STRATEGIC ECONOMICS

REGIONAL TRANSPORTATION MEASURE REVENUE ESTIMATES

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TABLE OF CONTENTS

I. INTRODUCTION 4

Research Approach 5

Report Organization 7

II. SUMMARY AND KEY FINDINGS 8

III. NEAR TO MID-TERM SOURCES 11

Regional Sales Tax 11

Corporate Head Tax 14

Parcel Tax 22

Personal Income Tax 24

Business Parking Levy 28

IV. LONG-TERM SOURCES 33

Payroll Tax 33

Gross Receipts Tax 33

Transportation Network Company Tax 34

Vehicle Miles Traveled Tax 35

V. SOURCES FOR FURTHER CONSIDERATION 38

Land Value Return Tax 38

CEO Tax 38

APPENDIX A 40

APPENDIX B 41

REFERENCES 44

TABLE OF FIGURES

Figure 1: Potential Funding Sources 7
Figure 2: Summary of Revenue Estimates 10
Figure 3: Summary of Key Assumptions 12
Figure 4: Estimate of Potential Sales Tax Revenues 13
Figure 5: Head Tax Examples 15
Figure 6: Mountain View Tax Rates by Business Size 15
Figure 7: Establishments by Size: Nine-County Bay Area, 2016 17
Figure 8: Industries by Typical Wage Levels 17
Figure 9: Bay Area Counties by Jobs/Housing (J/H) Ratio and Median Hourly Wage, 2016 18
Figure 10: Tax Rate Assumptions (Annual Tax Per Employee) 19
Figure 11: Calculation of Annual Head Tax Revenues by Scenario 20
Figure 12: Projected Revenue by Scenario and Tax Rate Structure 21
Figure 13: Key Assumptions Summary 23
Figure 14: Estimate of Potential Annual Parcel Tax Revenues 23
Figure 15: Key Assumptions Summary 27
Figure 16: Calculation of Annual Personal Income Tax Revenues 27
Figure 17: Projected Annual Revenue by Scenario (Millions) 27
Figure 18: Business Parking Levies Examples 29
Figure 19: Off-street Parking Assumptions 30
Figure 20: Key Assumptions Summary 30
Figure 21: Estimate of Potential Business Parking Levy Revenues 31
Figure 22: Regional VMT by Household Income Level 36
Figure 23: Key Assumptions Summary 36
Figure 24: Estimate of Potential VMT Tax Revenues 36
Figure 25: Advisory Committee 40
Figure 26: Total Sales Tax Rates: Bay Area Cities and Unincorporated Communities, July 2019. 41

I. INTRODUCTION

In 2017, three prominent Bay Area regional membership organizations, the Bay Area Council, the Silicon Valley Leadership Group, and SPUR, began investigating a regional "mega-measure" tax that would raise approximately $100 billion to fund a fully integrated transit system for the nine-county region. This group, known as FASTER Bay Area, is working to get a measure placed on the 2020 ballot authorizing some form of increased tax or package of taxes that could meet the $100 billion goal. Recent precedents for a transit funding measure of this scale include Los Angeles Metropolitan Transportation Authority's successful Measure M, a sales tax projected to raise $120 billion over 40 years or over 1.7 billion per year,[1] and the Puget Sound region's Sound Transit (ST) 3 measure which combined revenues from increases in sales, motor vehicle, and property taxes to raise $27.7 billion from new taxes over 25 years (note this is not the full cost of the ST3 program, with other revenue sources, the entire ST3 improvement package would cost $53.8 billion).[2] Both the Los Angeles and Seattle measures were approved by voters in 2016.

FASTER Bay Area, also called "FASTER," has proposed that the funding for the mega-measure would be raised through a regional one percent sales tax increase. The new sales tax revenues would be in addition to the existing sales taxes already in effect in various cities and counties through-out the nine-county Bay Area.

While there is a clear need for increasing funding for transportation improvements in the Bay Area, the question is whether a regressive taxation method, like a sales tax, is the best option to raise these revenues. Regressive taxation is defined as a fixed tax or tax rate that captures a higher percentage of income for lower income households than for higher income households.[3] Sales taxes are regressive in that they use a single tax rate for all purchases. Additionally, sales taxes are imposed primarily on household expenditures. In California, households, rather than businesses, pay 61 percent of sales taxes,[4] and lower income households pay a higher share of their incomes in sales taxes excluding non-taxable items such as food and drug expenditures. At the same time, these households have fewer discretionary expenditures where they can decide to forego a purchase to avoid the additional taxation.

FASTER does acknowledge that a new sales tax would have negative implications for lower income residents, including seniors and youth. Therefore, the FASTER Framework[5] includes a "sales tax fairness credit" that would rebate the estimated amount of the tax to low-income residents as well as providing means based on fare discounts for transit trips.

A separate coalition consisting of transportation and environmental advocates, grassroots organizers, and labor groups has also formed to advocate for increased funding to improve the Bay Area's transit system. This coalition, called Voices for Public Transportation (Voices), supports equitable and fair funding sources, and seeks to identify alternatives to the sales tax measure funding approach specifically to address the regressive taxation issue.

Silicon Valley Community Foundation (SVCF) has commissioned this study to independently evaluate multiple revenue sources that could be incorporated into the regional measure that would, to the

[1] http://theplan.metro.net/wp-content/uploads/2016/11/report_prgm_mgmt_2016_11.pdf
[2] http://soundtransit3.org/calculator
[3] https://www.investopedia.com/terms/r/regressivetax.asp
[4] Phillips and Ibaid, "The Impact of Imposing Sales Taxes on Business Inputs."
[5] https://static1.squarespace.com/static/5d6ff5240d873f0001bcea5d/t/5dcb3dfc23a88b2b3c1f6ef4/1573600769992/FASTER_video+link.pdf

extent possible, mitigate regressive tax burdens by shifting more of the burden to businesses in high wage industries; identify taxing mechanisms that could be paid by higher income individuals/households; and/or use some mechanism to offset any negative tax implications for moderate to low-income households and businesses providing middle wage jobs. This analysis also considered the potential for using taxation to promote more balanced job growth throughout the region, rather than only in existing job centers. More balanced job growth across the region could also decrease future congestion and greenhouse gas emissions.

Research Approach

The research presented below began with identifying potential revenue sources, activities, or assets that that could be taxed to either replace a one percent sales tax, or work in conjunction with a lower sales tax by raising revenues from one or more additional sources. The potential tax sources were identified along with an advisory committee working with the SVCF (advisory committee members names are listed in Appendix A) and building on work already completed for the CASA initiative, the Committee to House the Bay Area. A total of 11 revenue sources were considered (see Figure 1).

The revenue sources were evaluated using a two-phase process. In Phase 1, each source was defined and investigated using case studies. Based on this information a determination was made as to whether there was a reasonable methodology for calculating an annual revenue amount based on readily available data (i.e., there is a data source on which to base a revenue estimate and the data are publicly available). Phase 2 was only conducted for those revenue sources with enough data or information that could be computed to arrive at an annual revenue estimate. Moreover, the methodology for estimating the annual revenue was structured, when possible, to mitigate any potential impacts to moderate or low-income households and/or certain types of businesses. Only six of the 11 sources were quantified for this study. The evaluation steps are further summarized below:

Phase 1: Initial Resource Definition

1. Define the revenue source.
2. Investigate case studies where this revenue source has been either considered or deployed.
3. Identify a possible methodology for calculating an annual revenue amount and determine if the necessary data is available.

Phase 2: Revenue Calculation

4. Identify a possible methodology for adjusting the revenue amount to minimize negative impacts on “vulnerable populations” as data permit. It should be noted that the vulnerable parties may vary based on the tax revenue source.

5. Addressing additional issues for consideration, including:
    - Revenue volatility
    - Financing potential (i.e., potential to use the revenue to leverage debt)
    - Ease of implementation
    - Co-benefits associated with the revenue source that would support other regional and/or state policy goals

It is important to note that the revenue estimates provided for each funding source are shown as a range, and for only one year based on the dollar value of money in the appropriate projection year. There are several reasons for this. First, each revenue source is a tax being levied against an underlying variable, such as retail sales, number of employees, etc.; and the year for which the most recent data available for each source is not the same. Second, since the underlying growth trends for each source are different, merely adjusting the revenue amounts for inflation to put the revenues in constant 2019 dollars would be meaningless. A third related reason for showing a one-year estimate is because it was beyond the scope of this study to determine a 20-year growth trend for each source.

The revenue estimates are very sensitive to the underlying assumptions, data, and tax rates used in each methodology. With respect to the actual tax rate assumptions used for each revenue source, Strategic Economics selected both a low and a high rate based on case studies and other background research. In addition, for some of the revenue sources, there were multiple options for calculating the revenue. The decision as to which approach to apply was selected based on input from the SVCF staff and the Foundation's advisory committee. Where possible, the methodologies were selected to align with other regional policy and equity concerns such as reducing greenhouse gas (GHG) emissions and traffic congestion and/or the ability to mitigate additional tax burdens on vulnerable populations.

Defining vulnerable populations and identifying approaches for mitigating impacts could also have been approached in various ways. It is difficult to account for all vulnerable groups, and the attempts made in this analysis to factor for these populations were again limited by data accessibility. Mitigating impacts on low-income households and low and middle-wage businesses was the primary focus of the methodologies used in this report because these groups can easily be quantified through American Community Survey (ACS) data and other available data sources.

The 11 revenue sources have also been sorted into three categories based on their potential implementation timing.

- Near to Mid-term Sources: A regional sales tax measure, a corporate head tax, a parcel tax, and a personal income tax could be structured for a ballot measure relatively quickly because these are based on existing revenue sources where data regarding the revenue being taxed is readily available. While these sources may be more quickly implemented than others, major steps may still be required to establish these revenue sources such as passing state enabling legislation and establishing a fiscal agent to collect and/or disperse the revenue.

- Long-term Sources: These sources represent revenue streams that could be taxed in the future, where data is currently collected, but not in the public domain, or where no data is currently collected to measure the underlying asset, activity, or revenue stream that would be taxed. Therefore, the process for accessing the necessary information and/or the process for administering the tax would require a longer lead time than the other sources. For example, in this category, not only does the vehicle miles travel (VMT) tax pose the most significant challenges for implementation, there is no current mechanism for collecting the travel information necessary to structure such a tax. Therefore, this revenue source is considered a longer-term prospect for funding regional transportation improvements.

- Sources for Further Consideration: The complexity of the efforts to deploy these mechanisms require that they are given further consideration, and their implementation is probably beyond the timeframe associated with this analysis.

FIGURE 1: POTENTIAL FUNDING SOURCES

Funding Source	Potential Implementation Timing		
	Near to Mid-term	Long-term	Further Consideration
Regional Sales Tax	X		
Corporate Head Tax	X		
Parcel Tax	X		
Personal Income Tax	X		
Business Parking Tax	X		
Payroll Tax		X	
Gross Receipts Tax		X	
Transportation Network Company Tax		X	
Vehicle Miles Traveled (VMT) Tax		X	
Land Value Return Tax			X
CEO Tax			X

There are two additional considerations that have not been addressed in this analysis. First is the necessity for state enabling legislation associated with these mechanisms. This issue has been addressed for some mechanisms, but not for others. However, a full legal analysis would be required to address any state level restrictions and to establish the appropriate enabling mechanisms for most, if not all, of these revenue sources. Second, a regional entity would be required to collect and disperse these funds similar to the Bay Area Housing Finance Authority that recently won voter approval to be established via AB 1487. A more in-depth analysis of this entity was also beyond the scope of this report.

Report Organization

This report includes four sections in addition to this introduction. Key findings for all revenue sources that could be quantified are presented in Section II. Section III describes the revenue sources with near to mid-term implementation potential. This is followed by Section IV, presenting the long-term revenue sources. Section V addresses the sources that warrant further consideration but will take considerable effort to implement. Appendix A provides the names and organizational affiliations for the advisory committee members, and Appendix B provides the sales tax rates for Bay Area cities and unincorporated communities as of July 2019.

II. SUMMARY AND KEY FINDINGS

Figure 2 summarizes the revenue estimates from the six revenue sources for which data was readily available. Note that these are preliminary estimates based on the assumptions described in the following section. In reviewing these findings, it is important to reiterate how sensitive the results are to both the actual tax rates used, and the assumptions used to estimate the size of the tax base to which the rates have been applied.

These results and the detailed analysis have informed the following key findings:

- Overall, there are multiple revenue sources that could be tapped to provide additional funding for regional transportation improvements that can be structured to offset regressive impacts for low-income households and/or businesses providing middle wage jobs. Several sources, including **the corporate head tax, business parking levy, and the parcel tax** could be structured such that businesses in high wage industries bear most of the tax burden.

- A **VMT tax** at even a lower tax rate than was modeled for this analysis could generate a very significant revenue stream. However, technical challenges associated with monitoring VMT for every vehicle registered in the region would be extremely complex and could potentially require many years to be implemented.

- It is clear why many regions chose to impose **Sales Taxes** to pay for transportation improvements. These are relatively easy to administer, and the revenue potential is significant when compared to other sources, even taking volatility into account. The drawbacks are that sales taxes are very regressive and there is no established path within California to mitigate this impact; and that the region already has many places with high sales tax rates. There may be considerable resistance to raising these rates even further.

- A **Personal Income Tax** levied across the nine-county Bay Area region has among the highest revenue generating potential among the mechanisms considered for this study. In addition, this could be one of the most equitable revenue sources because it can easily target high income persons/households similar to the existing one percent statewide surcharge on taxpayers whose income exceeds $1 million per year, which is used to pay for mental health services.

- A **Corporate Head Tax** also shows potential to raise a significant amount of revenue annually and is well suited to making a wide variety of equity accommodations. However, in an economic downturn the number of jobs in the region can decline significantly, creating a great deal of potential volatility associated with this source. There might also be considerable pressure from the business community to eliminate or greatly reduce the tax in a downturn, adding to the uncertainty.

- The **Business Parking Levy** could produce a significant amount of revenue. A notable amount of effort may be required to create an official count of the number of parking spaces or parking lot areas to be taxed. However, before an official parking audit is implemented, parking supply estimates for the region could potentially be created using GIS mapping, available parking databases, and self-reported figures by properties owners. This could more accurately assess the potential revenues as evidence in support of the tax. It is unclear what the equity implications of a business parking levy might be, since the tax would be levied on owners of parking facilities. Individual households would be affected only indirectly (to the extent that

the tax results in increased parking charges). However, since any additional cost could be passed though from the property owner to the driver, this tax could also function as a user fee. This could have a positive impact of reducing automobile commuting and therefore reduce traffic congestion and greenhouse gas emissions.

- A **Parcel Tax** could also generate significant revenues if deployed on its own, or it could also be levied at a relatively low rate and combined with other sources. This might include a low rate head tax and/or some form of parking levy to create a package of revenue sources. While a uniform tax across parcels could be regressive, there may be opportunities to create exemptions for low-income households or other vulnerable groups, although this may necessitate legislative changes at the state level.

FIGURE 2: SUMMARY OF REVENUE ESTIMATES

Revenue Measure	Definition	Examples	Equity Issue	Equity Adjustment	Total Annual Revenue (Millions) Low	High
Regional Sales Tax	Tax on sales of goods. Would be additive to existing local and county sale tax rates	All nine Bay Area counties and many Bay Area cities	Regressive	None*	$203.0	$812.0
Head Tax	Tax on business employee headcount	Seattle, WA and Mountain View, CA	Uniform tax rate could incentivize employers to cut lower wage jobs, or be unduly onerous for small businesses	Graduated tax rate based on county and industry; small business exemption	$103.6	$203.1
Parcel Tax	Tax on individual real estate parcels	Many Bay Area examples for green infrastructure, road improvements, transportation services, and schools	Uniform tax across parcels is regressive	Exemption for low-income households and certain commercial land uses	$19.5	$156.2
Personal Income Tax	Tax on most types of personal income	41 states and the District of Columbia levy a personal income tax	Tax rates could be varied by income bracket making this a progressive mechanism	Exemption for all except the highest income earners	$225.2	$859.1
Business Parking Levy	Tax on off-street, nonresidential parking spaces	Cities in Canada, Australia, and in the UK	Unclear. Tax paid by parking facility owner; but could be passed on to drivers as a "user fee"	None	$141.9	$567.4
VMT Tax	Tax on vehicle miles traveled (VMT)	Pilot programs in Oregon and California	Flat rate per mile for all drivers could be regressive	Exemption for low-income households	$442.5	$885.0

*The state could potentially create a tax credit for lower-income households to reimburse them for the increased sales tax (although this could also have implications statewide, including outside of the Bay Area). No equity adjustment was applied for the purposes of this analysis because it is unclear how this type of tax credit might affect sales tax revenues collected.

Source: Strategic Economics, 2019.

III. NEAR TO MID-TERM SOURCES

Regional Sales Tax

DEFINITION

California law enables cities, counties, and county transportation authorities to establish a transaction and use tax (referred to as a "local sales tax") that is additive to the existing statewide sales tax rate. County transportation authorities commonly use sales taxes to fund transportation projects in California, although they are often scrutinized as being regressive and volatile funding sources.

Under California law, cities and counties must seek voter approval to establish either a general sales tax or special purpose tax.

- **General sales taxes** are used to fund general services and operations as part of the General Fund. They require a two-thirds vote of the local City Councilor Board of Supervisors, and approval by a simple majority (50 percent plus one) of voters.
- **Transportation authority sales taxes** can be imposed by a county transportation authority. They require two-thirds approval by the Board of Supervisors and approval by a two-thirds supermajority of voters.
- **Special purpose taxes** are used to fund a specific, designated activity and require a two-thirds vote of the City Council or Board of Supervisors and approval by a two-thirds supermajority of voters.

Tax rates may be imposed at a minimum rate of 0.125 percent and in 0.125 percent increments. The combined rate of all sales taxes in a jurisdiction may not exceed 10.25 percent without special state legislation (including the 7.25 percent statewide rate).[6]

EXAMPLES

There are district sales taxes in effect in all nine Bay Area Counties and in many cities. In eight of the nine counties (all except Solano), the county transportation authority has established one or more sales taxes to fund transportation projects. Rates typically range from 0.125 to 0.5 percent.[7] In addition, the Bay Area Rapid Transit District (BART) collects a 0.5 percent sales tax in Alameda, Contra Costa, and San Francisco Counties; this tax was authorized by special state legislation in the 1970s.

EQUITY ISSUES & ADJUSTMENTS

Sales taxes are generally considered regressive because lower-income households spend a higher share of their income on taxable goods than high-income households. The introduction of new sales taxes would also place a larger tax burden on households relative to businesses. Most sales tax revenues come from households—the share of California sales taxes paid in 2017 by business inputs

[6] For more information, see California Department of Tax and Fee Administration (CDTFA), "Local and District Taxes," https://www.cdtfa.ca.gov/taxes-and-fees/local-and-district-taxes.htm.
[7] CDTFA, "District Taxes, Rates, and Effective Dates," July 2019, https://www.cdtfa.ca.gov/formspubs/cdtfa105.pdf.

was 39 percent.[8] Additionally, while a large share of personal and business goods are exempt from sales tax purchases, households in general have less discretion compared to businesses when paying sales tax. An estimated 13 percent of business inputs are subject to sales tax, while 21 percent of personal goods are subject to sales tax.[9] While states typically do not tax medical, educational, and housing services, other living expenses such as clothing and vehicle costs are not typically exempt. More research is needed to understand to what degree essential costs for households are taxed compared to businesses.

Any effort to mitigate the regressive impact of a sales tax rate increase would have to rely on some type of secondary mechanism, such as a rebate or tax credit. For example, the state could potentially create a tax credit for lower-income households to reimburse them for the increased sales tax (although this could also have implications statewide, including outside of the Bay Area). In addition, there is no direct way to measure the impact such mechanisms would have on low-income taxpayers based on currently available, therefore no equity adjustment was applied in this analysis. However, FASTER is currently exploring how an equity-focused rebate might be implemented with a new sales tax to mitigate impacts on low-income households.

METHODOLOGY & ESTIMATED REVENUES

Potential sales tax revenues were estimated by applying a range of potential tax rates to the total taxable sales in the nine-county region. Methodology, data sources, and estimated revenues are described below and shown in Figures 3 and 4.

- **Taxable sales:** Strategic Economics calculated the total taxable sales in the nine-county Bay Area using the most recent data (2018) available from the California Department of Tax and Fee Administration (CDTFA). Note that under California law, sales taxes are imposed on the retail sale or the use of tangible personal property at the point of sale/use, including internet sales. Services and certain goods (such as prescription medicine and food intended for consumption at home) are tax exempt.
- **Tax rates:** Tax rates were assumed to range from 0.125 percent (low) to 0.5 percent (high) of taxable sales. These rates were intended to be conservative, given that most counties already levy sales taxes for transportation (as well as a variety of other district sales taxes).
- **Estimated revenues:** Based on the assumptions described above, estimated revenues could range from $203 to $812 million a year.

FIGURE 3: SUMMARY OF KEY ASSUMPTIONS

Tax Base	Taxable sales
Equity Adjustment	None
Tax Rates	0.125 – 0.5 percent of taxable sales

[8] Phillips and Ibaid, "The Impact of Imposing Sales Taxes on Business Inputs."
[9] Ibid

FIGURE 4: ESTIMATE OF POTENTIAL SALES TAX REVENUES

Total Taxable Sales (Millions, 2018)	$162,399.9
Tax Rates (% of Taxable Sales)	
Low	0.125
High	0.5
Estimated Annual Revenues (Millions)	
Low	$203.0
High	$812.0

Sources: California Department of Tax and Fee Administration, 2018; Strategic Economics, 2019.

ISSUES FOR FURTHER CONSIDERATION

This section briefly discusses preliminary issues related to implementation that were raised during the analysis conducted for this report. Further research would be required to fully explore potential legal constraints and other implementation considerations.

- **Revenue volatility:** Sales tax revenues are often volatile because taxable sales fluctuate significantly with the economic cycle. This volatility has also been problematic when transit agencies are trying to prepare accurate revenue forecasts. Avoiding additional sales taxes and using other sources to increase revenue diversification may help improve stability as it widens the tax base and increases flexibility.[10]
- **Financing:** Revenues from transportation authorities and special purpose sales tax measures may be used to issue bonds and pay debt service.[11] Transportation authorities in California often issue bonds secured by sales tax revenues. However, sales tax bonds are often underwritten using conservative terms (e.g., relatively high interest rates and debt coverage ratios) because of the volatility of this source.
- **Ease of implementation:** Multicounty sales tax measures are unusual in California. Special state legislation would likely be required to establish an entity with the authority to impose and administer a regional transportation sales tax measure, and to exceed the 10.25 percent cap on total sales and use taxes in some parts of the region (See Appendix B, Figure 26). A regional increase to the sales tax rate could limit local jurisdictions' ability to levy additional local taxes, which may raise concerns from cities. Approval by a two-thirds supermajority of voters would also be required. One recent poll suggested that a regional sales tax measure for transportation purposes could meet or exceed this voter approval threshold.[12]
- **Co-benefits with other policy goals:** A regional sales tax for transportation funding would not facilitate other public policy goals. In fact, some cities may see a regional sales tax as working against their needs. Due to Proposition 13, which limits property tax increases, most cities in California rely on sales tax revenues as an important source of general fund revenues. High regional sales tax rates might incentivize consumers to shop outside of the region whenever possible.

[10] Whitney B., "Diversification Toward Stability? The Effect of Local Sales Taxes on Own Source Revenue."
[11] A general local sales tax measures cannot be used to issue bonds.
[12] Erin Baldassari, "Bay Area voters: 'Yes we'll pay to fix traffic' but middling support for housing plans," The Mercury News, https://www.mercurynews.com/2019/03/25/bay-area-voters-yes-well-pay-to-fix-traffic-but-not-housing-shortage/.

Corporate Head Tax

DEFINITION

Corporate head taxes are typically paid by private employers based on employee headcount. Several jurisdictions in the Bay Area already charge a corporate head tax, including Oakland, San José, Redwood City, and Mountain View. High-profile examples in Mountain View and Seattle have brought attention to this potential revenue source. Corporate head taxes are considered politically desirable because businesses, rather than individuals or households, are responsible for paying the tax. Taxing businesses seems to resonate well with voters in places like the Bay Area where technology related firms have grown rapidly, putting significant pressure on the region's transportation infrastructure as well as on housing units.

EXAMPLES

Oakland charges a variable corporate head tax based on employee count per business, ranging from $72 to $101 per employee.[13] San José also charges a corporate tax with a base (flat) rate of $200.85 charged to all firms; additional variable charges ranging from $31.80 to $63.65 per employee based on business size; and an annual cap of $159,135 per firm.

In 2018, Mountain View voters approved a head tax (Measure P) that is similar to San José's in structure. Mountain View charges rates according to different tiers based on business size. Companies are charged an initial flat rate according to their tier plus an additional amount for employees above the minimum business size within their tier (see Figure 6). The City estimates that the tax will generate $6 million annually, with proceeds going to support Mountain View's General Fund.[14] Google is the only firm with over 5,000 employees in Mountain View and is expected to contribute half of the total revenues.[15]

The Seattle City Council approved a head tax ordinance in the spring of 2018 that would have levied $275 annually, per employee, on business earning more than $20 million a year. Tax revenues were intended to fund homelessness services. The City reversed the decision less than a month later after opponents (supported by Amazon and other large companies) organized a campaign to put a repeal referendum on the November ballot.[16]

[13] The Committee to House the Bay area (CASA), Appendix II, CASA Compact, January 2019.
[14] City of Mountain View, "Information on November 2018 City Revenue Ballot Measure," https://www.mountainview.gov/depts/manager/2018_potential_general_revenue_measures.asp.
[15] Sarwari, "Mountain View's 'Head Tax' Measure Passes; Incumbents Siegel, Showalter Ousted by New Council Members."
[16] Semuels, "How Amazon Helped Kill Seattle a Tax On Business."

FIGURE 5: HEAD TAX EXAMPLES

City	Initial Year	Tax Rate	Fee Description
Pittsburg, PA	1965	$52 per employee	Flat rate per employee
Denver, CO	1969	$117 per employee	Flat rate per employee
Redwood City	2012	$63 (flat rate on business) + $42 per employee	Flat rate on business + additional graduated rate per employee based on business size
Oakland, CA	N/A	$72 to $101 per employee	Graduated rate based on business size
Mountain View, CA	2018	See Figure 6	Flat rate on business + additional graduated rate per employee based on business size
San Jose, CA	1986	$200.85 (flat rate on business) + $31.80 to $63.65 per employee (a)	Flat rate on business + additional graduated rate per employee based on business size
Seattle, WA	2018 (b)	$275 per employee	Flat rate per employee applied to businesses earning more than $20 million annually

(a) The City of San Jose has an annual cap of $159,135 per firm.
(b) Seattle's measure was passed in May 2018 then repealed a month later.
Source: Strategic Economics, 2019.

FIGURE 6: MOUNTAIN VIEW TAX RATES BY BUSINESS SIZE

Number of Employees	Maximum Authorized Business Registration and License Tax
1	$75
2-25	$75 + $5/employee for each employee over 1
26-50	$195 + $10/employee for each employee over 25
51-500	$445 + $75/employee for each employee over 50 employees
501-1,000	$34,195 + $100/employee for each employee over 500 employees
1,001-5,000	$84,195 + $125/employee for each employee over 1,000
5,001 +	$584,195 + $150/employee for each employee over 5,000

Source: Excerpt from Measure P Ballot Analysis, https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=27115.

EQUITY ISSUES & ADJUSTMENTS

Most head tax rates are structured to vary based on business size. Presumably, this is intended to prevent the tax from creating a disproportional burden on smaller businesses with lower revenues than their larger counterparts. Also, because the cost per employee is proportionally higher for lower wage employees, there have been assertions that head taxes are a disincentive to create or retain lower wage jobs. A further consideration related to a head tax is that because it increases the cost of doing business, it might act as an incentive for firms to move away from places with higher taxes.

Because the businesses that could be most impacted by a corporate head tax are small businesses and businesses in low-wage industries, this analysis incorporates a methodology for estimating potential tax revenues based on factors related to both business size and average wages by industry.

In addition, location was taken into consideration to differentiate between areas in the region with high job concentrations versus places with lower job concentrations. Although this is not a traditional 'equity consideration," this factor was incorporated as a potential opportunity to try and shift businesses and jobs from high job concentration locations to lower job concentration locations to shorten commutes and reduce demand on the regional transportation system.

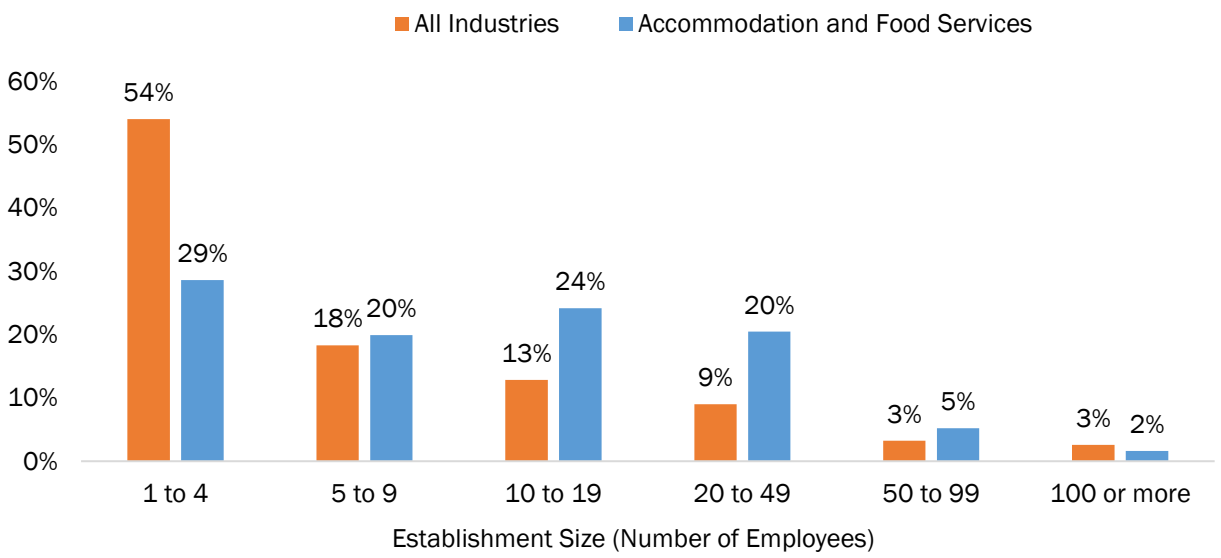
This analysis tested a range of scenarios, including variations on the following:

- Exempting **small businesses**, defined as businesses with fewer than 20 or 50 employees, depending on the scenario. For reference, Figure 7 shows the distribution of Bay Area establishments by number of employees in the economy overall and in the accommodation and food services industry, since this is an industry that is often discussed as being vulnerable to a head tax.

- Varying tax rates by **industry** based on typical median wages (See Figure 8), with businesses in industries that pay high wages paying a higher per-employee tax rate. The intention is to measure the revenue potential from pushing the tax burden onto high-wage industries which have also been the region's faster growing sectors, while minimizing the impact on industries with low- and mid-range wages job to support long-term economic diversity.

- Varying tax rates by **county**, based on the county ratio of jobs to households (J/H) and jobs to employed residents (see Figure 9). This measure is intended to help incentivize businesses to locate in areas with fewer jobs, in order to improve worker access to jobs throughout the region. Note that the Bay Area counties with the highest J/H ratio are also the counties where average wages are the highest.

FIGURE 7: ESTABLISHMENTS BY SIZE: NINE-COUNTY BAY AREA, 2016



Sources: County Business Patterns, 2016; Strategic Economics, 2019.

FIGURE 8: INDUSTRIES BY TYPICAL WAGE LEVELS

Low-Wage Industries	Medium-Wage Industries	High-Wage Industries
Accommodation & Food Services	Transportation & Warehousing	Information
Agriculture, Forestry, Fishing & Hunting	Health Care & Social Assistance	Finance & Insurance
Retail Trade	Real Estate, Rental & Leasing	Professional, Scientific, & Technical Services
Arts, Entertainment, & Recreation	Wholesale Trade	Management of Companies & Enterprises
Administrative & Waste Services	Educational Services	
Other Services	Construction	
Utilities	Manufacturing	
Unclassified	Mining	
Exempt		
Public Administration/Government Employees		

Sources: California Employment Development Department, Occupational Employment Statistics (OES) Wages and Employment by Occupation and Industry, Q1 2019; Strategic Economics, 2019.

FIGURE 9: BAY AREA COUNTIES BY JOBS/HOUSING (J/H) RATIO AND MEDIAN HOURLY WAGE, 2016

	Jobs	Households	Employed Residents	Jobs: Households Ratio	Jobs: Employed Residents Ratio	Median Hourly Wage (by MSA)*
9-County Region	**3,454,722**	**2,684,352**	**3,781,124**	**1.29**	**0.91**	
Counties with High J/H Ratio (Above Regional Average)						
San Mateo	374,251	261,010	395,999	1.43	0.95	$29.80
Santa Clara	1,021,748	626,579	938,545	1.63	1.09	$29.55
San Francisco	627,915	356,797	488,560	1.76	1.29	$29.80
Counties with Low J/H Ratio (Below Regional Average)						
Solano	111,150	145,315	191,173	0.76	0.58	$20.32
Contra Costa	325,864	387,540	521,577	0.84	0.62	$24.15
Sonoma	168,218	189,043	243,985	0.89	0.69	$20.72
Marin	100,530	104,400	130,366	0.96	0.77	N/A
Alameda	662,511	564,293	801,026	1.17	0.83	$24.15
Napa	62,535	49,375	69,893	1.27	0.89	$20.53

*Median hourly wage for workers employed in the MSA. Note that San Francisco-San Mateo, Santa Clara-San Benito, and Alameda-Contra Costa MSAs each include multiple counties. Median wages not available for the Marin MSA.
Sources: American Community Survey, 2016; County Business Patterns, 2016; California Employment Development Department, Occupational Employment Statistics (OES) Wages and Employment by Occupation and Industry, Q1 2019; Strategic Economics, 2019.

METHODOLOGY & ESTIMATED REVENUES

Potential corporate head tax revenues were estimated by applying a range of tax rates to the number of employees in the nine-county region with exemptions. Methodology, data sources, and estimated revenues are described below and shown in Figure 10-12.

- **Private Employees**: The number of private (non-governmental) employees in low and high J/H counties was estimated using data from the U.S. Census' County Business Patterns (CBP) data set (2016). CBP provides economic data by industry, establishment size, and geographic area (including county and zip code).[17] Note that due to data constraints, non-profit employment was not included.
- **Tax rate structures:** Three tax rate structures were tested (Figure 10):
    - **Flat rates** – rates vary by county (low v. high J/H counties) but do not vary by industry.
    - **Graduated rates** – rates vary by county and typical industry wage level.

[17] CBP excludes most establishments reporting government employees. See https://www.census.gov/programs-surveys/cbp.html for more information.

- **Tax on high wage industries only** – rates vary by county, but only high-wage industries are subject to the tax (see Figure 8) for a list of industries by wage categories).

Flat and graduated rates were set to generally reflect twice the typical median hourly wage across counties and industries. Rates were initially tested at a rate approximately equal to one of the median hourly wage per industry group (low, medium, or high wage) but the rates were increased to more closely resemble the rates already adopted in several cities today (Figure 5). Although the rates used in this analysis are still somewhat lower than those currently used in other cities, this conservative approach is intended to reflect tax rates that could be more palatable to voters and businesses spanning a diverse industry mix across the entire Bay Area region. The tax rate for the High Wage Industries Only scenario was set to generate about the same projected amount as the flat rate and graduated rate scenarios that do not except small businesses, around $200 million.

- **Exemptions:** Three scenarios were tested:
  - **Scenario 1** exempts businesses with fewer than 20 employees from paying the tax.
  - **Scenario 2** exempts businesses with fewer than 50 employees from paying the tax.
  - **Scenario 3** does not exempt small businesses and is shown for comparison.

  Figure 11 shows the number of employees that would be subject to the tax in each scenario.

- **Estimated revenues:** Figure 12 summarizes the estimated revenues, which range from about $103 to $203 million a year, depending on the scenario and tax rate structure.

FIGURE 10: TAX RATE ASSUMPTIONS (ANNUAL TAX PER EMPLOYEE)

	Flat Rates (Does Not Vary by Industry)		Graduated Rates (Varying by Industry)		Tax on High Wage Industries Only	
Industry Wage Level	Low J/H Counties	High J/H Counties	Low J/H Counties	High J/H Counties	Low J/H Counties	High J/H Counties
Low-Wage Industries	$40	$60	$30	$40	$0	$0
Medium-Wage Industries	$40	$60	$50	$60	$0	$0
High-Wage Industries	$40	$60	$70	$100	$180	$220

Source: Strategic Economics, 2019.

FIGURE 11: CALCULATION OF ANNUAL HEAD TAX REVENUES BY SCENARIO

	Estimated Employment Subject to Tax			Annual Revenues (Millions)		
	Low J/H Counties	High J/H Counties	Total	Flat Rates	Graduated Rates	Tax on High Wage Industries Only*
Scenario 1: Exempt Businesses with Fewer than 20 Employees						
Low Wage Industries	424,665	490,783	915,448	$46.4	$32.4	N/A
Medium Wage Industries	494,794	470,555	965,349	$48.0	$53.0	N/A
High Wage Industries	194,498	547,612	742,110	$40.6	$68.4	N/A
Total	**1,113,956**	**1,508,950**	**2,622,906**	**$135.1**	**$153.7**	N/A
Scenario 2: Exempt Businesses with Fewer than 50 Employees						
Low Wage Industries	277,833	340,294	618,127	$31.5	$21.9	N/A
Medium Wage Industries	383,048	375,232	758,280	$37.8	$41.7	N/A
High Wage Industries	150,580	469,780	620,359	$34.2	$57.5	N/A
Total	**811,460**	**1,185,305**	**1,996,765**	**$103.6**	**$121.1**	N/A
Scenario 3: Do Not Exempt Small Businesses						
Low Wage Industries	600,888	672,224	1,273,112	$64.4	$44.9	N/A
Medium Wage Industries	672,609	633,605	1,306,214	$64.9	$71.6	N/A
High Wage Industries	282,658	667,061	949,719	$51.3	$86.5	$197.6
Total	**1,556,155**	**1,972,890**	**3,529,044**	**$180.6**	**$203.1**	**$197.6**

*This tax rate was applied only to Scenario 3 (no exemptions for small businesses) to evaluate the implications of only charging high wage firms the tax.

Sources: County Business Patterns, 2016; Strategic Economics, 2019.

FIGURE 12: PROJECTED REVENUE BY SCENARIO AND TAX RATE STRUCTURE

	Flat Rates	Graduated Rates	Tax on High Wage Industries Only
Scenario 1: Exempt Businesses with Fewer than 20 Employees	$135.1	$153.7	$155.5
Scenario 2: Exempt Businesses with Fewer than 50 Employees	$103.6	$121.1	$130.5
Scenario 3: Do Not Exempt Small Businesses	$180.6	$203.1	$197.6

Source: Strategic Economics, 2019.

ISSUES FOR FURTHER CONSIDERATION

This section briefly discusses preliminary issues related to implementation that were raised during the analysis conducted for this report. Further research would be required to fully explore potential legal constraints and other implementation considerations.

- **Appropriate tax structure and exemptions:** Additional analysis and polling would be required to determine the appropriate tax rate structure and exemptions. In addition to the variations modeled in this analysis, other potential permutations could include varying rates by city (rather than county) J/H ratio, varying rates based on location within a transit priority area, and/or capping the tax based on a firm's gross receipts.[18]
- **Revenue volatility:** Because a corporate head tax would be tied to employment count, revenues would likely vary significantly with the economic cycle. A tax that only applies to high wage industries is likely to be the most volatile, since the tax base would be relatively small.
- **Financing:** Strategic Economics is not aware of any examples of corporate head tax revenues being used for financing major capital improvements. Additional research is required.
- **Ease of implementation:** State legislation would be needed to establish a regional entity to collect and administer the tax. Voter approval would also be needed to implement the tax. Further consideration of how the tax would be administered is also required. Many individual cities in the Bay Area administer their own business registration systems for the purposes of charging a business license tax. Statewide, all firms register with the California Employment Development Department (EDD) for the purpose of paying employment insurance and other state employment taxes.
- **Co-benefits with other policy goals:** By charging higher rates for counties (or cities) with a higher jobs/housing ratio, a head tax could potentially create an incentive for businesses to locate in areas with fewer jobs. This type of tax structure could also potentially incentivize jurisdictions and firms to support increased housing production in order to be eligible for a lower head tax rate. In turn, the tax could help improve the spatial distribution of jobs in relation to housing, potentially reducing traffic congestion and transit overcrowding. However, further research is required to assess whether a head tax would serve as an effective incentive for businesses to reconsider their relative location within the region. In general, firms in California rarely move, and when they do they typically move to the same type of place (city to city or suburb to suburb).[19] Access to an appropriate workforce appears to be the most important factor in firm

[18] Data for modeling these scenarios was not available for this analysis. In general, obtaining accurate, comprehensive, and detailed employment data below the county level is challenging, and there is no data source for business gross receipts at the regional level.
[19] Chapple and Makarewicz, "Restricting New Infrastructure."

location decisions,[20] while monetary incentives have been found to have a limited effect on business decision locations.[21]

Parcel Tax

DEFINITION

A parcel tax is a tax on parcels of land. Under California law, parcel taxes may not be charged on an *ad valorem* basis (i.e., based on the value of property). The uniformity or property taxation provision in the California constitution states that parcel taxes must be assessed at a flat tax rate that is levied on parcels without regard for parcel size or other characteristics. Parcel taxes may be levied by counties, cities, school districts, and special districts (such as or Mello-Roos Community Facilities Districts, or CFDs). Revenues are commonly used for school operations and emergency medical and fire services, but there are a variety of other examples, including, parcel taxes for green infrastructure, road improvements, and transportation services.

In California, parcel taxes are designated as "special taxes," and require two-thirds resident voter approval. While the standard for enacting a parcel tax is high, they are generally well received by voters. About 10 percent of cities and school districts in California have imposed some type of parcel tax, and from 2003 to 2018, about 57 percent of proposed parcel taxes were approved across the state.[22]

EXAMPLES

In the Bay Area, only a few parcel taxes span multiple counties, including several parcel tax measures that include jurisdictions in both Alameda and Contra Costa Counties. The most recent examples include Measure FF and Measure C1. Measure FF applies to the East Bay Regional Park District. In 2018, the measure passed by 86 percent voter approval and charges an annual rate of $12 per parcel. Measure C1 applies to the Alameda Contra Costa Transit District and funds AC Transit operations. The measure passed by 82 percent of voters in 2016 with an annual rate of $96 per parcel and an exemption for vacant parcels.

Measure AA, the Clean Water, Pollution Prevention and Habitat Restoration Measure, approved in 2016, is the only example of a parcel tax that includes all nine Bay Area counties. Measure AA passed with 70 percent voter approval and levies an annual rate of $12 per parcel with no exemptions.

EQUITY ISSUES & ADJUSTMENTS

Most parcel taxes are considered regressive because they apply the same fee to each parcel regardless of property value or size. However, allowing exemptions for certain parcels, such as parcels owned by seniors (those age 65 or older) or those with a disability, is common. The City of Berkeley levies a parcel tax on the square footage of improvements and allows exemptions for parcels owned and occupied by very low-income households. Annual refund programs could also help reduce overall property tax burdens for low-income households.

This analysis only includes an adjustment for low-income homeowner because there is readily available data to do so. If other data regarding land use and property ownership were available, further

[20] Chapple and Makarewicz.
[21] For example, see Donegan, Lester, and Lowe, "Striking a Balance."
[22] Sonstelie, "Parcel Taxes as a Local Revenue Source in California"; "Parcel Tax Elections in California."

adjustments could be made to differentially distribute the tax burden across a range of property asset classes i.e., certain kinds of property, like small apartment buildings or industrial uses could be charged different rates than office space. The major issue would be to assign the tax rates based on use, not assessed value.

METHODOLOGY & ESTIMATED REVENUES

A range of annual revenue estimates were calculated according to the methodology described below and shown in Figure 13-14.

- **Taxable parcels**: The total number of taxable parcels in the region was estimated at 2,083,333. This estimate is based on information available from the Measure AA (2016) ballot measure.
- **Exemption for low-income homeowners**: Low-income homeowners (those earning 80 percent or less of the area median household income [AMI]) were assumed to be exempt from tax. The number of low-income homeowners in the Bay Area was estimated using American Community Survey (ACS) data (2017).[23]
- **Tax rates**: A range of rates were tested based on recently passed parcel taxes that span multiple Bay Area counties. The low end of the rage ($12 per parcel annually) is based on Measure AA (2016), and the high end ($96 per parcel annually) is based on Measure C1 (2016).
- **Estimated revenues**: A parcel tax that provides an exemption for low-income households would generate estimated annual revenues of $19.5 to $156.2 million.

FIGURE 13: KEY ASSUMPTIONS SUMMARY

Tax Base	Taxable parcels
Equity Adjustment	Exemption for low-income homeowners
Tax Rates	$12 – $96 per parcel annually

FIGURE 14: ESTIMATE OF POTENTIAL ANNUAL PARCEL TAX REVENUES

	Total	With Exemption
Bay Area Parcels		
Taxable	2,083,333	1,626,959
Exempt (Low-Income Homeowners)	0	456,374
Tax Rates (Per Parcel Annually)		
Low	$12	$12
High	$96	$96
Estimated Annual Revenues (Millions)		
Low	$25.0	$19.5
High	$200.0	$156.2

Sources: American Community Survey, 2017; Strategic Economics 2019.

[23] All homeowners earning less than $75,000 (approximately 80 percent of the regional AMI) were assumed to qualify as low-income for the purposes of this analysis.

ISSUES FOR FURTHER CONSIDERATION

This section briefly discusses preliminary issues related to implementation that were raised during the analysis conducted for this report. Further research would be required to fully explore potential legal constraints and other implementation considerations.

- **Uniformity principle:** Multiple state statutes authorize parcel taxes, and at least some of these statutes require that the taxes "apply uniformly to all taxpayers or all real property." Legal advice will be required to determine what tax structures, including exemptions, may be permissible under California law. Eliminating the uniformity clause could allow tax rates to vary based on asset class, i.e., Class A office building could be assessed at a different rate that single family homes, or industrial buildings.
- **Revenue volatility:** Parcel taxes are a stable revenue source because the number of parcels in a jurisdiction does not change significantly over time. However, parcel taxes typically include a sunset date, at which point the tax would terminate.
- **Financing:** A parcel tax can be levied to make debt payments, and there are several examples of this in the Bay Area. For example, community facilities districts (CFDs) sometimes issue bonds for capital improvements backed by a parcel tax.
- **Ease of implementation:** Special state legislation may be required to establish an entity with the authority to impose and administer a regional parcel tax measure. Any new parcel tax would require two-thirds voter approval. Once approved, parcel taxes are relatively easy and less costly to administer compared to other taxes. Each county already maintains a list of parcel owners and distributes an annual property tax bill, to which a parcel tax can be added.
- **Co-benefits with other policy goals**: A regional parcel tax for transportation funding would not aid other regional policy efforts.

Personal Income Tax

DEFINITION

In California, most types of income, including wages and capital gains, are taxed based on a percentage of income. The tax rate, or percentage, varies by income range, or tax bracket. Tax brackets also vary by "filing type," (e.g., married couples have different tax rates than individuals). An additional one percent surcharge is imposed on filers whose income exceeds $1 million per year.[24] In California, income taxes are currently levied only at the state level, and new state legislation would be required to allow local jurisdictions, such as counties, to apply additional income taxes on their residents. In other states, local jurisdictions, including counties, can impose local income taxes. [25]

EXAMPLES

Today, 41 states and the District of Columbia levy a personal income tax. The actual tax rates vary considerably. However, based on the highest tax bracket and including the one percent surcharge, California has the highest income tax rate at 13.3 percent, followed by Hawaii at 11 percent. At the

[24] "California Tax Guide."
[25] Walczak, "Local Income Taxes in 2019."

low end of the tax spectrum, Pennsylvania charges a 3.07 percent flat tax (i.e., all taxpayers pay the same rate regardless of income).[26]

California's one percent surcharge applies to those making $1 million or more and is a current example of a personal income tax increase on the highest earners for a specific funding purpose, but at the statewide level. The additional tax, referred to by some as a "millionaire tax," is the result of the 2004 statewide Proposition 63, the Mental Health Services Act (MHS), which provides funding for mental health services.[27] At the county level, in 2016 the Los Angeles County Board of Supervisors voted to pursue new state legislation that would allow them to levy a 0.5 percent increase on incomes of $1 million and more in Los Angeles County to fund housing programs and homeless services. One poll suggested that 76 percent of County residents were in favor of the tax, a rate that was even higher than the support for a 0.5 cent sales tax increase option, which 68 percent of residents supported.[28] But the tax never came to a vote because the state rejected the County's motion, preventing the local income tax initiative from moving forward.[29] 16 other U.S. states permit cities and/or counties to levy some type of income tax, 11 of which allow a local tax on annual incomes (adjusted gross income).[30]

EQUITY ISSUES & ADJUSTMENTS

California's personal income tax is structured progressively so that those earning higher incomes are taxed at a higher percentage than those earning less. Of all the state tax systems, California was ranked the least regressive by one report because of its graduated income tax rates and limited tax breaks for the highest earners.[31]

Since the current California personal income tax is graduated, a uniform increase across all tax brackets would retain this quality. However, a uniform increase itself would be regressive and it would place an increased burden on low-income households. One alternative option is to levy an increase solely on the top income earners, which is the approach taken in this analysis.

METHODOLOGY & ESTIMATED REVENUES

Potential revenues from an increase in personal income tax for Bay Area residents was estimated by applying a range of rates to the taxable incomes of those with the highest incomes.

- **Taxable income:** Income tax rates are levied against a taxpayer's taxable income. Taxable income is gross income that has been adjusted first to subtract out certain specific expenses, such as business or medical costs (gross income minus these allowable expenses is called adjusted gross income [AGI]); then further reduced by subtracting itemized or standardized deductions. In California, the California Franchise Tax Board (FTB) publishes annual AGI statistics broken out by county and income categories but does not provide comparable information for taxable income. However, the FTB publishes taxable income totals for the entire state annually. In comparing total state AGI to total state taxable income in the last five years of available data (2011–2016), the state's total taxable income has been approximately 87 percent of AGI.

[26] "States with the Highest and Lowest Taxes."
[27] "Mental Health Services Act (MHSA)."
[28] Tinoco, "L.A. County Is Proposing To Tax Millionaires In Order To End Homelessness."
[29] Sewell, "Gov. Jerry Brown Again Refuses to Declare a State of Emergency on Homelessness."
[30] Walczak, "Local Income Taxes in 2019."
[31] "Who Pays? A Disributional Analysis of The Tax System in All 50 States."

This analysis estimated taxable income for the Bay Area by multiplying AGI by 0.87. This likely produces a more conservative estimate of taxable income when applied to the highest income categories since standard deductions are fixed and itemized deductions are somewhat fixed and therefore likely to have a declining impact on the ratio between AGI and taxable income at higher income levels. Additionally, the most recently available data from FTB is from 2016, and more current data would likely result in higher estimates.

However, the resulting taxable income estimates will also overestimate projections in other ways. FTB does not provide a breakdown of income within each income category at each marginal rate, and therefore this analysis applies a rate increase to the total taxable amount, instead of just the income at the top marginal rate for the income category. Furthermore, the income categories by AGI would likely include more income than would otherwise be accessed at lower income brackets when sorted by taxable income. A final note regarding FTB data is that AGI totals are not broken down by single and joint filing status, and AIG income categories in this analysis include both single and joint filler taxable incomes. This also overestimates revenues since single and joint filers would ideally be subject to different tax rate structures (e.g. joint filers earning less than $500,000 would be exempted while single filers earning less than $300,000 are exempted). Access to taxable income data segmented by marginal tax rates and single and joint filer totals for income categories by county would be needed to create more accurate revenue estimates.

- **Tax rates**: Rates were assumed to range from 0.25 percent (low) and 0.5 percent (high) and are based in part on the 2016 LA County personal income tax increase proposal, which saw favorable polling for a 0.5 percent increase on those earning $1 million or higher. The rates are also intended to be conservative to compensate for the taxable income estimate challenges described above and because the top tax bracket in California is currently the highest in the nation (12.3 percent) and already includes an additional one percent surcharge as result of the MHS. In addition to different rates, flat and graduated tax structures were also tested.

    - **Flat Rates**: a low rate (0.25 percent) and high rate (0.5 percent) were tested as uniformly applied to income categories at and above $300,000.[32]

    - **Graduated Rate**: applies a 0.5 percent rate to those making $1 million or more and a 0.25 percent rate to incomes categories between $300,000 to $1 million or $500,000 to $1 million depending on the scenario.

    - **Estimated revenues**: Estimated revenues were based on three scenarios and are shown in Figure 17. Projections range from $225 million to $859 million a year.

[32] This includes single filers and joint filers earning above $300,000.

FIGURE 15: KEY ASSUMPTIONS SUMMARY

Tax Base	Taxable Income
Equity Adjustment	Tax only on highest incomes
Tax Rates	0.25 percent – 0.5 percent of income

FIGURE 16: CALCULATION OF ANNUAL PERSONAL INCOME TAX REVENUES

Adjusted Gross Income Category	Taxable Income (Millions)	Annual Revenue Estimates (Millions)	
		Low Rate (0.25%)	High Rate (0.5%)
$300K to $499K	$27,568.3	$68.9	$137.8
$500K to $999K	$54,166.2	$135.4	$270.8
$1M and above	$90,087.7	$225.2	$450.4
Total	**$171,822.3**	**$429.6**	**$859.1**

Note: FTB does not separate single and joint filer AGI totals and therefore this analysis assumes both filing types pay the same rate.
Source: California Franchise Tax Board, 2016; Strategic Economics, 2019.

FIGURE 17: PROJECTED ANNUAL REVENUE BY SCENARIO (MILLIONS)

	Low Flat Rate	High Flat Rate	Graduated Rate*
Scenario 1: Incomes of $1 million and above	$225.2	$450.4	N/A
Scenario 2: Incomes of $500K and above	$360.6	$721.3	$585.9
Scenario 3: Incomes of $300K and above	$429.6	$859.1	$654.8

*The graduated rate applies the high rate (0.5%) to the $1 million and above category and low rate (0.25%) to all other categories.

ISSUES FOR FURTHER CONSIDERATION

This section briefly discusses preliminary issues related to implementation that were raised during the analysis conducted for this report. Further research would be required to fully explore potential legal constraints and other implementation considerations.

- **Revenue volatility:** Personal income taxes are a volatile revenue source since incomes typically fluctuate greatly with market cycles, and a tax leveraged solely on the highest incomes would be especially volatile since top earners typically have highly volatile incomes. A significant share of the incomes for top earners comes from sources like capital gains, dividends, interest, and rent which can vary dramatically year after year. Revenues from the MHS tax levied in 2004 have been volatile, demonstrating the sensitivity of an income tax on high earners to economic trends. Revenues for the program dropped by more than half during the Great Recession, decreasing from 1.5 billion to 0.7 billion from 2007 to 2009.[33]
- **Financing:** Personal income tax revenues collected by a region could theoretically be used for financing major capital improvements.
- **Ease of implementation:** A locally administered personal income tax would require legislative changes at the state and local level. So far, the state has been unwilling to allow local

[33] Varner and Young, "Millionaire Migration in California: The Impact of Top Tax Rates."

jurisdictions to levy their own incomes taxes as demonstrated by the dismissal of LA County's proposal in 2016. Should a jurisdiction gain approval from the state, the personal income tax initiative would then need to pass a two-thirds supermajority by resident voters.

- **Co-benefits with other policy goals**: A personal income tax increase for the Bay Area region would not benefit other explicit regional public policies goals, although it would create a form of income redistribution. On the other hand, a personal income tax increase might inspire fears of discouraging wealthy residents from residing in the region. However, this concern may be unfounded. In 2012, the Stanford Center on Poverty and Inequality looked at the impact of California's top tax rate, and specifically at the one percent MHS surcharge, on the migration of millionaires in out of the state. The authors found no evidence that the top tax rates had any effect on migration behavior.[34] However, this looks at the impact of migration at the state level, and the relocation at the regional scale may differ. But the Stanford authors also add that those who earn $1 million or more do not typically earn that amount consistently year after year, and rather may just have a good year or few good years. As earnings in the millions of dollars is unpredictable for most, high income taxes may not have a strong influence on migration behavior.

Business Parking Levy

DEFINITION

A parking levy is typically applied to off-street, nonresidential parking facilities, including surface parking lots and structured parking garages and can be charged based on the number of parking stalls or the surface area of a lot. However, parking area is typically used to reduce instances of tax avoidance. In most examples, the tax is assessed and collected at the city level and paid by private property owners with funds going to help pay for public transportation. A business parking levy can be an effective method not only for collecting revenues, but also for disincentivizing commuting by car, since parking facility owners may pass costs on to car commuters by increasing parking prices. Most cities that implement a parking levy view the tax as a congestion relief strategy. Businesses may also be encouraged to offer greater incentives to employees to not drive in order to reduce demand for parking and reduce the number of owned parking spaces over the long term

EXAMPLES

Cities in Canada, Australia, and the United Kingdom have a parking levy tax in place. Annual rates vary among the different cities (see Figure 18), and these programs often feature different rates for parking facilities located in different areas of a city. For example, a city might charge a lower rate in a local business district and a higher rate in the downtown. The City of Nottingham in the UK charges a flat rate for all locations but provides an exemption for employers with 10 or fewer parking spaces.[35]

[34] Varner and Young.
[35] Clayton, "Funding and Financing Inclusive Growth in Cities."

FIGURE 18: BUSINESS PARKING LEVIES EXAMPLES

Location	Initial Year	Annual Rate Range Per Stall	
		Low	High
Montreal, Canada	2010	$303	$1,212
Sydney, Australia	1992	$880	$2,490
Melbourne, Australia	2005	$950	$1,340
Nottingham, United Kingdom	2012	N/A	£375

Note: Fees are displayed in the currency of the respective country and are current as of 2016.
Source: Evaluating Seattle Parking Tax Options." Victoria Transport Policy Institute, December 2010.; Clayton, Naomi. "Funding and Financing Inclusive Growth in Cities." Centre for Cities, December 2017.

EQUITY ISSUES & ADJUSTMENTS

Business parking levies are usually paid by parking lot owners, not directly by households or employees. This makes it difficult to evaluate potential disparate impacts on different groups and distribute the tax progressively. Accordingly, no equity adjustments are reflected in the methodology below.

METHODOLOGY & ESTIMATED REVENUES

Revenue estimates for a business parking levy depend on having an accurate understanding of an area's parking supply and creating an inventory of parking is a complex process. Other regions and cities have used intensive methodologies or leveraged exiting data sources to calculate parking supply estimates. The regional transportation agency in the Province of Ontario, Metrolinx, used a geographic information systems (GIS) methodology to create an estimate of 4.1 million non-residential, off-street parking spaces in the Greater Toronto and Hamilton Area.[36] The City of Toronto also used the Metrolinx parking inventory estimate along with data from Toronto Parking Authority to create an estimate for the city.[37] The City of San Francisco has also competed an inventory study by compiling data about parking from various sources including the SFpark Off-Street Parking Census, Costar private commercial real estate database, and public and private garage parking data.[38]

A database of the Bay Area's parking supply does not currently exist, and surveying the region's nonresidential, off-street parking supply would require substantial time and effort. Therefore, for purposes of this analysis, parking supply and revenues were estimated using the methodology described below.

- **Off-street parking spaces**: Strategic Economics estimated the number of privately owned, nonresidential parking spaces by estimating the number of cars used by non-public sector employees to commute to work. Estimates were created using data on where people work and their commute mode from the American Community Survey (2017). Employees that work in educational services, health care, social assistance, public administration, and the armed forces were assumed to be public sector employees and excluded from the model. Additionally,

[36] "Big Move Implementation Economics: Revenue Tool Profiles."
[37] "City of Toronto Revenue Options Study: Appendix C."
[38] Schwartz, "San Francisco Parking Supply and Utilization Study."

half of the employees who said they carpooled were excluded, assuming the average carpool size is two people. Finally, the number of off-street parking spaces was estimated based on a study that suggested 75 percent of commuters typically park in a paid or unpaid off-street space.[39]

- **Tax rates**: A range of low and high tax rates were based on the rates considered in a recent parking tax study in Toronto, Canada.[40] Rates were assumed to range from $0.25 (low) to $1.00 (high) per day per stall, or $91 to $365 per stall per year.
- **Estimated revenues**: Annual revenue estimates range from $141 million to $567 million.

Without an actual survey or database of the region's parking supply and due to other data limitations, the total regional parking supply is likely not captured in this methodology. For example, customer parking provided by larger retailers could not be calculated. Therefore, the estimated revenues are conservative. Additionally, this methodology excludes parking spaces owned by a public agency, but whether places such as hospitals and school should also be taxed for their employee parking would depend on further policy analysis.

FIGURE 19: OFF-STREET PARKING ASSUMPTIONS

Total Employees Who Commute by Car	2,946,152
Non-public Sector Employee Who Commute by Car	2,229,929
Public Sector Employee Who Commute by Car	716,223
Carpool Factor	0.5
Percent Off-street Parking	75%

FIGURE 20: KEY ASSUMPTIONS SUMMARY

Tax Base	Off-street parking spaces
Equity Adjustment	None
Tax Rates	$91 – $365 per space

[39] "Increase Cost of Parking in the Manhattan Central Business District."
[40] "City of Toronto Revenue Options Study: Appendix C."

FIGURE 21: ESTIMATE OF POTENTIAL BUSINESS PARKING LEVY REVENUES

	Total	With Exemption
Off-street Parking Spaces		
Taxable	$2,056,963	1,554,543
Exempt (Government Owned)	0	502,420
Daily Tax Rates		
Low	$0.25	$0.25
High	$1.00	$1.00
Annual Tax Rates		
Low	$91	$91
High	$365	$365
Estimated Annual Revenues (Millions)		
Low	$187.7	$141.9
High	$750.8	$567.4

Sources: 2017 American Community Survey; Strategic Economics 2019.

ISSUES FOR FURTHER CONSIDERATION

This section briefly discusses preliminary issues related to implementation that were raised during the analysis conducted for this report. Further research would be required to fully explore potential legal constraints and other implementation considerations.

- **Revenue volatility:** The share of those who commute by car has remained relatively constant in the last few decades, although there was a decrease of about 6 percentage points from 2000 to 2016. This suggests there will continue to be a steady demand for commuter parking, making a parking levy a potentially stable revenue source. However, imposing the tax may lead to an increase in the cost of parking for employees and therefore disincentive commuting by car, potentially lowering tax revenues.
- **Financing:** Tax revenues are often imposed to public transit improvements and infrastructure. Strategic Economics did not find examples of parking levy revenues being used for financing major capital improvements.
- **Ease of implementation:** Special state legislation would likely be required to establish an entity with the authority to impose and administer a regional parking tax. A nonresidential parking levy might be distributed as an added fee to an owner's commercial property tax bill. However, a significant effort would initially be required to audit property owners' parking supply, and future labor and resources would be necessary to manage and update a regional parking inventory database.
- **Co-benefits with other policy goals:** A parking tax could incentivize parking facility owners to transition their properties to more productive, higher intensity uses, such as housing or office. A parking tax may also lead landowners to price unpaid parking or increase the price of paid parking. In turn, a reduced parking supply and increased parking costs could discourage driving and promote other commute modes, aligning with regional policy goals of reducing traffic congestion and greenhouse gas (GHG) emissions. Some cities that have implemented a parking levy observed a decrease in traffic congestion since the tax has been implemented.[41] It should be noted, however, that if the tax does become a disincentive to commute by car and

[41] "Evaluating Seattle Parking Tax Options"; Clayton, "Funding and Financing Inclusive Growth in Cities."

few people use business related parking spaces, this could result in reduced revenues, although it is difficult to determine what the magnitude of this decline would be. To keep revenues constant as parking supply reduces over time, the tax level could be increased. Similarly, should a slow transition to autonomous vehicles result in a declining need for parking, this could gradually limit this revenue source.

IV. LONG-TERM SOURCES

Payroll Tax

DEFINITION

A payroll tax is a tax on business payroll costs. While most existing examples of a payroll tax are applied at a flat rate, advocates have suggested a progressively structured payroll tax tied directly to wage levels could be a method to generate revenue from businesses with high wage occupations such as those in the tech industry.

EXAMPLES

Employers and employees split the cost of federal payroll taxes that finance Social Security and Medicare programs. These payroll taxes total 15.3 percent of wages. [42] [43] Many jurisdictions also levy local payroll taxes, including San Francisco, which collects a 0.38 percent flat payroll tax for businesses with annual payroll expense over $300,000. However, San Francisco is planning to phase out their payroll tax in favor of their gross receipts tax.[44]

METHODOLOGICAL CHALLENGES

The State of California Employment Development Department (EDD) provides employment and wage information by occupation and industry at the MSA level upon request. However, the margin of error for this data is so high that this data is not published. It would not be possible to provide a sound revenue estimate for a payroll tax based on this data because it is so imprecise. A progressive payroll tax could also have negative implications for some businesses. For example, a payroll tax could be burdensome for businesses whose employees have lower wages than their occupation and industries' median, upon which the tax would likely be based. Some economists also theorize that progressive payroll taxes might incentivize businesses to cut the number of employees or lower wages.

Gross Receipts Tax

DEFINITION

A gross receipts tax is a tax applied to the total amount of revenues, or "gross receipts," earned by a company through all its income sources, which might include sales, services, interest, or other means. The tax can apply to all businesses or it may target certain industries.

EXAMPLES

In the U.S. there are examples of gross receipts taxes applied at the state, county, and municipal levels. For example, Ohio and New Jersey administer a state-wide gross receipts tax. In California, there is no state gross receipts tax on all businesses, but as of 2010, a gross receipts tax is levied on limited

[42] The Social Security payroll tax is 12.4 percent of the total wage, for annual wages up to $132,900. The Medicare payroll tax is 2.9 percent of the total wage, with no wage cap.
[43] Miller, Stephen, "2019 Payroll Taxes Will Hit Higher Incomes," SHRM.org, October, 12, 2018.
[44] Deloitte, "San Francisco Tax Update," December 13, 2018.

liability companies (LLCs). Several California jurisdictions, including San Francisco, administer a gross receipts tax locally. San Francisco's gross receipts tax was implemented after the passage of Proposition E in 2012. The tax is structured with different rates for different business types. Professional and technical services firms typically pay higher rates, while retail and food service businesses often pay lower rates. Additionally, businesses earning less than $1 million in gross receipts are exempted from the tax.

METHODOLOGICAL CHALLENGES

Limited data is the biggest challenge with estimating revenues from a gross receipts tax for the Bay Area. Currently, information about the gross receipts of companies is not publicly accessible. The widely used public data source, The County Business Patterns, only features payroll and employment count information, and private data bases such as Dun and Bradstreet data are prohibitively expensive and may not always have complete or accurate data as the information is self-reported. Should accurate data be made available, creating an estimate for this source would be possible.

Transportation Network Company Tax

DEFINITION

A transportation network company tax is a tax that is typically applied to an automobile ride organized through a transportation network company (TNC) such as Uber or Lyft. As TNCs have become more popular so have TNC taxes as local jurisdictions look to taxing TNC rides to help raise revenues for transit and infrastructure and mitigate traffic congestion.[45]

EXAMPLES

As of July of 2018, seven major cities and 12 states levy some type of TNC fee or tax. Currently, the State of California already levies a fee on TNCs. Companies are required to pay 0.33 percent of their gross revenues, which is collected by the California Public Utilities Commission. Unlike California's fee structure, most other TNC taxes around the country are calculated on a per-trip percentage or a flat rate surcharge for each trip and paid by the TNC rider. Surcharge rates range from $0.20 per trip in Massachusetts to $2.75 per trip in New York City. The percentage of trip rates range from 1 percent in South Carolina and Alabama to 7 percent in Rhode Island.[46]

METHODOLOGICAL CHALLENGES

Calculating a TNC annual tax estimate for the Bay Area would require data on TNC ridership for the region. Obtaining data about TNCs across the Bay Area appears to be an intensive process that would be infeasible for this project. Furthermore, Uber and Lyft have historically been disinclined to share data.[47]

[45] Kim and Puentes, "Taxing New Mobility Services: What's Right? What's Next?"
[46] Kim and Puentes.
[47] Marshall, "Dying to Know Uber's Secrets, Data-Hungry Cities Get Creative."

Vehicle Miles Traveled Tax

DEFINITION

A tax on vehicle miles traveled (VMT) has been proposed at the state and national level as a possible alternative or complement to the gas tax for raising transportation funds. A VMT tax levies a fee per mile driven in an automobile, which may be a few cents.

EXAMPLES

Currently, there are no U.S. examples of a VMT tax for all drivers in a jurisdiction. However, Oregon became the first U.S. state to pilot the use of a VMT tax. In 2013, the Oregon Department of Transportation (ODOT) launched a small program, OReGO, which attracted around 1,300 volunteers and charged a tax of 1.5 cents per mile.[48] The California Department of Transportation (Caltrans) also conducted a small pilot VMT tax program from 2016 to 2017. The program included 5,000 volunteers and charged 1.8 cents per mile.[49] Both Oregon and California's pilot programs applied the VMT tax in-lieu of state gas tax fees.

In the Bay Area, both the Plan Bay Area 2013 and 2040 EIR documents explore the possibly of levying a VMT tax in addition to the existing gas tax. The Plan Bay Area 2013 assumes a charge of 1 cent per mile with an exemption for low-income drivers. The Play Bay Area 2040 used a 2 cent per mile fee charged only on drivers earning above the regional median household income.

EQUITY ISSUES & ADJUSTMENTS

A VMT tax is considered fair from the perspective that all road users are required to pay. However, a flat rate per mile for all drivers could be regressive if low-income households spend a higher share of their income on the tax, and/or if low-income households have to drive longer distances to find affordable housing. This may be a particularly true in the Bay Area, where low-income households burdened by high housing costs may be more likely to live further from their work and may commute longer distances.[50] Therefore, this analysis includes a tax exemption or lower rate for low-income households to help address disproportionate impacts.

METHODOLOGY & ESTIMATED REVENUES

This section provides an annual revenue estimate for a VMT tax, which would be levied in addition to the existing gas tax. Estimates were calculated using the methodology described below.

- **Regional VMT**: A total daily VMT estimate for the nine-county Bay Area is available from Caltrans. The most recent available data is from 2017.[51]
- **VMT generated by low-income households**: Households earning less than $75,000, which is approximately 80 percent of the regional AMI, were defined as low-income in this analysis. The total annual share of VMT was divided among household income categories to more accurately attribute the number of VMT driven by low-income households. The share attributed to each

[48] "Oregon's Road Usage Charge."
[49] "California Road Charge Pilot Program."
[50] Veklerov, "Bay Area Housing Prices Push Low-Income Minorities Farther out, Study Finds."
[51] "California Public Road Data 2017."

household income level was estimated based on findings from a study that used California Household Travel Survey data to determine daily VMT rates by household income level.[52]

- **Tax rates**: A range of rates from 1 cent (low) to 2 cents (high) per mile were assumed, based on the rates used in the scenarios tested in Plan Bay Area 2013 and 2040 EIR documents.
- **Estimated revenues**: Annual revenue estimates for a VMT tax on households above the low-income threshold would generate between $443 to $885 million.

FIGURE 22: REGIONAL VMT BY HOUSEHOLD INCOME LEVEL

	Households	Daily VMT per Household	Estimated Share of Regional VMT	Annual VMT
Extremely low income	370,385	20.3	7.5%	4.7 billion
Very low income	315,498	24.5	7.7%	4.9 billion
Low income	439,965	33.1	14.6%	9.2 billion
Moderate income	314,062	37.6	11.8%	7.4 billion
Middle income	484,777	43.7	21.2%	13.3 billion
High income	776,299	48	37.2%	23.5 billion
Total	**2,700,986**			**63.0 billion**

Source: Caltrans, 2017; American Community Survey, 2017; Strategic Economics, 2019.

FIGURE 23: KEY ASSUMPTIONS SUMMARY

Tax Base	Miles driven
Equity Adjustment	Exemption for low-income households
Tax Rates	$0.01 – $0.02 per mile

FIGURE 24: ESTIMATE OF POTENTIAL VMT TAX REVENUES

	Total	With Exemption
Households		
Taxable	2,700,986	1,575,138
Exempt (Low-income Households)	0	1,125,848
Annual VMT (Billions)		
Taxable	63.0	44.2
Exempt	0	18.8
Tax Rates		
Low	$0.01	$0.01
High	$0.02	$0.02
Estimated Annual Revenues (Millions)		
Low	$630.2	$442.5
High	$1,260.5	$885.0

Source: Caltrans, 2017; American Community Survey, 2017; Strategic Economics, 2019.

[52] Newmark and Haas, "Income, Location Efficiency, and VMT: Affordable Housing as a Climate Strategy."

ISSUES FOR FURTHER CONSIDERATION

This section briefly discusses preliminary issues related to implementation that were raised during the analysis conducted for this report. Further research would be required to fully explore potential legal constraints and other implementation considerations.

- **Revenue volatility:** Estimates of the region's total VMT since 2001 show that VMT per capita has remained stable while total VMT has increased slightly with population growth.[53] This suggests that a tax tied directly to VMT in the Bay Area would generate a steady revenue source. However, the VMT tax is an additional cost on driving and it may reduce VMT over time, leading to lower tax revenues. Further research on the elasticity of driving demand would be needed to develop a more refined revenue estimate.
- **Financing:** Since a VMT tax is expected to generate stable revenues, this source could potentially be used to secure bond issuances. However, there are no examples upon which to base this conclusion.
- **Ease of implementation:** The Oregon and California pilot programs both found that the biggest challenge of administering a VMT tax is collecting mileage information from drivers. Both Oregon and California's pilots were voluntary programs that provided participates with the option of using a self-installed mileage recording device or self-reporting odometer readings. Issues with this method have included vehicle compatibility problems and general technical malfunctions. Self-installed transponders issued in a mandatory program would also be susceptible to removal and tampering. The use of a vehicles' internal computer system for tracking mileage, or telematics, may be a collection option that removes the need for a separate device, however this technology is currently only installed in certain newer vehicles. Mandating a mileage tracking device could also face constitutional challenges. A manual method of self-reported odometer readings avoids these challenges but could face issues of honest reporting. Mileage tracking may also raise privacy concerns, which may make it difficult to garner political and public support. Finally, special state legislation would likely be required to establish an entity with the authority to impose and administer a regional VMT tax.[54]
- **Co-benefits with other policy goals:** Increasing the cost to driving private automobiles may reduce VMT and therefore aligns with regional policy goals related to reducing GHG emissions and traffic congestion.

[53] "Daily Miles Traveled | Vital Signs."
[54] "Oregon's Road Usage Charge"; "California Road Charge Pilot Program."

V. SOURCES FOR FURTHER CONSIDERATION

Land Value Return Tax

DEFINITION

A land value tax is a tax that is charged solely on a property's land value (improvements to a parcel such as a house are not included or could be included but assessed separately). Land value tax proponents argue that land values increase in response to market demand for a specific location or type of location. Numerous empirical studies have shown that both residential and commercial real estate markets value locations with high quality locations, as reflected in price premiums that vary based on proximity to the transit and real estate product types. Moreover, this increase in value should accrue to the land, rather than the improvements because the land premium is associated with a location, not a building type or land use. Therefore, a land value tax would be imposed on all land near transit. This contrasts with more typical value capture mechanisms where new taxes are imposed or collected based on the value of any new development that gets built near the transit, not the value of the location. A land value return tax would be imposed on all land, not just new development. This approach would provide a much larger return to the public sector in exchange for the transit investment and it would incentivize landowners to increase the development intensity on their land, since they are being taxed on the increase in land, not the increase in development.

EXAMPLES

Pennsylvania allows local jurisdictions to tax land and improvements at different rates, and many cities have successfully implemented a land value tax. Land value taxes in Pennsylvania are often charged at higher rates than on improvements, and this is thought to discourage land speculation and encourage high-value real estate development.

METHODOLOGICAL CHALLENGES

There are several challenges for estimating land values for the Bay Area. While counties collect property value information, this data often does not reflect current values as properties are not assessed on a regular basis in California. Additionally, county accessor data does not separate the value of land from improvements made on the land. Therefore, it would not be possible to collect land value information for every parcel in the Bay Area.

CEO Tax

DEFINITION

A CEO tax is levied on companies that have a high ratio of CEO compensation to the median pay for all other employees. Recently, the U.S. Securities and Exchange Commission (SEC) began mandating public companies to provide information on the ratio of CEO to median worker pay.

EXAMPLES

In 2018, Portland, Oregon, became the first city to enact a CEO tax. Companies that do business in Portland and have a CEO that makes 100 to 250 times more than the median employee are required to pay a 10 percent surtax on top of their other local tax commitments. Companies with a ratio greater than 250 must pay a 25 percent surtax.[55] The City of San Francisco is also considering a CEO tax similar to Portland's.[56]

METHODOLOGICAL CHALLENGES

Calculating an estimate of revenues from a CEO tax for the Bay Area would require a list of CEO to median worker pay ratios for every public company (headquarters and subsidiaries) that does business in the Bay Area. While the SEC now requires public companies to disclose information on their CEO to median worker pay ratio, this data is not currently complied for any specific location such as the Bay Area. Collecting this data for all the public companies in the region would be very labor intensive and is outside the scope of this analysis.

[55] Rogoway, "CEO vs. Workers."
[56] Schleifer, "How a New Silicon Valley Tax Could Set a Trend for Combating Income Inequality."

APPENDIX A

FIGURE 25: ADVISORY COMMITTEE

Member	Organization
Bob Allen	Urban Habitat
Ian Griffiths	Seamless Bay Area
Derecka Mehrens	Working Partnerships USA
Vikrant Sood	Metropolitan Transportation Commission

Additional Contributions from Peter Straus, SF Transit Riders.

APPENDIX B

FIGURE 26: TOTAL SALES TAX RATES: BAY AREA CITIES AND UNINCORPORATED COMMUNITIES, JULY 2019.

City	Rate	County
Alameda*	9.750%	Alameda
Albany*	9.750%	Alameda
Hayward*	9.750%	Alameda
Naval Air Station (Alameda*)	9.750%	Alameda
Newark*	9.750%	Alameda
San Leandro*	9.750%	Alameda
South Shore (Alameda*)	9.750%	Alameda
Union City*	9.750%	Alameda
Army Terminal	9.250%	Alameda
Ashland	9.250%	Alameda
Berkeley*	9.250%	Alameda
Bradford	9.250%	Alameda
Castro Valley	9.250%	Alameda
Cresta Blanca	9.250%	Alameda
Dublin*	9.250%	Alameda
Elmwood	9.250%	Alameda
Emeryville*	9.250%	Alameda
Fremont*	9.250%	Alameda
Government Island	9.250%	Alameda
Heyer	9.250%	Alameda
Landscape	9.250%	Alameda
Livermore*	9.250%	Alameda
Naval Hospital (Oakland*)	9.250%	Alameda
Naval Supply Center (Oakland*)	9.250%	Alameda
Oakland*	9.250%	Alameda
Piedmont*	9.250%	Alameda
Pleasanton*	9.250%	Alameda
San Lorenzo	9.250%	Alameda
Sunol	9.250%	Alameda
Warm Springs (Fremont*)	9.250%	Alameda
El Cerrito*	9.750%	Contra Costa
Antioch*	9.250%	Contra Costa
Martinez*	9.250%	Contra Costa
Moraga*	9.250%	Contra Costa
Pinole*	9.250%	Contra Costa
Rheem Valley (Moraga*)	9.250%	Contra Costa
Richmond*	9.250%	Contra Costa
Concord*	8.750%	Contra Costa
Hercules*	8.750%	Contra Costa
Orinda*	8.750%	Contra Costa
Pittsburg*	8.750%	Contra Costa
Pleasant Hill*	8.750%	Contra Costa
San Pablo*	8.750%	Contra Costa

City	Rate	County
East Palo Alto*	9.750%	San Mateo
Emerald Hills (Redwood City*)	9.750%	San Mateo
Redwood City*	9.750%	San Mateo
South San Francisco*	9.750%	San Mateo
Burlingame*	9.500%	San Mateo
Hillsdale (San Mateo*)	9.500%	San Mateo
San Mateo*	9.500%	San Mateo
Atherton*	9.250%	San Mateo
Brisbane*	9.250%	San Mateo
Colma*	9.250%	San Mateo
Daly City*	9.250%	San Mateo
El Granada	9.250%	San Mateo
Foster City*	9.250%	San Mateo
Half Moon Bay*	9.250%	San Mateo
Hillsborough*	9.250%	San Mateo
La Honda	9.250%	San Mateo
Ladera	9.250%	San Mateo
Loma Mar	9.250%	San Mateo
Marsh Manor	9.250%	San Mateo
Menlo Park*	9.250%	San Mateo
Millbrae*	9.250%	San Mateo
Montara	9.250%	San Mateo
Moss Beach	9.250%	San Mateo
Pacifica*	9.250%	San Mateo
Pescadero	9.250%	San Mateo
Portola Valley*	9.250%	San Mateo
San Bruno*	9.250%	San Mateo
San Carlos*	9.250%	San Mateo
San Gregorio	9.250%	San Mateo
Woodside*	9.250%	San Mateo
Alviso (San Jose*)	9.250%	Santa Clara
Campbell*	9.250%	Santa Clara
San Jose*	9.250%	Santa Clara
Los Gatos*	9.125%	Santa Clara
Almaden Valley	9.000%	Santa Clara
Blossom Hill	9.000%	Santa Clara
Blossom Valley	9.000%	Santa Clara
Cambrian Park	9.000%	Santa Clara
Coyote	9.000%	Santa Clara
Cupertino*	9.000%	Santa Clara
Gilroy*	9.000%	Santa Clara
Holy City	9.000%	Santa Clara
Lorre Estates	9.000%	Santa Clara

Alamo	8.250%	Contra Costa	Los Altos Hills*	9.000%	Santa Clara
Bay Point (formally West Pittsburg)	8.250%	Contra Costa	Los Altos*	9.000%	Santa Clara
Bethel Island	8.250%	Contra Costa	Milpitas*	9.000%	Santa Clara
Black Hawk	8.250%	Contra Costa	Moffett Field	9.000%	Santa Clara
Brentwood*	8.250%	Contra Costa	Monta Vista	9.000%	Santa Clara
Byron	8.250%	Contra Costa	Monte Sereno*	9.000%	Santa Clara
Canyon	8.250%	Contra Costa	Morgan Hill*	9.000%	Santa Clara
Clayton*	8.250%	Contra Costa	Mount Hamilton	9.000%	Santa Clara
Crockett	8.250%	Contra Costa	Mountain View*	9.000%	Santa Clara
Danville*	8.250%	Contra Costa	New Almaden	9.000%	Santa Clara
Diablo	8.250%	Contra Costa	Palo Alto*	9.000%	Santa Clara
Discovery Bay	8.250%	Contra Costa	Permanente	9.000%	Santa Clara
Dollar Ranch	8.250%	Contra Costa	Redwood Estates	9.000%	Santa Clara
El Sobrante	8.250%	Contra Costa	San Martin	9.000%	Santa Clara
Fairmount	8.250%	Contra Costa	San Tomas	9.000%	Santa Clara
Kensington	8.250%	Contra Costa	Santa Clara*	9.000%	Santa Clara
Knightsen	8.250%	Contra Costa	Saratoga*	9.000%	Santa Clara
Lafayette*	8.250%	Contra Costa	Stanford	9.000%	Santa Clara
Mira Vista	8.250%	Contra Costa	Sunnyvale*	9.000%	Santa Clara
Oakley*	8.250%	Contra Costa	Valley Fair	9.000%	Santa Clara
Pacheco	8.250%	Contra Costa	Benicia*	8.375%	Solano
Port Costa	8.250%	Contra Costa	Suisun City*	8.375%	Solano
Rodeo	8.250%	Contra Costa	Fairfield*	8.375%	Solano
San Ramon*	8.250%	Contra Costa	Mare Island (Vallejo*)	8.375%	Solano
Selby	8.250%	Contra Costa	Travis A.F.B. (Fairfield*)	8.375%	Solano
Shore Acres	8.250%	Contra Costa	Vallejo*	8.375%	Solano
Walnut Creek*	8.250%	Contra Costa	Rio Vista*	8.125%	Solano
Corte Madera*	9.000%	Marin	Vacaville*	8.125%	Solano
Fairfax*	9.000%	Marin	Birds Landing	7.375%	Solano
Greenbrae (Larkspur*)	9.000%	Marin	Dairy Farm	7.375%	Solano
Larkspur*	9.000%	Marin	Dixon*	7.375%	Solano
San Rafael*	9.000%	Marin	Elmira	7.375%	Solano
San Anselmo*	8.750%	Marin	Larwin Plaza	7.375%	Solano
Sausalito*	8.750%	Marin	Liberty Farms	7.375%	Solano
Hamilton A.F.B. (Novato*)	8.500%	Marin	Cotati*	9.250%	Sonoma
Ignacio (Novato*)	8.500%	Marin	Santa Rosa*	9.000%	Sonoma
Novato*	8.500%	Marin	Sebastopol*	9.000%	Sonoma
Belvedere*	8.250%	Marin	Healdsburg*	8.750%	Sonoma
Bolinas	8.250%	Marin	Rohnert Park*	8.750%	Sonoma
Dillon Beach	8.250%	Marin	Sonoma*	8.750%	Sonoma
Dogtown	8.250%	Marin	Agua Caliente	8.250%	Sonoma
Fallon	8.250%	Marin	Annapolis	8.250%	Sonoma
Forest Knolls	8.250%	Marin	Asti	8.250%	Sonoma
Inverness	8.250%	Marin	Bodega	8.250%	Sonoma
Kentfield	8.250%	Marin	Bodega Bay	8.250%	Sonoma
Lagunitas	8.250%	Marin	Boyes Hot Springs	8.250%	Sonoma
Marin City	8.250%	Marin	Camp Meeker	8.250%	Sonoma
Marshall	8.250%	Marin	Cazadero	8.250%	Sonoma
Mill Valley*	8.250%	Marin	Cloverdale*	8.250%	Sonoma
Nicasio	8.250%	Marin	Duncans Mills	8.250%	Sonoma

Olema	8.250%	Marin	El Verano	8.250%	Sonoma
Point Reyes Station	8.250%	Marin	Eldridge	8.250%	Sonoma
Ross*	8.250%	Marin	Forestville	8.250%	Sonoma
San Geronimo	8.250%	Marin	Freestone	8.250%	Sonoma
San Quentin	8.250%	Marin	Fulton	8.250%	Sonoma
Stinson Beach	8.250%	Marin	Geyserville	8.250%	Sonoma
Tamal (San Quentin)	8.250%	Marin	Glen Ellen	8.250%	Sonoma
Tiburon*	8.250%	Marin	Graton	8.250%	Sonoma
Tomales	8.250%	Marin	Guerneville	8.250%	Sonoma
Woodacre	8.250%	Marin	Jenner	8.250%	Sonoma
Saint Helena*	8.250%	Napa	Kenwood	8.250%	Sonoma
St. Helena*	8.250%	Napa	Korbel	8.250%	Sonoma
American Canyon*	7.750%	Napa	Larkfield	8.250%	Sonoma
Angwin	7.750%	Napa	Monte Rio	8.250%	Sonoma
Calistoga*	7.750%	Napa	Occidental	8.250%	Sonoma
Deer Park	7.750%	Napa	Penngrove	8.250%	Sonoma
Imola (Napa*)	7.750%	Napa	Petaluma*	8.250%	Sonoma
Napa*	7.750%	Napa	Rio Nido	8.250%	Sonoma
Oakville	7.750%	Napa	Roseland	8.250%	Sonoma
Pope Valley	7.750%	Napa	Sea Ranch	8.250%	Sonoma
Rutherford	7.750%	Napa	Stewarts Point	8.250%	Sonoma
Spanish Flat	7.750%	Napa	Two Rock Coast Guard Station	8.250%	Sonoma
Steele Park	7.750%	Napa	Valley Ford	8.250%	Sonoma
Yountville*	7.750%	Napa	Villa Grande	8.250%	Sonoma
Presidio (San Francisco*)	8.500%	San Francisco	Vineburg	8.250%	Sonoma
San Francisco*	8.500%	San Francisco	Windsor*	8.250%	Sonoma
Belmont*	9.750%	San Mateo			

*Indicates incorporated city or incorporated town, effective July 1, 2019
Source: California Department of Tax and Fee Administration, 2019

REFERENCES

"Big Move Implementation Economics: Revenue Tool Profiles." Metrolinx, March 2013. http://www.metrolinx.com/en/regionalplanning/funding/IS_Appendix_A_EN.pdf.

"California Public Road Data 2017." California Department of Transportation, November 2018.

"California Road Charge Pilot Program." Caltrans, 2017.

Community Tax. "California Tax Guide," 2018. https://www.communitytax.com/state-taxes/california-taxes/.

Chapple, Karen, and Carrie Makarewicz. "Restricting New Infrastructure: Bad for Business in California?," 2010. http://escholarship.org/uc/item/5rx2z17b.pdf.

"City of Toronto Revenue Options Study: Appendix C." City of Toronto, June 2016.

Clayton, Naomi. "Funding and Financing Inclusive Growth in Cities." Centre for Cities, December 2017. https://www.centreforcities.org/reader/funding-financing-inclusive-growth-cities/reviewing-funding-finance-options-available-city-combined-authorities/1-nottingham-workplace-parking-levy/.

"Daily Miles Traveled | Vital Signs," September 2017. http://www.vitalsigns.mtc.ca.gov/daily-miles-traveled#chart-1.

Donegan, Mary, T. William Lester, and Nichola Lowe. "Striking a Balance: A National Assessment of Economic Development Incentives." W.E. Upjohn Institute, August 1, 2018. https://doi.org/10.17848/wp18-291.

"Evaluating Seattle Parking Tax Options." Victoria Transport Policy Institute, December 2010.

"Increase Cost of Parking in the Manhattan Central Business District." Cambridge Systematics, December 10, 2007. https://www.dot.ny.gov/programs/repository/Tech%20Memo%20on_Parking.pdf.

Kim, So Jung, and Robert Puentes. "Taxing New Mobility Services: What's Right? What's Next?" Eno Center for Transportation, 2018.

Marshall, Aarian. "Dying to Know Uber's Secrets, Data-Hungry Cities Get Creative." *Wired*, March 8, 2018. https://www.wired.com/story/uber-lyft-data-research-driver-pay/.

Mental Health Services Act. "Mental Health Services Act (MHSA)," 2019. https://www.dhcs.ca.gov/services/MH/Pages/MH_Prop63.aspx.

Newmark, Gregory, and Peter Haas. "Income, Location Efficiency, and VMT: Affordable Housing as a Climate Strategy." Center for Neighborhood Technology, December 16, 2015.

"Oregon's Road Usage Charge." Oregon Department of Transportation, April 2017.

Ballotpedia. "Parcel Tax Elections in California," 2018. https://ballotpedia.org/Parcel_tax_elections_in_California.

Phillips, Andrew, and Muath Ibaid. "The Impact of Imposing Sales Taxes on Business Inputs." Ernst & Young LLP, May 2019.

Rogoway, Mike. "CEO vs. Workers: Here's How Pay at Major Oregon Employers Compares." oregonlive.com, May 18, 2018. https://www.oregonlive.com/business/2018/05/ceo_vs_workers_heres_how_pay_a.html.

Sarwari, Khalida. "Mountain View's 'Head Tax' Measure Passes; Incumbents Siegel, Showalter Ousted by New Council Members." *The Mercury News* (blog), November 7, 2018. https://www.mercurynews.com/2018/11/06/mountain-views-head-tax-measure-appears-headed-to-victory/.

Schleifer, Theodore. "How a New Silicon Valley Tax Could Set a Trend for Combating Income Inequality." Vox, July 19, 2019. https://www.vox.com/recode/2019/7/19/20690934/ceo-tax-san-francisco-income-inequality.

Schwartz, Michael. "San Francisco Parking Supply and Utilization Study." San Francisco County Transportation Authority, November 2016.

Semuels, Alana. “How Amazon Helped Kill Seattle a Tax On Business.” The Atlantic, June 13, 2018. https://www.theatlantic.com/technology/archive/2018/06/how-amazon-helped-kill-a-seattle-tax-on-business/562736/.

Sewell, Abby. “Gov. Jerry Brown Again Refuses to Declare a State of Emergency on Homelessness.” *Los Angeles Times*, June 16, 2016. https://www.latimes.com/local/lanow/la-me-ln-governor-homelessness-emergency-20160616-snap-story.html.

Sonstelie, Jon. “Parcel Taxes as a Local Revenue Source in California.” Public Policy Institute of California, April 2015.

“States with the Highest and Lowest Taxes.” Intuit TurboTax, 2019. https://turbotax.intuit.com/tax-tips/fun-facts/states-with-the-highest-and-lowest-taxes/L6HPAVqSF.

Tinoco, Matt. “L.A. County Is Proposing To Tax Millionaires In Order To End Homelessness.” LAist, June 2, 2016. https://laist.com/2016/06/02/in_order_to_pay_for.php.

Varner, Charles, and Cristobal Young. “Millionaire Migration in California: The Impact of Top Tax Rates.” Stanford Center on Poverty and Inequality, 2012.

Veklerov, Kimberly. “Bay Area Housing Prices Push Low-Income Minorities Farther out, Study Finds.” *SFChronicle*, February 7, 2019. https://www.sfchronicle.com/bayarea/article/Bay-Area-housing-prices-push-low-income-13596075.php.

Walczak, Jared. “Local Income Taxes in 2019.” Tax Foundation, July 30, 2019. https://taxfoundation.org/local-income-taxes-2019/.

Whitney B., Afonso. “Diversification Toward Stability? The Effect of Local Sales Taxes on Own Source Revenue.” *Journal of Public Budgeting, Accounting & Financial Management* 25, no. 4 (2013): 649–74.

“Who Pays? A Distributional Analysis of The Tax System in All 50 States.” Sixth Edition. Institute on Taxation and Economic Policy, October 2018.