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MTI MINETA TRANSPORTATION INSTITUTE

# Understanding COVID-19's Impact on Local Transportation Revenue – A Mid-Crisis View from Experts

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REPORT 22-39

# UNDERSTANDING COVID-19'S IMPACT ON LOCAL TRANSPORTATION REVENUE – A MID-CRISIS VIEW FROM EXPERTS

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October 2022

A publication of

**Mineta Transportation Institute**
Created by Congress in 1991

College of Business
San José State University
San José, CA 95192-0219

# TECHNICAL REPORT DOCUMENTATION PAGE

| | | |
|---|---|---|
| **1. Report No.**<br>22-39 | **2. Government Accession No.** | **3. Recipient's Catalog No.** |
| **4. Title and Subtitle**<br>Understanding COVID-19's Impact on Local Transportation Revenue – A Mid-Crisis View from Experts | | **5. Report Date**<br>October 2022<br>**6. Performing Organization Code** |
| **7. Authors**<br>Asha Weinstein Agrawal, PhD<br>Serena Alexander, PhD<br>Ashley M. Hooper, PhD | | **8. Performing Organization Report**<br>CA-MTI-1938B |
| **9. Performing Organization Name and Address**<br>Mineta Transportation Institute<br>College of Business<br>San José State University<br>San José, CA 95192-0219 | | **10. Work Unit No.**<br>**11. Contract or Grant No.**<br>ZSB12017-SJAUX |
| **12. Sponsoring Agency Name and Address**<br>State of California SB1 2017/2018<br>Trustees of the California State University<br>Sponsored Programs Administration<br>401 Golden Shore, 5th Floor<br>Long Beach, CA 90802 | | **13. Type of Report and Period Covered**<br>Final Report<br>**14. Sponsoring Agency Code** |

**15. Supplemental Notes**
DOI: 10.31979/mti.2022.1938B

**16. Abstract**
When COVID-19 swept into the United States in early 2020, it upended two patterns of behavior critical to transportation funding: how people traveled and where economic activity occurred. This study explored how, one year into the pandemic, experts in California believed that the COVID-19 pandemic was impacting local transportation budgets. We interviewed 34 funding experts who represented local transportation and public works departments, state officials, and municipal finance experts. In these conversations, conducted from December 2020 to March 2021, we asked interviewees how they saw COVID-19 impacting their overall local transportation budgets in the short and long term as well as which specific revenue sources were particularly effected. Key findings were as follows: the transportation revenue impacts from COVID-19 varied greatly by place, mode, and type of local government; public transit was the mode that experienced the most drastic change in transportation revenues; federal coronavirus relief funds allowed essential services to continue through the pandemic; the shift to telework had an enormous impact on transportation budgets by changing the location of taxable activities and thus reallocating revenue differently across local jurisdictions; and COVID-19 spotlighted long-term challenges with both motor fuel taxes and the distribution of sales tax from online purchases.

| | | | |
|---|---|---|---|
| **17. Key Words**<br>Revenues, highways, public transit, COVID-19, transportation policy | **18. Distribution Statement**<br>No restrictions. This document is available to the public through The National Technical Information Service, Springfield, VA 22161 | | |
| **19. Security Classif. (of this report)**<br>Unclassified | **20. Security Classif. (of this page)**<br>Unclassified | **21. No. of Pages**<br>33 | **22. Price** |

Form DOT F 1700.7 (8-72)

DOI: 10.31979/mti.2022.1938B

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# ACKNOWLEDGMENTS

The authors thank the many transportation funding experts who agreed to be interviewed for this project, as well as MTI for funding the research and its staff for project support. In addition, Student Research Assistant Kevin Yong Lee provided extensive support, including assistance with coding the transcripts and literature review.

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# EXECUTIVE SUMMARY

When COVID-19 swept into the United States in early 2020, it upended two patterns of behavior critical to transportation funding: how people traveled and where economic activity occurred. While most of the country was justly fixated on protecting public health, transportation funding professionals worried about a different potential crisis: a substantial loss of revenue from sources they relied upon to maintain, operate, and improve transportation systems.

This report presents findings from a study exploring how, one year into the pandemic, experts in California believed that the COVID-19 pandemic was impacting local transportation budgets. Because California's local entities are responsible for virtually all public transit services and more than 85% of roads in the state,[1] their funding is critical to maintaining the state's transportation systems.

We interviewed 34 experts who represented diverse perspectives—from city and county public works officials, to state officials, to municipal finance experts—in order to understand how they saw COVID-19 affecting local transportation budgets. The interviews were conducted from December 2020 to March 2021, at a point when the pandemic had been ongoing for close to a year, but there was still relatively little firm data on revenue impacts.

The interviewees were selected to represent the diversity of California local government transportation needs in terms of population size, land-use type (urban, suburban, rural), region of the state, travel modes, and reliance on traditional versus innovative funding sources. As such, our selected interviewees were experiencing a diverse set of pandemic impacts on transportation and its revenues.

From the interviews a picture emerged of how professionals were experiencing the crisis in real time, including their level of concern and the specific funding sources they believed were most impacted. The interviews illuminate how the pandemic highlighted strengths, weaknesses, and unpredictability in transportation budgets. While some interviewees anticipated substantial revenue losses in particular communities or for specific modes, others anticipated little revenue loss or even significant gains.

Six key findings emerged from the interviews:

**There is no simple story about how COVID-19 impacted local transportation revenues.** The interviewees' comments revealed how greatly the impacts appeared to vary from place to place, by mode, and by type of local government. For example, interviewees from large cities described being hard hit by lost economic activity in their downtowns once many office workers shifted to remote work. Conversely, other interviewees described rural areas with increased sales tax revenue, as their residents spent more money locally or shopped online. Looking modally, public transit operations were particularly hard hit, while funding for streets and roads remained more or less

[1] NCE, *California Statewide Local Streets and Roads Needs Assessment: Final Report* (Sacramento, League of California Cities, October 2018), https://www.savecaliforniastreets.org/wp-content/uploads/2018/10/2018-Statewide-Final-Report-1.pdf.

stable in many locations. Finally, some revenue sources, like vehicle registration fees and property-based revenue, remained relatively stable through the first year of the pandemic, even if other sources changed rapidly in response to the major disruptions to typical patterns of travel behavior and economic activity.

**Public transit was the mode that experienced the most drastic loss of revenue.** Teleworking, business and school closures, event cancellations, social distancing recommendations, and fear of contracting coronavirus in public transit resulted in a sharp decline in transit ridership. This lost ridership translated to lost fare revenues. Since many transit systems in California use directly generated revenues such as passenger fares and parking fees to cover a significant portion of their operating expenses, the sharp decline in transit ridership created a financial crisis right when transit agencies also faced new expenses related to COVID-19, such as frequent cleaning to disinfect surfaces, providing personal protective equipment, and running more frequent service in areas that retained high ridership in order to permit social distancing on the vehicles.

**Federal coronavirus relief funds allowed essential services to continue through the pandemic.** Virtually every interviewee described federal funds from the CARES and CRSS Acts as essential. It was only because of these new funds that local governments were for the most part able to keep offering public transit service and perform basic road maintenance and management. Because local governments (and the state) cannot deficit spend, one of their only options for responding to a major revenue shortfall is to reduce the size of the workforce and scale back services offered. The federal government, at the other extreme, directly operates and maintains virtually no transportation services, yet does have the ability to deficit spend in the face of emergency.

**COVID-19 spotlighted long-term challenges with motor fuel taxes.** Although the interviewees had feared a major drop in state and federal fuel tax revenues, by winter of 2021 many were anticipating an imminent return to pre-pandemic vehicle miles traveled (VMT) and thus only modest reductions in fuel tax revenue. Paradoxically, this experience with a brief crash in fuel purchases and the corresponding drop in fuel tax revenue starkly highlighted for some interviewees just how critical it will be for California to reduce its reliance on fuel tax revenues in anticipation of rapid growth in the number of electric or other zero-emission vehicles.

**COVID-19 spotlighted long-term challenges with the distribution of sales tax from online purchases.** With respect to sales tax revenue, a key observation shared by numerous interviewees was how the shift to online purchases created a situation where some communities were reaping new revenues at the expense of other communities. The dramatic rise in online sales brought into sharp relief the complexity of how sales tax revenues are allocated to local governments in a world of online spending. The sales tax revenue from online purchases is sometimes allocated to the place where the retailer has its headquarters, sometimes to the location of a warehouse, and sometimes to the place where the consumer lives. Online shopping has thus created huge windfalls for some communities that host warehouses and corporate headquarters, but drained revenue away from the locations where consumers live and therefore demand services, including transportation. These complexities of sales tax allocation have been the subject of concern for some time, but COVID-19 revealed this challenge more starkly.

**The shift to telework had an enormous impact on transportation budgets by changing the location of taxable activities and, thus, reallocating revenue earned to different local jurisdictions.** The interviewees described revenue moving from one jurisdiction to another for two reasons: (1) consumers spent more money near their homes and none near their former workplaces, and (2) some people relocated their homes once teleworking freed them to live far from the office. The interviewees said that they had not seen these implications of teleworking as their immediate concern when the COVID-19 crisis began, yet by the time of the interviews, many saw this as a key factor influencing their transportation budgets (some for the worse but others for the better).

In conclusion, we suggest implications from the findings for both local and state policymakers. Local governments can prepare for future unanticipated shocks to transportation budgets by packaging revenue from a set of taxes and fees that draw on different tax bases, such as property and vehicle ownership, retail sales, and transportation user fees. State leaders can support local transportation needs by planning for revenue streams to support the variety of different local entities and modes, expanding local governments' powers to impose taxes and fees that they identify as appropriate to their own capacities and constraints, rationalizing which jurisdictions receive sales tax revenue from online purchases, and preparing to replace fuel taxes with a tax unrelated to burning motor fuels.

# I. INTRODUCTION

When COVID-19 swept into the United States in early 2020, it upended two patterns of behavior critical to transportation funding: how people traveled and where economic activity occurred. While most of the country was justly fixated on protecting public health, transportation funding professionals worried about a different potential crisis: a substantial loss of revenue from sources they relied upon to maintain, operate, and improve transportation systems.

This report presents findings from a study exploring how, one year into the pandemic, experts in California believed that the COVID-19 pandemic was impacting local transportation budgets. Because California's local entities are responsible for virtually all public transit services and more than 85% of roads in the state,[2] their funding is critical to maintaining the state's transportation systems.

We interviewed 34 experts who represented diverse perspectives—from city and county public works officials, to state officials, to municipal finance experts—in order to understand how they saw COVID-19 affecting local transportation budgets. At the time of the interviews, December 2020 to March 2021, the pandemic had been ongoing for close to a year, but there was still relatively little firm data on revenue impacts. From these conversations, a picture emerged of how professionals were experiencing the crisis, including their level of concern and the specific funding sources they believed were most affected. The interviews illuminate how the pandemic highlighted strengths, weaknesses, and unpredictability in transportation budgets. While some interviewees anticipated substantial revenue losses in particular communities or for specific modes, others anticipated little revenue loss or even significant gains.

## COVID-19 IMPACTS ON TRAVEL PATTERNS

COVID-19 set into motion unprecedented changes in how much Americans traveled, as well as the modes they used.[3] Public health department orders that people avoid all but necessary contact meant the closure of schools, offices, restaurants (for in-person dining), entertainment facilities like movie theaters, and even some retail stores (i.e., department stores). As a result of this lockdown, people forwent large numbers of personal trips and stayed home, greatly reducing annual vehicle miles travel (VMT). In addition, transit ridership plummeted because people were worried about contracting COVID-19 in transit stations or vehicles. Some of these former transit trips were foregone entirely, while others were replaced with car trips, bicycling, or walking.

There was widespread recognition in the transportation industry that these changes to travel behavior decreased fuel tax revenue, but uncertainty as to the extent and timing of the potential recovery. For example, IHS Markit reported on April 21, 2020, that national

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2 NCE, *California Statewide Local Streets and Roads Needs Assessment: Final Report* (Sacramento, League of California Cities, October 2018), https://www.savecaliforniastreets.org/wp-content/uploads/2018/10/2018-Statewide-Final-Report-1.pdf.

3 A variety of statistics on how COVID-19 impacted travel are collected at: U.S. Department of Transportation, Bureau of Transportation Statistics, "COVID-29 Related Transportation Statistics," https://www.bts.gov/covid-19.

gasoline sales in late March were 47% down from sales one year earlier,[4] and traffic data firm Inrix reported that personal travel had dropped almost by half between late February (before most social distancing measures were in place) and early April.[5] On April 6, 2020, the American Association of State Highway and Transportation Officials (AASHTO) sent a memo to the U.S Congress predicting "what will average at least a 30 percent loss in state transportation revenue in the next 18 months."[6] In California, reductions in travel continued through the summer of 2020 but recovered in later months as economic and social activity resumed gradually. The California Legislative Analyst reported that vehicle miles of travel in March and April were as much as 40 percent below the corresponding month a year earlier but that travel in June of 2020 was 14 percent below travel in June of 2019.[7] While a recovery had seemed to be occurring, COVID cases started to rise again in November, and new restrictions on daily activity were being put in place even as the interviews were being conducted.

## STUDY METHODS

This report presents findings from interviews with 34 experts in local transportation funding in California. Twenty-six represented government agencies (cities, counties, regional agencies, and the State of California) and the other eight were consultants or advocates. (See Appendix A for the complete list of interviewees.) The interviewees were selected to represent the diversity of California local government transportation needs in terms of population size, land-use type (urban, suburban, rural), region of the state, travel modes, and reliance on traditional versus innovative funding sources. As such, our selected interviewees were experiencing a diverse set of pandemic impacts on transportation and its revenues.

We conducted the interviews, which each lasted approximately 45 minutes, over Zoom between December 22, 2020, and March 5, 2021. The audio recordings were transcribed and coded according to themes selected through both deductive and inductive analysis.

It is important to emphasize how much uncertainty the interviewees faced at the time they spoke with us. They had not yet received confirmation of 2020 receipts for the taxes and fees they discussed. Also, statewide driving levels were still modestly below pre-COVID-19 levels, and transit ridership was still severely reduced. It was unclear to the interviewees when the COVID-19 crisis would ease significantly enough that more typical travel activity and spending patterns might return. Finally, at the time of the interviews, the Biden administration had not yet released its "American Jobs Plan" calling for hundreds of billions of dollars of new transportation infrastructure over eight years, to be funded by increases in the corporate tax rate.

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4 Rob Smith, "Coronavirus (COVID-19) Offering Retail Fuel Stations a 'Stress Test' for the Future," HIS Markit (April 21, 2020), https://ihsmarkit.com/research-analysis/coronavirusoffering-retail-fuel-stations-a-stress-test.html.

5 Ryan Beene, "America's Empty Roads: Fewer Deaths but a Blow to State Budgets," Bloomberg (April 15, 2020), https://www.bloomberg.com/news/articles/2020-04-15/america-s-emptyroads-fewer-deaths-but-a-blow-to-state-budgets.

6 American Association of State Highway and Transportation Officials, letter to Congressional leaders Nancy Pelosi, Mitch McConnell, Kevin McCarthy, and Charles E. Schumer (April 6, 2020), https://www.transportation.org/wp-content/uploads/2020/04/2020-04-06-AASHTOLetter-to-Congress-on-COVID-19-Phase-4-FINAL.pdf.

7 California Legislative Analyst's Office, *Impact of COVID 19 on State Transportation Revenues*, September 17, 2020, https://lao.ca.gov/Publications/Report/4268.

## CONTRIBUTION TO A GROWING LITERATURE ON THE PUBLIC FINANCE IMPACTS FROM COVID

This study adds to a growing body of research into the pandemic's impact on public sector revenue by providing a qualitative analysis of experts' experiences and perspectives regarding COVID-19 impacts to local transportation budgets.

Most studies of the impact of COVID-19 on revenue use quantitative methods to predict or measure revenue changes from a baseline. The most common type of relevant research is not transportation-specific, but rather addresses the impacts on a specific revenue type important for transportation budgets, such as the impact on sales tax revenue at either the local or state level.[8] Another common approach for studies on COVID-19 revenue impacts is to estimate overall revenue loss for local governments[9] or states.[10]

The body of literature evaluating transportation revenue impacts in particular is quite small, though growing. For example, a study by Tyler estimates how COVID-19 has impacted transportation funding in Illinois,[11] King, et al, looked at how COVID-19 had impacted local-option sales tax revenue for transportation in California,[12] and Agrawal, et al, projected the impact of COVID-19 on transportation revenue generated by the State of California's fuel taxes and vehicle registration fees.[13] Other studies have looked specifically at funding impacts for public transit, including a Federal Reserve Bank of Boston study on estimated revenue loss from fares for New England transit operators[14] and a national study from the American Public Transportation Association.[15]

8 Bruce D. McDonald and Sarah E. Larson, "Implications of the Coronavirus on Sales Tax Revenue and Local Government Fiscal Health," *Journal of Public and Nonprofit Affairs*, 6, no. 3 (2020): 377-400; Howard Chernick, David Copeland, and Andrew Reschovsky, "The Fiscal Effects of the COVID-19 Pandemic on Cities: An Initial Assessment," *National Tax Journal* 72, no. 3, 699-732; Robert Fairlie and Frank M. Fossen, "The Early Impacts of the COVID-19 Pandemic on Business Sales," *Small Business Economics* 58 (2022), 1853-1864.

9 "What Kind of Cities are More Vulnerable during the COVID-19 Crisis?" *Local Development and Society* 1, no. 1 (2020), 74-82. https://www.tandfonline.com/doi/full/10.1080/26883597.2020.1794755; J. Edwin Bention, Grant E. Rissler, and Spencer Wagner, "City and County Governments in the Time of COVID-19 and the Recession: The Long and Winding Road," *State and Local Government Review* 52, no. 1: 28-52. https://journals.sagepub.com/doi/full/10.1177/0160323X20975470.

10 Implications of the COVID-19 Pandemic for State Government Tax Revenues, National Tax Journal, https://www.journals.uchicago.edu/doi/abs/10.17310/ntj.2020.3.01; National Governors Association, "Transportation Funding and Financing during COVID-19" (November 30, 2020); Christos Makridis and Robert McNab, *The Fiscal Cost of COVID-19: Evidence from the States* (June 22, 2020), https://ssrn.com/abstract=3626497 or http://dx.doi.org/10.2139/ssrn.3626497.

11 Marty Tyler, "COVID-19 & Transportation Funding in Illinois One Year Later" (Illinois Economic Policy Institute, March 25, 2021), https://www.railwayage.com/wp-content/uploads/2021/03/covid-transportation-one-year-later-final.pdfhttps://escholarship.org/uc/item/4f65w8qp; Lucy Dadayan and Kim Rueben, "Surveying State Leaders on the State of State Taxes" (Urban Institute & Brookings Institution, July 2021), https://www.taxpolicycenter.org/sites/default/files/publication/162435/surveying-state-leaders-on-the-state-of-state-taxes_1.pdf.

12 Hannah King, et al, *All Is Not LOST: Tracking California's Local Option Sales Tax Revenues for Transportation During the Pandemic* (UCLA Institute of Transportation Studies, August 2021).

13 Asha Weinstein Agrawal, et al, *The Impact of the COVID-19 Recovery on California Transportation Revenue: A Scenario Analysis through 2040* (Mineta Transportation Institute, December 2020), https://transweb.sjsu.edu/research/2054-Impact-COVID-19-Recovery-California-Transportation-Revenue.

14 Riley Sullivan, *The COVID-19 Pandemic's Impact on Public Transportation Ridership and Revenues across New England* (Federal Reserve Bank of Boston, September 27, 2021), https://www.bostonfed.org/-/media/Documents/Workingpapers/PDF/2021/neppcrb2102.pdf.

15 EBP US, Inc, *The Impact of the COVID-19 Pandemic on Public Transit Funding Needs in the US* (prepared for the American Public Transportation Association, January 27, 2021), https://www.apta.com/wp-content/uploads/APTA-COVID-19-Funding-Impact-2021-01-27.pdf.

Unique factors about this study include the focus on overall transportation budgets (rather than a single revenue source), the focus on local budgets (rather than state budgets), and the use of qualitative interviews (rather than a quantitative analysis of tax receipts). Key advantages of the study approach are that it permitted us to explore numerous revenue sources that had been impacted, and we could evaluate impacts for which existing data were not yet available to conduct a more precise analysis. In addition, the interview method reveals the different ways that, at the heart of the COVID-19 crisis, experts *believed* these changes would impact their ability to deliver transportation services and improvements. Finally, we also were able to identify which specific revenue impacts were similar across different communities and types of government entity, as well as those that had diverse impacts from place to place or across modes.

## OVERVIEW OF THE REPORT

The remainder of the report is organized as follows. Section 2 presents a very brief overview of how local government entities in California fund transportation by piecing together numerous different revenue sources. The following two sections present findings organized into two themes: the overall impact on budgets and the impacts on specific revenue sources. The concluding section summarizes key findings, and for each we suggest policy implications.

# II. CONTEXT: LOCAL TRANSPORTATION BUDGETS

To set the study findings in context, this section provides a high-level summary of the revenue sources that local entities rely on to fund transportation. More detail is available in a 2021 companion report to this one, *How Do California's Local Governments Fund Surface Transportation? A Guide to Revenue Sources*.[16]

California law establishes three types of local entities: counties, incorporated cities, and special districts. All cities and counties have some transportation responsibilities. Special districts are local agencies that provide specific public services, with two district types particularly important from a transportation perspective: public transit operators and county-wide congestion management agencies.

To fund transportation programs, locals rely on a patchwork of revenues raised through local taxes and fees, plus transfers from regional, state, and federal sources.[17] Table 1 presents the revenue tools commonly used in California to support local transportation, showing which levels of government assesses each one. Local governments in California may not deficit spend, so they must adjust spending if their revenue is insufficient to cover costs for the year.

[16] Agrawal, Lee, and Alexander, *How Do California's Local Governments Fund Surface Transportation? A Guide to Revenue Sources* (San Jose: Mineta Transportation Institute, 2021).
[17] Agrawal, Lee, and Alexander, 2021.

**Table 1. Revenue Instruments that Raise Funds Earmarked for Local Transportation in California**

| Type of revenue instrument, by tax base | Federal | State | Special district[a] | County | City |
|---|---|---|---|---|---|
| Fuels | | | | | |
| Gasoline fuel excise tax | ✓ | ✓ | | | |
| Diesel fuel excise tax | ✓ | ✓ | | | |
| Diesel fuel sales tax | | ✓ | | | |
| Vehicles | | | | | |
| Truck and truck-tire sales tax | ✓ | | | | |
| Truck weight fee | ✓ | ✓ | | | |
| Vehicle registration fee | | | | ✓ | |
| Transportation system use | | | | | |
| Toll | | | ✓ | ✓ | |
| Fares + other transit-operator-generated revenue[a] | | | ✓ | ✓ | ✓ |
| Parking fees | | | ✓ | | ✓ |
| Ridehailing tax | | | | | ✓ |
| Refuse vehicle impact fee | | | ✓ | ✓ | ✓ |
| Real property | | | | | |
| Development fee | | | ✓ | ✓ | ✓ |
| User-utility tax | | | ✓ | ✓ | ✓ |
| Occupancy tax | | | | ✓ | ✓ |
| Parcel tax | | | ✓ | ✓ | ✓ |
| Other | | | | | |
| Sales tax | | ✓ | ✓ | ✓ | ✓ |
| Transient occupancy tax | | | ✓ | | ✓ |
| Business-license tax | | | ✓ | | ✓ |
| Cap-and-trade program | | ✓ | | | |
| Franchise agreements (e.g., utilities) | | | | | ✓ |

*Source:* Asha W. Agrawal, Kevin Lee, and Serena Alexander, *How Do California's Local Governments Fund Surface Transportation? A Guide to Revenue Sources* (San Jose: Mineta Transportation Institute, 2021).

[a] Includes transit operators such as BART and regional agencies such as the Bay Area Toll Authority.

[b] For example, advertising revenue.

Although no two local entities will fund transportation with the exact same revenue sources used in the same proportions, some general trends are common to many entities. Aggregating local transportation budgets statewide, most revenue comes from county-level sales taxes, plus a host of different taxes and fees paid by direct users of the transportation system. Examples of these user fees include state and federal motor fuel taxes, truck weight fees, public transit fares, parking fees, and local vehicle registration fee surcharges. Some jurisdictions also rely on money raised from property owners, such as revenue from parcel taxes, utility-impact fees, or development impact fees. Finally, some local government entities also allocate general fund revenue to transportation, although for most jurisdictions this is a small percentage of total transportation budgets.

Local entities generate the majority of their revenue directly, even though state and federal revenue transfers are critical to local transportation budgets. Considering just roads and streets, over the past two decades local contributions have ranged from one-half to two-thirds of total revenue. In 2019, for example, locals contributed 57% of the total, 34% was raised by the state, and 9% came from federal sources. With respect to public transit over the same period, local tax and fee revenue has generated roughly half of revenue and passenger fares another fifth. Federal revenues have also hovered around 20% of the total, with state contributions at most only 8%. Transit funding by level of government is similar, though in this case the federal government contributed more than the State of California. In 2019, local governments contributed 54% of public transit revenue, the federal government 18%, and the state 3%. The remaining 25% of funding came from passenger fares.

# III. THE OVERALL IMPACT ON LOCAL TRANSPORTATION BUDGETS

This section of the report presents interviewees' perceptions of how COVID-19 would impact local agencies' ability to fund transportation. Three key themes that emerged were how the short-term impacts from COVID would impact total available revenue, how COVID-19 might limit agencies' ability to provide transportation services and capital improvements, and how COVID-19 might have long-term impacts for transportation funding.

## SHORT-TERM IMPACTS ON TOTAL AVAILABLE REVENUE

Two cross-cutting themes emerged from the discussions about how funding experts perceived COVID-19 to be impacting the total amount of local transportation funding. First, most interviewees told us that, during the early phases of COVID-19, they had feared a drastic revenue drop, but that by the time of the interviews (early 2021) they were no longer so worried about an immediate funding crisis. Second, even if California's transportation revenues had not taken a drastic cut statewide, the interviews revealed that the financial fall-out from COVID-19 was felt very differently from community to community, varying by mode, geographic location, and the type of governmental entity. Some interviewees reported that their revenues had actually risen during COVID-19, while others said they were struggling with serious shortfalls.

Many interviewees said that, early in the COVID-19 crisis, they had feared a steep revenue drop, but that the situation appeared to be less dire than feared. One interviewee described his budget team trying to estimate losses back in March and "expecting it to be really, really impacted." However, by the time of the interview, he said that his team realized "we [had] thought that it was actually going to be much worse than what has turned out." Along the same lines, another interviewee explained that the budget team's current estimates of revenue loss were only half as bad as originally forecast back in the spring of 2019.

Despite this overall picture of losses being smaller than feared, the interviews revealed that the impacts to date varied greatly from place to place, by mode, and by type of governmental entity. The most obvious pattern was modal: numerous interviewees spoke of transit operators suffering from the evaporation of farebox revenues plus, in many cases, steep declines in sales tax revenue. By contrast, revenue for local streets and roads remained relatively stable. Another interviewee described a community where the impacts varied for capital versus maintenance budgets: capital funds were relatively stable because they were largely generated from property-related revenue streams, but funding for maintenance and operations had fallen considerably because these budgets drew on less stable revenue sources.

Less obvious impacts stemmed from the ways that COVID-19 shifted both the type and place of travel and economic activity, creating patterns that bled revenue out of some communities but benefited others. As one interviewee explained:

> Some jurisdictions are actually awash in money—they have more money than they ever expected—and some are dying. Anaheim or San Francisco or places that relied on tourism and restaurants and that kind of thing [are dying], but Lodi, for example, is swimming in money because they have so many big box retailers and everybody is more at home, getting takeout, and when they go to Home Depot, they just spend, spend, spend. In some of the coastal cities, the hotels are completely booked up all the time now because people just want to go walk on the beach. [These communities] actually have more money than they expected. But then some cities like Belmont, I understand, is really hurting.

A rural-urban dichotomy emerged in how the interviewees described their funding situation. The interviewees who reported major funding struggles were mostly from urban areas that relied heavily on a combination of transit fares, sales and hotel tax revenue from workers or tourists, and/or parking revenue and traffic fines. While these interviewees were a minority, they expressed deep concern. One interviewee, describing major losses in farebox revenue, parking fees, and fines, said, “We’ve been wiped out and we’re not expecting recovery for probably 15 years.” Another said, “We’re definitely in a crisis right now—there’s just no question about that.”

Interviewees offered a variety of reasons to explain why urban transportation budgets had taken such a particularly hard hit. Sales tax revenue was of particular concern. One reason given was that once office workers started working from home, they were no longer spending money on taxable items like food, entertainment, and shopping. Also, interviewees described how some of their residents had semi-permanently moved to live in rural areas, taking their spending (and tax dollars) with them. Yet another explanation offered was that tourism in urban areas largely dried up once people didn’t feel safe in crowded, indoor activities.

While interviewees from urban communities mostly described big losses, interviewees from rural communities often described their budgets as remaining more or less healthy. One interviewee said “On the transportation [funding] side…To be quite honest with you I really haven’t been that impacted by [COVID] on that. Maybe I’m missing it, I hear all my compatriots complain about it.” Another interviewee confessed, “It’s almost like I feel a little guilty about it. It’s like everybody else is suffering, and we’re mildly okay. We’re not as bad as everyone else—so it’s hard to complain.” And yet another person described a rural community where transportation revenue was actually higher than the previous year, primarily because of higher-than-expected sales tax receipts.

Interviewees offered a variety of reasons to explain their relatively stable rural transportation budgets. One expert thought that residents who previously might have spent discretionary money on travel outside the local area were now spending that money locally on housing or vehicle upgrades. Another interviewee pointed out that areas with a wealth of outdoor recreational amenities had seen an increase in tourism, which translated to higher sales and hotel tax receipts.

Finally, one interviewee viewed COVID-inspired losses as tolerable when considered over a longer time frame. This interviewee observed that although revenues would likely drop slightly due to COVID, this drop was considerably less than the recent boost in revenues due to SB1, a 2017 California law that increased fuel tax rates as well as imposing new annual vehicle registration fees. Thus, the interviewee did not believe that COVID-19 was creating a serious transportation revenue shortfall for the community.

## REPERCUSSIONS FROM COVID'S HIT TO TRANSPORTATION BUDGETS

The majority of interviewees believed that COVID's impact on transportation budgets would reduce their ability to provide services and capital improvements, at least to a moderate extent. However, the specific concerns about *how* lost revenue would impact their programs varied. Some interviewees said they had already reduced transportation services, while others worried more about long-term impacts.

Some interviewees described how they had already lost staff and so could no longer provide their regular services. One explained that the agency had imposed a 10% furlough on all staff, in addition to laying off some employees. Similarly, another interviewee said:

> [T]o address some of these shortfalls, we're in a furlough situation, and we have frozen quite a few open positions and the [organization] in general has had to let go about 40 people. So we've had to shrink staffing dramatically to survive the loss of revenue, which has its own issues, because now we're just not doing the work.

Yet a third interviewee noted that the reduction in staffing had a particular impact on operations: "We had to cut back on parking enforcement services, including vehicle abatements, and other things like that ….Street sweeping-type things…we had to cut way back on that."

With respect to impacts on capital projects, some interviewees had confidence that there would not be major long-term impacts. Several interviewees explained that they used state fuel tax and other SB1 revenue to fund capital projects, and since these projects were typically funded over many years, a short-term dip in expected funds could be recovered in subsequent years. Thus, they did not anticipate having to cancel programmed projects.

Not all interviewees were so sanguine about lost revenue, however. For example, one interviewee worried that losing locally generated revenue would prevent local governments from accessing regional, state, or federal grant funding that requires a local match. Another interviewee worried about not just long-term implications, but a crisis if the organization was unable to provide the match promised for projects underway:

> But I think in terms of the grant-funded projects, the issue that I'm most concerned with is [my organization's] ability to meet the match…..The city is not exactly in a position to sort of continue to scramble together the same exact amount of money for a project that it was expected to be able to scramble together before the pandemic. So…that will be my concern: that there's going to be unanticipated difficulties meeting the match that's placed on the [organization] for any of these grant projects.

Another interviewee raised a different variant on the concern that the loss of locally raised funding could cascade into a loss of state revenue: the inability to keep state transportation revenue that is distributed by formula, as these have a "maintenance of effort" requirement:

> I think there are issues [for] some counties on what they call the "maintenance of effort" requirements. Right now you're required to maintain what you spent. I think it's like a three-year kind of running average of what you put in for the general funds to roads, and you have to maintain that amount in order to receive the state streets and roads money. There are some issues with some counties that

> they need to adjust that or get some relief because they were impacted by COVID, and likely they need to spend less than they planned on because of their local sources….I think there's concerns on the horizon because it's a kind of a running average. That's going to take a couple years before it really impacts them. I know Napa County is one that's concerned about that. And I'm sure there's a lot of other kind of these medium to smaller-sized counties. [Also, there are] a lot of the larger counties where the public works departments don't receive any kind of county general fund money. [The local match] is all through other taxes.

## LONG-TERM IMPACTS ON TOTAL REVENUE

Although the focus of the interviews was to understand how COVID-19 had impacted transportation revenue over the course of the first year of the pandemic, a number of interviewees shared their predictions about whether COVID-19 would have long-term revenue impacts. Although many interviewees expected the impacts to be temporary, a few worried that the pandemic would depress revenue over the long term by accelerating fundamental changes already occurring in travel behavior and economic activity. The sentiment expressed most often, however, was a belief that COVID's impact on revenue was of much less concern than the revenue loss the interviewees anticipated from a push to electrify the vehicle fleet and improve fuel efficiency for internal combustion engine (ICE) vehicles that burn gasoline and diesel fuel. Both of these changes would significantly reduce the fuel sales that generate state and federal fuel tax revenue.

One interviewee expressed concern that even if the taxes and fees generating transportation revenue did not suffer major losses over time, there might be future pressure from other cash-strapped divisions of the organization to re-allocate funding streams away from transportation to other needs: "And so this fiscal year we seem to be doing okay….But next fiscal year I'm concerned about other departments—about our special funds getting raided for other departments' purposes. And so that's a challenge that we almost always face."

A number of interviewees predicted that COVID-19 would act as a catalyst that accelerated changes in travel behavior already on the horizon. For example, one person predicted that COVID-19 would reduce fuel tax revenue over the long run by speeding up efforts to reduce carbon emissions from the transportation sector: "I think that we're going to see some longer term trends accelerated by COVID-19—and I think that those relate to the ongoing push towards electrification and fuel efficiency." Other interviewees predicted that COVID-19 would dramatically accelerate growth in teleworking, a change that would reduce both fuel tax and transit fare revenue if workers traveled less. As one put it, "There are all those immediate impacts, but for me I think the COVID-19 impacts—how they play out through these next five years—is going to be fascinating. I think that telecommuting is clearly one of those." Another interviewee was more direct: "We're in a new world now. It's called the post-COVID-19 world…or will be. I've got to think that there is going to be more telecommuting."

A handful of interviewees stressed the potential for COVID-19 to set in motion major changes unrelated to travel behavior that would nevertheless lead to long-term transportation revenue loss. One interviewee noted that "the private sector is taking some incredible cuts in valuation" this year, a situation that would lower future city revenues—"what we say is that private sector loss is public sector loss." Another interviewee predicted that central cities might suffer long-term drops in sales tax revenue if many of their residents relocated permanently to lower-density communities, a trend much more possible in a world where employers permit telework. Finally, one interviewee believed that COVID-19 would lead to changes in *which* communities collected sales tax by accelerating the trend of consumers ordering delivery of retail goods and restaurant meals:

> COVID-19 has accelerated the delivery of things that we never really focused on like food and meals. Certainly we all [ordered deliveries before], but we never did it at the level we've been doing that…It's [still] a retail-based economy…but the shift is in how we get our goods.

The interviewee went on to explain that the shift from in-person to online purchases led to different local entities receiving sales tax. In addition, the interviewee predicted that the shift to deliveries would reduce demand for retail storefronts but increase demand for warehouses and distribution centers, changes with profound impacts on real estate values.

Although the interviewees shared a wide variety of predictions about how COVID-19 might intensify long term trends, they were nearly unanimous about one prediction: that COVID-19 was a small threat to transportation revenue over the long term as compared to the impact of an inevitable wide-spread shift from internal combustion engine to battery-electric vehicles. One interviewee illustrated these sentiments by explaining that the trends in transportation revenue prior to the pandemic "were driven by our climate goals and conversion to a zero-emission vehicle fleet" and predicted that these factors "will have a bigger impact on revenue than the immediate travel changes that have occurred [due to COVID]." Along the same lines, another interviewee predicted that people who started using active travel modes during COVID-19 might reduce their driving long term, translating to less fuel tax paid.

# IV. IMPACTS ON SPECIFIC FUNDING SOURCES

While the previous chapter describes interviewees' holistic views on how COVID-19 might impact local transportation budgets, this chapter explains how experts believed COVID-19 was impacting the revenue raised through specific taxes and fees. The first section discusses how virtually all interviewees saw federal coronavirus relief funds as a bright spot for transportation funding in an uncertain time. The following sections describe first those revenue sources that most interviewees saw as more or less stable, and then the revenue sources for which the impact varied greatly across communities and transportation modes.

## FEDERAL CORONAVIRUS RELIEF FUNDS TO FILL THE GAPS

Virtually every interviewee spoke of the critical role that the federal government had played in alleviating an immediate crisis, especially with respect to keeping public transit operations afloat. This revenue came from the Coronavirus Aid, Relief and Economic Security (CARES) Act passed in March 2020 and the Corona Response and Relief Supplemental Appropriations (CRRSA) Act passed in December 2020. Interviewees were very clear that they saw the revenue from the CARES and CCRSA Acts that went to transit operators as absolutely critical to keeping transit systems operating. One interviewee bluntly explained, "I think the federal government—both the CARES Acts—have basically kept transit operators alive." As described in more detail below, the CARES funding allocated to operators was particularly important because almost all fare revenue disappeared during COVID-19, just when operators faced major new expenses for deep-cleaning vehicles, providing personal protective equipment, running increased service on certain crowded lines to maintain social distancing, and other measures needed to protect the health of both passengers and staff.

### SB1 Revenue

The State of California provides cities and counties with a large portion of their transportation revenue, especially for streets, roads, and highways. Most of these funds comes from a package of taxes and fees authorized by legislation passed in 2017, Senate Bill (SB) 1. SB1 imposes per-gallon excise taxes on gasoline and diesel motor fuel, a sales tax on diesel fuel sales, and two annual vehicle registration fees.

Rural counties are particularly dependent on fuel tax revenues, as compared to urban areas that tended to have a more diverse set of revenues.

The California Department of Transportation was another recipient of significant CARES and CRRSA Acts funding. One interviewee estimated that about half the state's lost fuel tax revenue would be replaced with CARES money.

Finally, one interviewee pointed out that while federal aid was vital for transit operations, many cities and counties did not benefit much from the federal stimulus funds because they did not qualify for relief under the specific allocation formulas: "We had all these cities saying [the regional agency] is giving all this money, but the reality is that only those cities that have their own transit agencies could access any of those funds for their transit agencies. Otherwise, there were like pennies for the rest of us."

## SOURCES HOLDING (MOSTLY) STEADY

Almost all interviewees agreed that two of their long-term sources of revenue were holding more or less steady, with only minor shortfalls compared to pre-COVID-19 estimates. The first of these were the state's contributions from the SB1 package of fuel taxes and the vehicle registration fees. The second source was property-related revenue, including proceeds from the *ad valorum* property tax, parcel taxes, and development impact fees.

### State Fuel Taxes and Vehicle Registration Fees

Most interviewees expressed relief that state transportation revenues had generally remained strong during the COVID-19 crisis, despite fear early in the pandemic that fuel tax revenues might fall precipitously. The interviewees explained that they had worried that COVID-19 would have a major impact on fuel tax revenue because of the travel reductions that occurred once Californians began to shelter at home. One person who was interviewed early, in December 2019, estimated a 20% reduction in fuel tax revenues, but most interviewees estimated that annual revenue from the state would drop only modestly for 2020. Interviewees also seemed confident there would be no major drop in the coming few years, either.

At the most optimistic end of the spectrum, one interviewee explained that the recent increases in fuel tax revenue from SB1 had created a situation where, despite COVID-19, his jurisdiction's revenues were actually higher than they had been prior to the 2017 adoption of that law:

> It's certainly impacted the gas taxes. Especially at the beginning, it dropped significantly. [But] Senate Bill 1 actually was not nearly as affected….that revenue includes a big portion of vehicle registration [fees]….We did see a pretty good drop, but it's starting to come back up. We're still probably $2-3 million a year down from what we should be at if everything was running the way it was pre-COVID. It's a significant chunk, but it's kind of a wash because it rolled in right after SB1 rolled in, and we had the increase with SB1 before COVID. So we're pretty much at a little above what we were at.

More typical were interviewees who described having feared a big drop that never materialized. One interviewee explained, "At the regional level, all the messaging from the state has been 'no change yet.' There hasn't been the huge fall-off that everyone was worried about." Another said, "It's been surprising....At first it was very alarming, as we saw our VMT drop off to 50 percent or less, [but] VMT bounced back pretty quickly. So we've seen a modest decrease in tax. It really has not been that dire." A third interviewee estimated that the revenue reduction would be only five to ten percent of expected revenue over a five-year period, a shortfall that could be accommodated without major strain.

Several interviewees emphasized that the reason state revenues would remain relatively stable is that the 2017 Senate Bill 1 had added annual vehicle registration fees on top of the state's gasoline and diesel fuel taxes. As one explained, "COVID-19 certainly impacted the gas taxes; especially at the beginning it dropped significantly. [But] Senate Bill 1 revenue actually was not nearly as affected because [that revenue] includes a big portion from vehicle registration, and even though people are not driving, they still have to register the vehicle."

## Property-Related Taxes and Fees

The handful of respondents who discussed property tax revenue during the interviews did not expect major impacts from COVID, at least in the short run. With respect to the ad valorum tax on property ownership, one interviewee said that property taxes were "holding steady," and another that "property tax hasn't suffered." A third interviewee explained that "the only special funds that seemed to not be affected are those related to property taxes and other taxes that the city collects from the activities of the residential housing market."

> **Property-Related Revenue**
>
> Local governments assess a variety of taxes and fees on property, although in most communities this is not a major source of transportation revenue. Nevertheless, some entities raise dedicated transportation revenue through parcel taxes, development impact fees, or occupancy taxes, and a few capture incremental growth in ad valorum property tax revenue through Enhanced Infrastructure Finance Districts.

The explanation given for the steady revenue from these sources was that assessed land-values do not change quickly, even during an economic shock like COVID-19. One interviewee describing a parcel tax explained that "[its revenue] wasn't impacted at all, because it didn't matter if there was COVID-19 or not. People are still having to pay their property taxes. Maybe there's some defaults, but ultimately you're going to get the funds."

Two interviewees did caution, however, that in the medium term property tax revenue from commercial properties might fall. One commented that property tax revenue was:

> …more stable in the context of COVID-19 because, yes, commercial properties might be reassessed, they might be sold for less in coming years, if we really do see a trend towards smaller office footprints, etc., but it's a much slower effect than sales tax. [In contrast] if your restaurant industry is shut down for two months, you're seeing huge decreases.

Other interviewees were concerned that COVID-19 could eventually impact property tax revenues, even if revenues were holding steady for the moment. For example, one interviewee cautioned that although property tax had been "pretty resilient" in the face of COVID-19, the real estate sector had "taken some incredible cuts in valuation" between 2019 and 2020, a drop that could potentially impact property tax revenues in future.

A couple of interviewees observed that their communities continued to see robust interest in new development and, thus, impact fee revenue. One interviewee, who worked outside a major metro area, explained that developers building residential projects were describing a "hot market," anticipating that urban residents would move "to greener pastures." However, the interviewee did wonder if some property owners might eventually fail to pay their annual assessments for the year. Another interviewee, this time one from a major metro area, described being "overloaded with permit applications and development applications…I don't know if it is a lag time before [developers] run out of money, or if they're not going to run out of money. It is still going like gangbusters."

## SOURCES PERFORMING POORLY

If some revenue sources like state fuel and registration fees were seen as holding up well under COVID-19 across the state, interviewees consistently described two other sources as performing badly everywhere: transit fares and parking charges.

## Transit Fares

The interviewees whose responsibilities included public transit budgets were uniform in pointing out that the reductions in transit ridership due to COVID-19—a drop that was more than 90% in some communities—shrank fare revenue drastically. One interviewee stated bluntly, “Transit agencies … all of them have been impacted just straight up.… No one’s been out there; they’re not riding a train. So that’s the topline issue.” And another interviewee summed up the situation as: “It’s still playing out, but it does seem like the single biggest hit is to fare revenue.” For agencies that relied on fares to cover a large proportion of operating costs, the lost fare revenue was catastrophic.

Although reductions in fare revenue were particularly large in urbanized areas, rural operators also felt the pinch. One interviewee described a rural community that made deep cuts in service, a decision that translated to fewer fares collected:

> The transit impacts were significant…. We self-isolated our county for the first three months of the pandemic and…. only [ran] intra-county. No more inter-county or cross-county transit. And when we started that back up, we used to run it five days a week but now we only run it three days a week. And we run it once a day instead of twice a day.

While fare revenue dropped precipitously everywhere, the *impact* of lost fares varied considerably across transit operators. One interviewee explained that the overall loss of revenue was severe, but that lost ridership had “affected all the operators very differently depending on their farebox.” Notably, those operators that, prior to COVID, had earned high farebox recovery ratios suddenly found themselves with huge holes in their operating budgets. By contrast, operators with low farebox recovery ratios were less concerned by lost fares, even if they were not entirely unconcerned.

Another interviewee stressed that COVID-19 had impacted the local transit budget less through lost revenue than through increased expenses: “our transit [finances] are as dismal as anywhere, not because the government money has shrunk so much, but because the cost skyrocketed.” The interviewee described cost increases that resulted from the need to rigorously clean and disinfect transit vehicles and facilities to keep employees and riders safe.

## Parking Charges and Traffic Citations

For some communities in urban areas, parking charges at meters or garages generate a large amount of revenue, and traffic and parking violation fines provide substantial revenue for many more communities. Among the handful of interviewees who directly discussed parking and fine revenue, they described these revenue losses in stark language. One estimated that revenue from parking fees and fines was down about 40 percent, while another said, “The place we have seen a significant, catastrophic loss is parking revenues.”

Parking and fine revenues are deposited into a community's general fund, so for the most part lost parking revenue does not *directly* translate to lost transportation revenue, but there are nevertheless indirect impacts. Two interviewees who described lost parking revenue explained that this had translated directly into reductions in transportation-related services, such as parking enforcement and roadway maintenance activities. As one put it, when asked about revenue impacts from COVID:

> It did not really terribly impact us, except on the parking side of things. So we were hit by no parking revenue, very reduced parking revenues, over this last year. That translated into…we had to cut back on parking enforcement services, including vehicle abatements, street sweeping, and things like that. So we had to cut way back on that.

Another indirect impact described by a couple of interviewees was that cities had responded to the loss of general fund revenue by requiring every department to plan for budget cuts, even if, as with some transportation functions, the department relied on external revenue streams that had not been particularly impacted.

## SOURCES WITH IMPACTS THAT VARIED GREATLY BY PLACE

Although the interviewees described some taxes and fees as performing similarly across the state, the conversations revealed that the interviewees saw other taxes performing very differently from place to place. Many interviewees pointed out that COVID-19 had a profound impact on economic activities, shifting some activities from one taxing jurisdiction to another (i.e., the location of retail sales), or in other cases leading to more or less of a category of spending (i.e., less spending on entertainment and more on home improvements). The revenue sources for which the interviewees saw these economic dislocations creating the starkest variation by place were transient occupancy taxes (TOTs), better known as "hotel taxes," and sales and use taxes.

### *Transient-Occupancy Tax*

Interviewees described radically different impacts to TOT revenue, depending on place. On the one hand, interviewees described communities like Anaheim (home to Disneyland) that had seen virtually all hotel guests temporarily vanish. Other interviewees, however, pointed to rural communities that had been flooded with guests staying in hotels and vacation rentals. In areas close to national and state parks offering outdoor recreational activities that were deemed safe during COVID, interviewees had observed an increase in TOT revenue. Also, one interviewee described how a large number of medical personnel had come to the area to care for COVID-19 patients,

**Transient Occupancy Tax**

The transient occupancy tax (TOT), colloquially known as the "hotel tax," is a tax placed on short term rentals of shared properties such as hotels, motels, RV parks, and private properties. The TOT rate in California ranges from 2% to 15.5%.

TOTs generate revenue for a wide variety of communities, from locations with scenic landscapes or other tourist attractions, to bustling trade centers that host conferences and other business travelers, to communities housing temporary workers who stay for weeks or months at a time. The explosion of home rentals facilitated by AirBNB and its competitors has brought at least modest TOT potential even to communities that have few hotels or other group lodging facilities.

and that these essential workers were also generating unexpected hotel tax revenues.

## Sales and Use Taxes

Numerous interviewees expressed concern that COVID-19 had created major disruptions in typical consumption patterns within the state in ways that shifted substantial new revenue to some jurisdictions while decimating revenue in other communities. As noted above, one interviewee stated bluntly, "Some jurisdictions actually are awash in money; they have more money than they ever expected because of patterns, and some are dying." Those interviewees who estimated the magnitude of the change in sales tax revenue gave estimates that ranged from a 37% drop to a 20% increase in sales tax revenue.

Interviewees explained that these varied sales tax revenue outcomes were caused by a variety of consumer behaviors: residents purchasing the same items but in different locations (e.g., online vs. in a physical store), residents purchasing more of some goods than they did pre-COVID-19 (e.g., more groceries and gardening supplies), and residents purchasing less of other things than they did pre-COVID-19 (i.e., fewer restaurant meals and movie tickets). One interviewee explained how online sales in particular created unexpected sales tax outcomes:

> A lot of [the regional variation in impact] might be dealing with the online sales, because online sales tax is distributed differently….[If you go] down to your corner store and buying something, that sales tax stays in that city or county where it's made, where the purchase is made. But for online sales, it's where it's processed. So say you live in Oakland, and you get online to order something, and that [order] is processed down in Ontario. So Ontario [gets the] Bradley-Burns sales tax, not Oakland.

### Sales and Use Taxes

California has a complex system of "sales and use" taxes collected at the time consumers purchase goods and services. While a consumer sees only a total sales tax rate, that rate will be the sum of several different taxes. In addition to the statewide base tax rate of 7.25% collected throughout California, voters in many counties and some cities have approved additional "local-option sales taxes." These voter-approved supplemental sales taxes are one of the largest revenue generators for transportation.

A key complication with sales and use taxes is the question of how the proceeds are allocated to specific local governments. For example, in some cases the revenue is allocated to the community where the seller's headquarters is located, in other cases to the location of a warehouse from which merchandise is sent, and in yet others to the community where the buyer lives.

The massive changes in where consumers purchased goods and other retail spending during 2020 led to corresponding changes in sales of taxable goods and services. Fairlie and Fossen found that total taxable sales in California for the second quarter of 2020 were 17.5% lower than sales for the same period in 2019. Business categories that saw losses of more than 75% compared to the previous year included accommodations and arts, entertainment, and recreation. Sales rose for other categories such as groceries, building materials and supplies, and non-store retailers.

*Sources:* California Department of Tax and Fee Administration, "Sales and Use Tax in California," https://www.cdtfa.ca.gov/taxes-and-fees/sutprograms.htm; CaliforniaCityFinance.com, "Local Sales and Use Tax 'Sourcing': Rules for Rate and Allocation" (February 12, 2018), http://www.californiacityfinance.com/

At the positive end of the spectrum, an interviewee described an ex-urban county flush with revenue:

> Sales tax revenue was up because people are buying toys instead of travelling and dining out…. The people who still have jobs have pent up demand, extra money, and so instead of travelling and doing other things, they appear to be buying toys and other things.

A similarly positive view came from an interviewee describing an urban community:

> Believe it or not, the first data reported for the first few months of COVID, when we expected a six percent decline [in sales tax], it's actually showed an increase….[Some] people trying to explain that say some [of it is because of] the way California reports sales taxes; some others say maybe people [are] buying too much on the internet.

At the other end of the continuum were interviewees facing major decreases in revenue. One interviewee from an urban area explained that COVID-19 had created a worrying drop in sales tax revenue:

> It really has changed the way we live here, and that should be no surprise. We are heavily dependent on sales tax revenue. Obviously, when you have a stay-at-home order that closes all the businesses, that limits local consumer spending. So, we have seen a very, very sharp decline in sales tax revenue….With 15% of our sales tax revenue coming from restaurants, then you can see a huge impact, just with restaurants being closed. Even the takeout, which still exists in some restaurants, really is a fraction of what we would get in sales tax revenues. So, it's had a huge impact on how we do business through the sales tax.

# V. CONCLUSION

The COVID-19 pandemic swept across the globe in a short period of time, impacting mobility patterns and economic activity in unprecedented ways that appeared to impact transportation revenues significantly. The findings presented here draw upon in-depth interviews with local transportation budget experts to show how experts perceived these changes to be impacting critical transportation revenue streams in California. The interviews were conducted at a point when the pandemic had been ongoing for close to a year, but there was still relatively little firm data on revenue impacts. This concluding chapter highlights six key findings from the interviews, and for each we suggest implications for policymakers at both the local and state levels.

**1. There is no simple story about how COVID-19 impacted local transportation revenues.** The interviewees' comments revealed how greatly the impacts appeared to vary from place to place, by mode, and by type of local government. For example, interviewees from large cities described being hard hit by lost economic activity in their downtowns once many office workers shifted to remote work. Conversely, other interviewees described rural areas with increased sales taxes, as their residents spent more money locally or shopped online. Looking modally, public transit operations were particularly hard hit, while funding for streets and roads remained more or less stable in many locations. Finally, some revenue sources like vehicle registration fees and property-based revenue remained relatively stable through the first year of the pandemic, even if others changed rapidly in response to the major disruptions to typical patterns of travel behavior and economic activity.

The diversity of revenue impacts suggests implications for policy change at both the state and local levels. Local entities may wish to prepare for future unanticipated shocks to transportation budgets by packaging revenue from a set of taxes and fees that draw on different tax bases, such as property and vehicle ownership, retail sales, and transportation user fees. At the state level, policies to support local transportation need to be mindful of planning for revenue streams that support the variety of different local entities and modes. One strategy for consideration at the state level is to expand local governments' powers to impose taxes and fees, so that local communities can choose revenue sources appropriate to their own capacities and constraints.

**2. Public transit was the mode that experienced the most drastic change in transportation revenues.** Teleworking, business and school closures, event cancellations, social distancing recommendations, and fear of contracting coronavirus in public transit resulted in a sharp decline in transit ridership. This lost ridership translated to lost fare revenues. Since many transit systems in California use directly generated revenues such as passenger fares and parking fees to cover a significant portion of their operating expenses, the sharp decline in transit ridership created a financial crisis right when transit agencies also faced new expenses related to COVID-19, such as frequent cleaning to disinfect surfaces, providing personal protective equipment, and, in some busy locations, running more frequent service in order to permit social distancing on the vehicles.

The interviewees' observations that transit was particularly challenged suggests that both local and state officials should be mindful of preparing strategies to assist public transit in times of economic crisis. Not only do transit operators often have fewer options for raising revenue directly (beyond fares), but they require large funding streams to continue operating. A local county road agency can keep its road system functioning at a basic level for years, even if revenue drops suddenly, because short-term maintenance needs are a relatively small part of the budget, and facilities can remain open for some time even when maintenance is deferred. By contrast, transit operators must cover very high operational costs on an ongoing basis, so loss of revenue translates directly to service cuts.

**3. Federal coronavirus relief funds allowed essential services to continue through the pandemic.** Virtually every interviewee described federal funds from the CARES and CRSS Acts as essential. It was only because of these new funds that local governments were for the most part able to keep offering public transit service and perform basic road maintenance and management. Because local governments (and the state) cannot deficit spend, one of their only options for responding to a major revenue shortfall is to reduce the size of the workforce and scale back services offered. The federal government, at the other extreme, directly operates and maintains virtually no transportation services, yet does have the ability to deficit spend in the face of emergency.

These findings highlight the importance of an ongoing federal commitment to provide additional revenue for local transportation needs during periods of extraordinary economic change, just as the federal government offers funding to communities recovering from natural disasters like floods and fires.

**4. COVID-19 spotlighted long-term challenges with motor fuel taxes.** Although the interviewees had feared a major drop in state and federal fuel tax revenues, by winter of 2021 many were anticipating an imminent return to pre-pandemic VMT and thus only modest reductions in fuel tax revenue. Paradoxically, though, this experience with a brief crash in fuel purchases and the corresponding drop in fuel tax revenue starkly highlighted for some interviewees just how critical it will be for California to reduce its reliance on fuel tax revenues in anticipation of rapid growth in the number of electric or other zero-emission vehicles.

Since local entities in California do not directly impose fuel taxes, the burden will fall to the state and federal governments to plan for new revenue to replace dwindling fuel taxes (unless they wish to let far greater responsibility for transportation revenue devolve to local jurisdictions).

**5. COVID-19 spotlighted long-term challenges with the distribution of sales tax revenue from online purchases.** A key observation shared by numerous interviewees was how the shift to online purchases created a situation where some communities were reaping new revenues at the expense of other communities. The dramatic rise in online sales brought into sharp relief the complexity of how sales tax revenues are allocated to local governments in a world of online spending. The sales tax revenue from online purchases is sometimes allocated to the place where the retailer has its headquarters, sometimes to the location of a warehouse, and sometimes to the place where the consumer lives. Online shopping has thus created huge windfalls for some communities that host warehouses and corporate headquarters, but drained revenue away from the locations where consumers live and therefore demand services, including transportation. These complexities of sales tax revenue allocation have been the subject of concern for some time, but COVID-19 revealed this challenge more starkly.

For local governments, the only effective response to the problem of shifting sales tax allocations may be to participate in the zero-sum game of luring large sales tax-generating activities into their own jurisdictions. State action is critical to identifying a more effective and sustainable response to the problem. Policymakers may wish to focus in the near-term on rationalizing state law to more equitably distribute sales tax revenue across communities.

**6. The shift to telework had an enormous impact on transportation budgets by changing the location of taxable activities and, thus, reallocating revenue earned to different local jurisdictions.** The interviewees described revenue moving from one jurisdiction to another for two reasons: (1) consumers spent more money near their homes and none near their former workplaces, and (2) some people relocated their homes once teleworking freed them to live far from the office. The interviewees said that they had not seen these implications of teleworking as their immediate concern when the COVID-19 crisis began, yet by the time of the interviews, many saw this as a key factor influencing their transportation budgets (some for the worse but others for the better).

Should the teleworking trend continue, local governments that lost economic activity for these reasons may need to plan for attracting new land uses and types of activity that generate revenue, instead of hoping to regain lost activities that previously generated revenue. At the state level, policymakers may wish to consider whether different formulas are needed for allocating SB1 or other transportation funds, in order to preserve essential services and infrastructure.

# APPENDIX: INTERVIEW METHODOLOGY DETAILS

We conducted interviews with 34 experts in local transportation funding who represented cities, counties, regional agencies, and the State of California, as well as consultants with expertise in local government funding (see Table 2). The interviewees were selected to represent the diversity of California local government transportation needs in terms of population size, land-use type (urban, suburban, rural), region of the state, travel modes, and reliance on traditional vs. innovative funding sources.

The interviews were conducted between December 22, 2020, and March 5, 2021. During this period, most interviewees had not yet received confirmation of 2020 receipts for the taxes and fees upon which they relied, and it was also unclear when the COVID-19 crisis would ease significantly enough to permit more typical travel activity patterns. Travel mileage was modestly below pre-COVID-19 levels, and transit ridership was still severely reduced. In addition, the Biden administration had not yet released its “American Jobs Plan” calling for hundreds of billions of dollars of new transportation infrastructure over eight years, to be funded by increases in the corporate tax rate.

**Table 2. The Experts Interviewed**

| Organization | Position | Name | Population (2019) | Road Miles (2019) |
|---|---|---|---|---|
| Counties | | | | |
| Santa Cruz County | Deputy CAO and Director of Public Works | Matt Machado | 273,213 | 1,064 |
| Trinity County | Director, Department of Transportation | Rick Tippett | 12,285 | 1,884 |
| Stanislaus County | Director of Public Works | Dave Leamon | 550,660 | 3,076 |
| San Diego County | Director of Planning & Development Services | Mark Wardlaw | 3,338,330 | 9,102 |
| County of Santa Barbara | Public Works Director | Scott McGolpin | 446,499 | 1,986 |
| Santa Clara Valley Transportation Authority | Programming & Grants Manager | Marcella Rensi | 1,927,852 | 4,655 |
| Humboldt County | Public Works Director | Thomas K. Mattson | 135,558 | 2,099 |
| San Francisco County Transportation Authority | Executive Director | Tilly Chang | 881,549 | 971 |
| Humboldt County Council of Governments | Senior Planner | Oona Smith | 135,558 | 2,099 |
| Cities | | | | |
| City of Oakland | Director, OakDOT | Ryan Russo | 433,031 | 826 |
| City of Long Beach | Special Projects Officer - Public Works \| Transportation Mobility Bureau | Luke Klipp | 462,628 | 859 |
| City of Mountain View | Public Works Director | Dawn Cameron | 82,739 | 141 |
| City of San Francisco | Executive Director, Municipal Transportation Agency | Jeffrey Tumlin | 881,549 | 971 |
| City of Los Angeles | General Manager, Department of Transportation | Seleta J. Reynolds | 3,979,579 | 6,628 |
| City of San Jose | Director of Transportation | John Ristow | 1,021,795 | 1,938 |
| City of Modesto | Infrastructure Program Financing Supervisor | Peter Ibrahim | 215,196 | 620 |
| City of Sacramento | Public Works Director | Ryan Moore | 513,624 | 1,387 |
| City of Bakersfield | Public Works Director | Nick Fidler | 384,145 | 1,305 |
| Anonymous | | Anonymous | | |

**Table 2, continued**

| Organization | Position | Name |
|---|---|---|
| Regions and state | | |
| Metropolitan Transportation Commission | Executive Director | Therese McMillan |
| | Director, Funding Policy and Programs | Theresa Romell |
| | Assistant Director, Major Plans | David Vautin |
| Gateway Cities Council of Governments | Executive Director | Nancy Pfeffer |
| SANDAG | Executive Director | Hasan Ikrata |
| CTC Road Charge Technical Advisory Council | Member | Susan Ornelas |
| California State Transportation Agency | Undersecretary | Elissa Konove |
| Consulting and advocacy | | |
| California State Association of Counties | Legislative Director, Housing, Land-Use, and Transportation | Christopher A. Lee |
| CaliforniaCityFinance.com | Owner | Michael Coleman |
| Platinum Advisors | Legislative Advocate | Steven T. Wallauch |
| CALCOG | Executive Director | Bill Higgins |
| NCE | Principal/Vice President | Margot Yapp |
| Stuart Cohen Strategies | Principal | Stuart Cohen |
| NBS | Managing Director | Tim Seufert |
| Kosmont Companies | Chairman and CEO | Larry J. Kosmont |

*Sources:* Population data from U.S. Census, “Census QuickFacts,” https://www.census.gov/quickfacts/fact/table/US/PST045219 (accessed March 10, 2021); road miles data from Caltrans, “Public Road Data 2019,” https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/california-public-road-data/prd-2019-a11y.pdf (accessed March 10, 2021).

The researchers conducted the interviews over Zoom using a semi-structured interview guide. The interviews explored a range of transportation funding issues beyond just the material discussed in this report, covering six key questions:

1. In recent years, what sources of transportation revenue have local governments primarily relied on to provide transportation services to the community?

2. How has COVID-19 impacted transportation revenues in local governments?

3. How do you anticipate that COVID-19 will impact transportation revenues in local governments in the coming five years?

4. What level of government do you think should be predominantly responsible for raising revenue to pay for local government transportation needs? Should this come from taxes and fees imposed by cities and counties, regional bodies, the state, or the federal government?

5. What could the state and federal government do to help local governments raise adequate transportation revenue in the coming years?

6. Are there new approaches you think local governments could adopt to raise revenues for transportation?

The interviews were audio recorded and professionally transcribed, so that a full transcript was available for analysis. We developed a set of themes for analysis using a mix of deductive and inductive reasoning. Each transcript was coded by one team member, and a second team member reviewed the coding to ensure accuracy.

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