



SB 339

Draft Road Charge Collection Pilot Final Report

September 25, 2026

The Road Charge Collection Pilot was authorized by SB 339

SB 339 identified several specific tasks for the pilot:

- Collect actual revenue from pilot participants.
- Identify and evaluate issues related to the collection of revenue for a road charge program.
- Study two different mileage rate options and assess the impacts of these rates on the state's climate, revenue, and equity goals.

As required by the Legislation :

- Participants were equally divided into two groups during the pilot program.
- One group was charged a flat fee per mile traveled set by the TAC.
- The other group was charged an individually calculated fee per mile that is equal to the state per gallon fuel tax divided by the fuel economy rating for that vehicle obtained from the U.S. Environmental Protection Agency (EPA).
- Participants received a credit or refund for the amount of fuel tax or Road Improvement Fee they paid during their participation in the road charge pilot.



Technical Advisory Committee Design Recommendations

SB 339 required the Road Charge TAC to provide the California State Transportation Agency (CalSTA) with design recommendations for the road charge pilot.

The TAC developed and refined these recommendations over seven meetings beginning in October 2021 and adopted final recommendations in April 2023¹.

The TAC proposed recommendations in six categories:

- ▶ Rate setting
- ▶ Pilot participation design
- ▶ Privacy and data security
- ▶ Revenue collection
- ▶ Enforcement

As detailed in the SB 339 Interim Report², the project team was able to implement the vast majority of the TAC's recommendations.

1. <https://catc.ca.gov/-/media/ctc-media/documents/ctc-committees/road-charge/sb-339-road-charge-pilot-design-recommendations-report-ally.pdf>

2. https://caroadcharge.com/media/3gcpdr0y/ca-sb-339-interim-pilot-report_final_508c.pdf



Pilot Incentives

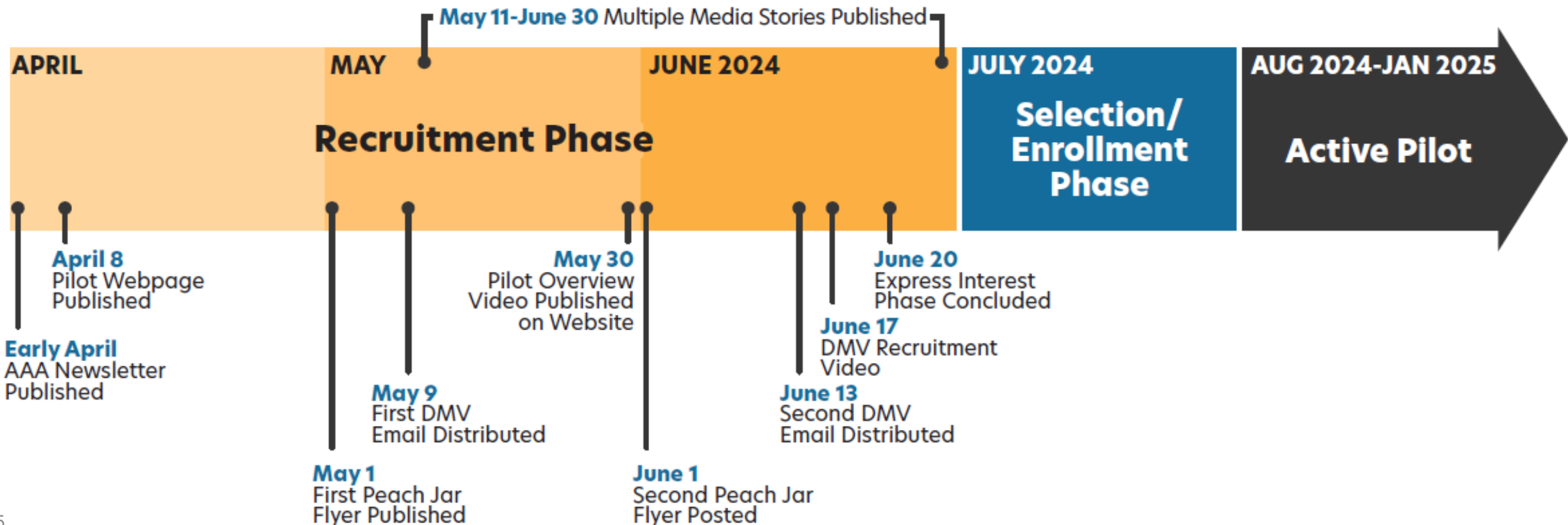
Because actual payments would be collected from participants, Caltrans determined that a total incentive amount of \$400 would be offered for participation in this pilot.

Eligible Activity	MILESTONE										
	Onboarding	Active Pilot						Closeout			
	June 2024	July 2024	Aug. 2024	PAYOUT #1	Sept. 2024	Oct. 2024	Nov. 2024	Dec. 2024	Jan. 2025	Feb. 2025	PAYOUT #2
Successfully Complete Enrollment (including mileage reporting option installation)			\$50	\$50							
Complete Initial Participant Survey			\$50	\$50							
Pay Monthly Road Charge Payments					\$30	\$30	\$30	\$30	\$30	\$30	\$180
Complete Final Participant Survey										\$100	\$100
Close Pilot Account and Mail Back OBD-II Device (if applicable)										\$20	\$20
TOTAL POSSIBLE PER PAYOUT				UP TO \$100							UP TO \$300

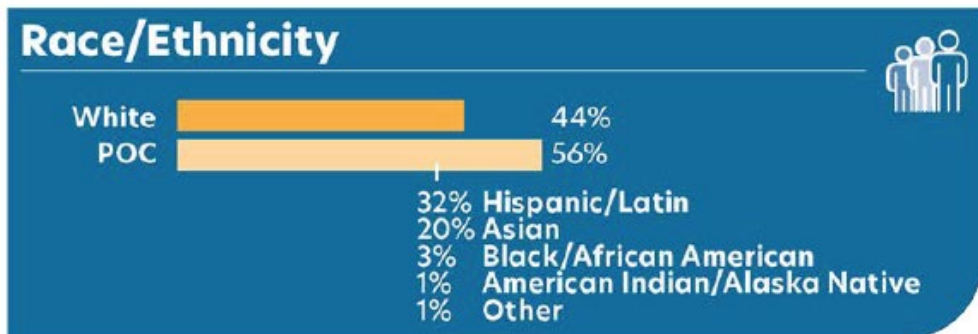
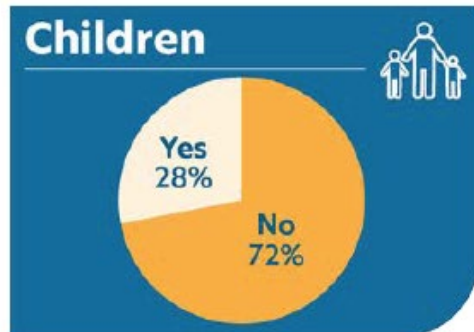
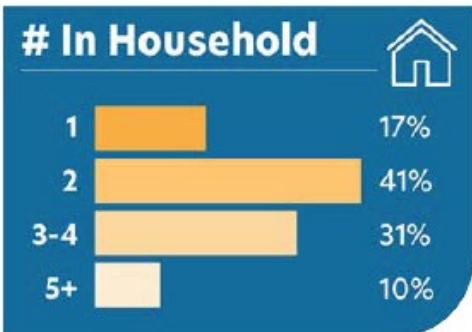
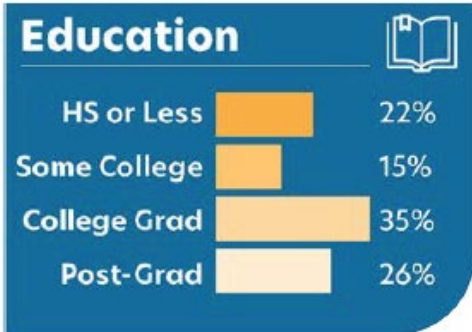
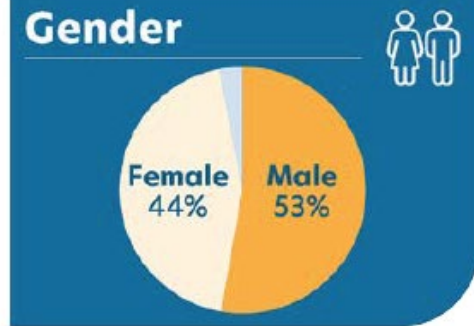
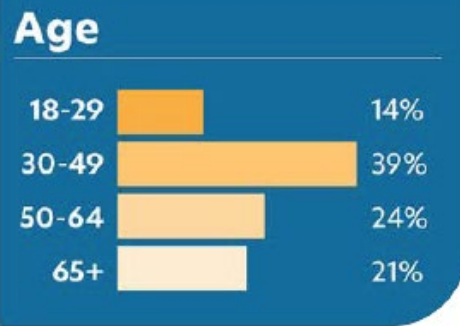
Pilot Recruitment

From April through June 2024, a variety of outreach methods were used to inform the public about the pilot and recruit participants.

Over 25,000 people expressed interest in participating.
51 percent heard about the pilot from media coverage and 29 percent from DMV emails.



Participant Selection & Enrollment



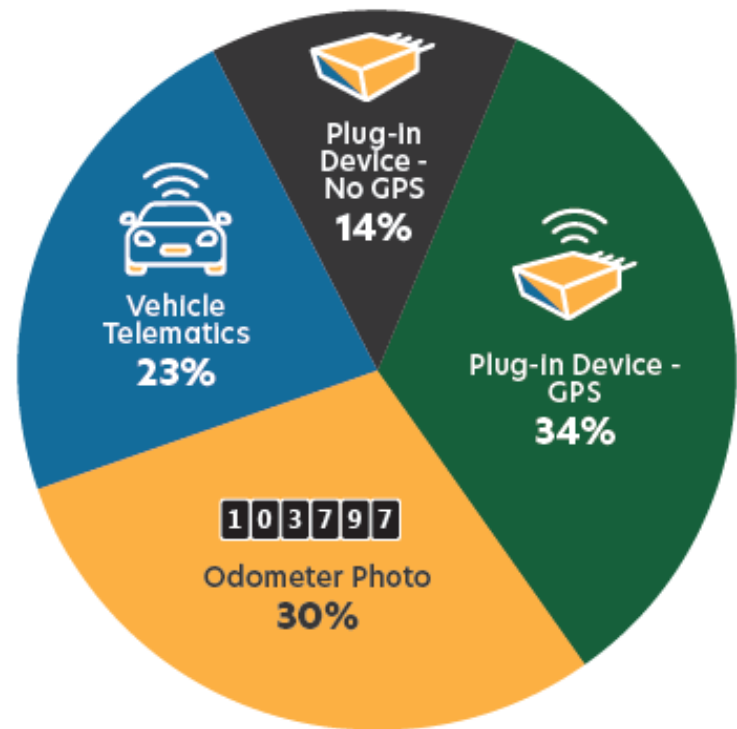
- ▶ From 25,000 sign-ups, 5,000 individuals were invited to enroll to generally reflect California demographics and vehicle types.
- ▶ From those 5,000 invitations, 800 people successfully finished all steps and activated mileage reporting.
- ▶ Electric vehicles were over-invited compared to the existing California vehicle fleet to ensure research conclusions could be made.
- ▶ This slightly skews the pilot demographics towards the higher income ranges, older age groups, and White and Asian ethnicities.



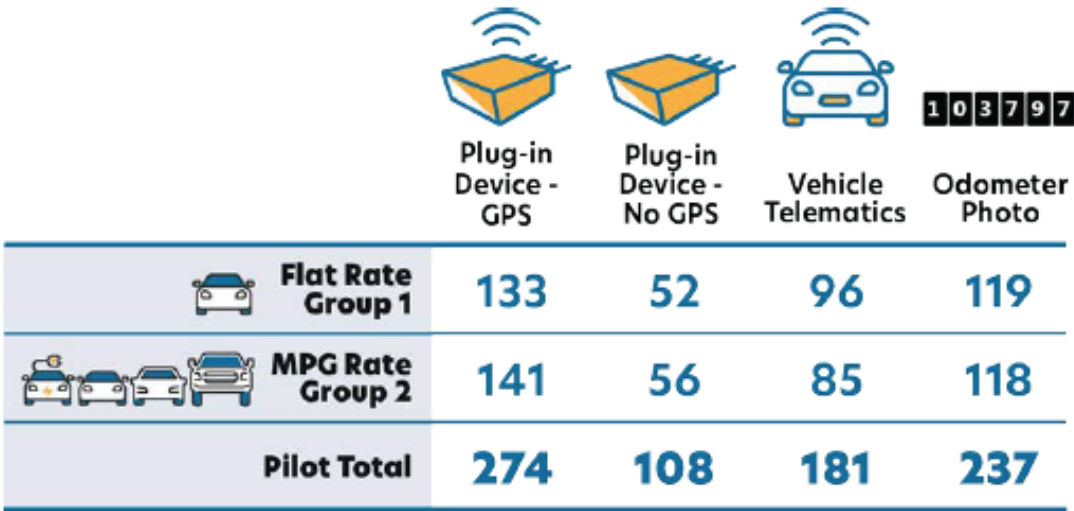
Mileage Reporting Options

Four options were offered for mileage reporting, with or without location sharing.

Mileage Reporting Methods by Participants



Mileage Reporting Methods by Rate Group



Rates & Revenue by Group

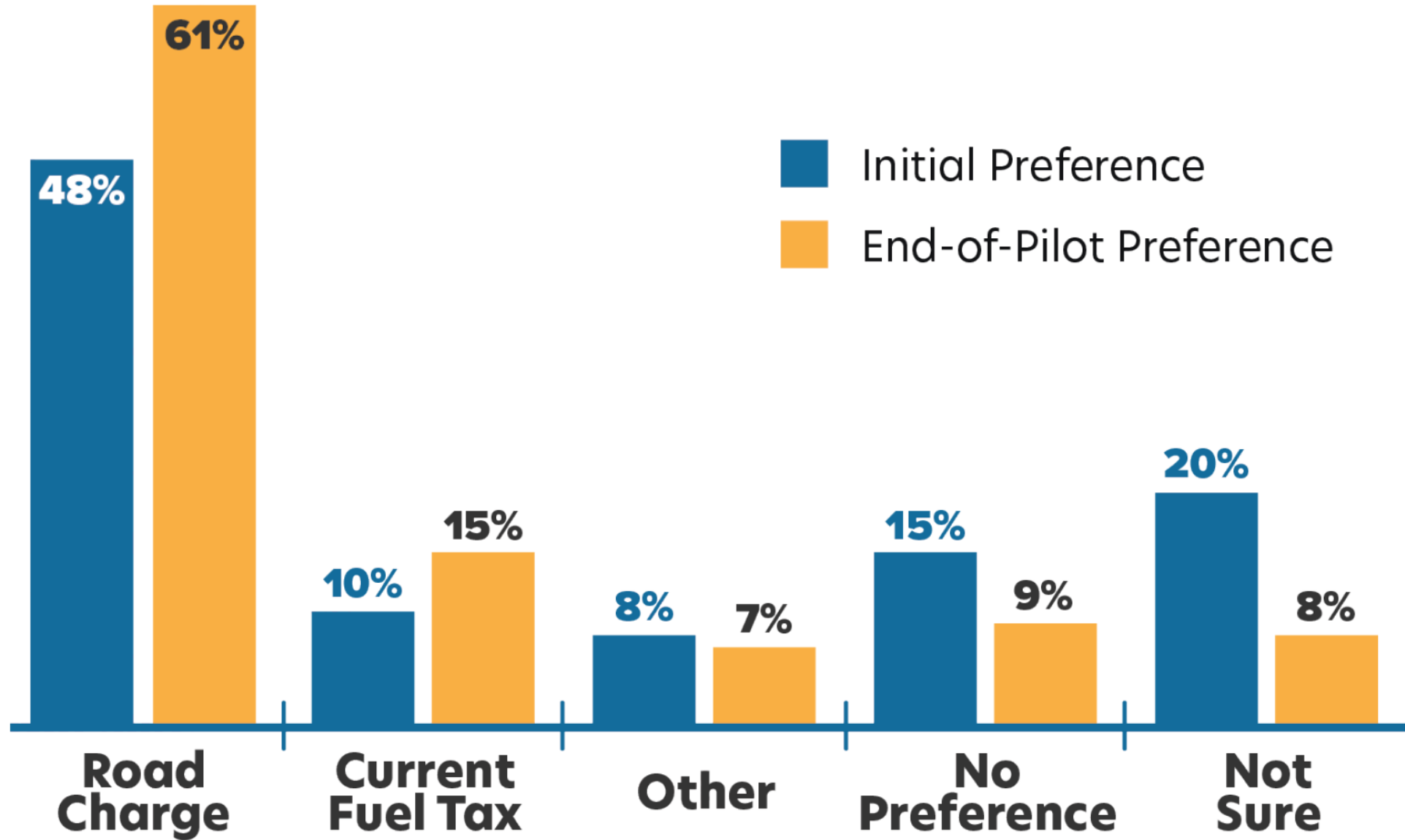
The MPG-based rate raised less revenue than both the flat rate and current state gas taxes in the pilot.

Pilot Participants Vehicle Types	 Flat-Rate Group	 MPG-Rate Group*
Electric	2.8 ¢ per mile	0.5 ¢ per mile
Plug-in Hybrid	2.8 ¢ per mile	1.1 ¢ per mile
Hydrogen	2.8 ¢ per mile	0.9 ¢ per mile
Gasoline	2.8 ¢ per mile	3.2 ¢ per mile
Gas Hybrid	2.8 ¢ per mile	1.6 ¢ per mile
Diesel	2.8 ¢ per mile	4.3 ¢ per mile

* 126 distinct rates

Pilot Revenue			Road Charges 	State Tax Refunds* 	Net Road Charge 
Rate Group:		Flat Rate	\$56,899.76	\$40,472.68	\$16,427.08
		MPG Rates	\$35,817.11	\$37,794.61	-\$1,977.50

Changes in Participant Preferences

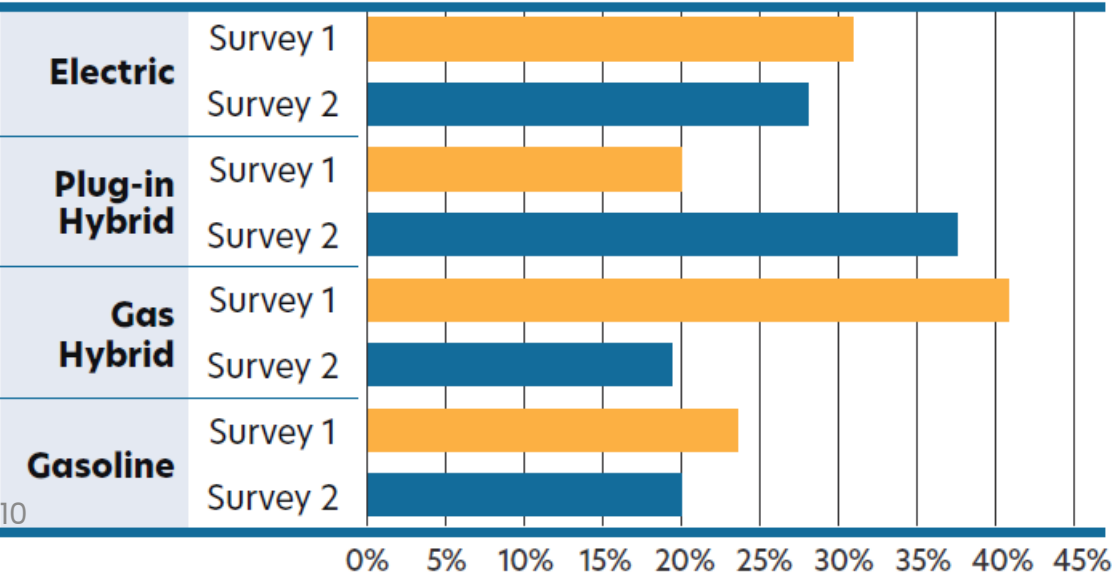


Did Participants Anticipate Driving Changes Based on Rate?

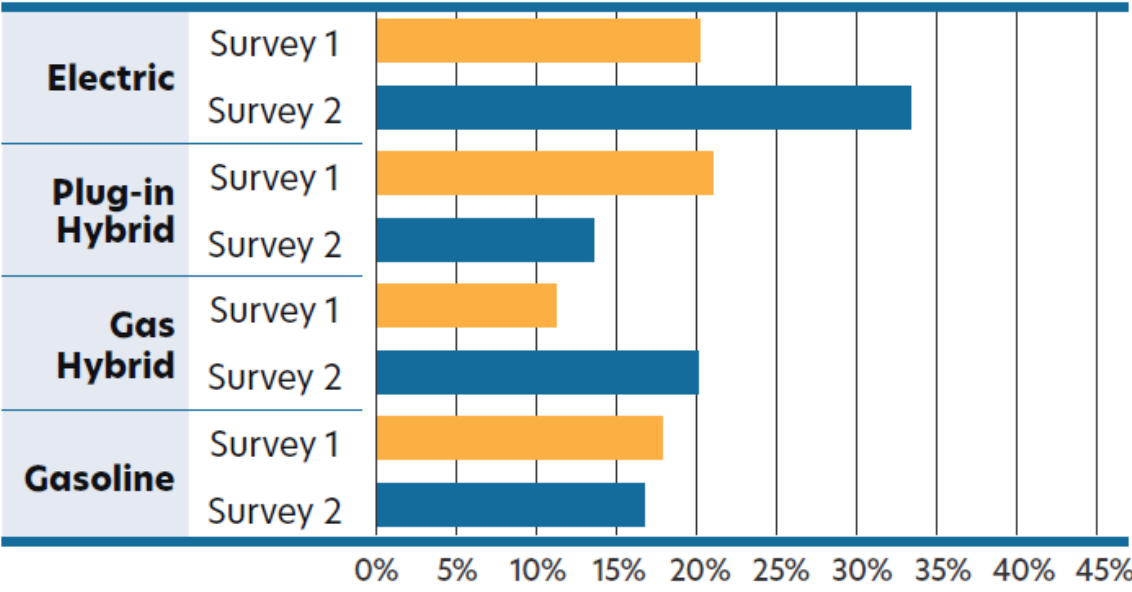
- MPG-Based rates did not reduce the miles participants anticipated driving in gas-powered vehicles.
- Thus, there may be little additional climate policy advantage from an MPG-based rate compared to a flat road charge rate. Real-world outcomes may not align with the theoretical expectations of this rate structure because amounts may be too small to change behavior.

Pilot Participants Anticipating a Decrease in Driving

Flat-Rate Group 



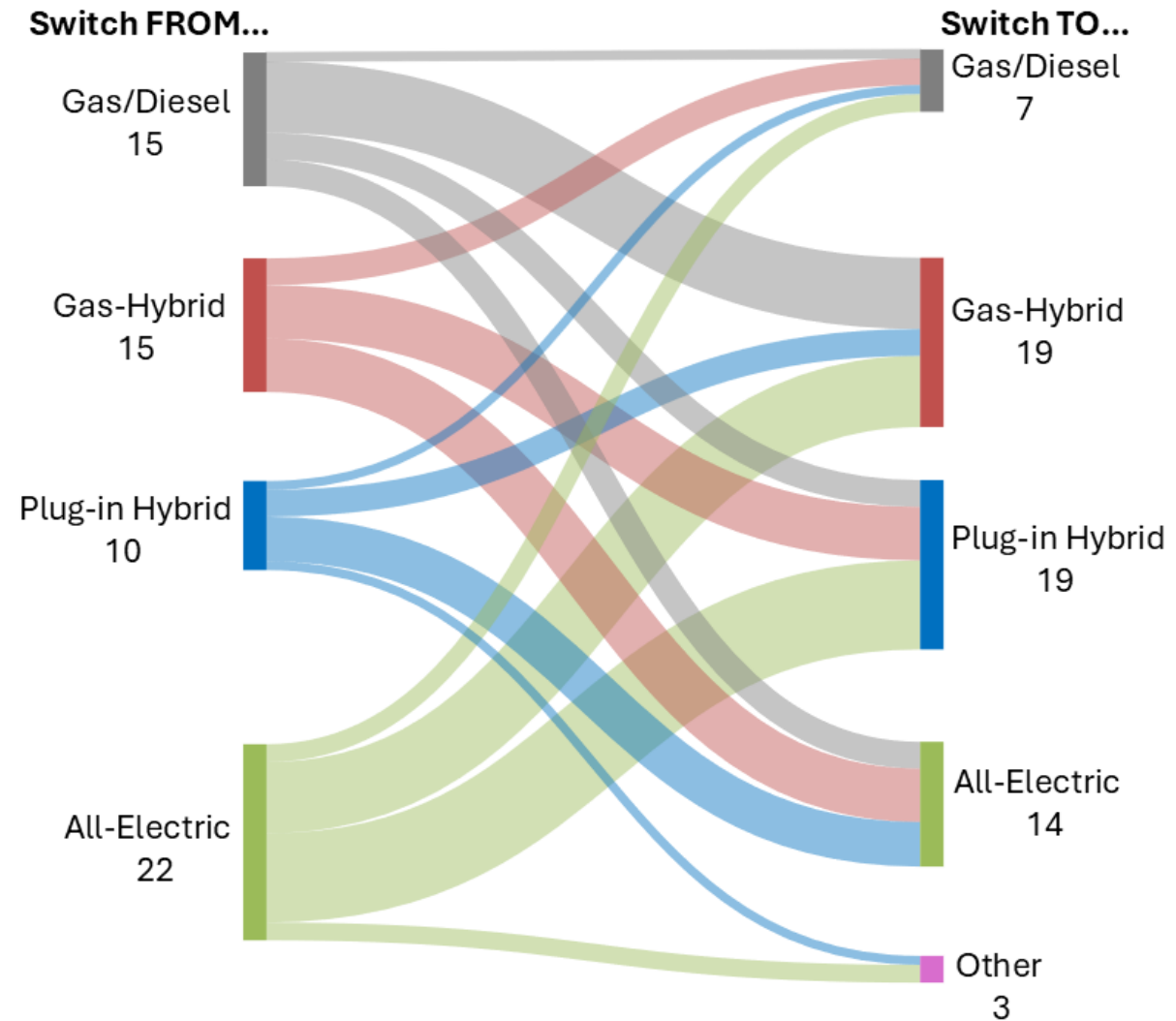
MPG-Rate Group 



Did Participants Anticipate Buying Different Vehicles Based on Rate?

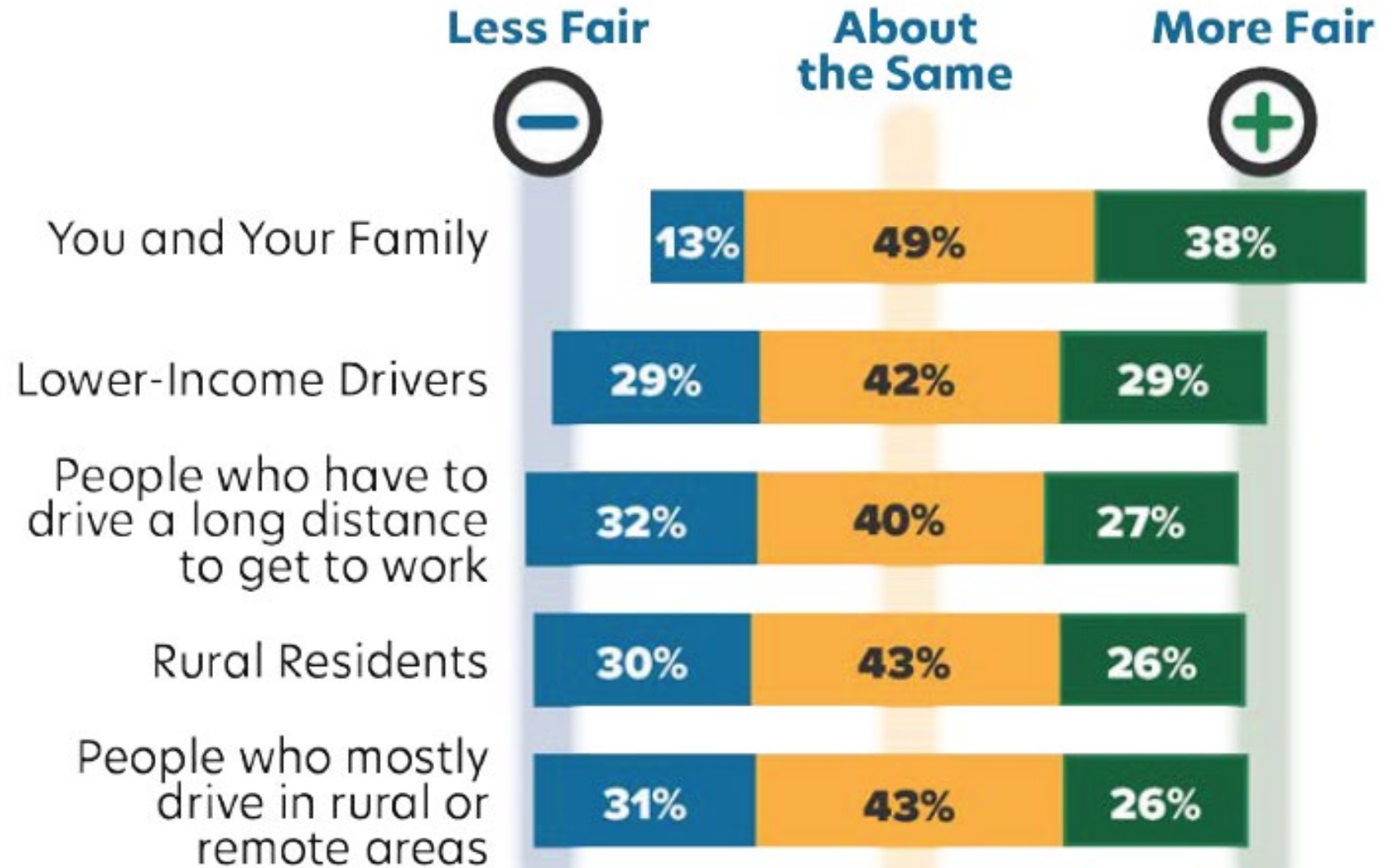
Only 8% of participants indicated they were planning to purchase a new vehicle in the next three years and would switch vehicle types if a road charge system replaced the gas tax. No difference existed between the rate groups, and no clear trends existed in the vehicles chosen, indicating no effective impetus for changing vehicle types from either rate.

Number of Post-Pilot Participants Who Anticipate Changing from One Vehicle Type to Another

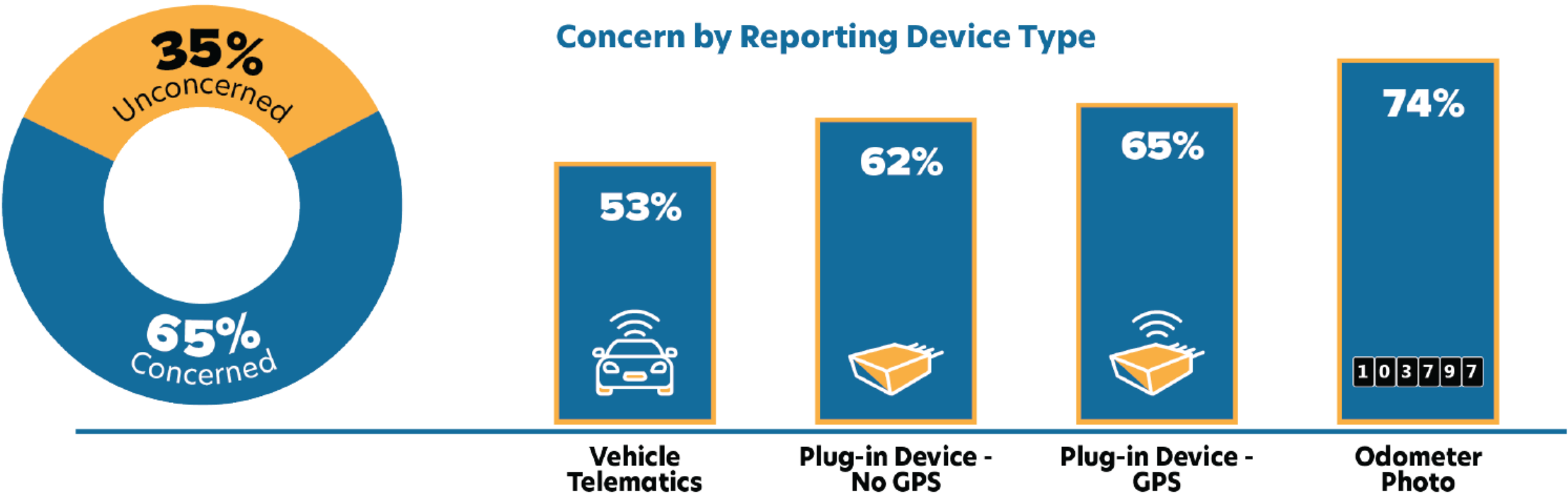


Perception of Road Charge Fairness

After experiencing the pilot, participants had very few concerns that a road charge would be unfair to themselves and their family. This highlights that when people experience a road charge system, their concerns on how it will affect their lives largely go away.



Participant Concern with Mileage Cheating



Pilot Operational Lessons

The Pilot Demonstrated Tolling Back-Office Systems are Not Turnkey for Road Charges: There are Key Differences Between Billing for Mileage Versus Billing for Tolls.

- ▶ Mileage is continuous and trips are more complicated than tolls.
 - A toll is an independent event to charge. A trip is the delta between two variables – a starting mileage value and ending mileage value. If there is no ending value, then no mileage can be calculated and billed. Missing trip data included GPS waypoints not transmitted, and odometer photos not uploaded.
- ▶ Vehicle change detection is critical to ensure accurate billing.
 - If a vehicle is sold, mileage must be suspended and reviewed in the account to ensure the road charges are appropriate. If a vehicle stops reporting mileage, customer service must be robust to avoid periods of unknown mileage and unbilled road charges.
- ▶ Separate statuses are needed to track changes in accounts, vehicles, and mileage reporting options.
- ▶ Financial audit traceability is essential for road charges.
 - Need history to document what road charge rates were in effect and applied at time of trips.



Edge Cases

Preparing for unique situations

Typically, pilots focus on the vast majority of accounts where everything operates as expected. But preparing for implementation means creating processes for cases that do not go as planned.

- ▶ What is the process for vehicles that could not have their VIN decoded?
- ▶ What is the process for billing adjustments?
- ▶ How should manual uploads be handled when the person does not submit them at the correct point in the billing cycle?
- ▶ Processes must be developed to address data differences between data captured for different types of mileage reporting options. For example, OBD-II devices have 'trips' while odometer photos have mileage deltas.



Commercial Vehicle Exercise

The TAC recommended inclusion of commercial vehicles in the pilot. However, as described in the SB 339 Interim Report, the road charge programs for passenger and commercial vehicles could be overseen by different state agencies. As such, inclusion of commercial vehicles in the main pilot did not make sense. To address the spirit of the TAC's recommendation, the project team developed a web portal prototype to gather user input from the trucking industry on the concept of adding an electric vehicle road charge collection into the International Fuel Tax Agreement (IFTA) process.

Industry Feedback

Prototype System Design

If adding a road charge to the IFTA process, the revised system should accept mileage data per individual vehicle to calculate road charges for electric commercial vehicles.

Prototype Data Management

The revised system should have a standardized interface or file specification to upload mileage and fuel tax data at the individual vehicle travel and fleet total levels.

Prototype Vehicle Management

The revised system should allow vehicle updates at the fleet level and individual vehicle level.

Prototype Reporting

The revised system should have comprehensive reports available to the motor carriers for current and past quarterly filings.



 Home > IFTA Carrier Tax > File Return Period Select >  Mileage Add >  IFTA Summary >  IFTA Calculate >  Road Charge Calculate >  Submit Period Summary

Summary

Review and Submit

IFTA Tax Reporting

Fuel Tax: \$-193.23

Penalty: \$0.00

Interest: \$0.00

Grand Total: \$-193.23

Road Charge Reporting

California Total: \$2,331.00

Other State(s)
Total: \$150.00

Grand Total: \$2,481.00

 Total Due: \$2,287.77



Any questions so far?

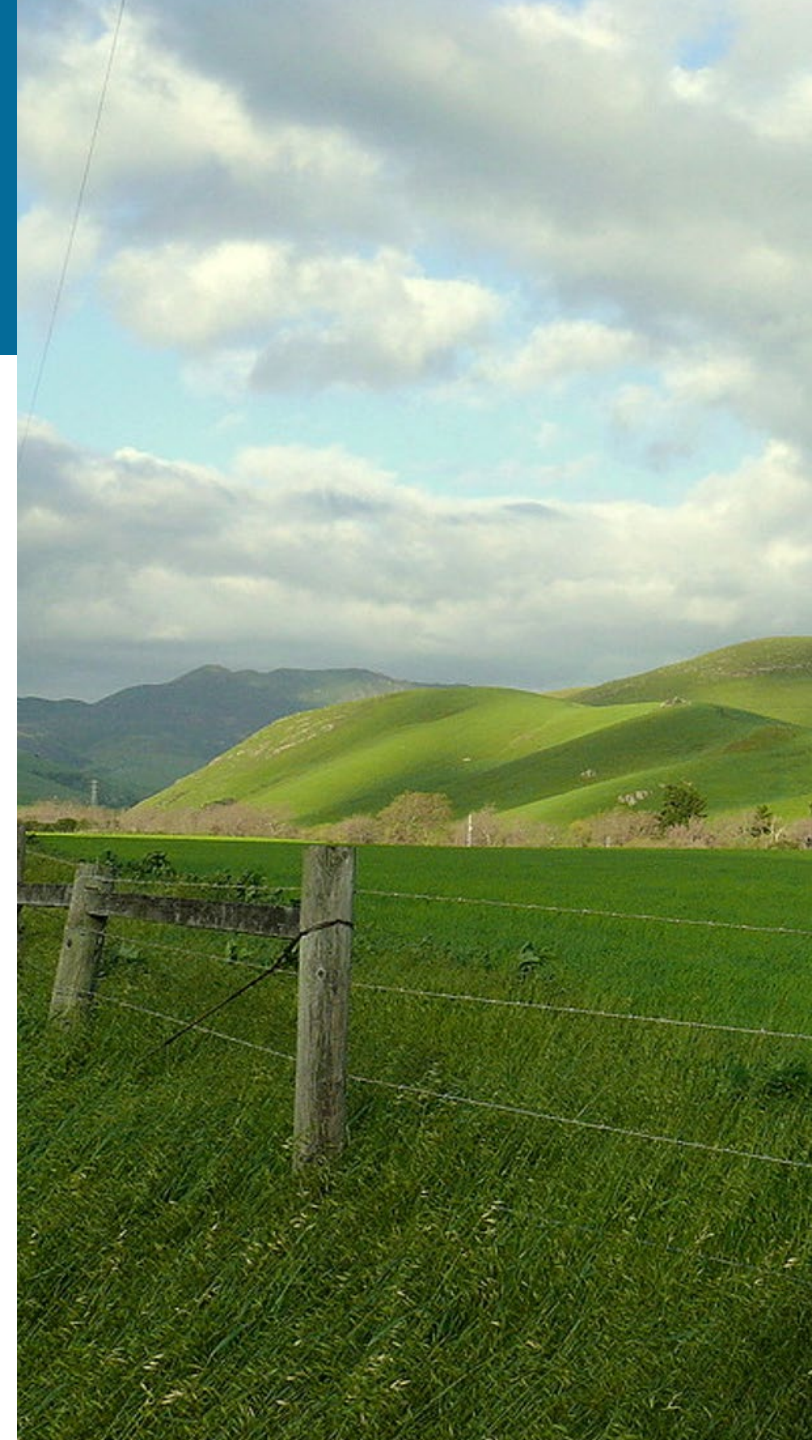


Rate Structures and their Impact on the State's Equity, Revenue, and Climate Goals

In this section we will review operational considerations and the climate, revenue, and equity effects and trade offs of different potential rate structures.

It is essential to understand that the state's objectives regarding climate, equity, and revenue impact each other and can conflict within the framework of road use charges.

The State cannot concurrently achieve the goals of equity, climate, and revenue stability within a single rate structure. Strategic decisions must be made to prioritize these objectives.



Considerations for Rates Based on MPG

- ▶ Caltrans was able to obtain MPG ratings for most vehicles, but 15 percent of the fleet did not have EPA data, including:
 - Motorcycles
 - Large pickups and SUVs over 8,500 pounds
 - Commercial vehicles
 - Older VINs before 1981
 - Foreign vehicles imported to the US
 - Randomly missing models
- ▶ If the state were to base a road charge rate on MPG, the Legislature would need to provide direction on what rates these vehicles should be charged. The issue could also increase implementation costs.
- ▶ MPG and MPGe ratings are estimations based on calculations, which can be changed based on legislation, litigation, and executive order. If the state bases a rate structure on these metrics, future unknown changes in the underlying calculations could affect state revenues in unpredictable ways.

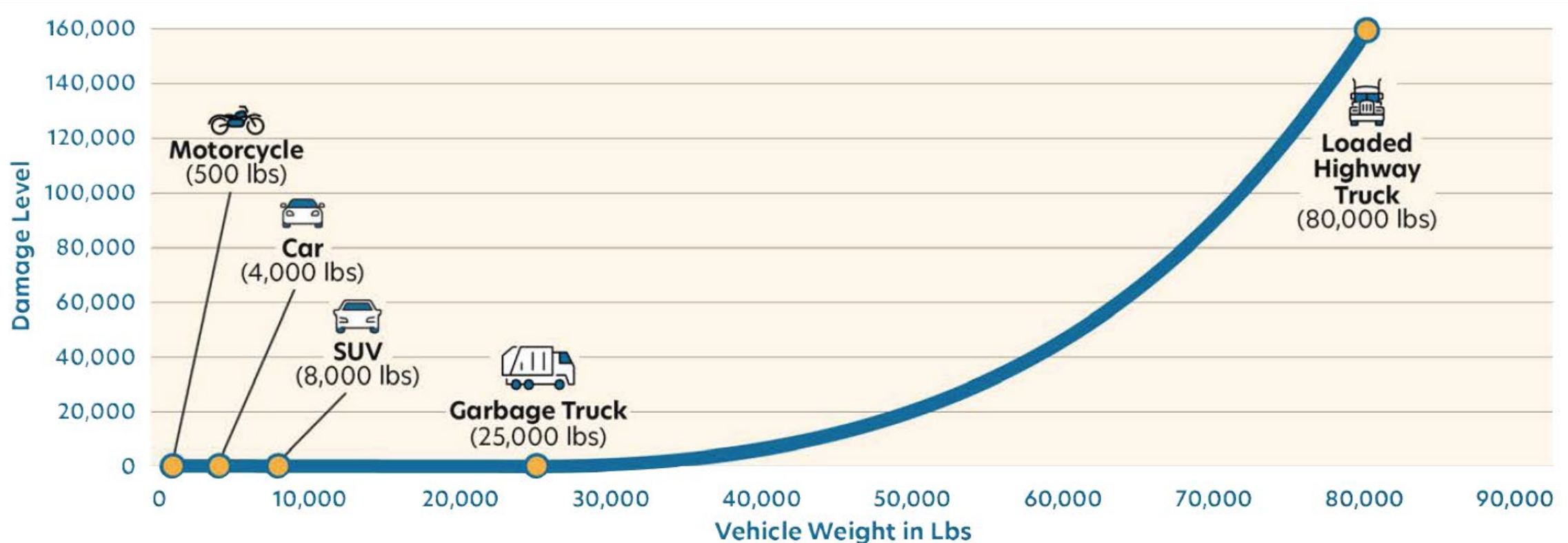


Considerations for Rates Based on Weight

Vehicle weight is a factor in how much fuel is needed to move the vehicle down the road, and thus weight is sometimes viewed as a proxy for fuel use.

Based on well-established research on pavement and bridge impacts, Caltrans engineering considers that vehicles below 10,000 pounds do not damage roads by their different weights to any significant degree.

A road charge rate structure with weight categories can make more sense for commercial vehicles because the different rates serve as proxies for the amount of fuel it takes to move that weight. Commercial vehicles currently pay registration fees based on weight.



Considerations for Rates Based on Income

An income-based rate structure requires the consideration of many options to understand the implications for the individual, the effect on revenue generation, and the impact to administrative costs. The basic questions to start with are “What is the definition of low-income?”, “How many Californians qualify under this definition?”, and “How much is the discount?” The questions are simple, but the answers are complex.

There are multiple definitions of low-income currently used in California

- ▶ **Federal Poverty Level (FPL)** is a measure of income issued every year by the federal Department of Health and Human Services. It is the minimum amount of income required by a family for food, clothing, transportation, shelter, and other necessities. In 2024, the Federal Poverty Level for a household of four is \$32,150.00 annually for all 48 Contiguous States. Many programs consider households earning below 200 percent or 300 percent of the Federal Poverty Level as low income.
- ▶ **Area Median Income (AMI)** is a widely used criterion, particularly for housing assistance programs. AMI is the midpoint income in a region: Half of households earn more, and half earn less. AMI is calculated annually by the U.S. Department of Housing and Urban Development for each metropolitan area or county. AMI varies by county in California because the cost of living can differ significantly by region.
- ▶ **California Poverty Measure (CPM)** is a research effort by Public Policy Institute of California and the Stanford Center on Poverty and Inequality that accounts for housing costs and safety net benefits. It is a state-specific index of poverty, modeled on the Census Bureau’s Supplemental Poverty Measure, that expands upon traditional poverty measures.
- ▶ **Office of Environmental Health Hazard Assessment CalEnviroScreen 4.0** was designed to help the California Environmental Protection Agency identify disadvantaged communities based on geographic, socioeconomic, public health and environmental hazard criteria as required by Senate Bill 535 (De León, Chapter 830, Statutes of 2012).

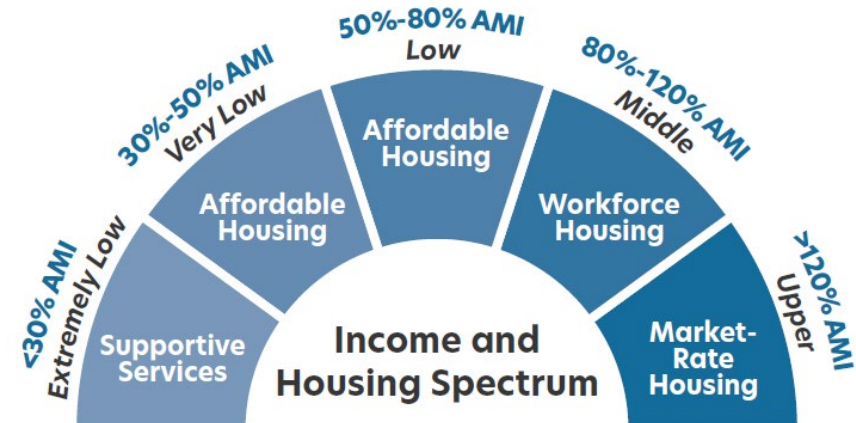
County	Very Low Income	Low Income
Alameda	\$77,850	\$120,800
Alpine	\$52,850	\$84,550
Amador	\$50,400	\$80,650
Butte	\$45,350	\$72,500
Calaveras	\$47,650	\$76,250
Colusa	\$43,950	\$70,300
Contra Costa	\$77,850	\$120,800
Del Norte	\$43,950	\$70,300
El Dorado	\$58,950	\$94,300
Fresno	\$43,950	\$70,300
Glenn	\$43,950	\$70,300
Humboldt	\$44,150	\$70,650
Imperial	\$43,950	\$70,300
Inyo	\$43,950	\$70,300
Kern	\$43,950	\$70,300
Kings	\$43,950	\$70,300
Lake	\$43,950	\$70,300
Lassen	\$43,950	\$70,300
Los Angeles	\$69,350	\$110,950
Madera	\$43,950	\$70,300
Marin	\$97,900	\$156,650
Mariposa	\$43,950	\$70,300
Mendocino	\$45,200	\$72,300
Merced	\$43,950	\$70,300
Modoc	\$43,950	\$70,300
Mono	\$46,750	\$74,800
Monterey	\$66,200	\$105,950
Napa	\$73,400	\$117,350
Nevada	\$52,100	\$135,000

County	Very Low Income	Low Income
Orange	\$78,900	\$126,250
Placer	\$58,950	\$94,300
Plumas	\$46,050	\$73,700
Riverside	\$51,250	\$82,000
Sacramento	\$58,950	\$94,300
San Benito	\$61,200	\$97,950
San Bernardino	\$51,250	\$82,000
San Diego	\$75,750	\$121,250
San Francisco	\$97,900	\$156,650
San Joaquin	\$48,200	\$77,100
San Luis Obispo	\$63,650	\$101,900
San Mateo	\$97,900	\$156,650
Santa Barbara	\$81,300	\$130,350
Santa Clara	\$92,150	\$146,100
Santa Cruz	\$90,550	\$145,300
Shasta	\$44,550	\$71,300
Sierra	\$45,000	\$72,000
Siskiyou	\$43,950	\$70,300
Solano	\$62,900	\$100,650
Sonoma	\$69,150	\$110,700
Stanislaus	\$45,550	\$72,900
Sutter	\$43,950	\$70,300
Tehama	\$43,950	\$70,300
Trinity	\$43,950	\$70,300
Tulare	\$43,950	\$70,300
Tuolumne	\$48,450	\$77,450
Ventura	\$70,350	\$112,550
Yolo	\$57,650	\$92,250
Yuba	\$43,950	\$70,300

2024 U.S. DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, STATE INCOME LIMITS

Low Income Amount by County for a Four-person Household

As shown here, earning a six-figure salary is considered “low income” in 17 counties in California for a four-person household. Earning a \$75,000 salary is considered “low income” or “very low” in an additional 13 counties.



Comparison of Income Definitions and Potential Revenue Impacts

Low Income Definitions	Levels	Income Limits	Four-Person Household/ Family		Total Driver's Licenses Currently Issued 27,951,175 ¹	Average Miles per Vehicle ~12K ² /~25 MPG gas car ³ =480 gallons of gas @ \$0.612 ⁴ = ~\$300	
2024 Federal Poverty Guidelines (FPL) ⁵		Four-Person Household	Census Data ⁶	Combined % of CA Population	Applied %	Potential Revenue Loss 25% discount = \$75 discount	Potential Revenue Loss 50% discount = \$150 discount
Federal Poverty Guidelines: Applies to all 48 Contiguous States (all states except Alaska and Hawaii)	100%	\$32,150	11-12%	11-12%	3,074,629 - 3,354,141	\$230,597,175 - \$251,560,575	\$461,194,350 - \$503,121,150
	150%	\$48,225	7%	18-19%	5,031,212 - 5,310,724	\$377,340,900 - \$398,304,300	\$754,681,800 - \$796,608,600
	200%	\$64,300	9%	27-28%	7,546,818 - 7,826,329	\$566,011,350 - \$586,974,675	\$1,132,022,700 - \$1,173,949,350
	300%	\$96,450	17%	44-45%	12,298,517 - 12,578,029	\$922,388,775 - \$943,352,175	\$1,844,777,550 - \$1,886,704,350
2024 Area Median Income (AMI) ⁷		Range Example Lowest to Highest County					
Varies by County. Midpoint in a region: Half of households earn more, and half less		\$87,900 (Kern) - \$186,600 (Marin)	50%	50%	13,975,588	\$1,048,169,100	\$2,096,338,200
2024 CA Department of Housing and Community Development (HCD) ⁷		Range Example Lowest to Highest County	Census Data				
Acutely Low	0-15%	\$13,200 (Kern) - \$28,000 (Marin)	5-8%	5-8%	1,397,559 - 2,236,094	\$104,816,925 - \$167,707,050	\$209,633,850 - \$335,414,100
Extremely Low	15-30%	\$31,200 (Kern) - \$58,750 (Marin)	9-12%	14-20%	3,913,165 - 5,590,235	\$293,487,375 - \$419,267,625	\$586,974,750 - \$838,535,250
Very Low Income	30-50%	\$43,950 (Kern) - \$97,900 (Marin)	11-12%	25-32%	6,987,794 - 8,944,376	\$524,084,550 - \$670,828,200	\$1,048,169,100 - \$1,341,656,400
Low Income	50-80%	\$70,300 (Kern) - \$156,650 (Marin)	15-18%	40-50%	11,180,470 - 13,975,588	\$838,535,250 - \$1,048,169,100	\$1,677,070,500 - \$2,096,338,200
2023 California Poverty Measure (CPM) ⁸		Family of Two Adults and Two Children					
CPM Poverty Line	100%	\$39,900 (adjusted)	13.2%	13.2%	3,689,556	\$276,716,700	\$553,433,400
Resources up to one and a half times the CPM Poverty Line	200%	\$46,800 (adjusted)	31.1%	31.1%	8,692,816	\$651,961,200	\$1,303,922,400



Revenue Impact Estimates of Low-Income Rate Structures

Low-income households in California can vary from 11 percent to 50 percent of the population depending on the assistance program.

- ▶ The challenge in estimating revenue impacts from a low-income road charge rate is in applying a person-specific discount definition to a vehicle-specific tax. The DMV vehicle database does not contain specific income information.
- ▶ For a 50 percent discount, revenue impacts range from \$461 million to \$2.1 billion a year. This is why the definition of low income is such a key determination to understand the potential impacts to revenue collection.
- ▶ No low-income discounts currently exist under the gas tax structure. If choosing a low-income road charge rate structure, the state would either have to receive less in revenue for the transportation system or make up the balance of the lost revenue by charging the rest of the driving population a higher road charge rate.



Consideration of Benefits to the Individual

A low-income rate structure is an equity-focused rate structure, intending to lessen the load on those in society that are worse off financially. When weighing the costs and benefits of this policy, the question of whether the discount makes a significant difference to those it is intended to benefit is also important to consider. **Does it make a real difference in their situation?**

A 50 percent discounted road charge rate saves an individual on average an estimated \$150 a year, or \$12.50 a month. Would this amount make a financial difference to them?

Is that financial difference worth the state losing \$461 million a year in transportation revenue? Or \$2.1 billion?

These are the trade offs that must be considered with the concept of a low-income discount for a road charge rate structure.



Administrative Cost Considerations for Low Income Discounts

- ▶ The DMV database houses vehicle information, not income information.
- ▶ State law does require the DMV to provide a reduced fee for a driver's license for those who qualify for government assistance. To verify income eligibility, the DMV relies on documentation from the county government and non-profit organizations that qualify individuals for state welfare benefits like Cal Fresh and Cal Works.
- ▶ This is not an automated process. Individuals must show their certification documentation at a DMV office. This manual process would be difficult to administer in a road charge setting. In order to avoid a large staff impact, a connection between the DMV system and another program's information, such as CalFresh or the Franchise Tax Board, would need to be created. This would likely require upfront IT resources and some time to implement the necessary IT changes.
- ▶ These administrative hurdles can be overcome with time and money. That is another consideration for the Legislature to add to its list of pros and cons to weigh. **The main point to understand is that when a rate structure requires information that is not currently in the DMV database, administrative costs will increase.**



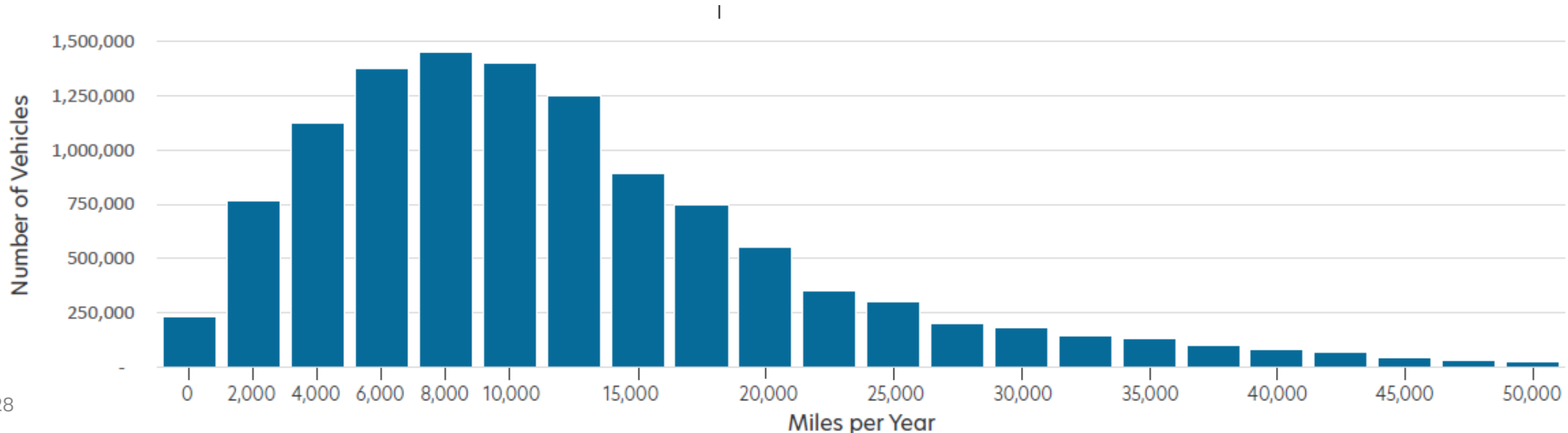
Rates Based on Blocks of Miles

This concept suggests that a different per-mile rate be charged on one or more “blocks” of miles, such the first 5,000, and then apply a different rate as more miles are driven. This structure could be applied to both passenger and commercial vehicles and is equally as simple to administer as a flat rate structure.

If the first block of miles is at a discounted rate, that means all drivers would receive the discount. This would cause a large loss of revenue, which would either have to be accepted or compensated for in the higher mileage blocks.

However, as you get to higher mileage numbers, fewer and fewer drivers are left to make up the difference. This means the rates in the higher blocks would potentially have to be significantly higher, possibly creating a very uneven tax burden.

High mileage drivers in California are more likely to live in rural areas, be super-commuters, or have to drive a lot for work, such as construction workers and rideshare drivers. When viewed through an equity lens, these are not typically communities that the public supports taxing at a higher rate.



Registration Fee Considerations

While the state's research efforts have centered on understanding the implications of a potential switch from the gas tax to a road charge system, road charge is only one of several revenue mechanism options. Registration fees are another revenue mechanism that could be considered to stabilize transportation revenues. Just as with road charge rates, the implementation of various registration fee structures are impacted by the information in the DMV system.

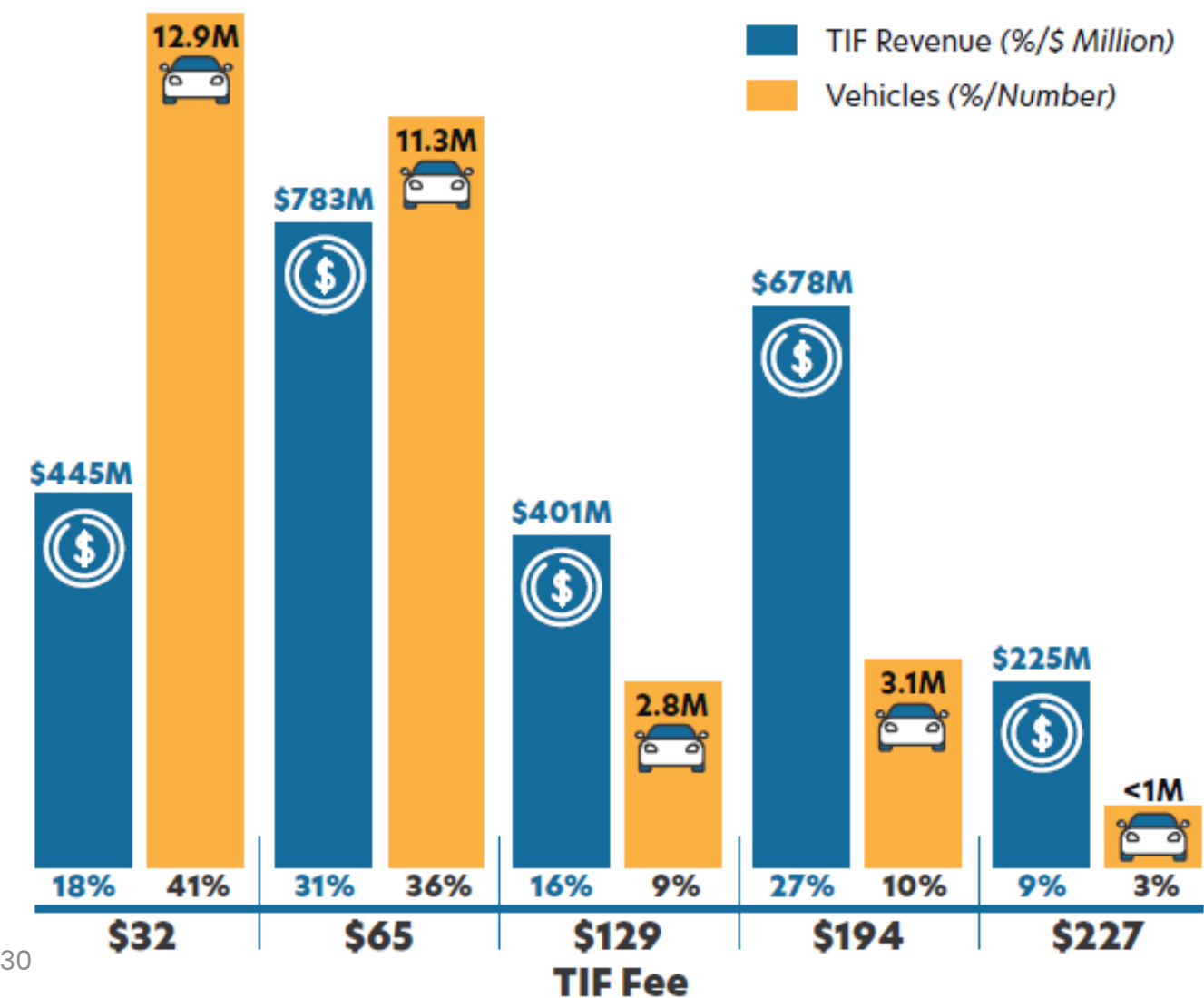
Flat Registration Fee

The most straightforward fee option is for California to consider adding average gas and diesel tax equivalent registration fees on all passenger and commercial vehicles. This is easy to administer and simple to explain. Certain stakeholders, however, could raise concerns that it does not sufficiently consider impacts to low-income individuals.



Value-Based Registration Fee

Transportation Improvement Fee Distribution – Sept 2025



The Transportation Improvement Fee (TIF) was added by SB 1 in 2017 to all passenger vehicles. California could expand on this existing structure. However, it is important to understand that the California fleet is not split equally across the five TIF categories – this has both revenue and equity implications. 77 percent of the vehicles paying the TIF in 2025 are paying the two lowest fee amounts on vehicles valued below \$25,000. They contributed \$1.2 billion or 49 percent of the total revenues.

TIF Vehicle Value	TIF Fee
\$0-\$5,000	\$32
\$5,000-\$25,000	\$65
\$25,000-\$35,000	\$129
\$35,000-\$60,000	\$194
\$60,000+	\$227



Other Registration Fee Options

Electric Vehicle Registration Fee

- The Road Improvement Fee (RIF) was also added by SB 1 to zero-emission vehicles (ZEVs).
- The RIF could be increased from the current \$121 to the \$340 gas tax average, bringing ZEVs to an equal level of support of road maintenance as a gas vehicle.
- The RIF could be expanded to electric commercial vehicles.

Hybrid Vehicle Registration Fee

- An extra registration fee on fuel-efficient gas and plug-in hybrid vehicles also could increase their contribution to transportation funding.

Weight-Based Registration Fee

- Pick-up trucks and commercial vehicles currently pay annual registration fees.

California Registration Fees by Weight



Pickup Trucks

Unladen Weight	2-Axle	3-Axle
Less than 3,000 lbs	\$8	\$43
3,001 lbs - 4,000 lbs	\$24	\$77
4,001 lbs - 5,000 lbs	\$80	\$154
5,001 lbs - 6,000 lbs	\$154	\$231
6,001 lbs - 7,000 lbs	\$204	\$308
7,001 lbs - 8,000 lbs	\$257	\$385
8,001 lbs - 9,000 lbs	\$308	\$462
9,001 lbs - 10,000 lbs	\$360	\$539



Commercial Vehicles

Gross Vehicle Weight (GVW) or Combined Gross Weight (CGW)	
10,001 lbs - 15,000 lbs	\$332
15,001 lbs - 20,000 lbs	\$447
20,001 lbs - 26,000 lbs	\$546
26,001 lbs - 30,000 lbs	\$586
30,001 lbs - 35,000 lbs	\$801
35,001 lbs - 40,000 lbs	\$937
40,001 lbs - 45,000 lbs	\$1,028
45,001 lbs - 50,000 lbs	\$1,161
50,001 lbs - 54,999 lbs	\$1,270
55,000 lbs - 60,000 lbs	\$1,431
60,001 lbs - 65,000 lbs	\$1,562
65,001 lbs - 70,000 lbs	\$1,701
70,001 lbs - 75,000 lbs	\$2,004
75,001 lbs - 80,000 lbs	\$2,064



Impacts on Climate, Air Quality, and Zero Emission Vehicle Adoption Goals

- ▶ A road charge could support California's climate-focused goals, improve air quality, and reduce greenhouse gases, via two paths:
 - reducing the amount of driving, or vehicle miles traveled (VMT), or
 - by increasing the number of fuel-efficient and alternative fuel vehicles.
- ▶ Rate structures that could support these efforts include those that provide a discounted rate to electric vehicles, rates that are based on individual vehicle fuel-efficiency/MPG, a block rate that charges a higher per mile rate after reaching a certain number of miles, and rates that are based on weight.
- ▶ In general, climate-focused rate structures raise costs on less fuel-efficient vehicles, which tend to be owned by those in rural or disadvantaged communities, thus increasing negative equity impacts. Higher rates for higher miles can raise equity concerns for certain groups that are typically high mileage drivers, including rural drivers, super commuters, and construction and rideshare workers.
- ▶ As demonstrated by the results of this pilot, climate-focused rates tend to lower revenue. In addition, the MPG-based rate had no greater effect on participants' interest in lowering their VMT or switching vehicles than the flat rate.
- ▶ Consequently, in addition to their negative equity and revenue impacts, the question must be seriously considered as to whether these rate structures would actually manifest the climate-focused behavior changes they aim to achieve. The individual amounts involved may be too small to inspire people to change. There may be more effective opportunities to achieve these critical goals with other policy tools that the State could explore.



Impacts on Equity Goals



- ▶ In a road charge setting, equity is largely considered either in terms of income disparity or geographic fairness between rural and urban communities.
- ▶ In the switch from a gas tax to a flat rate passenger road charge system, comparative taxes are determined by the fuel efficiency of the vehicle. Research has shown that both rural communities and disadvantaged communities tend to drive less fuel-efficient vehicles, which means under the current gas tax system they are paying more than others to use the road. A switch to a revenue neutral flat road charge rate thus does bring equity benefits. However, those who wish to increase equity further can consider a low-income discounted rate.
- ▶ An equity-focused rate structure that provides discounts to low-income individuals is feasible, but comes with many questions that impact its implementation and impact to revenue in very large ways.
- ▶ Depending on the definition of “low-income” selected, the discount could apply to anywhere from 11 to 50 percent of the population. Consequently, it could have very large revenue impacts.
- ▶ From a climate perspective, low-income individuals on average drive less fuel-efficient vehicles, and this rate structure provides no incentive for them to change their vehicles or drive less.
- ▶ Finally, as with climate-focused rate structures, the question of whether the discount provided to the individual is large enough to achieve the goal must be considered.

Impacts on Revenue Goals

In a road charge setting, California's goals for transportation revenue tend to hold the center of the discussion, with one flat road charge rate for all passenger vehicles typically the focus. This rate structure addresses revenue loss from EVs and the general greater fuel-efficiency of the fleet. It is the simplest of the rate structures to administer, though more complex than a registration fee.

It also lessens the current inequity of the gas tax, where those in disadvantaged communities and rural areas pay more to use the road.

In this pilot, participants paying the flat rate were more likely to anticipate driving less and just as likely to switch to another vehicle as the MPG-based rate. Thus, the impact to climate goals are likely mixed.

EVs Only?

A popular variant is to apply a flat road charge rate only to electric vehicles and hybrids. This addresses revenue loss from EVs, but not necessarily from greater fleet fuel-efficiency. While it does increase the contribution of EV owners, it does not bring down the cost for rural and disadvantaged communities, lessening the equity benefits. Conversely, on the climate side it does maintain higher costs on less fuel-efficient vehicles.

In general, this option is an acceptable idea to the public, and is the expressed preference of California tribes, as well as rural and trucking stakeholders. It is also the approach taken by states such as Utah, Oregon, and Virginia in establishing their road charge programs.



Impacts on Administration

The main point to understand regarding implementation is that when a rate structure requires information that is not currently in the DMV database, administrative costs will increase.

- ▶ A single flat rate on all passenger vehicles is the easiest rate structure to administer, as no additional factors regarding the vehicle have to be considered or processed.
- ▶ The more detail added to the rate structure, the more likely the administrative costs and potential lost revenue from data gaps will increase.
- ▶ For example, weight information can be deciphered from the VIN number in the database, but MPG data has to be pulled from the U.S. Environmental Protection Agency system, and around 15 percent of vehicles do not have an EPA rating. Tying individual low-income status to a vehicle-based database is a further step in complexity.
- ▶ Overall, flat or block rates are the simplest to administer, while MPG and low-income are the most complex. Complexity can be overcome, but it comes with extra cost, time, and potential for lost revenue.



Key Takeaways

Overall, this pilot demonstrates that California cannot simultaneously achieve its climate, equity, and revenue goals through a single road charge system. Trade-offs are inevitable, and policymakers must weigh costs, benefits, and administrative feasibility when selecting road charge rate structures. In particular, the equity and climate effects of different rate structures are often in direct conflict.

A key consideration in each rate structure scenario is whether the size of any benefit has enough effect on the individual to balance the costs.

It might be beneficial for the state to consider a suite of policy tools to effectively address all of these critical goals, with road charge focusing on one.

Rate Structure 	Climate Goals 	Equity Goals 	Revenue Goals 	Administration 
Block of Miles Rate	Potentially encourages less driving	Raises costs for rural drivers and super-commuters	Depending on block cutoffs, could have small or large negative effect on revenue	 Simple
Electric Vehicle Discount Rate	Limited benefits	Provides subsidy to those better off	Similar negative effect as current gas tax structure	 Moderately Simple
MPG-Efficiency-Based Rate	Neutral to slightly negative compared to flat rate	Raises costs for low income and rural drivers	Would raise almost a billion dollars a year less than a flat rate	 Complex
Weight-Based Rate	Neutral	Potentially raises costs for rural drivers	Likely similar revenue impacts as MPG-Based Rate	 Moderately Simple
Low-Income Discount Rate	Neutral to slightly negative	Positive, but size of individual impact potentially small	Depending on definitions, could have large revenue impacts	 Very Complex
Flat Rate Per Mile	Mixed	Positive, small decreases in costs for rural and low-income drivers	Addresses revenue loss from fuel-efficient and electric vehicles	 Simple

Commercial Vehicles Are Different

- Commercial vehicles range in weight from 10,000 to over 80,000 pounds, and the amount of gasoline or diesel required to move these various weights differs greatly. If one rate were to be charged to all commercial vehicles, the practical effect would be to shift the tax burden away from 18-wheelers to smaller delivery-type vehicles. This could create unknown pass-through effects on various costs of goods.
- Because of this, weight-based categories may be a better approach to future-proofing transportation revenue from commercial vehicles, a large piece of which supports transit.
- The Eastern Transportation Coalition has piloted a four-category rate structure with input from the trucking industry. This rate structure could be applied to all commercial vehicles or only to electric commercial vehicles.





More Questions?



Public Opinion Findings

Road Conditions and Gas Tax Awareness

Californians continue to give low ratings to the condition of freeways, highways, and local roads. Potholes and ongoing construction were common complaints.

- Participants had limited understanding of how the gas tax funds roadway maintenance.
- Many mistook high gas prices for high gas taxes and believed the state had sufficient funds, blaming poor road conditions on mismanagement, not revenue shortfalls.
- Some respondents recognized that hybrid and electric vehicles may be reducing gas tax revenue.

Response to the Road Charge Concept

Despite recognizing the need for a sustainable revenue stream, initially only 45 percent of respondents viewed the idea of a road charge positively. However, additional information about road charge improved the fairness perception of road charge by nine percentage points. The increase in support after education has proven true across multiple pilots in California and other states.

- Californians are initially divided on whether a gas tax or a road charge is the fairer method to fund transportation, but upon learning more about road charge those that think it is more fair increased by eight percentage points.



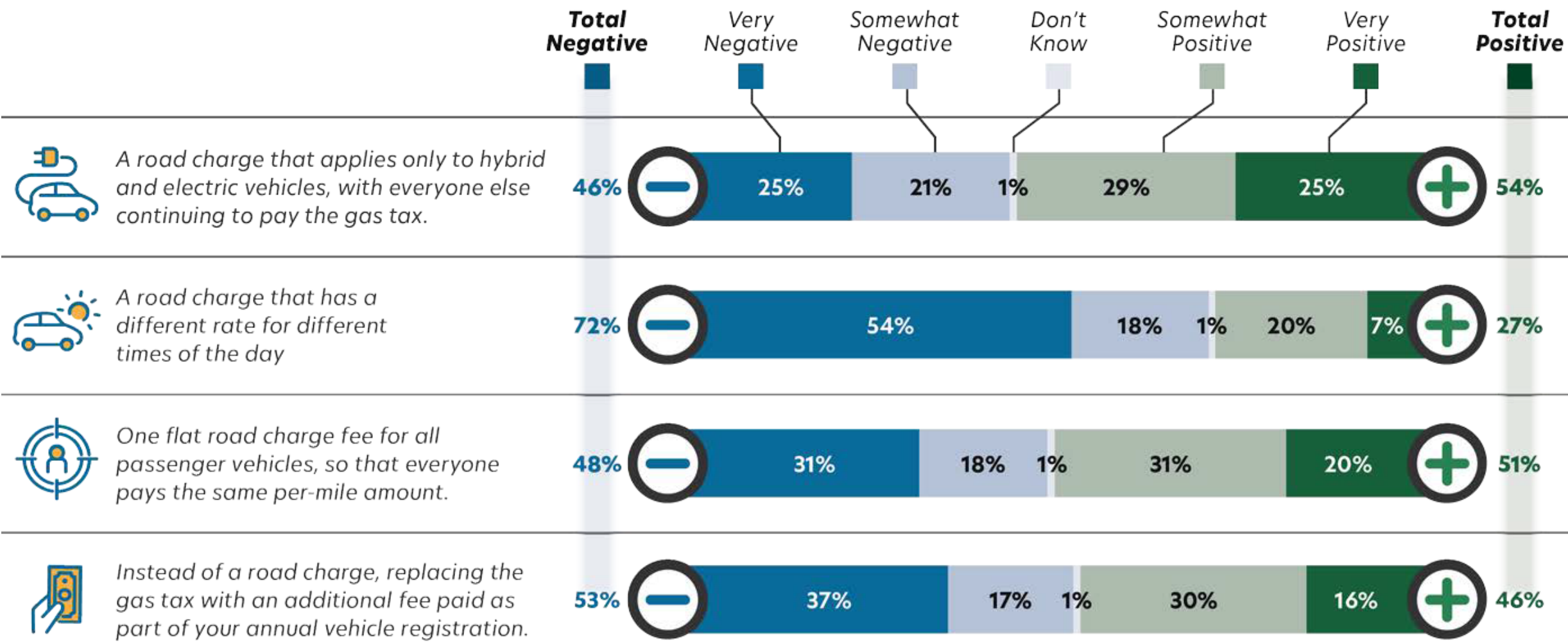
Consistent Responses Over Five Years of Surveys

- While less than half of Californians form a positive initial impression of the road charge concept, even a short paragraph on the importance of replacing the gas tax with a stable revenue stream brings positive attitudes into a majority position.
- The perceived importance of replacing the gas tax has remained consistent over time at over 70%.
- The share of the public who think road charge is more fair has remained mostly stable at about 35% over the years.
- About 15% of the public support the concept that people who drive more should pay more for maintenance. 50 – 60% feel Californians should pay equal amounts as a basic service and 5–30% are undecided.



Preferences on Different Types of Tax Mechanisms

Question 26-34: A road charge can be structured in various ways. Please tell me if you would have a positive or negative impression of each of the following features of a potential road charge for California:



Survey Preferences on Discounted Rates

- A slight majority of 53 percent supports a road charge program having lower rates for low-income drivers, with urban respondents more supportive while rural and suburban respondents were skeptical. However, support drops to 44 percent when it's made clear that others would have to pay more to offset the subsidy.
- The road charge rate structure that offers lower charges for electric vehicle drivers was generally unpopular, with only 39 percent support. However, when it is made clear that others would have to pay more, support for an electric vehicle discount drops to only 18 percent. Even 65 percent of the electric vehicle owners did not support these discounts.
- Flat per-mile rates were preferred by most, especially in rural and suburban areas.



Focus Group Findings

Observations Echoed Survey Results

"This isn't about protecting the environment, lowering emissions... This is about increasing the tax base to, to protect and sustain our roadways."
- Urban driver, 101-200 miles/week

► Road Conditions and Gas Tax Awareness

Observations about the condition of roads and highways varied from place to place. There was some awareness that road maintenance funding comes from the gas tax, but few understood that revenues from the gas tax will decrease.

► Introduction to Road Charge Concept

In the Rural Focus Group, participants were unaware of the decreasing gas tax revenues, and they were indifferent to the road charge concept. In the Urban Focus Group, participants immediately felt that electric vehicle drivers were benefitting unfairly by not paying the gas tax and had a more positive reaction to the road charge concept.

► Discounted Rate Structures

In the Rural Focus Group, participants were not receptive to discounted rates for low-income people or electric vehicle owners. In the Urban Focus Group, a couple of participants were open to the idea of a lower-rate structure for low-income drivers. There was a visibly negative reaction to the idea of offering a lower rate to electric vehicle drivers in both groups. Not only because they thought the entire point of the road charge was to have electric vehicle drivers pay their fair share, but also because those who currently drive electric vehicles tend to have higher incomes. Both focus groups concluded that electric vehicle owners do not need discounts.



Next Steps

- ▶ **TAC to submit any comments by October 16.**
- ▶ **Draft report presented to the California Transportation Commission at December meeting.**
- ▶ **Submission of final report to the Legislature by December 31, 2026.**





Questions?

