



Appendix-18.6

Use of Revenues in a Road Charge System

Use of Revenues in a Road Charge System

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Road Charge Communications Plan for Pre-Pilot Test Period

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1. Introduction

Section 3092 (a) of Senate Bill (SB) 1077 (2014) directs the California State Transportation Agency (CalSTA) to include in its final report to the appropriate policy and fiscal committees of the Legislature on the Road Charge Pilot Program, among other things, “a discussion of ... use of revenues”. Although the pilot itself will not collect real revenue, the policy question of the use of potential revenues must be resolved as part of the deployment of any prospective statewide road charge system. For California, the potential shift from indirect user fees (fuel excise taxes) to direct user fees (road charges) represents an opportunity to examine alternatives for use of revenues. Moreover, given the breadth of practical experiences with allocating revenues to roads, it is instructive to examine how any potential changes in approach may perform relative to current practice.

In other states such as Oregon and Washington, road charging policy has been developed independently from consideration of use of revenues. This was deliberate, largely to avoid introducing further complexity to the research and policy development process for road charging. In California, however, the Legislature has specifically asked CalSTA to address and recommend how road charge revenues should be used in a potential live, statewide program.

Use of transportation revenues is a complex policy topic. Current practice is governed by statutes and regulations at all levels of government that reflect policy choices by elected officials and, in some cases, voters through referenda. Proposed changes to current practice could likewise arise from the local, state, or federal levels. Although we can describe the current use of revenues, and we can imagine alternatives that could be proposed, we can only examine the performance of alternative approaches hypothetically. With limited data to describe and predict cause and effect definitively, we must rely on case studies from other jurisdictions and models (qualitative and quantitative) to infer outcomes using logic. The results of this analysis are not opinions or arguments; rather, they are an attempt to paint the full range of possible outcomes of a policy choice about use of revenues in the face of uncertainty.

The purpose of this paper is to provide inputs to the California Department of Transportation (Caltrans) and by extension CalSTA to inform the discussion and possible recommendations in the final report. Specific objectives of this paper include the following:

- ▶ Provide alternatives and analysis of how those alternatives may perform as inputs to CalSTA and Caltrans in the preparation of the Road Charge Pilot Program final report
- ▶ Serve as a source of reliable information and well-rounded analysis about the full range of impacts of varying uses of road charge revenues for agency executives and policy decision makers (legislators) to consult in formulating prospective road charging policy

This paper develops and analyzes alternative answers to the question of how to use road charge revenues. First, we present a summary of the current sources and uses of road transportation funding in California as a foundation for understanding the current context. We conclude that the starting point or status quo for road charge revenue would be to use them just as fuel excise taxes are used today in California (i.e., largely for road transportation purposes). Next, we present a description and analysis of a range of alternative hypothetical uses of road charge revenue that differ from the status quo. Finally, we provide summary remarks on how this analysis could be used in the CalSTA final report for the Road Charge Pilot Program.



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2. Sources and Uses of Road Transportation Revenue in California

A variety of revenue sources currently fund the construction, operation, and maintenance of roads in California, including funds from federal, state, and local taxes and user fees. In general, these sources can be characterized as follows.

- ▶ **Federal.** Congress provides funds to California through the Federal Highway Trust Fund (HTF) and occasionally through special appropriations such as the American Recovery & Reinvestment Act of 2009 (ARRA, popularly known as the “stimulus package”). The source of funds for the HTF is the federal gasoline tax of 18.4 cents per gallon; federal diesel tax of 24.4 cents per gallon; federal taxes on trucks, trailers, and tires; and other miscellaneous taxes. Over the past decade, Congress has also allocated about \$70 billion in general funds to the HTF to keep it solvent.¹ Congress determines California’s share of federal revenues for road transportation based on spending formulas and earmarks negotiated as part of each transportation spending authorization bill.
- ▶ **State.** A variety of statewide taxes and user fees is used to fund road transportation in California. These include excise taxes on gasoline and diesel and vehicle registration fees (including weight fees on commercial vehicles).
- ▶ **Local.** Many local authorities in California have the authority to generate funds to maintain local streets and roads. Sources of funding include tolls, property taxes, local sales taxes, and 0.25% of statewide sales taxes on gasoline.

For purposes of this paper, we focus on state revenues, that is, revenues enacted by the State Legislature and collected by the State of California or an agency thereof. We begin with a general typology of potential sources of road funding, including a description of whether and how each is used in California to fund roads. Next, we summarize how the primary source of road revenues, fuel excise taxes, is spent.

2.1. Sources of road revenue in California

A critical aspect of tax policy – especially use taxes – is to ensure a strong nexus between the object of taxation and the use of the proceeds. The weaker the nexus between sources and uses, the more vulnerable the tax (or expenditure) will be in the public’s view, and vice versa. This section describes transportation-related taxes (sources) and their actual uses, including for cases where current law specifies that funds be spent on non-roadway projects.

2.1.1. Fuel excise taxes

In California, fuel excise taxes on gasoline and diesel have historically been dedicated to road maintenance, repairs, and construction. However, there is no direct consideration of road expenditure needs or trends in setting tax rates. Rates are set by the Legislature. The base excise tax on gasoline has not changed in over 20 years. In 2010, the Fuel Tax Swap implemented a “price-based excise tax” that is set by the Board of Equalization to be generate the same revenue that would have been generated by the previously-imposed 6%

¹ Source: <http://nationalaglawcenter.org/wp-content/uploads/assets/crs/RL30304.pdf>



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statewide sales tax on gasoline.² With recent declines in gas prices, the price-based rate and revenues have correspondingly dropped.

Nonetheless, California and other U.S. states are somewhat unusual in that fuel taxes are dedicated to roads. In the developed world they are joined only by Australia and New Zealand, countries that also hypothecate or “ring fence” gas tax revenues and use them for transportation purposes. By contrast, most European countries simply tax fuel either as a component of environmental charging (as in the carbon tax in Ireland) or part of the suite of general taxes.

Despite recent and expected future gains in vehicle fuel economy, there remains a link between gasoline usage and driving, which makes the fuel excise tax an indirect user fee.

2.1.2. Vehicle-based fees

Vehicle-based fees have long been considered as access charges for the use of the public road network. For heavy vehicles, they have been set to seek to recover the fixed and variable costs related to such vehicles’ use of the road network. In California, there are three types of vehicle-based fees as follows:

- ▶ Registration fees for motor vehicles, including weight-based registration fees for commercial vehicles including heavy trucks that vary by gross vehicle weight
- ▶ Motor vehicle license fees that are assessed as a percentage of the value of the vehicle

Vehicle-based fees support transportation expenditures indirectly, as follows:

- ▶ Registration fees are used primarily to fund the Department of Motor Vehicles (DMV) and California Highway Patrol (CHP).
- ▶ Weight fees are applied, after some accounting, to service debt on transportation bonds.
- ▶ Motor vehicle license fees provide funding for public safety expenditures of local governments.

2.1.3. Sales taxes

In California, there are several types of sales taxes. First, the state sales tax generates revenue for the general fund – these proceeds do not support transportation. Secondly, local authorities (counties) have the ability to levy sales taxes whose proceeds are dedicated to transportation projects. Finally, the state treats sales taxes on fuels differently both in tax rate and in use of revenues, some of which support transportation.

Sales tax on gasoline is 2.25%. Only 0.25% of the gasoline sales tax goes to local transportation, while the remaining proceeds go to the general fund just like sales taxes on other products. The sales tax is inclusive of the price of fuel, including the excise taxes. Although there is some criticism that this comprises a “tax upon a tax,” if fuel excise taxes are considered to be a charge for road use, then the sales tax on it constitutes a tax on payment of a service (use of the road network). This raises a question of whether road charges should be subject to sales taxes.

² Refer to the Board of Equalization website’s Frequently Asked Questions on the 2010 Fuel Tax Swap: <http://www.boe.ca.gov/sutax/gasswapfaq.htm>



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Sales tax on diesel is 9.25%. Unlike gasoline, the sales tax on diesel is applied on the price of fuel, exclusive of the excise tax (currently 16 cents per gallon). Proceeds from this source of revenue are devoted primarily to public transportation.

2.1.4. Driver license fees

Driver license fees generally do not reflect either access to or use of the road network, and tend to be set to recover administrative costs of issuing and managing the driver licensing databases, rather than any road related expenditure. This is also the case in California, where revenues from driver license fees primarily fund the DMV.

2.1.5. Tolls

Tolls in California are collected by a variety of local authorities. As with tolling most elsewhere in the world, tolls collected in California are generally dedicated to maintenance, operations, preservation, and debt service of the facility for which they are collected. This is a form of hypothecation or ring fencing at the facility level. Toll revenues are further ring-fenced organizationally to the special-purpose entities that collect them and are not used for statewide funding.

2.1.6. Property and income taxes

Property taxes are often the largest single tax paid by Californians, but they are exclusively for local governments. In fact, property taxes are distributed to over 4,000 county, city, and other local government entities for a variety of public services, primarily schools.³ Included in that distribution are funds to counties and cities that are used for transportation improvements, including street and road maintenance, traffic signals, signage, and other related infrastructure. In short, property taxes support some local transportation uses, but are entirely local in nature.

By direct contrast, state income taxes go to the state general fund and are used for purposes other than transportation.

2.1.7. Summary

Fuel excise taxes are the principal source of statewide revenue used for roads. All other prospective or seemingly related sources of transportation revenue are used to fund DMV, public safety (both local and CHP), local streets and roads, public transportation, transportation debt service, or the general fund. This is convenient for the analysis of potential uses of road charge revenues, which is proposed as a potential replacement for fuel excise taxes.

2.2. Uses of road revenue in California

Focusing on fuel excise taxes as the primary source of statewide road funding in California, the question becomes: how are those revenues used, namely, how does the state distribute fuel excise tax revenues presently? The answer to this question depends on the precise nature of the question. Distribution of revenue could refer to any of the following:

³ Source: <http://www.lao.ca.gov/reports/2012/tax/property-tax-primer-112912.aspx>



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- ▶ Distribution by type of spending (e.g., maintenance, preservation, safety, capacity).
- ▶ Distribution by geography (e.g., rural, urban, suburban).
- ▶ Distribution by type of road (e.g., Interstate, arterial, collector).

For this paper, we focus our analysis on distribution by geography, with particular emphasis on how revenues are distributed relative to where they are collected and the impact of this distribution on rural areas.

Currently, state fuel excise tax revenues are distributed to the maintenance, preservation, and construction of roads and highways across the state. This includes spending directly by Caltrans on the state highway system as well as a substantial portion of revenues allocated to local entities, including counties and cities. After deducting collection costs, exemptions, and refunds, state fuel excise tax revenues are distributed as follows:

- ▶ Approximately 30% to cities and counties for transportation purposes
- ▶ Approximately 70% to statewide transportation uses (primarily to Caltrans)

The apportionments to cities and counties are based on population, lane-miles, and registered vehicles, but not actual travel. As a result, it is not surprising that less-densely populated counties (who have a much higher ratio of lane-miles to miles traveled than urban counties) generally receive more revenue than they produce. Figure 1 below illustrates the correlation between degree of rural travel in a county and its funding from the Highway Users Tax Account (HUTA) based on 2014 data.

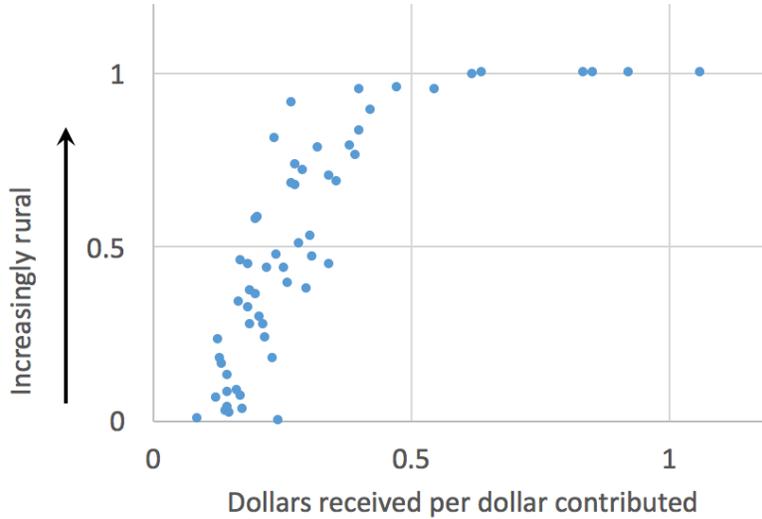
- ▶ The vertical axis is defined as the proportion of miles traveled in rural areas of the county relative to all miles traveled. For example, in a county with a rural factor of 1.0, all miles driven in that county are driven in rural areas. For a county with a rural factor of 0.5, half of the miles are driven in rural areas, and half in urban areas.
- ▶ The horizontal axis is the proportion of total estimated fuel tax revenue in a county that would be provided by the county apportionments from the HUTA. For example, a county with a funding factor of 1.0 receives exactly as much funding from its HUTA county apportionment as it would generate in fuel excise taxes for miles driven within the county. Highways in all counties also receive funding directly from the state for road works, which is not reflected in the figure below. Cities also receive direct funding. Hence, with one exception, all counties have funding factors well below 1.0.

The correlation between rural status and funding is clear: the more rural the county, the more funding that is received relative to funds generated. For purposes of this analysis, to simplify the findings, we assume all miles driven in the state are at the same fuel economy regardless of county. In reality there will be variations, but we do not believe they are large enough to materially impact the results shown below.



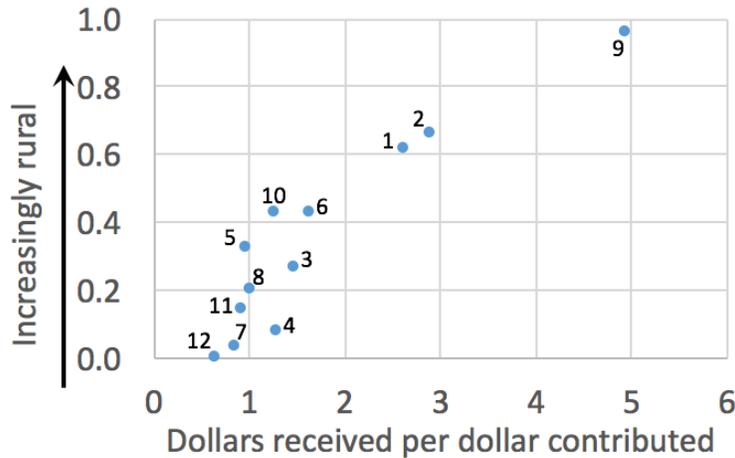
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Figure 1: Rural counties receive more road funding per dollar generated



When the analysis is expanded to include state spending, the shape of the correlation does not change. Unfortunately, state-level spending is not tracked by county, but rather by Caltrans District, so the analysis is limited to the 12 Districts, rather than by county. Nonetheless, the correlation is similar.

Figure 2: Rural Caltrans Districts receive more road funding per dollar generated



Out of the 12 Caltrans Districts, four have a funding factor below 1.0, which means they effectively “subsidize” the other 8 districts. As shown in the chart, those four districts also have rural factors below 0.4. By contrast, the three most rural districts have funding factors above 2.5, which means they receive at least 2.5 times as much funding from fuel excise tax revenues as they contribute in payments.

The conclusions of this analysis include the following:



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- ▶ Current distribution of state fuel excise taxes is based on a variety of factors, including statutory formulas that include population, registered vehicles, and lane-miles of highways, but not actual road usage. Population and registered vehicles serve as a proxy for road usage.
- ▶ Generally speaking, rural cities, counties, and Caltrans Districts receive more funding than is generated by motorists within them (either through fuel taxes or, hypothetically, through road charges). This is not surprising given the low traffic volumes and high fixed costs of road construction and maintenance required for rural connectivity. This situation is not being presented to expose or criticize the geographic distribution of funds; in fact, this situation is common in many states and is necessary to maintaining a statewide highway system. But politically it can present challenges to communicate given the disparate needs of urban versus rural areas, and their disparate abilities to be self-sufficient for funding transportation.
- ▶ Switching from a fuel tax to a road charge by itself does not change the above factors, but it could make the reality of cross-subsidization more noticeable. Rural residents may not think of the fuel used on their highways in terms of the tax revenue it generates for their road systems, but a road charge system would make that connection between usage and revenue much more apparent.



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3. Alternative Uses of Road Charge Revenue

The question of how to use of road charge revenues is fundamentally a policy question about revenues and spending. It is a policy question because the answer depends ultimately on a political decision, which can be informed by analyzing public policy alternatives using political economy, public opinion, existing law, and existing practices as inputs. It is a question about both revenues and spending because it is framed specifically about *road charge* revenues, which invites consideration of what is unique about road charging apart from other sources of transportation revenue or government revenue generally.

The principle of user pays tends to support funding roads with revenue sources that are unique to accessing and using the road network and that do not have another primary purpose for their existence. Like fuel taxes, road charges fall into this category.

The default option for use of road charge revenues is to make no change to current broad use of revenues. In other words, if road charges are a replacement for fuel excise taxes, then their use should likewise follow the current use of fuel excise taxes. There are, of course, other alternatives, ranging from minor adjustments to major reforms in how road transportation investments are allocated. This section introduces and provides background to the concept of the State as the transportation investment decision maker and lays out five general scenarios for using road charge revenues, including potential impacts of each scenario:

- ▶ No change: Statewide highway uses
- ▶ Minor adjustments: Statewide highway uses with some changes to allocation formulas to reflect usage
- ▶ Major adjustments: Surface transportation purposes generally (e.g. public transit, railroad, pedestrian and cycling infrastructure)
- ▶ Major reform: Return to source (e.g., to county or facility where miles driven)
- ▶ Major reform: General fund for transportation

This analysis does not consider legal factors such as the constitutionality of dedicating certain revenues to certain uses. However, it is worth noting that Article 19, Section 3 of the California Constitution requires revenues from fees and taxes imposed on “vehicles or their use or operation” to be used for law enforcement, roads, and transit. A straightforward reading means that road charges would likely be excluded from general fund (the fifth scenario), but the other four scenarios would very likely be acceptable constitutionally.

3.1. Background: The State as the transportation investment decision maker

State governments and the federal government have historically been the dominant determinants of highway transportation investment. The “state” as the preferred geographic unit of transportation investment decision making in the U.S. is a product of both political and financial history. Traditionally, states have provided the greatest amount of transportation services. During the early decades of the national highway planning efforts, for example, states dominated the federal government’s efforts to determine highway locations, routes, and order of construction. Also, for most of the 20th century, states collected fuel taxes to fund transportation investments.⁴ As owners of fuel tax revenue streams, the states required a process by which to determine how

⁴ Transportation Research Board (TRB) (2006). Special Report 285: The Fuel Tax and Alternatives for Transportation Funding. Washington, DC: Transportation Research Board.



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to disburse revenues back to the transportation system. These factors can be understood as the historical influences that have led to the role of today's statewide organizations (largely state DOTs) as strong actors in the determination of transportation investments.

Three factors have influenced the spatial scale of investment decision making for surface transportation. First, the technology of transportation (infrastructure and vehicles) has continually changed the spatial scales across which people can travel, which has led to continual changes to the scales which are viewed as important or appropriate for planning investments. Second, availability of data, improved analytical techniques, and computational resources have enabled transportation analysis at a variety of spatial scales. Finally, revenues collected from (and for) the transportation system have empowered organizations with resources, and therefore authority, over investment decision making.

- ▶ Vehicle and infrastructure technology. Early long-distance travel methods, from wagons to trains, enabled increasingly dispersed settlement patterns, while the automobile enabled suburbanization of cities. As the technology of surface transportation has evolved, so have notions of what constitutes the spatial scale of a community. Surface transportation organizations today are both modally and spatially oriented, in that they tend to deal with one mode of travel covering a fixed geography, whether local, metropolitan/regional, state, or national in scale.
- ▶ Transportation system data. Modern transportation planning dates to the technical studies of transportation demand in urban areas of the late 1950s, such as the Chicago and Detroit Metropolitan Area Transportation Studies. The metropolitan scale was appropriate for the application of large-scale alternative future visions of a regional highway network and of the mathematical models that had been developed to estimate travel demand on urban highways (e.g., Meyer & Miller, 2001). The adoption of the metropolitan scale led to the need for metropolitan-wide data collection efforts—for example, traveler behavior surveys. Increasingly, state DOTs are adopting statewide models as the ability to collect and analyze data at the statewide scale grows.
- ▶ Revenue. Early highways were privately built with local financing secured by toll revenues. Even today, toll facilities in the U.S. tend to be operated by local entities, often with special jurisdictions. “Free” highway facilities financed by indirect user fees such as fuel excise taxes, on the other hand, tend to be owned and operated by state governments. This corroborates the conclusions of Levinson, whose theoretical work examined the relationship between the size of a jurisdiction and its choice of transportation infrastructure revenue sources. He concluded that the likelihood of financing highways through direct user fees (in the case of his study, tolls) increases as the size of jurisdictions decreases; likewise, the likelihood of financing highways through general taxes increases as the size of jurisdictions increases.⁵

The linkage between revenue collection and geographic scale of investment decision making is indirect but important. As the cost and efficiency of direct user fees such as road charge improve, they enable more comprehensive direct charging of motorists. A fundamental task for strategists is to reevaluate existing organizations and determine the appropriate geographic scales at which to administer increasingly comprehensive direct charging schemes.

⁵ Levinson, D. (1997). *On Whom the Toll Falls: A Model of Network Financing*, Dissertation, University of California, Berkeley



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Road charging is a major step toward direct user fees for motorists, but it likewise represents an opportunity to examine the linkage to investment decision making. This is because road charging contains not only revenue data but also direct information about usage of the road network that does not exist in fuel taxation. The following sections present five alternative approaches that involve using road charges to change the way investment decisions regarding surface transportation are made. These approaches are presented without bias; that is, there is no inherent preference or regard for any of these approaches. Rather, the purpose is to prepare CalSTA and Caltrans for the types of proposals that could be made, to be able to predict and anticipate the types of arguments that could be made to support them, and be able to analyze and defend one of these approaches (or a combination thereof) in its recommendations to the Legislature.

3.2. No change: Statewide highway uses

The first and default option is the status quo: preserve the current use of revenues for road charge that already exists for fuel excise taxes. This approach is the simplest both politically and administratively as it does not require any change. The source of revenue changes (i.e., from fuel tax to road charge), but the budgeting processes for depositing funds into various accounts and making them available for transportation spending would remain unchanged.

At the same time, the status quo could also be a risky approach. Shifting from a passive, hidden fuel tax to a visible road charge that requires drivers to take action to comply may likewise motivate greater interest in how revenues are spent, which will be accompanied by challenges to the status quo. Public comment and media monitoring in the Road Charge Pilot Program have already revealed widespread dissatisfaction with transportation spending methodologies (even if accompanied by misunderstanding or limited understanding). If the revenue source changes, questions will inevitably arise about changing the way revenues are used as well.



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Potential Arguments in Favor	Potential Arguments Against
Retains focus on revenue as the primary policy challenge to address	Potential to exacerbate and highlight the inequity between urban and rural areas (as shown, rural areas presently are funded much higher than they can produce in road charges) ⁶
Preserves status quo; if road charge proves a more sustainable revenue source, current recipients of fuel excise tax revenues would receive more than they do under current policy	Does not take advantage of information contained from road charging revenue collection to inform investment decisions
	Lose opportunity to tie per-mile rate to costs and expenditure needs
	Missed opportunity to examine current practices for improvements to allocation decisions and opportunities to enhance economic inefficiencies of transportation spending

3.3. Statewide highway uses with some changes to formulas to reflect usage

Taking advantage of the rich information contained in aggregated road charge data, the State could choose to adopt some of that information to help inform its current investment decision making analysis and processes. This represents a minor change from the status quo as it preserves the fundamental roles and funding levels of Caltrans, other state agencies, and local agencies. At the same time, it acknowledges that process improvements could be explored in how funds are spent by taking advantage of new information that was not previously available.

⁶ In dollar terms, urban areas receive much more funding than rural areas in aggregate. However, on a per-capita basis, rural areas presently receive more funding, and the amount is much larger than they could contribute in a “return to source” approach to road funding.



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Potential Arguments in Favor	Potential Arguments Against
Incorporate usage data into formulas for spending by location or road type to enhance maintenance and capital expansion decision making	Potential fallout due to changes in formula that could create perceived winners and losers (in terms of revenues)
Better align resource to needs, taking account of usage as a factor in road wear	Lose opportunity to tie per-mile rate to costs and expenditure needs
Improve efficiency of spending, mobility outcomes	

3.4. Surface transportation purposes generally

Some surface transportation advocates promote the concept of multi-modal investment decisions, that is, considering roads, rail, and non-motorized forms of transportation as part of the same analysis and decision making process, rather than as separate analyses with distinct budgets and operating rules. This could be done at the state and/or local levels. For this hypothetical approach, we assume multi-modal investment decision making at the state level as a possible use for road charge revenues.

Potential Arguments in Favor	Potential Arguments Against
Could invite support of stakeholder groups advocating for rail and non-motorized modes	Potential fallout especially from road stakeholders and motorists
Helps mitigate criticism that removing gas tax removes incentive for getting off fossil fuels since road charge revenues could be used to make investments in non-motorized modes that reduce emissions	Would require higher rates to generate sufficient revenue to address needs of multiple modes
May allow for more holistic trade-off analysis when considering capital spending alternatives on different infrastructure modes (e.g., roads, rail, highways, non-motorized)	Likely to exacerbate cross-subsidies and risks of poor quality spending
	Pressure for other taxes being reduced to reflect lesser contribution to other modes
	If used to fund all modes, proportionally fewer funds from road charge would be available for roads, leading to a risk of underinvestment and greater backlogs of maintenance needs
	Would require a clear restructured priority process for comingling funds from across modes and



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	potentially state and local funds together, as several programs are required by current State and Federal statutes to have a set-aside match in order to use all funds, such as the Safe Routes to School Program.
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3.5. Return to source

Many comments from the general public during the TAC Phase of California’s Road Charge Pilot Program expressed support for the notion of “return to source.” Put simply, return to source is the notion that road charge revenues should be spent where they were generated. The precise geographic scale of such ring-fencing remains nebulous: should revenues be returned to the segment of road they were generated on, the county, the District, or some other geography? The concept has some merit, but the advantages and disadvantages change as the boundary is drawn larger or small. For this example, we consider return to source approximately at the road segment level, with funds and spending decisions made locally.

Potential Arguments in Favor	Potential Arguments Against
Potential to better align resource to needs, although with less flexibility	Could damage rural connectivity since funds generated are not sufficient to maintain a full network
Focus investments on congested bottlenecks where the majority of revenues would be generated	Decreased investment in transportation in some rural areas, as sparsely traveled areas of the network cannot muster sufficient resources from road charge alone to make meaningful investments in roadways
Increase level of spending in urban areas which could improve likelihood of addressing congestion and mobility challenges	Loss of long-distance or corridor perspectives including linkages with neighboring states as focus turns inward to a local perspective; an exception could be heavily traveled freight corridors which generate sufficient revenues for adequate maintenance
Easier to integrate road spending with other modes at local level	Lesser potential for development in remote regions
Some regions with high volumes of through traffic gain windfalls resulting in poorer quality spending overall	Force smaller (and often rural) local authorities to rely on general revenues for transportation, putting pressure elsewhere

Some of the potential arguments against “return to source” could be ameliorated by constructing a hybrid state-local approach. Under a hybrid approach, the State would continue to define, maintain, operate, and build a state highway system. All revenues generated on this state highway system would be used to support the state-level system. On the other hand, local funding would be strictly return to source. The potential arguments



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for and against this approach are substantially similar, although without the risk of underinvestment in statewide corridors or key rural connectivity (depending on how the statewide system is defined).

3.6. General fund

Finally, there is the idea of returning all transportation source funds to the general fund and putting transportation on an equal footing with other general government needs. As mentioned in the introduction to this section, the California Constitution (Article 19, Section 3) likely prohibits this approach. Nonetheless, this approach has been adopted in many countries.

Potential Arguments in Favor	Potential Arguments Against
Potential for road charge to be used for broader public goods	Severs the linkage between usage, cost, and spending; negates the notion of transportation as a utility
Potential for other revenues sources to be used to fund transportation	Likelihood of decreased investment in transportation overall as it must compete with education, healthcare, and other general government functions; worse mobility outcomes
Could enhance argument for transportation spending by connecting benefits more broadly to society rather than just to users	Requires state transportation agencies to compete and advocate with other agencies for general funds



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4. Summary and Conclusions

Literature and practice lack consensus on the preferred approach to making road transportation investment decisions.⁷ In California, as elsewhere in the country, many sources of revenue combine across many levels of government (county, metropolitan, state, and national) to provide needed funding. Internationally, still other models exist, some with greater emphasis on general funds and national control (e.g., Europe), others with greater emphasis on direct user fees (e.g., New Zealand). For roads in California, the state remains the predominant entity for such decisions, but the federal government provides funding and guidance, and local governments, especially counties, invest heavily in transportation.

Under a road charge, usage of the road system could be more accurately and comprehensively assessed at the aggregate level. Likewise, motorists would individually and collectively have a more conscious sense of not just how much they are spending on roads but also where. This leads to an opportunity and a possibility to make changes to the way investment decisions are made. Some of these decisions are legislative, and some are executive. Simply because it can be done, should it be done?

Overall, as the geographic scale shrinks (that is, toward smaller organizations), as in the “return to source” approach, the level of total investment in transportation is likely to shrink likewise. Return to source could lead to a closer, fairer geographic match of revenues and expenditures and more cost-effective investments to address congestion. However, it would likely also lead to neglect of less sparsely traveled areas of the network. This raises an interesting dilemma for the urban and metropolitan areas of the state: given more authority or resources, would they willingly invest in rural connectivity, or is a statewide transportation entity required to ensure such investments are made? On the other hand, proceeding with the status quo of statewide investments based on existing formulas and input data could lead to misallocation of resources and over-investment overall.

Perhaps the optimal solution is the status quo, or perhaps it is to make modest enhancements to the data and analyses used to create the existing hybrid of statewide and local investments. Whatever the solution, road charge as a revenue policy is sure to raise questions, and this paper provides an initial discussion of some of the possible high-level alternatives for using road charge revenues and their advantages and disadvantages. Ultimately, the Legislature will decide whether and how to proceed with road charging as a revenue policy; likewise, elected officials will ultimately decide the fate of how those revenues are allocated. With the input of this paper, feedback from the TAC, inputs from agency leadership, and inputs from the general public, CalSTA can consider alternatives and recommend a way forward in its final report to the Legislature on the Road Charge Pilot Program. Perhaps equally importantly, armed with an array of potential alternative approaches, CalSTA can anticipate and defend its recommendation in the face of competing proposals.

⁷ For a thorough discussion, see Dunn, T. (2010). *The Geography of Strategy: An Exploration of Alternative Frameworks for Transportation Infrastructure Strategy Development* (Doctoral dissertation). MIT Libraries.