

File # 190508  
Received in Committee  
7/17/19 *fm*

# Stock-Based Compensation Tax: Economic Impact Report



**CITY & COUNTY OF SAN FRANCISCO**

Office of the Controller  
Office of Economic Analysis

Item #190508

07.17.2019

# Introduction

- The proposed legislation would raise the tax paid by businesses to the City for the stock-based compensation paid to their employees.
- “Stock-based compensation” refers to compensation paid in the form of company shares or the discounted rights to buy them, such as stock options.
- This form of compensation is currently taxed by the City, through its Payroll Expense Tax, at a rate of 0.38%. The proposed tax would establish a specific tax on stock-based compensation of 1.12%, effectively raising the tax on that form of compensation to 1.5%.
- If approved by the Board of Supervisors, the motion would place the tax on the November 2018 ballot, for voter approval. The tax’s revenue would be dedicated to affordable housing, programs for families, youth, and education, support for low- and moderate-income workers, and small business stabilization. As a dedicated tax introduced as legislation, it will require the approval of two-thirds of voters.
- The Office of Economic Analysis (OEA) has prepared this report after determining that the proposed tax increase might have a material impact on the City’s economy.

# Policy Background

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- Prior to 2014, the City imposed a 1.5% Payroll Expense Tax on most larger businesses in San Francisco.
- “Payroll Expense” was defined to include all forms of compensation to employees, including stock-based compensation.
- Beginning in 2014, the City began to phase out the Payroll Expense tax, while phasing-in a new Gross Receipts Tax. The Payroll Expense Tax rate was reduced, by formula, to its current rate of 0.38%.
- The proposed tax would restore the Payroll Expense Tax, on stock-based compensation only, to its pre-2014 rate of 1.5%. Other forms of payroll expense, such as wages and salaries, would continue to be taxed at a rate of 0.38%.
- While stock-based compensation is often discussed in the context of initial public offerings (IPOs), in which a company’s stock is first offered for sale on a public exchange, the tax is not restricted to IPOs. Many public and some private companies use stock-based compensation, and all such expense incurred in San Francisco would be subject to the tax.

# Context: 2019 IPOs

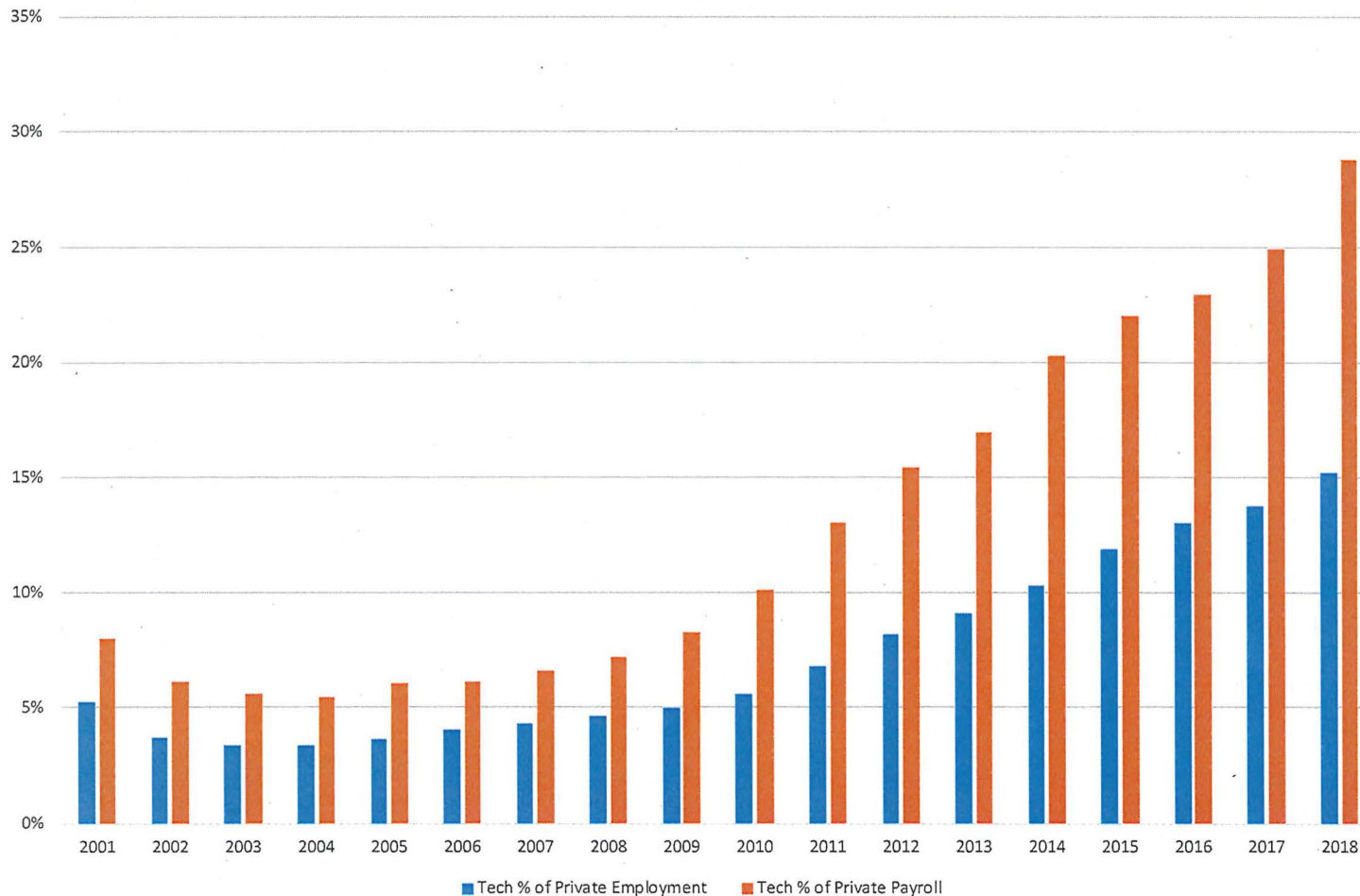
- The proposed tax would cover all stock-based compensation realized on or after May 7, 2019.
- This date was shortly before Uber's IPO. IPO events generally result in stock-based compensation for employees. Uber's IPO was the largest such event in San Francisco history, and will likely lead to billions of dollars in stock-based compensation for local employees.
- While earlier IPOs in 2019 (from Lyft and Pinterest) would not be covered by the tax, subsequent IPOs from Slack would be, along with any future IPO.
- The tax is not directed at the employees who gain from IPOs, but the businesses that pay stock-based compensation. Thus, the tax will not reduce the spending associated with those IPOs in the local economy, though it may reduce the number of IPOs undertaken by local companies in the future.

# Stock-Based Compensation and the Tech Sector

- Stock-based compensation is a form of compensation that is most widely used by public companies, or companies hoping to become public. As the value of stock-based compensation increases with the company's public share price, it is widely believed that it creates a performance incentive for key employees.
- In the technology sector in particular, stock-based compensation is used as a form of incentive payment by start-up companies, who often have limited cash resources, but can promise long-standing employees a stock windfall if the company becomes successful.
- Because of this, it is highly likely that the majority of the tax burden's would fall on the technology sector.
- As discussed on subsequent pages, the technology industry has grown much faster than other industries in San Francisco, for the last fifteen years. This growth has had a significant impact on the overall city's economy. As discussed on the following pages, it is worth considering that impact before assessing a tax that would disproportionately affect that industry.

# Background: Growth of the Technology Sector

Technology Industry's Percentage of All Private-Sector Employment and Payroll in San Francisco, 2001-2018



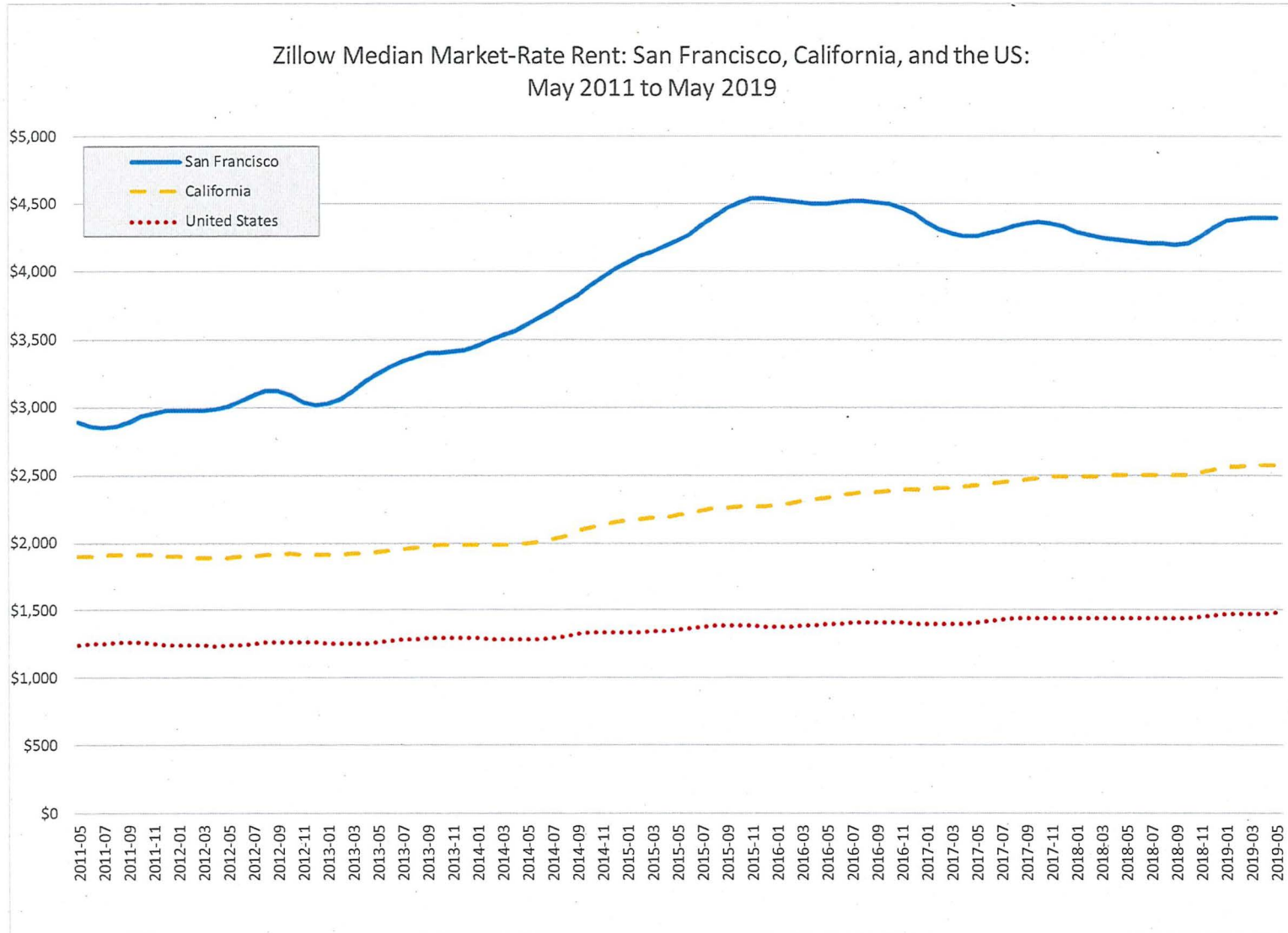
Despite its proximity to Silicon Valley, technology was a relatively small part of the city's economy until this decade. As recently as 2004, technology jobs made up only 3% of all private sector jobs in the city, and only 5% of business payroll.

Since then, however, tech has grown to 15% of all private sector jobs in the city, and 29% of all private sector payroll – more than a 500% increase in less than 15 years.

While other cities have also seen tech-based growth in these years, no other city has had its economy changed by the tech sector as much as San Francisco.

Source: Bureau of Labor Statistics

# Rents Have Grown 40% Faster than the State



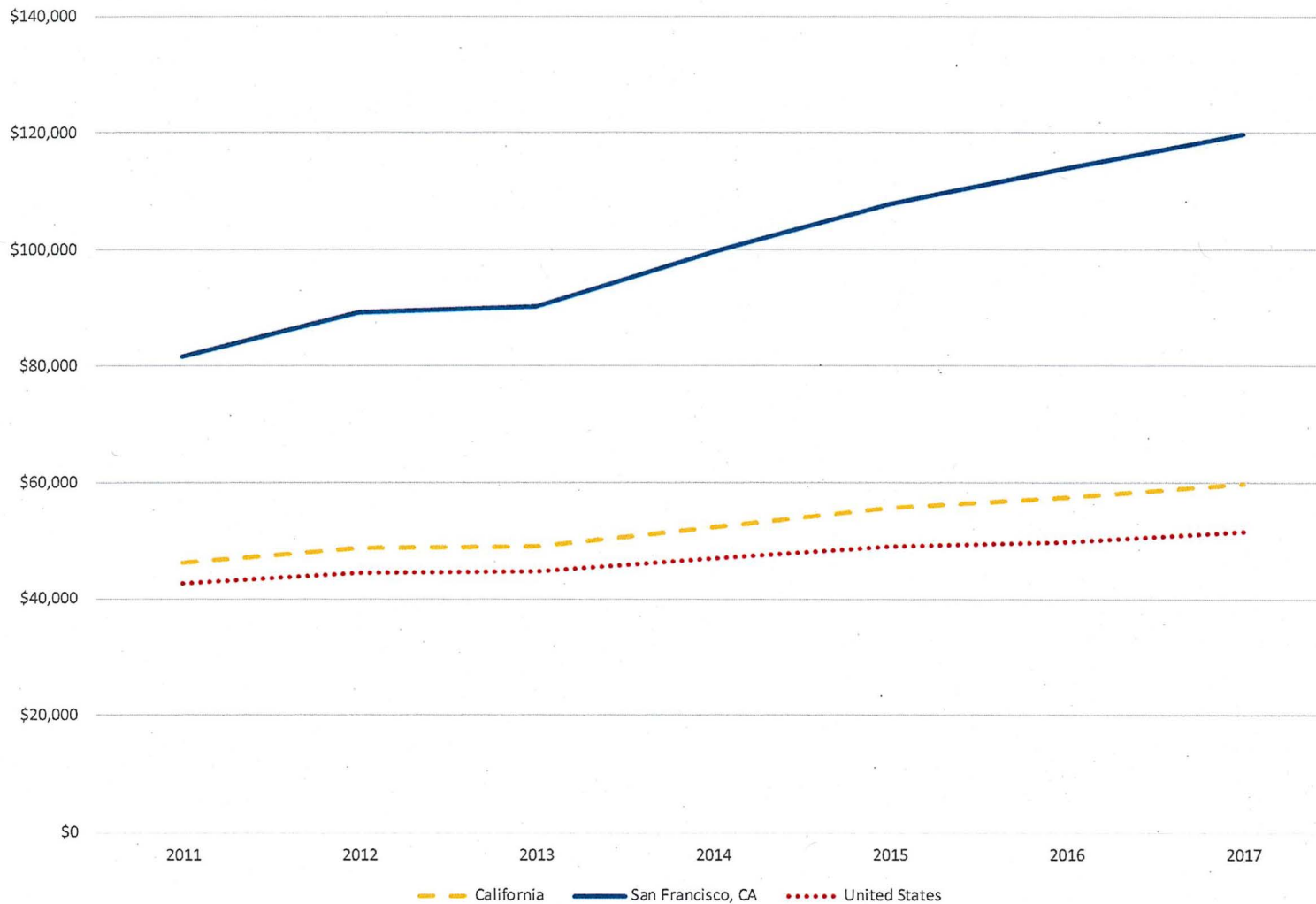
The industry's impact has been particularly felt powerful in the wake of the city's recovery from the Great Recession.

Residential rents in San Francisco, which were already 50% higher than the statewide average and more than double the national average, have grown 40% faster than California rate, and nearly 150% more than the U.S. rate, from 2011 to 2019.

# Per Capita Income Trends Have Been Similar

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Per Capita Income in San Francisco, California, and the United States: 2011 to 2017



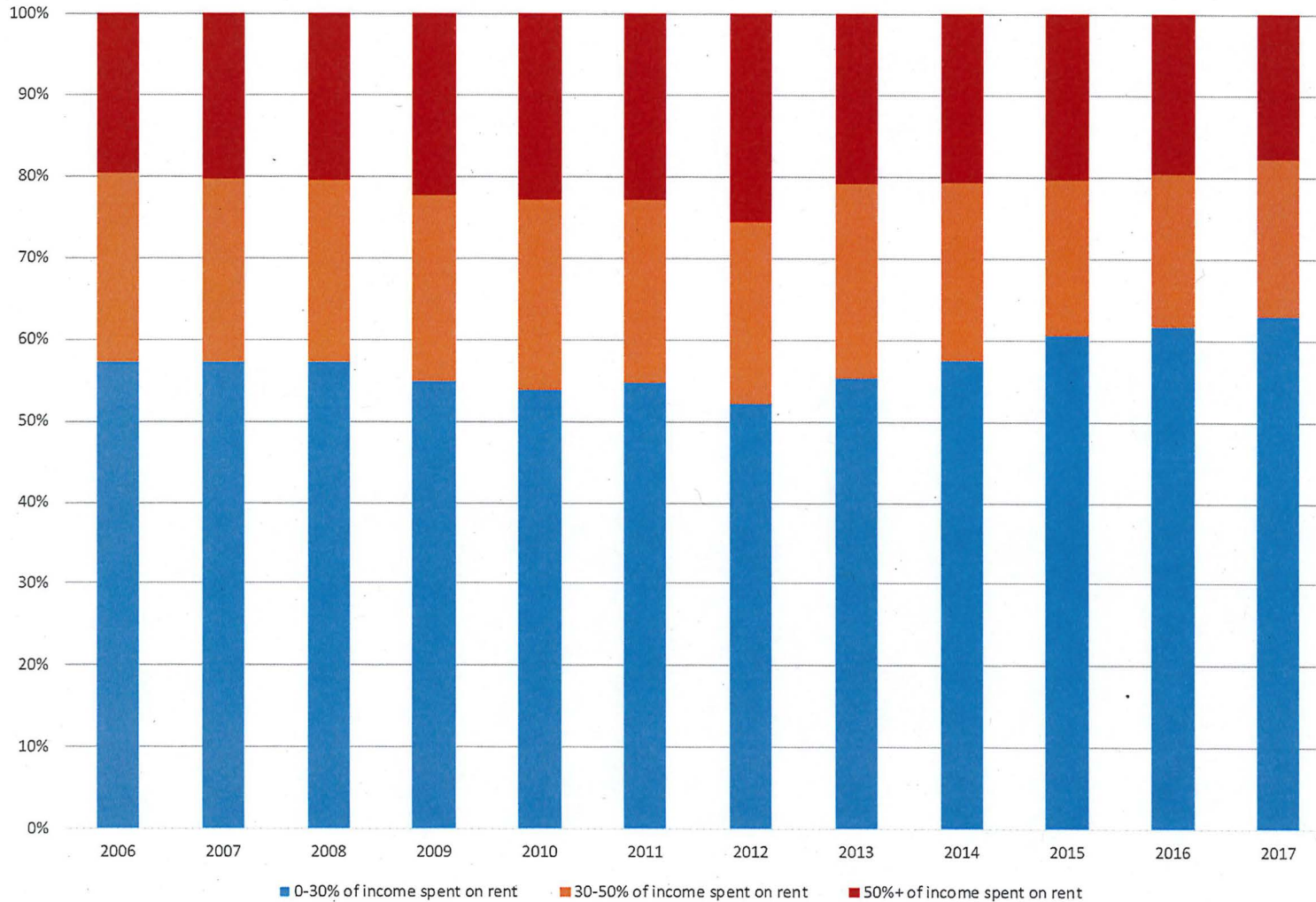
On the other hand, the growth of the tech sector in San Francisco has also helped to fuel a growth in income that has been much higher than other cities, and national and state baselines.

From 2011 to 2017, Per Capita Personal Income in San Francisco grew by 47%, rising from \$82,000 per person to \$120,000 per person. This is 60% faster than the State's growth, and double the Nation's growth, in Per Capita income during the same period.



# Rent Burdens Have Declined Since the Recession

San Francisco Renter Households by Percentage of Household Income Spent on Rent, 2006-17



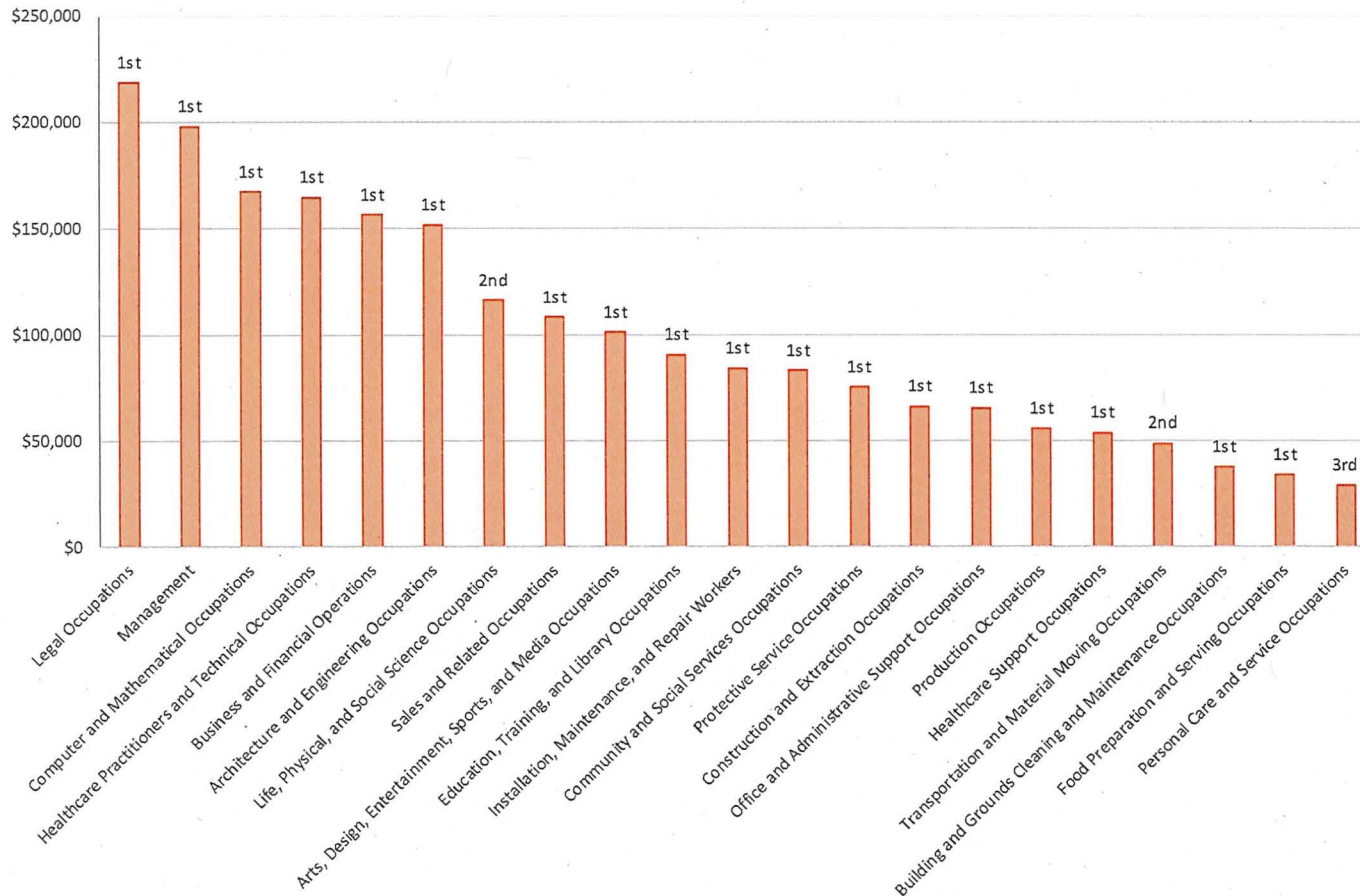
One way to examine the net effect of rising housing prices and rising incomes is to study trends on housing affordability, particularly for renters. The American Community Survey, produced by the Census Bureau, releases annual estimates of the percentage of renter households who spend more than 30% of their income on rent, and more than 50%.

In San Francisco, rent burdens have been unusually high for several decades. Since the recession, however, rent burdens have generally declined. In 2017, fewer renting households in the city spent more than 30%, or more than 50%, of their income on housing than in prior years of the ACS.

Source: U.S. Census Bureau, American Community Survey

# Income After Housing Costs, For All Occupations

Average Household Income, After Housing Costs, by Occupation in San Francisco, 2012-17  
(Along With San Francisco's Rank Among 11 Other Large Cities)



San Francisco housing prices are the highest of any large city in the country. But, even after accounting for housing costs, so are incomes. The chart to the left shows the average household income, after deducting its housing costs, by occupation in San Francisco. The wide spread across occupations reflects the inequality in the city.

It also shows San Francisco's rank, among a sample of ten other large cities\*, in income after housing, by occupation. For example, San Francisco households whose highest-paid member works in production have, on average, \$55,000 per year after housing costs. This is higher than the average after-housing income for production workers in any of the other 10 cities examined.

For all occupations, across the income spectrum, San Francisco ranks at or near the top of the list of sample cities.

\*Comparison cities include: New York, Los Angeles, Chicago, Washington, Philadelphia, Phoenix, Seattle, Denver, Indianapolis, and Jacksonville. Households with workers in more than one occupation were assigned to the occupation with the highest average salary.

Source: IPUMS USA, University of Minnesota, [www.ipums.org](http://www.ipums.org).

# Evaluating Tax Policy: the EASE Criteria

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- Tax policies are often evaluated according to a broad set of criteria, known as the EASE criteria: (Efficiency, Administrability, Stability, Equity)
- The **Efficiency** of a tax represents how much economic loss occurs for every dollar of revenue gained. A highly efficient tax limits the loss of local economic activity, and the taxpayers' ability to avoid the tax by changing their behavior.
- The **Administrability** of the tax concerns the complexity and cost of administering the tax, from the City's perspective. In general, administrative challenges can include legal risk, and difficulties in ensuring compliance.
- The **Stability** of the tax is important both to the City and to taxpayers; a stable tax minimizes the challenges to budgeting, and encourages investment by limiting the uncertainty to taxpayers.
- The **Equity** of the tax relates to questions of fairness in the tax design, such as: does the taxpayer's payment relate to their ability to pay?, and, are taxpayers in similar situations pay a similar amount of tax?

# Economic Impact Factors

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- The efficiency of the tax can be represented by its net economic impact. The proposed tax can be expected to affect the city's economy in two primary ways:
- First, by raising the tax on stock-based compensation, it will raise the cost of hiring employees using stock-based compensation. To the extent that such compensation is a business necessity, it will discourage those companies from, starting, locating, or growing in San Francisco, and cost jobs and economic growth that directly or indirectly stimulates all sectors of the city's economy.
- Secondly, the revenue raised by the tax will expand spending in the city's economy on its dedicated uses: housing and income support, small business stabilization, and social programs. Expanding these sectors, to the extent that they do not displace existing spending, will tend to create positive multiplier effects that benefit other sectors.
- The net economic impact depends on the magnitude of these positive and negative impacts.

# Economic Impact Assessment: Revenue Estimate

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- Estimating the economic impact of the proposed tax is unusually challenging, because the City lacks good information on the size of the tax base. While stock-based compensation is considered taxable under the Payroll Expense tax, businesses are not required to report it separately.
- Additionally, standard State and Federal economic statistics that report worker compensation, similarly do not separately break out stock-based compensation.
- Instead, we have made an estimate by comparing payroll statistics from two different federal economic surveys, one of which includes stock-based compensation, and one which does not. This method leads to the conclusion that 10-30% of the payroll expense tax base is composed of stock-based compensation. Accordingly, at the proposed rate of 1.12%, this suggests a revenue of \$50 - \$150 million per year.
- The revenue estimate is unusually wide both because of estimation uncertainty, and because the actual figure likely subject to considerable volatility, as it is tied to movements in the stock market.

# Efficiency: REMI Estimate of Economic Impact

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- Using our REMI model of the San Francisco economy, the OEA modelled the net economic impact of:
  - \$100M (the mid-point of our revenue estimate) in higher compensation costs, concentrated on technology (75%) and financial services (25%).
  - A like amount of spending on social services, income and housing subsidies, and business grants.
- The REMI model simulation suggests that, given this midpoint estimate, the tax could lead to a negative GDP impact of \$125 million (in today's dollars), and a loss of 675 jobs. This loss would occur in the context of an overall city economy with a GDP of \$175 billion, and approximately 740,000 jobs.
- While this estimate does not speak to the efficiency of the proposal, other OEA research has suggested that an alternative tax, not focused on labor costs, could raise an equivalent amount of revenue, with less economic loss.

# Administrability and Stability Issues

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- As stated earlier, because the City does not currently levy a tax on stock-based compensation specifically, the proposed tax will create a greater administrative burden than the City would be experiencing by simply adjusting an existing business tax to raise revenue.
- Additionally, the proposed tax is likely to be more unstable than other City business taxes, because the value of stock-based compensation is tied to the stock market, which is generally more volatile than the Payroll Expense or Gross Receipts tax bases.

# Equity Issues

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- Equity considerations in local taxes in California are colored by the fact that cities are prohibited from levying income taxes under the State Constitution. Income is widely regarded as the best measure of “ability-to-pay”, so permissible taxes have to address equity issues in other ways.
- In comparison to the existing Payroll Expense tax, the proposed tax better reflects a business’s ability-to-pay in some ways. Stock-based compensation is disproportionately granted to higher-wage employees. Moreover, a business’s liability under the proposed tax will be roughly proportional to the value of its stock, which should theoretically be related to its current or expected future income.
- However, a business that grants a large amount of stock-based compensation need not be more profitable than a similar company that grants other forms of compensation. While a large IPO may lead to stock-based compensation for executives, a successful public company may grant cash bonuses in lieu of stock. The first company would be taxed under this proposal, and the second would not.



# Conclusions

- The proposed new tax on stock-based compensation would be largely focused on the city's technology sector, which has grown rapidly over the past decade. While that growth is partly responsible for the growth in housing prices in the city during that time, it has also contributed to a substantial growth in income. Most San Francisco households have become economically better off during the tech sector's rapid growth this decade, despite the growth in housing prices.
- Additionally, in comparison to other potential taxes that could focus on the technology sector, the proposed tax can be faulted on efficiency, administrability, and stability grounds. It has a higher economic cost than comparable alternatives; it would have a higher administrative burden, and would be a more unstable source of revenue.
- Finally, while the tax would have equity benefits over the current, flat-rate Payroll Expense Tax, it would not fully reflect a business's ability to pay. It is likely that similar equity benefits could be achieved from an alternative tax that was more efficient, stable, and administrable.

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