



California Fiscal Focus

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CA Controller Reports Strong Sales Keep October Revenues in Line with Estimates

State Controller Betty T. Yee reported California's total revenues of \$6.74 billion for October were just \$38.7 million shy of expectations, even with two of the state's biggest revenue sources missing the mark. A strong month for retail sales made up for most of the shortfall.

For the first four months of the 2017-18 fiscal year, total revenues of \$32.65 billion are outpacing budget projections by \$544.8 million, or 1.7 percent, with all of the "big three"—personal income, retail sales and use, and corporation taxes—in the black.

Sales tax receipts of \$936.1 million for October were \$45.0 million higher than anticipated in the budget. For the fiscal year, sales tax receipts of \$6.86 billion are \$195.3 million above budget estimates.

Personal income tax (PIT) receipts for October totaled \$5.38 billion, falling \$49.8 million short of budget estimates.

For the fiscal year to date, total PIT receipts of \$22.97 billion are \$166.4 million above assumptions in the 2017-18 Budget Act.

Corporation tax receipts for October totaled \$285.6 million, \$78.1 million below projections—or 21.5 percent—after beating expectations for three consecutive months. For the fiscal year, corporation tax receipts of \$1.81 billion are outpacing budget projections by 8.6 percent.

Outstanding loans of \$19.54 billion in October were \$1.26 billion more than 2017-18 Budget Act estimates. This loan balance consists of borrowing from the state's internal special funds. Unused borrowable resources in October exceeded projections by \$1.78 billion, or 8.3 percent.

For more details, read the [monthly cash report](#).

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The Changing Nature of Work and the California Economy

California is well known as the land of innovation. Companies continue to leverage technology through advancements in robotics, artificial intelligence (AI), and machine learning to not only create new business opportunities but to create entirely new industries.

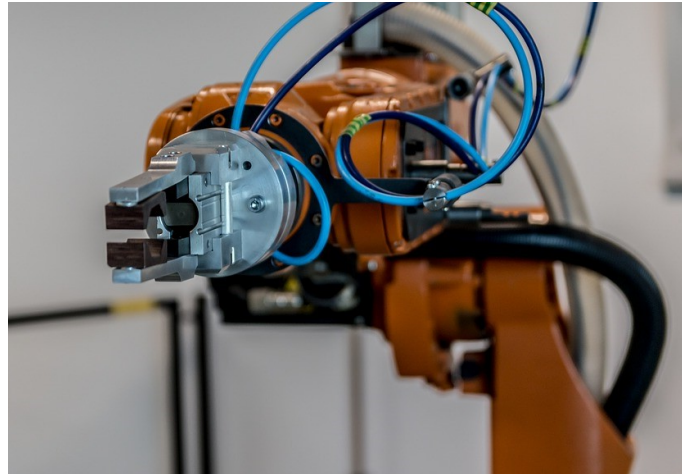
However, as businesses become more automated and the human element of production becomes increasingly marginalized, it is important to examine how the changing nature of work may affect government policies, revenues, and tax structures.

Automation and Workers

PricewaterhouseCoopers recently reported up to 38 percent of U.S. jobs could be strongly affected by automation by 2030, especially those in transportation, manufacturing, and wholesale and retail. Robots and AI have replaced jobs requiring physical exertion and routine assembly. AI-assisted robots that can store and move products have affected many jobs. It is common for large warehouse operations or manufacturing plants to be running 24/7 with minimal human effort. Now self-driving passenger cars, buses, and transport trucks are in trial stages.

Automation is likely to change the vast majority of occupations to some degree, which will necessitate significant job redefinition and transformation of business processes. According to [an analysis by McKinsey&Company](#), fewer than 5 percent of current occupations can be entirely automated. However, about 60 percent of occupations could have 30 percent of their activities automated.

The next phase of automation will likely affect more highly educated workers in fields such as accounting, financial management, and banking. Many economists believe that advances in AI, robotics, and machine learning will lead to a subset of new higher-skilled and



higher-paying jobs. However, workers looking to secure these positions will likely require additional training in science, technology, engineering, and math (STEM) fields.

There is growing concern that, as companies continue to incorporate new automation in their processes, the pace of change may leave many workers unemployed until they are retrained for the modern economy. Additionally, public policy experts are divided as to whether enough jobs will be created through automation to even out the number of jobs lost. For example, in 1990, the three largest companies in Detroit—with a combined market capitalization of \$36 billion—employed 1.2 million workers. In 2014, the three largest companies in Silicon Valley—with a combined market capitalization of \$1.09 trillion—employed 137,000 workers.

Robot Tax? Universal Income?

Microsoft co-founder Bill Gates has said government must play a critical role in addressing the economic consequences and inequity caused by automation.

Gates suggests a “robot tax” to fund retraining and support of social programs, arguing, “Right now, the human worker does \$50,000 of work in a factory, that

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income is taxed and you get income tax, social security tax, and all those things. If that robot comes in and does the same thing, you'd think we would tax the robot at a similar level."

Whether or not a robot tax or universal income represents a solution, it is important to examine how the changing nature of work may affect public policy and state revenues.

Last February, the European Union (EU) considered and rejected a robot tax, citing concerns of stifling progress and disadvantaging EU competitiveness. In South Korea, the government plans to reduce the tax incentive given to businesses that invest in automation as a way to slow the pace of job displacement and the subsequent loss of tax revenue.

Yet other prominent business leaders, such as Tesla CEO Elon Musk and Facebook CEO Mark Zuckerberg, have proposed the government fund universal income—a set sum payment to all people employed or not—in the face of job replacement concerns.

Whether or not a robot tax or universal income represents a solution, it is important to examine how the changing nature of work may affect public policy and state revenues.

Tax and Revenue Implications

Using the earlier example of a displaced factory worker earning \$50,000, let us consider the implication of the

“big three” state taxes: personal income (PIT), sales and use, and corporation.

In terms of PIT, a person in this example would pay approximately \$1,700 per year. The robot would pay zero dollars in state income tax, ever.

The factory worker would pay an average of \$1,100 a year in sales taxes. Absent employment, this individual would likely pay considerably less sales tax but still need to make some purchases. The robot would pay zero sales tax, ever.

The human would not be subject to state corporation taxes. While the robot is not specifically taxed, the incremental value of making the factory process more efficient and therefore more profitable would likely result in additional corporation taxes being collected. It should be noted that a business can depreciate a capital investment over a period of time and may have other avenues to reduce its effective corporation tax.

All three of the big state taxes fund state and local public safety and social service programs. The factory worker earning \$50,000 also pays property tax either directly or through a rent payment; utility taxes; gas taxes; and other fees and assessments associated with everyday life activities. This money goes back to the state and local community to provide for basic public services and infrastructure.

Concerning the net impact on tax revenue, some scholars assert there should be tax neutrality whether a corporation uses a human or a robot. They argue the existing tax system encourages automation at the expense of human jobs. To create a more level playing field, they suggest:

- Corporate deductions could be disallowed for machines that replace human labor.

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- An automation tax could be placed on existing unemployment systems. Firms could be required to pay an additional amount into insurance if they automate at the expense of jobs.
- Tax preferences could be granted for human workers to counter preferences for machines.
- The corporation tax could be increased with a combination of the above strategies.

Displace/Replace or Facilitate/Adapt?

Managing living expenses after a job loss is a challenge. In addition, the dislocated factory worker will no longer receive the benefit of employer-sponsored health care or any employer contribution to the individual's retirement fund.

To the extent a person cannot readily find comparable employment after being replaced by automation, he likely will be dependent on state and federal assistance, at a net expense to the government, and will not be productive for a period of time until he can be retrained.

If significant dislocation occurs as a result of automation, the existing tax system could be hard pressed to meet existing service and program budget requirements.

If a substantial number of new high-paying jobs are created—especially for those dislocated by automation—the evolving nature of work could turn out to be a win-win for workers and the California economy.

What should be the role of government in response to the changing nature of work?

In addition to examining the implications for California's tax system, it is vital that policymakers ensure the future workforce has the skills required to be successful. It also is critical to create policies that

meaningfully assist workers who have been displaced by automation.

In a [Labor Day opinion piece](#), Controller Yee provides a perspective for moving forward on this difficult issue.

As California's chief fiscal officer, Yee recognizes that public and tax policy must evolve to meet the realities of the new economy. The education system must incorporate STEM and entrepreneurial skills in the curriculum at all levels of learning. Government must support community colleges and incentivize companies to invest in retraining of displaced workers.

With some degree of irony, it may be the human touch and emotional intelligence that provide the next great pathway for the current and future workforce. By coupling the power of technology with workers in professions such as health care, child care, and caring for older adults and people with disabilities, we may not only create new job opportunities but—most importantly—improve the quality of life for many more Californians.



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