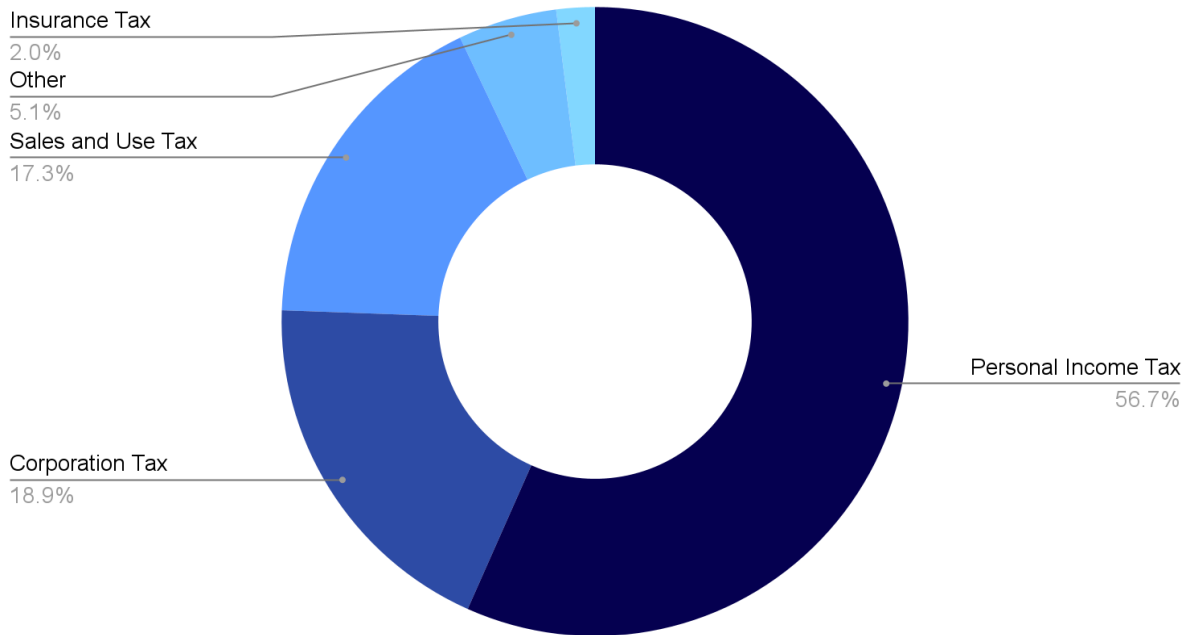
Taken together, corporate income taxes (19%) and personal income taxes (PIT) (57%) make up 76% of the state's General Fund revenue.¹⁸

¹⁶ Chas Alamo, "How Does Tech Company Equity Pay Affect Income Tax Withholding?", *California Economy and Taxes*, Legislative Analyst's Office, November 16, 2023, <https://lao.ca.gov/LAOEconTax/Article/Detail/789>

¹⁷ Gavin Newsom, "Governor's Budget Summary 2024-25", January 10, 2024, <https://ebudget.ca.gov/FullBudgetSummary.pdf>

¹⁸ Gavin Newsom, "Governor's Budget Summary 2024-25", January 10, 2024, <https://ebudget.ca.gov/FullBudgetSummary.pdf>

Figure 2: General Fund Revenues: 2024-25



Many tech companies pay employees with salaries as well as stock options, referred to as equity pay. In California, some equity pay is treated as income, so employers must withhold a portion of the value to pay state income taxes.^{19 20} The amount of equity pay withheld is directly related to the value of a company's stock. Typically, employers sell a portion of the employees' stock and use the proceeds to pay the tax.²¹

Figure 3 presents a simplified version of the process by which equity pay can increase revenue for California.

¹⁹ Chas Alamo, "How Does Tech Company Equity Pay Affect Income Tax Withholding?", *California Economy and Taxes*, Legislative Analyst's Office, November 16, 2023, <https://lao.ca.gov/LAOEconTax/Article/Detail/789>

²⁰ According to LAO, one common type of equity pay is restricted stock units (RSUs). Companies make quarterly payments to employees when their RSUs vest.

²¹ Chas Alamo, "How Does Tech Company Equity Pay Affect Income Tax Withholding?", *California Economy and Taxes*, Legislative Analyst's Office, November 16, 2023, <https://lao.ca.gov/LAOEconTax/Article/Detail/789>

Figure 3: Equity Pay Taxation Process



First, employees are awarded equity pay as part of their compensation package, with the equity pay vesting at a later date. After the stock vests, the employer withholds a portion of the equity pay to pay the withholding tax on behalf of the employee. The amount withheld is collected by California as part of PIT revenue collections. The employee then receives the equity pay as part of their income.

The total amount of equity pay withholding a company must implement varies depending on its size and growth. As companies become larger, the amount withheld increases as the companies hire more employees with compensation packages, including equity. The amount of withholding also increases when the company's stock performs well, since equity pay withholding is tied to stock value. As a result, as California's tech companies have grown over time, so too has equity pay withholding.

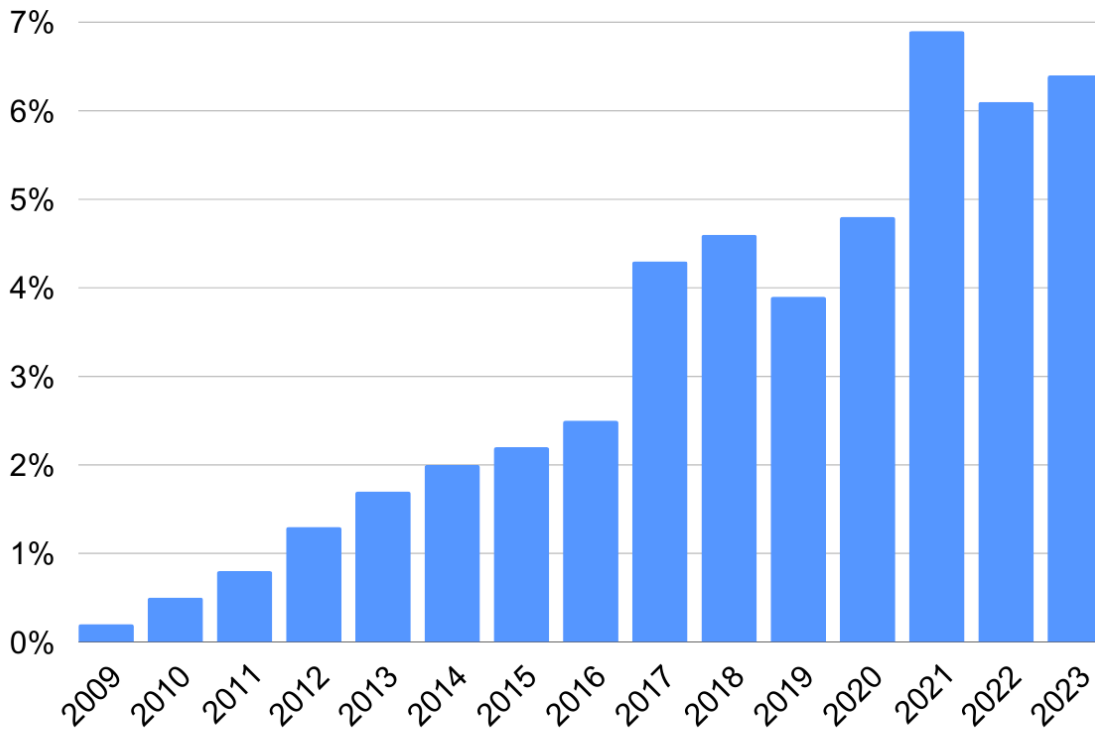
A report from LAO recently estimated the size of equity pay withholding for four major tech companies in California: Apple, Nvidia, Google, and Meta. The analysis used companies' SEC filings, which include information on the amount of equity pay each company withheld.

Figure 4 shows LAO's estimates of equity pay withholding as a share of total income tax withholding for four of the state's largest tech companies.²²

²² Sources for this chart include <https://lao.ca.gov/LAOEconTax/Article/Detail/789> and <https://calmatters.org/economy/2024/01/ca-tech-tax-withholding/>

Figure 4: Estimated Equity Pay Withholding as a Share of Total Income Tax Withholding

Includes: Apple, Nvidia, Google, and Meta



Sources: Legislative Analyst's Office, CalMatters

As shown in the chart, equity pay withholding has become an increasingly large portion of total income tax withholding over time. The chart includes data from only four of California's major tech companies—Apple, Nvidia, Google, and Meta—and thus underestimates the total impact of tech's equity pay on income tax withholding. The chart also does not account for additional corporate taxes or personal income tax withholding from tech companies and employees.

EQUITY PAY REVENUE AND CALIFORNIA GOVERNMENT SPENDING

This analysis aims to estimate the annual revenue generated by tech companies and workers contributing to the corporate and personal income tax systems. The goal is to understand how this additional revenue translates into services provided to Californians in the education, health, and human services sectors.

In order to examine these research questions, I estimated how much annual revenue California receives from tech companies and workers via corporate and personal income taxes.

Equity Pay

First, I determined the amount of revenue California receives from tech equity pay withholding. The estimated equity pay share of total income tax withholding was roughly 6.1% in 2022, according to an analysis by LAO.²³ Another LAO article shows total income tax withholding in 2022 to be roughly \$90B.²⁴

Based on those estimates, equity pay withholding in 2022 was roughly \$5.5 billion. This estimate is based on LAO's analysis of only four major tech firms: Apple, Nvidia, Google, and Meta.²⁵ **Thus, the tech sector's equity pay withholding in 2022 was at least \$5.5 billion, but likely higher with the inclusion of other tech companies.**

Next, I expanded upon LAO's analysis of these four major tech firms to more comprehensively estimate the total amount of equity pay withholding in California. Their analysis mentions, but does not analyze, withholding at other major tech firms in California, including Cisco, Intel, Adobe, Netflix, AMD, Intuit, Qualcomm, Airbnb, Paypal, and Zoom. Based on 10-K filings from most of these companies, I estimate that California receives a *combined total* of \$6.7 billion in withholding from all of these major tech firms.²⁶

However, withholding and tax liability totals often differ as individuals may choose to under or over-withhold. Based on an LAO analysis, PIT withholding in 2021 was roughly \$75 billion. According to California's Franchise Tax Board's (FTB) annual report on PIT, the total PIT liability in 2021 was \$139 billion.²⁷ Taken together, this suggests that Californians tend to under-withhold, withholding roughly 55% of total tax liability. Thus, if

²³ Chas Alamo, "How Does Tech Company Equity Pay Affect Income Tax Withholding?", *California Economy and Taxes*, Legislative Analyst's Office, November 16, 2023, <https://lao.ca.gov/LAOEconTax/Article/Detail/789>

²⁴ Chas Alamo, "Income Tax Withholding Tracker", *California Economy and Taxes*, Legislative Analyst's Office, May 2, 2024, <https://lao.ca.gov/LAOEconTax/Article/Detail/756>

²⁵ Chas Alamo, "How Does Tech Company Equity Pay Affect Income Tax Withholding?", *California Economy and Taxes*, Legislative Analyst's Office, November 16, 2023, <https://lao.ca.gov/LAOEconTax/Article/Detail/789>

²⁶ Comparing LAO's analysis with the 10-K filings for Apple, Nvidia, Google, and Meta I assume that 25% of the withholding from each company goes to California.

²⁷ State of California Franchise Tax Board, "Personal Income Tax Data", <https://data.ftb.ca.gov/stories/s/2it8-edzu>

tech equity withholding was at least \$6.7 billion then **the estimated tax liability from tech equity was roughly \$12.4 billion in 2021.**

Personal Income Taxes Net Equity Pay

To estimate the remaining portion of PIT revenue that comes from tech workers, I used information on tech industry concentration as well as information on tax liability by county in California.

A report by CBRE identified three tech hubs in California with varying levels of concentration.²⁸ The San Francisco Bay Area had the highest concentration, with an estimated 11.6% of workers in the Bay Area working in tech. San Diego's metro area also constituted a tech hub with a concentration of 5.3%. The Sacramento metro area was also designated as a tech hub, with 4.1% of workers working in tech. Finally, the Los Angeles metro area was also identified as a tech hub with a concentration level of 3.9% of workers working in the tech industry.

In order to estimate the remaining PIT revenue from tech workers, I take the revenue totals for each county in the tech hub metro areas and adjust the total to only reflect the percentage of the workforce working in tech.²⁹ I also adjust the PIT total to exclude the equity estimate described above in order to avoid double counting tax due as a result of equity payments. **Overall, this yields a total of roughly \$5.6 billion in estimated annual tax due from tech employees living in these areas.**

Corporate Income Taxes

Corporate income taxes are paid by tech companies operating in California. California's FTB produces annual reports that describe taxes paid by corporations, including information by industry. **In 2021, the total tax liability for corporations in the tech industry, defined as the professional, scientific, tech services industry classification, was \$2.3 billion.** I use this as my estimate for tech's corporate tax contribution to California's revenue system.

²⁸ "Which are the top-ranked tech talent markets?", CBRE report, <https://www.cbre.com/insights/books/scoring-tech-talent-2023/which-are-the-top-ranked-tech-talent-markets>

²⁹ The report uses definitions of metro areas provided by the Bureau of Labor Statistics. For more information on the geographic definitions please see <https://www.bls.gov/bls/omb-bulletin-18-03-revised-delineations-of-metropolitan-statistical-areas.pdf>.

Taken together, these estimates suggest that tech employees and companies could pay at least \$20.4 billion in taxes to California annually.

Next, I determined how much each source of revenue is likely to increase year to year. Beginning with PIT revenue, I calculated the average growth rate of tax liability over the five most recent years of data published by the FTB, 2017-2021. The average annual growth rate during that period was 12.81%. Both equity and wage/salary tax liability are assumed to grow at this rate since equity tax liability falls under the PIT umbrella. Corporate income tax liability is assumed to grow at roughly 11.21%.³⁰

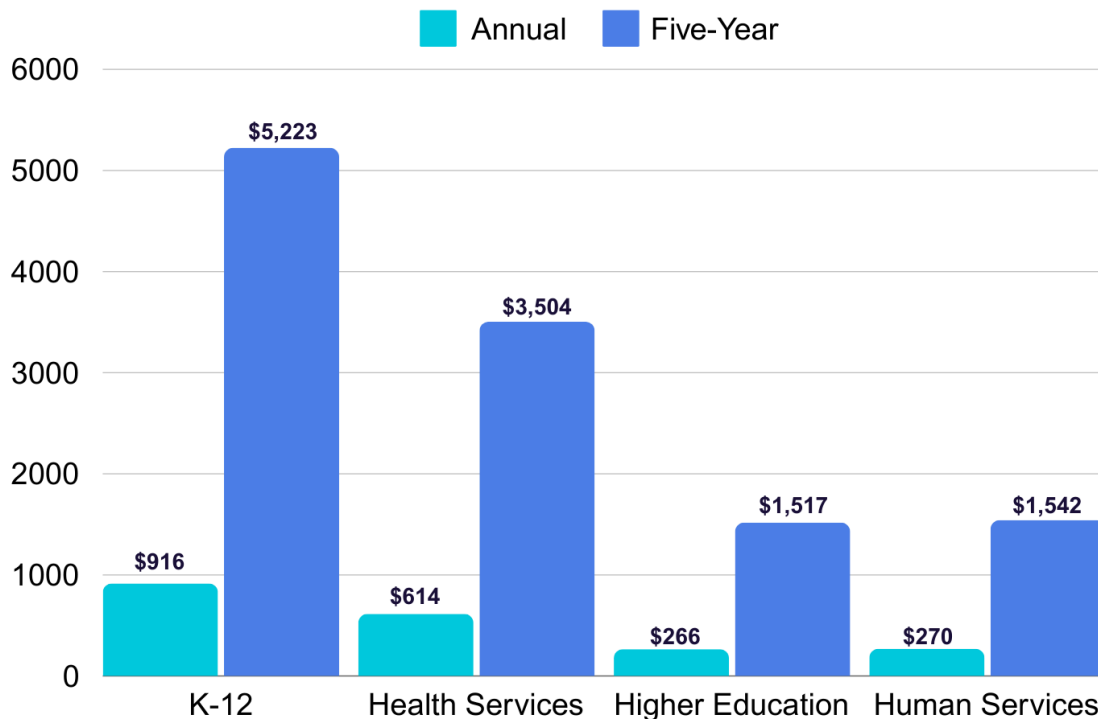
Based on those annual growth rates, **I modeled a single-year scenario where the tech sector's annual tax liability, \$20.4 billion, increases by \$2.6 billion annually.** I also estimated the total amount of tech tax liability would grow over a five-year period. Beginning with the 2022 estimated withholding of \$5.5 billion, **I applied the growth rates mentioned above, which resulted in a total of \$14.3 billion in additional revenue over the five-year period.**

To understand how additional revenue from tech equity pay could impact services available to Californians, I analyzed how government spending from the equity pay revenue spreads throughout the economy. Additional equity pay withholding will likely be spent by the state in patterns similar to how the state currently plans to spend revenue. Figure 1 shows that California spends most of its revenue on K-12 education (36.5%), health services (24.5%), human services (10.8%), and higher education (10.6%).

Next, I combined the information from Figure 1 with the estimated annual and five-year equity pay revenue increases in order to estimate the distribution of additional government spending as a result of the equity pay. Figure 5 presents the estimated additional annual spending per-category from tech equity pay.

³⁰ Between tax years 2020 and 2021 corporate tax liability increased by almost 83%. That level of annual growth was much larger than previous years and as such I exclude 2021 from the growth rate calculation. Instead, I focus on the years 2016-2020 to avoid potentially overestimating by including 2021.

Figure 5: Estimated Additional Annual and Five-Year Spending (\$M) from Tech Equity Pay



In total, my analysis suggests that **education would receive an additional \$1.2 billion annually**, across K-12 (\$916 million) and higher education (\$266 million). **Over five years, the additional spending on education would total over \$6.7 billion**, with \$5.2 billion in funding going to K-12 and \$1.5 billion to higher education.

Each year, the \$916 million spent on education could be used to support the hiring of teachers for the state. California has suffered an ongoing teacher shortage with roughly 10% of public school classrooms taught by teachers who were not properly credentialed in 2022.³¹ The \$916 million in extra spending could be used to support annual hiring of teachers.

The California Department of Education publishes information on the percentage of state spending allocated to teacher salaries as well as teacher salaries by school district type. Using the largest teacher salary for each school district type, I calculated the number of teachers that could be supported by the additional annual state spending on K-12 education. Table 1 shows the calculation of the number of annual teacher salaries supported.

³¹ Mackenzie Mays, “How to find out if your child’s classes have teachers with proper credentials. Many don’t”, *Los Angeles Times*, July 1, 2022, <https://www.latimes.com/california/story/2022-07-01/amid-staffing-shortage-46-700-teacher-s-in-california-classrooms-lack-proper-credentials>

Table 1: Estimated Additional Annual Teacher Salaries Supported

School District Type	Highest Annual Teacher Salary	Percentage of Spending Allocated to Salaries	Allocated Spending on Salaries (\$M)	Teachers Supported
Elementary	\$111,440	33.16%	\$304	2,725
High	\$122,669	31.17%	\$285	2,327
Unified	\$109,418	30.35%	\$278	2,541
Total Teachers Supported Annually				7,593

My calculations suggest that the annual K-12 spending modeled above could support 7,593 teaching jobs. For context, there are currently 166 teaching jobs open within the Los Angeles Unified School District alone.³² This funding for teacher salaries could help solve California’s ongoing teacher shortages.

Health services would receive an additional \$614 million on an annual basis and \$3.5 billion over five years under this model. Currently, health services funding provides public health services to Californians via the Medi-cal, California’s Medicaid program. The Governor’s budget plans to address the current budget shortfall in part by delaying spending on behavioral health infrastructure (\$140.4 million) and behavioral health bridge housing (\$235 million) for one year.³³ **The extra spending from this additional tech revenue could have eliminated the infrastructure and the bridge housing delays entirely.**

Human services would receive \$270 million on an annual basis and a total of \$1.5 billion over a five-year period under this scenario. This additional funding could help avoid reductions and delays required in future years of budget shortfalls. The Governor’s 2024-25 budget suggests reductions to several programs intended to stabilize families and foster children.

The budget proposes a \$71 million reduction in the family stabilization program, which offers intensive case management to families in crisis due to mental health issues,

³² “Teacher and Counselor Positions Eligible for Backfilling”, Human Resources Division of Los Angeles Unified School District, <https://www.lausd.org/Page/12010>

³³ Gavin Newsom, “Governor’s Budget Summary 2024-25”, January 10, 2024, <https://ebudget.ca.gov/FullBudgetSummary.pdf>

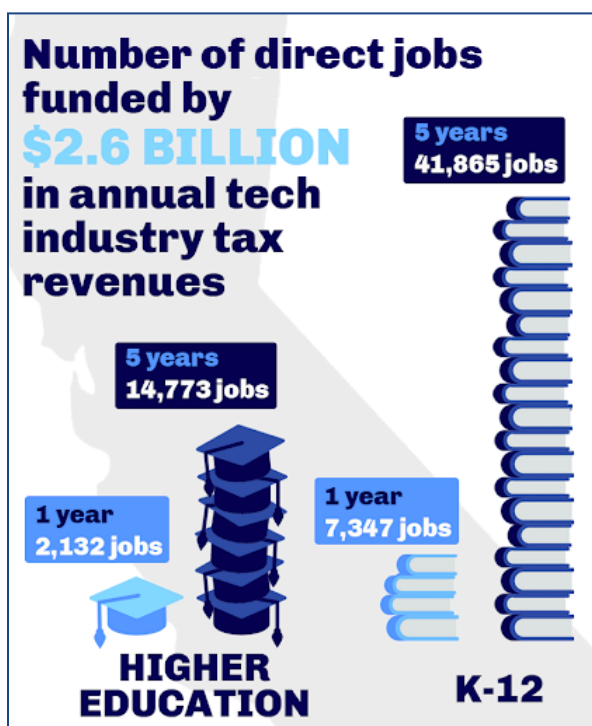
homelessness, domestic violence, substance abuse, and more. **These reductions could be avoided if these additional funds were applied.**

The budget also proposes a \$30 million reduction in funding for the family urgent response system, which provides trauma-informed support for foster children and families³⁴, in addition to a reduction of \$195,000 in funding to help foster children find housing. **Those two reductions combined could have been completely avoided with the use of these extra funds.**

IMPACTS OF CALIFORNIA'S TECH ECONOMY

Next, I examined how the total additional spending on education, health, and human services affects California's economy. Modeling the impact on California's economy from the total additional spending illustrates how this revenue translates into employment opportunities throughout the state. For example, this data allows me to examine how many additional teachers, nurses, and social workers are supported by this spending.

In order to study how additional revenue from tech equity withholding could impact California's economy, I utilized IMPLAN, a standard modeling tool used in regional economics.³⁵ IMPLAN is a regional economic analysis software that is designed to estimate the impact of a given economic activity—in this case, government spending—within a specific geographic area like California. IMPLAN uses an economic modeling technique that tracks the interdependence among industries and household spending.



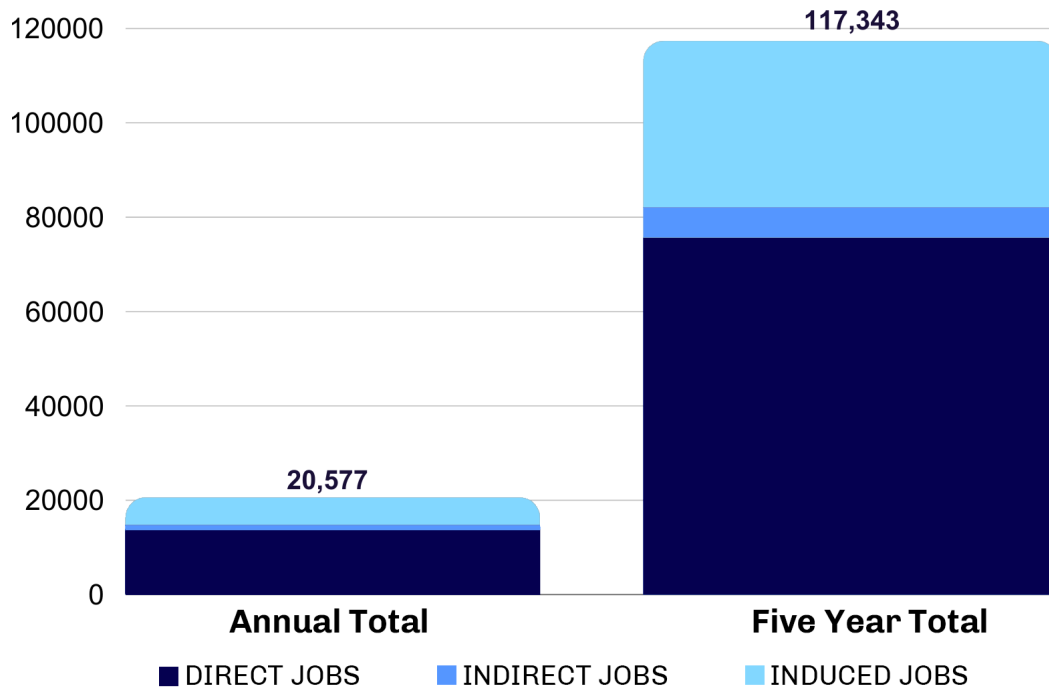
The total additional spending estimates from Figure 5 are used as inputs to the IMPLAN model. The IMPLAN analysis yielded estimated increases in direct, indirect, and induced

³⁴ California Department of Social Services, Family Urgent Response System Flyer, <https://www.cdss.ca.gov/Portals/9/Child-Welfare-Programs/Foster-Care/FURS/FURS-Hotline-Flyer-Adult.pdf>

³⁵ For more information on the IMPLAN modeling process, visit www.IMPLAN.com

employment as a result of the additional spending.³⁶ IMPLAN’s employment measure includes full-time, part-time, and seasonal employment by industry. Figure 6 presents the results for total estimated employment generated by the additional spending for one-year and five-year scenarios.

Figure 6: Estimated Total Employment from Additional Spending



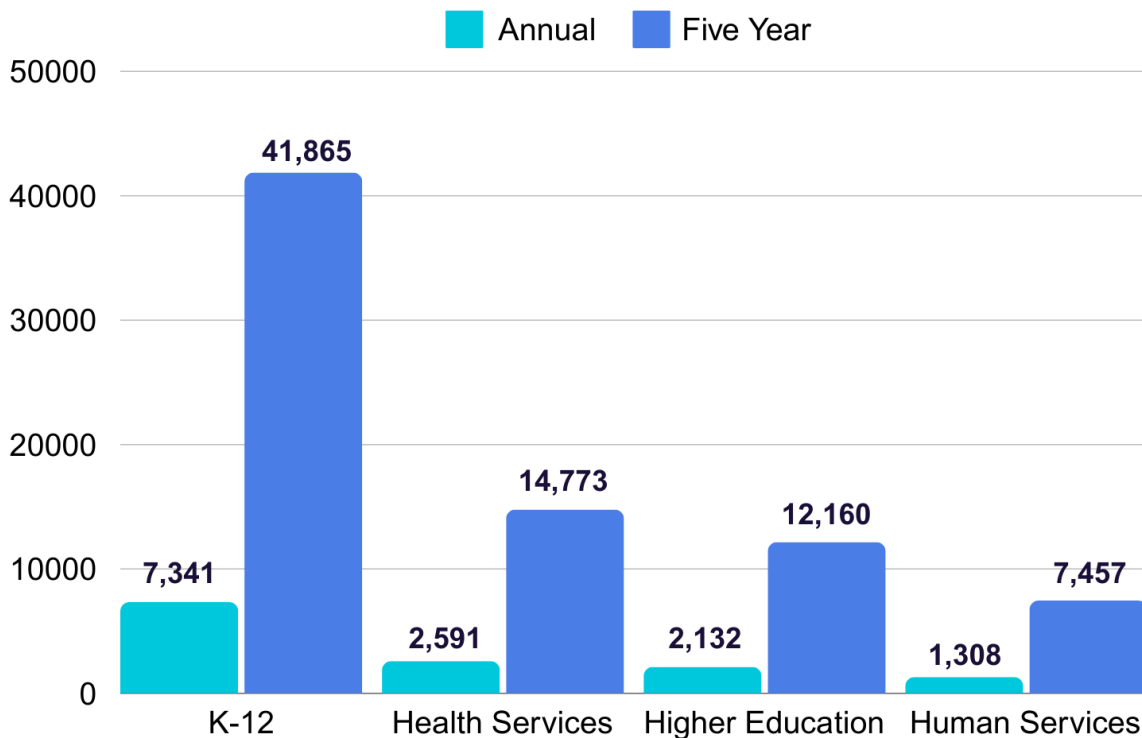
Overall, the additional \$2.6 billion in annual spending is expected to support over 20,000 direct, indirect and induced jobs. Over five years the \$14.3 billion in total spending would support over 117,000 jobs. What types of jobs this funding supports depends on the sector in which the spending takes place: K-12, health services, higher education, or human services. Next, I examine employment results by spending categories.

Direct Impacts to California’s Economy

Figure 7 shows the direct employment effects by spending category. Direct effects are the initial effects to an industry due to the policy being analyzed. For example, a direct employment effect of K-12 spending would be the hiring of additional teachers.

³⁶ The Governor’s Budget Summary provides information on the types of projects each for the category of spending, which I used for modeling within IMPLAN.

Figure 7: Estimated Direct Employment Impact by Spending Category



K-12

K-12 received the most additional spending (\$916 million) under this scenario given that it receives the largest portion of California's current government spending. **Based on IMPLAN modeling, I estimate that 7,341 jobs could be supported as a direct result of the additional spending in K-12.** Note that this result is very similar to the estimated 7,593 teaching jobs supported by the total additional K-12 investment shown in Table 1. Both results make sense because California would need to hire new teachers and education professionals in order to administer the programs supported by this additional K-12 spending. Since public schools are funded by the state, the direct state spending on K-12 schools will directly impact the number of teachers hired.

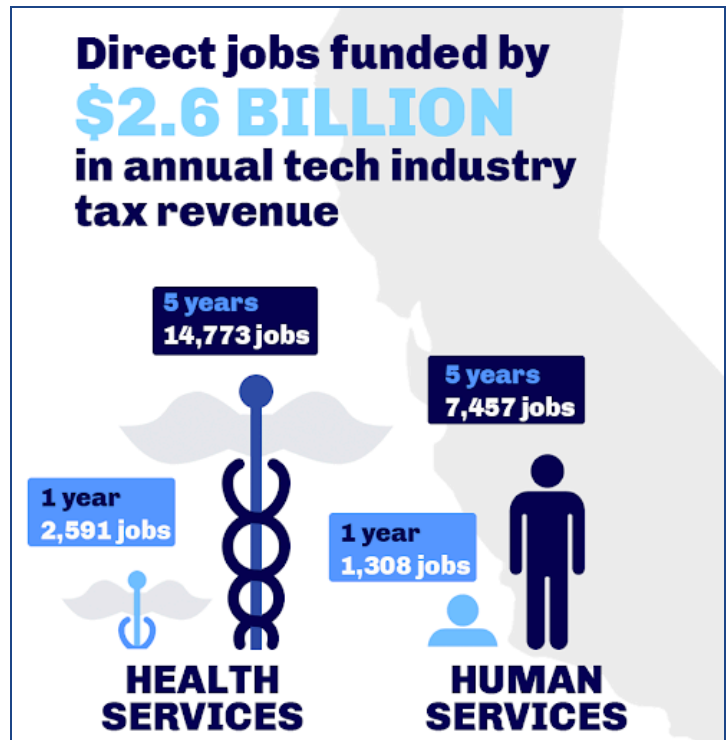
Of the predicted 7,341 jobs supported annually by the additional funding for K-12 schools, **95% of the jobs are in local or state educational facilities or related to transportation needed for students to get to school.**

IMPLAN's model suggests a **total of 41,865 jobs supported by this spending over a five-year period.** This could be sustained funding of teacher salaries or a combination of teacher salary spending and one-time spending.

Health Services

Health services is the second largest recipient of additional spending with \$614 million allocated annually to this sector under this additional spending scenario. **Overall, 2,591 jobs are directly supported by the additional spending on an annual basis and 14,773 jobs are supported across a five-year period.**

Most of these jobs resulting from the additional spending are located in local or state hospitals or medical facilities. Many of the other jobs resulting directly from spending in this area are spread across services needed to support healthcare facilities, for example, dry-cleaning and laundry services, offices of other health practitioners, and residential health facilities.



Higher Education

Higher education received \$266 million under the scenario I considered. IMPLAN's model predicts **2,132 jobs supported annually as a direct result of spending in higher education. Over a five-year period, I estimate a total of 12,160 jobs supported in California's economy.** Similar to K-12 schools, the vast majority of state funding for higher education (93%) goes towards the payroll of educational professionals at higher education institutions.

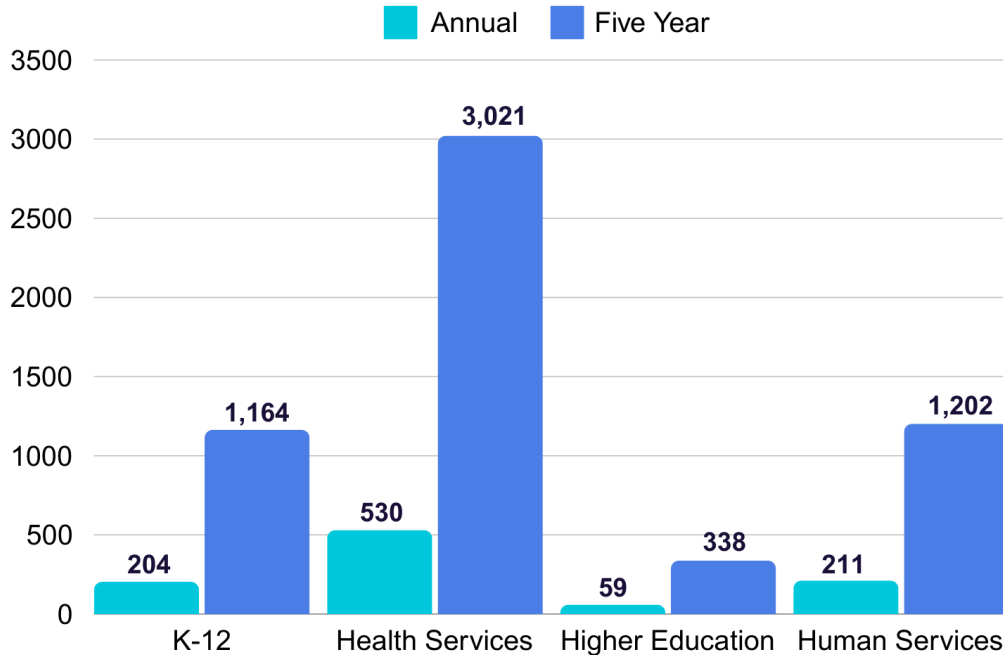
Human Services

Human services received \$270 million under the additional revenue scenario. This spending yielded a total of **1,308 jobs annually as a direct result of the additional spending. Over a five-year period, the spending in human services is expected to support 7,457 jobs in California.** Roughly 66% of the jobs were in human services offered by the government via social safety net programs.

Indirect Impacts to California's Economy

Indirect effects stem from business-to-business transactions in the region as a result of the change in spending. In the K-12 example this could mean purchases of educational software. Figure 8 presents annual and five-year scenario results for indirect effects.

Figure 8: Estimated Indirect Employment Impact by Spending Category



K-12

The indirect effect on employment due to K-12 is small, estimated to be 204 jobs supported annually or 1,164 jobs over a five-year period. Recall that indirect effects result from business-to-business transactions and most of the services required to run schools do not involve outside sales. Instead, teachers and school funding provide most of the required materials. Most of the jobs due to the indirect effect are contract labor and product rentals used to supplement the main offerings of public schools.

Health Services

The additional spending on health services is estimated to generate support for 530 jobs on an annual basis, or 3,021 jobs over a five-year period. Services needed for office administration, including staffing services, rental of office spaces, services to buildings, accounting services, and storage services, make up many of the indirect jobs created by the spending in this category.

Higher Education

There are an estimated 59 jobs supported indirectly on an annual basis by the spending on higher education. These indirect jobs were mostly found in employment services which include staffing agencies and contract labor.

Human Services

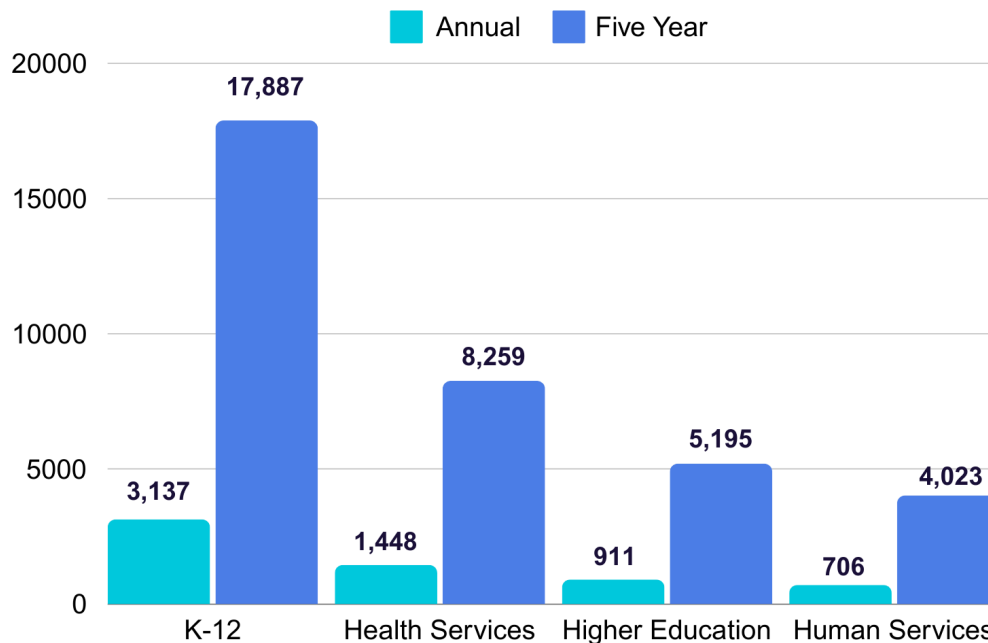
I estimate support for 211 jobs on an annual basis and 1,202 jobs over a five-year period due to the additional spending in the human services sector. The indirect jobs were in industries that complement the government services sector like employment services, couriers and messengers, and services to buildings.

Induced Impacts to California's Economy

Next, I examine the economic impacts induced by changes in household spending stemming from the additional government spending. One example of an induced effect would be the spending by newly hired teachers on household items like clothing.

Figure 9 presents the induced employment effects for each spending category.

Figure 9: Estimated Induced Employment Impact by Spending Category



Since household spending patterns are similar regardless of employment industry, the induced employment results are distributed across similar industries for all spending

areas considered. While the distribution across industries is constant across education, health, and human services spending, the level of employment is not. Instead, the level of employment is correlated with the amount of additional spending that went to each sector. As a result, the highest level of induced employment is seen through K-12, where the most spending took place.

In total, an estimated 6,201 jobs are supported as a result of induced effects from the additional spending. Over a five-year period, induced employment totals 35,364 jobs.

CONCLUSION

Tech employees and companies are valuable sources of revenue for California. Data from major tech companies located in California and California's FTB suggest that tech companies and employees pay at least \$20.4 billion per year in taxes to the state.

Using tax liability growth rates over a five-year period, I estimated that the tech sector's tax liability increases by \$2.6 billion on average per year. This additional income could meaningfully reduce California's budget deficit.

If an additional \$2.6 billion were spent in the same method outlined in the current budget, it could support over 20,000 jobs in California on an annual basis. Additionally, the funding could help avoid planned delays and cuts in 2024-25 to behavioral health services, support for foster children, and support for families needing stabilization due to mental illness, addiction, domestic violence, homelessness, and more.