



# What Do Americans Think About Federal Tax Options to Support Transportation? Results from Year Fourteen of a National Survey

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REPORT 23-27

# WHAT DO AMERICANS THINK ABOUT FEDERAL TAX OPERATIONS TO SUPPORT TRANSPORTATION? RESULTS FROM YEAR FOURTEEN OF A NATIONAL SURVEY

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November 2023

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

<b>1. Report No.</b> 23-27	<b>2. Government Accession No.</b>	<b>3. Recipient's Catalog No.</b>	
<b>4. Title and Subtitle</b> What Do Americans Think About Federal Tax Options to Support Transportation? Results from Year Fourteen of a National Survey		<b>5. Report Date</b> November 2023	
		<b>6. Performing Organization Code</b>	
<b>7. Authors</b> Asha Weinstein Agrawal, PhD, 0000-0003-2328-0263 Hilary Nixon, PhD, 0000-0001-5378-3473 Adam Azevedo, 0009-0007-4147-4527		<b>8. Performing Organization Report</b> CA-MTI-2303	
<b>9. Performing Organization Name and Address</b> Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219		<b>10. Work Unit No.</b>	
		<b>11. Contract or Grant No.</b> 69A3551747127	
<b>12. Sponsoring Agency Name and Address</b> U.S. Department of Transportation Office of the Assistant Secretary for Research and Technology University Transportation Centers Program 1200 New Jersey Avenue, SE Washington, DC 20590		<b>13. Type of Report and Period Covered</b> Final Report	
		<b>14. Sponsoring Agency Code</b>	
<b>15. Supplemental Notes</b> 10.31979/mti.2023.2303			
<b>16. Abstract</b> <p>This report summarizes the results from the fourteenth year of a national public opinion survey asking U.S. adults questions related to their views on federal transportation taxes. A nationally representative sample of 2,531 respondents completed the online survey from February 13 to March 23, 2023.</p> <p>The questions test public opinions about raising the federal gas tax rate, replacing the federal gas tax with a new mileage fee, and imposing a mileage fee just on commercial travel. In addition to asking directly about support for these tax options, the survey collected data on respondents' views on the quality of their local transportation system, their priorities for federal transportation spending, their knowledge about gas taxes, their views on privacy and equity matters related to mileage fees, travel behavior, and sociodemographic characteristics.</p> <p>Key findings include that large majorities supported transportation improvements across modes and wanted to see the federal government work towards making the transportation system well maintained, safe, and equitable, as well as to reduce the system's impact on climate change. Findings related to gas taxes include that only 2% of respondents knew that the federal gas tax rate had not been raised in more than 20 years, and 70% of respondents supported increasing the federal gas tax by 10 cents per gallon if the revenue would be dedicated to maintenance or safety. With respect to mileage fees, around half of respondents supported some form of mileage fee, whether that was assessed on all travel or just on commercial travel. Also, the majority of respondents supported variable rate structure options that included 62% who supported charging low-income drivers a reduced mileage fee rate and 52% who thought electric vehicles should pay a lower rate than gas and diesel vehicles.</p> <p>The analysis of trends across the survey series, which has run annually from 2010 to 2023, shows that support for both higher gas taxes and a hypothetical new mileage fee has risen slowly but steadily.</p>			
<b>17. Key Words</b> Transportation taxes, transportation fees, public opinion, gasoline tax, mileage fees, highway user taxation, user charges		<b>18. Distribution Statement</b> No restrictions. This document is available to the public through The National Technical Information Service, Springfield, VA 22161	
<b>19. Security Classif. (of this report)</b> Unclassified	<b>20. Security Classif. (of this page)</b> Unclassified	<b>21. No. of Pages</b> 52	<b>22. Price</b>

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DOI: 10.31979/mti.2023.2303

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## **ACKNOWLEDGMENTS**

We thank Cameron Simon for running the statistical testing, Ishita Simhal for producing the figures, Lisa Rose for editing, and Alverina Weinardy for graphic design. We also thank the Mineta Transportation Institute for funding the research and MTI staff for support, including Executive Director Karen Philbrick, PhD.

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## 1. INTRODUCTION

Over the past several decades, the transportation revenue available from state and federal gas taxes has fallen significantly in terms of inflation-adjusted dollars per mile traveled. At the same time, the transportation system requires critical—and expensive—system upgrades. Among other needs, a large portion of the national highway system requires major rehabilitation, and there is growing desire at all levels of government to substantially upgrade and expand infrastructure to support public transit, walking, bicycling, and micro-mobility modes such as electric kick-scooters.

This dilemma of growing needs and shrinking revenues can be resolved in only two ways: either the nation must dramatically lower its goals for system preservation and enhancement, or new revenues must be raised. If the latter is to happen, legislators must be convinced that increasing taxes or fees is politically feasible. One portion of the political calculus that legislators make when deciding whether to raise new revenues is, of course, the likelihood of public support for—or opposition to—raising different kinds of taxes.

This report contributes to the understanding of public sentiment about increasing transportation taxes by presenting results from the fourteenth year of an annual survey investigating public opinion about a variety of federal-level transportation tax options. The survey data was collected in February and March 2023.

The specific federal taxes tested were six variants of a gas tax increase, two variants of a new mileage fee on all travel that would replace the federal gas tax, and three variants of a mileage fee for commercial travel that would be levied in addition to the gas tax. In addition to asking directly about support for these tax options, the survey asked respondents about their views on the quality of their local transportation system, their priorities for federal transportation spending, knowledge about gas taxes, views on privacy and equity matters related to mileage fees, preferences for how a mileage fee rate might be structured, travel behavior, and standard sociodemographic characteristics.

The survey questionnaire described the various tax proposals in general terms only, so the study results cannot be assumed to reflect support for any actual proposal put forward. Nevertheless, the results show likely patterns of support and, more importantly, the public's *relative* preferences among different transportation tax options.

The report compares the results of the fourteen surveys in the series to establish how public views may have changed since 2010.<sup>1</sup> To permit reliable trend analysis, the surveys used identical question language each year to describe most of the tax options. However, starting in 2019, the survey was administered using an online panel, unlike previous years that gathered data through a random-digit-dialing phone survey. Comparisons of results from before and after the change in survey mode should be interpreted with care, since changes in survey mode can affect responses.

The remaining chapters of the report are organized as follows. Chapter 2 describes the survey methodology and presents an overview of the questionnaire and details of the

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<sup>1</sup> Reports from all years in the survey series are available at <https://transweb.sjsu.edu/about/research-centers/finance/MTI-Annual-Survey>.

implementation procedure. Next, Chapter 3 describes findings on respondents' goals for the transportation system, Chapter 4 presents findings related to the federal gas tax, and Chapter 5 presents findings related to mileage fees. Finally, Chapter 6 summarizes the key findings and suggests policy implications.

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## 2. SURVEY DESIGN AND ADMINISTRATION

The online survey was completed by 2,531 U.S. adults, who were recruited by Qualtrics through an online panel sample. This chapter describes the questionnaire design, survey sampling and administration, and characteristics of the respondents.

### 2.1 QUESTIONNAIRE DESIGN

The survey questionnaire was designed to test public support for variants on taxes that could be used to raise federal transportation revenues: an increase in the federal gas tax rate, a new national mileage fee to replace the federal gas tax, and a new mileage fee assessed only on commercial travel. The exact wording used for all questions can be found in Appendix A, which reproduces the survey questionnaire.

Because gas and mileage taxes are revenue options likely to receive considerable policy scrutiny in coming years, the survey tested support for different versions of each tax. Overall, 11 different federal tax options were tested: 6 variants of a gas tax increase, 2 variants of a new mileage fee on all travel to replace the federal gas tax, and 3 variants of a mileage fee for commercial travel that would be levied in addition to the gas tax. To permit trend analysis, most of the gas tax variants use identical language to those tested in earlier years of the survey series. The mileage fee variants are also asked with the same wording as last year.

To make these hypothetical taxes easier for respondents to understand, the survey gave specific amounts for the gas tax increase and a rate for the mileage fee on all travel. The amounts were selected to be simple numbers within the range of mainstream current policy discussion.

**Gas-tax increases.** All variants of a federal gas tax increase involved raising the existing 18¢-per-gallon tax to 28¢ per gallon,<sup>2</sup> but each included a different set of information for respondents to consider. The six variations were:

- A “base-case” 10¢ increase in the gas tax, with respondents given no information other than the rate and a statement that proceeds would be spent “for transportation.”
- A 10¢ increase in the gas tax, with the revenues to be spent only for projects to reduce local air pollution caused by the transportation system.
- A 10¢ increase in the gas tax, with the revenues to be spent only on projects to reduce the transportation system’s contribution to global warming.
- A 10¢ increase in the gas tax, with the revenues to be spent only on projects to maintain streets, roads, and highways.
- A 10¢ increase in the gas tax, with the revenues to be spent only on projects to reduce accidents and improve safety.

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<sup>2</sup> The current federal tax on gasoline is 18.4¢ per gallon, but respondents were told that it was 18¢ per gallon in order to make the survey simpler to understand.

- A 10¢ increase in the gas tax, with the revenues to be spent only on projects to reduce traffic congestion. (This option was added to the survey in 2019.)

**New mileage fees to replace the gas tax.** Two variants of a mileage fee on all travel were presented. Both involved replacing the federal gasoline tax with a new fee that charges drivers for each mile driven and relies on electronic meters to track mileage.<sup>3</sup> Respondents were also told that someone driving 10,000 miles a year would pay \$300. The two variants, which differed only in the rate structure, were:

- “Flat-rate” variant: a fee of three cents per mile, with every vehicle taxed at the same rate.
- “Green” variant: the average rate would be three cents per mile, but vehicles that pollute less would be charged less and vehicles that pollute more would be charged more.

**A “Business Road-Use Fee”:** As of 2021, the survey has asked respondents about a hypothetical mileage fee, termed a Business Road-Use Fee, that would be assessed only on miles that commercial vehicles drive on the job. Those vehicles would continue to pay the current gas tax as well. Respondents were asked if they would support such a tax on different types of commercial travel: delivery and freight trucks, taxis, and ride-hailing vehicles.

The survey also asked several questions to test support for specific features of a hypothetical new mileage fee on all travel: whether respondents thought all-electric vehicles should pay a lower rate than gas and diesel vehicles; whether low-income drivers should pay a reduced rate; whether respondents would be bothered by having their mileage tracked; whether they see a mileage fee as more or less fair than a gas tax; and how often they would prefer to pay a new mileage fee (each time they buy gas or charge a vehicle, once a month, or annually).

This year’s survey added two new questions designed to gauge respondents’ conceptual preference for how the federal government raises transportation. The first of these tested whether respondents intuitively supported the idea of charges on driving that corresponded to the amount of travel:

Which of the following would you prefer as a replacement for the gas tax?

- A mileage fee
- An annual charge that is the same for everyone no matter how much they drive

The second new question tested whether or not respondents supported the concept of relying on user fees to pay for streets, roads, and highways:

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<sup>3</sup> The description of the mileage fee options in the 2019 and 2020 surveys is slightly different from the description presented in previous surveys in the series. Also, the rate proposed changed in 2021: this year it was three cents per mile, whereas previous years in the survey series proposed a fee of one cent per mile.

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As a general principle, how should the federal government raise money to pay for streets, roads, and highways?

- Taxes on driving and vehicles (for example, gas taxes, mileage fees, or annual vehicle fees)
- The federal income and business taxes

Finally, to provide context for understanding respondents' views on gas and mileage taxes, the questionnaire also asked respondents to rate the quality of transportation infrastructure and services in their community, their goals for improving transportation across the U.S., their priorities for different ways the federal government could spend gas tax revenues, their estimate of how recently the federal gas tax rate has been raised, simple travel behavior questions, and standard socio-demographic questions.

## 2.2 SURVEY ADMINISTRATION

The 2023 survey was administered online, using a survey platform and panel of respondents managed by Qualtrics. Qualtrics is a so-called “panel aggregator” that recruits most survey respondents through partner organizations that maintain market research panels. In some cases, Qualtrics also recruits respondents through targeted email lists, social media, and member referrals. Qualtrics uses third parties to verify the identity of panel members (e.g., name, address, and age) and works with sample partners to ensure they meet Qualtrics' quality control standards. Respondents receive the survey invitation in various ways, including email invitation, in-app notifications, and upon signing into a panel portal. The invitation to participate describes the length of the survey and incentive amount offered, but not the specific subject matter. The nature and amount of the incentive varies, but can be cash, gift cards, or points for a customer loyalty program such as an airline frequent flyer program. Finally, Qualtrics scrubs the final dataset to remove respondents who exhibit suspicious behaviors such as finishing the survey in less than half the median survey completion length or providing gibberish answers to open-ended questions.

Through the year 2018, the surveys in this series were administered with random-digit-dial telephone surveys. In 2019, we changed the survey mode to take advantage of the benefits of online surveys. Online surveys are increasingly popular due to their low cost, the speed at which they can be administered, convenience for respondents, and ability to include question design options that are difficult or impossible to implement via telephone or mail.<sup>4</sup> A 2021 analysis from the Pew Research Center found that 93% of Americans are online,<sup>5</sup> which suggests that online surveys are currently a reasonable method to reach a representative sample of U.S. adults, despite evidence that some population subgroups are often underrepresented in online surveys. Groups that are less well-represented online include people who are older, have low-income, have less

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4 Valerie M. Sue and Lois A. Ritter, *Conducting Online Surveys*, 2<sup>nd</sup> edition (Sage Publications, 2012), <https://dx.doi.org/10.4135/9781506335186>.

5 Andrew Perrin and Sara Atske, “7% of Americans Don’t Use the Internet; Who Are They?” Pew Research Center, April 2, 2021, <https://www.pewresearch.org/fact-tank/2021/04/02/7-of-americans-dont-use-the-internet-who-are-they/>.

formal education, live in rural communities, and do not have high-speed internet access at home.<sup>6</sup>

Survey mode can influence the way respondents answer questions, so readers are cautioned that when trends are discussed in this report's findings, the change in survey mode could account for some of the difference between responses before and after 2019. A study by the authors of this report, for example, found higher support levels for some of the same tax options described here when responses were collected from the online panel "SurveyMonkey Audience" than when responses were collected with a random-digit-dial phone survey.<sup>7</sup> However, research suggests that questions about abstract policy matters (such as those in this survey) are less affected by survey mode than questions about potentially embarrassing personal topics where respondents may feel pressured to give socially acceptable answers. Researchers have also found that respondents to online polls are less likely than phone survey respondents to answer rating questions with the most positive answers.<sup>8</sup>

### ***Sampling Approach***

Quota sampling was used in order to ensure a sample that closely represents the U.S. adult population. The authors requested a nationally-representative sample, as defined by U.S. American Community Survey (ACS) data on gender, race and ethnicity, annual household income, and age. We set quotas close to actual population values, with slight variations to ensure enough representation by small population subgroups that these groups could be analyzed independently. Table 1 shows the ACS values used to build the quotas.

Interviews were conducted from February 13 to March 23, 2023. The median time to complete each survey was 1011 seconds (16.9 minutes), and the mean time was 1524 seconds (25.4 minutes). A total of 2,531 adults responded with usable data, or 25% of the 10,205 who clicked on the initial survey invitation link.

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6 Pew Research Center, *Collecting Survey Data* (no date), <https://www.pewresearch.org/methods/u-s-survey-research/collecting-survey-data/>.

7 Hilary Nixon and Asha Weinstein Agrawal, *Do Americans' Opinions About Federal Transportation Tax Options Depend on Survey Mode? A Comparison of Results from Telephone and Online Surveys* (San Jose: Mineta Transportation Institute, April 2018), <http://transweb.sjsu.edu/research/Do-Americans-Opinions-About-Federal-Transportation-Tax-Options-Depend-Survey-Mode>.

8 Courtney Kennedy and Claudia Deane, "What Our Transition to Online Polling Means for Decades of Phone Survey Trends" (Pew Research Center, February 27, 2019), <https://www.pewresearch.org/fact-tank/2019/02/27/what-our-transition-to-online-polling-means-for-decades-of-phone-survey-trends/>.



**Table 1. Quotas Used for Sampling**

Characteristics		% of respondents
Gender	Male	49
	Female	51
Race	White (only)	65
	Black or African-American (only)	16
	Asian or Asian-American (only)	8
	Native Hawaiian or other Pacific Islander (only)	3
	American Indian or Alaska Native (only)	3
	Other or multi-race	5
Ethnicity	Hispanic	17
	Non-Hispanic	83
Income (annual household)	0 - \$49,999	40
	\$50,000 - \$99,999	33
	\$100,000+	27
Age (years)	18 – 24	31
	25 – 54	34
	55+	35

### 2.3 SURVEY RESPONDENTS

The 2,531 adult survey respondents who provided usable data were generally representative of the U.S. population in terms of Census region and sociodemographic characteristics (Table 2). For the survey findings and analysis presented in this report, we lightly weighted the data using a raking method to match the Census Bureau's 2017-2021 American Community Survey five-year estimates with respect to gender, race, Hispanic ethnicity, education level, household income, and age.<sup>9</sup>

<sup>9</sup> Steven Ruggles, et al, "IPUMS USA: Version 13.0 American Community Survey 5-Year Estimates, 2017-2021" (Minneapolis, MN: IPUMS, 2023), <https://doi.org/10.18128/D010.V13.0>.

**Table 2. Socio-Demographic Characteristics of Survey Respondents Compared to the U.S. Adult Population**

Characteristics		Sample (%)	U.S. adults <sup>a</sup> (%)
Gender	Male	48.4	49.0
	Female	51.6	51.0
Of Hispanic, Latino/a, or Spanish origin		16.8	16.4
Race	White only	62.1	70.1
	Black or African-American only	18.7	12.3
	Asian or Asian-American only	9.0	5.9
	Other or multi-race	10.2	11.8
Education	Less than high school graduate	3.1	11.2
	High school graduate	22.6	27.2
	Some college	29.6	30.4
	College graduate	28.2	19.5
	Graduate degree	16.5	11.6
Income (annual household)	Less than \$25,000	19.0	17.2
	\$25,000 – \$49,999	18.6	19.6
	\$50,000 – \$74,999	18.6	16.8
	\$75,000 – \$99,999	11.6	12.8
	\$100,000 – \$149,999	20.2	16.3
	\$150,000 – \$199,999	6.8	7.8
	\$200,000+	5.3	9.5
Age (years)	18 – 24	10.1	11.9
	25 – 34	19.6	17.8
	35 – 44	19.8	16.6
	45 – 54	12.3	16.3
	55 – 64	11.9	16.8
	64 – 74	17.9	12.4
	75 – 84	7.9	5.9
	85+	0.6	2.5

<sup>a</sup> U.S. data are for adults 18 years and older, except that household income is for all U.S. households. Source: Steven Ruggles, et al, "IPUMS USA: Version 13.0 American Community Survey 5-Year Estimates, 2017-2021" (Minneapolis, MN: IPUMS, 2023), <https://doi.org/10.18128/D010.V13.0>.

## 2.4 TREND ANALYSIS

Many of the survey questions are identical to those asked on earlier years of the annual survey series, with a few questions going back to the first survey in 2010. In the cases where we present the trend analysis, readers should note that the survey mode changed in 2019; earlier surveys collected data from a random-digit-dial (RDD) phone survey, whereas respondents from 2019 onwards came from an online panel survey. Evidence suggests that changes in survey mode can influence both who responds and how people respond to surveys. For example, the authors ran a survey experiment with the same gas tax questions presented here using both an RDD phone survey and an online panel

from SurveyMonkey.<sup>10</sup> That study found systematically higher support for the taxes among the online respondents as compared to the phone survey respondents, even though both samples were weighted to match the U.S. population across age, gender, ethnicity, race, and income.

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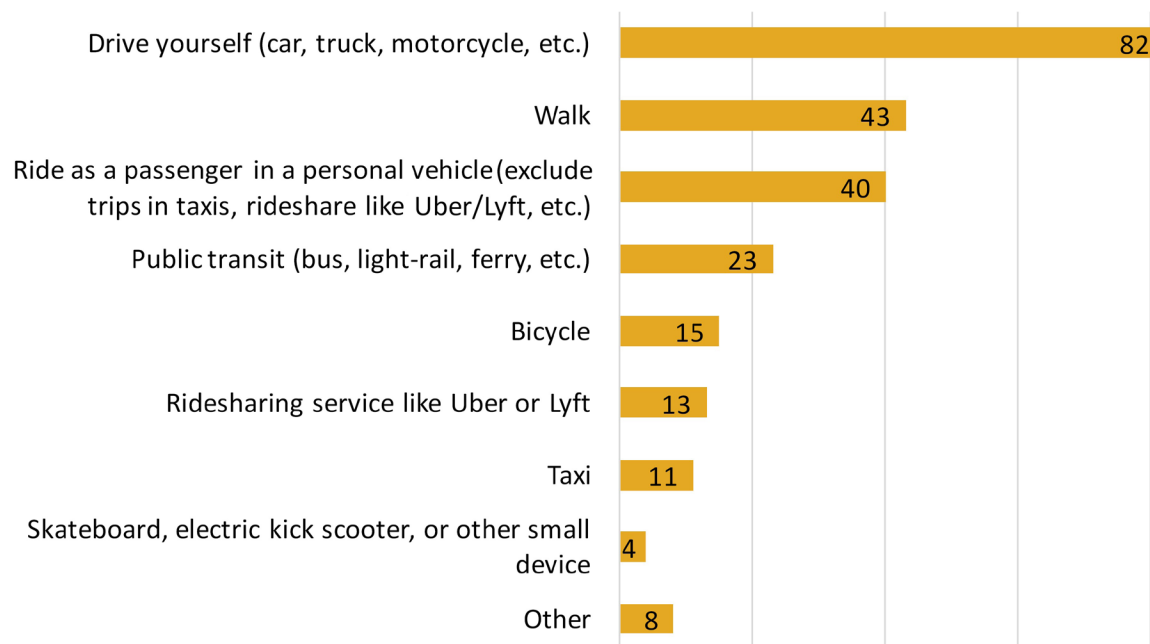
<sup>10</sup> Nixon and Agrawal, 2018.

### 3. FINDINGS ON TRAVEL BEHAVIOR

The survey asked simple travel behavior questions in order to identify the travel modes that the respondents and their household members used, how much the respondents drove for personal reasons, and the type of vehicle the respondent drove most frequently for personal reasons. (Appendix A presents the exact questionnaire language and complete top-line results.)

#### 3.1 TRAVEL MODES USED

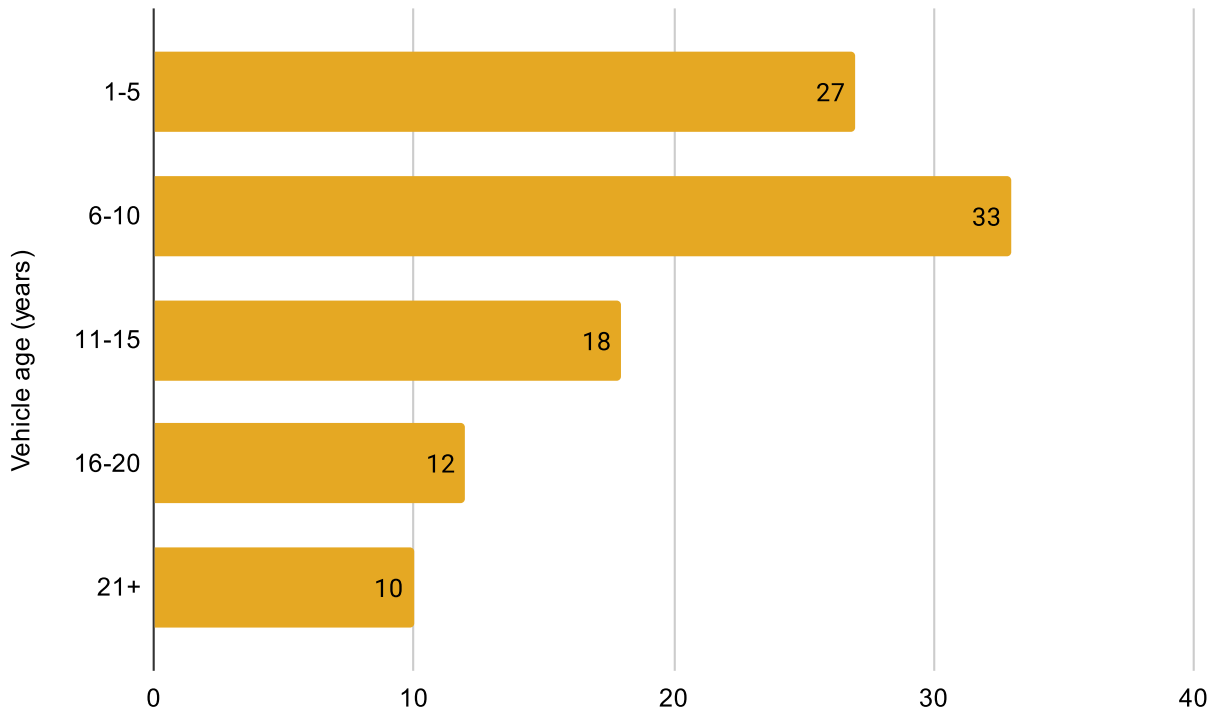
The survey found that most respondents lived in households that rely on a range of modes (Figure 1). When asked what modes they *or other members of the household* had used in the previous month, driving in a personal vehicle was the most common mode selected—82% of respondents reported that someone in the household had driven at least once in the previous month. However, walking was the mode used by the second largest percentage of households—43% of respondents lived in households where someone had walked in the past 30 days. The percentage of walking households was slightly higher even than the percent of households with a member who had ridden as a passenger in a private vehicle, such as getting a ride from a family member or friend (40%). Roughly a quarter of households had members who had ridden public transit (23%), 15% had members who had bicycled, and just over 10% had members who had used ridehailing or taxis (13% and 11%, respectively). Finally, 4% of households had used a skateboard, electric kick scooter, or other small device in the previous month.



**Figure 1. Travel Modes that Respondents' Households Used Within the Previous 30 Days (2023)**

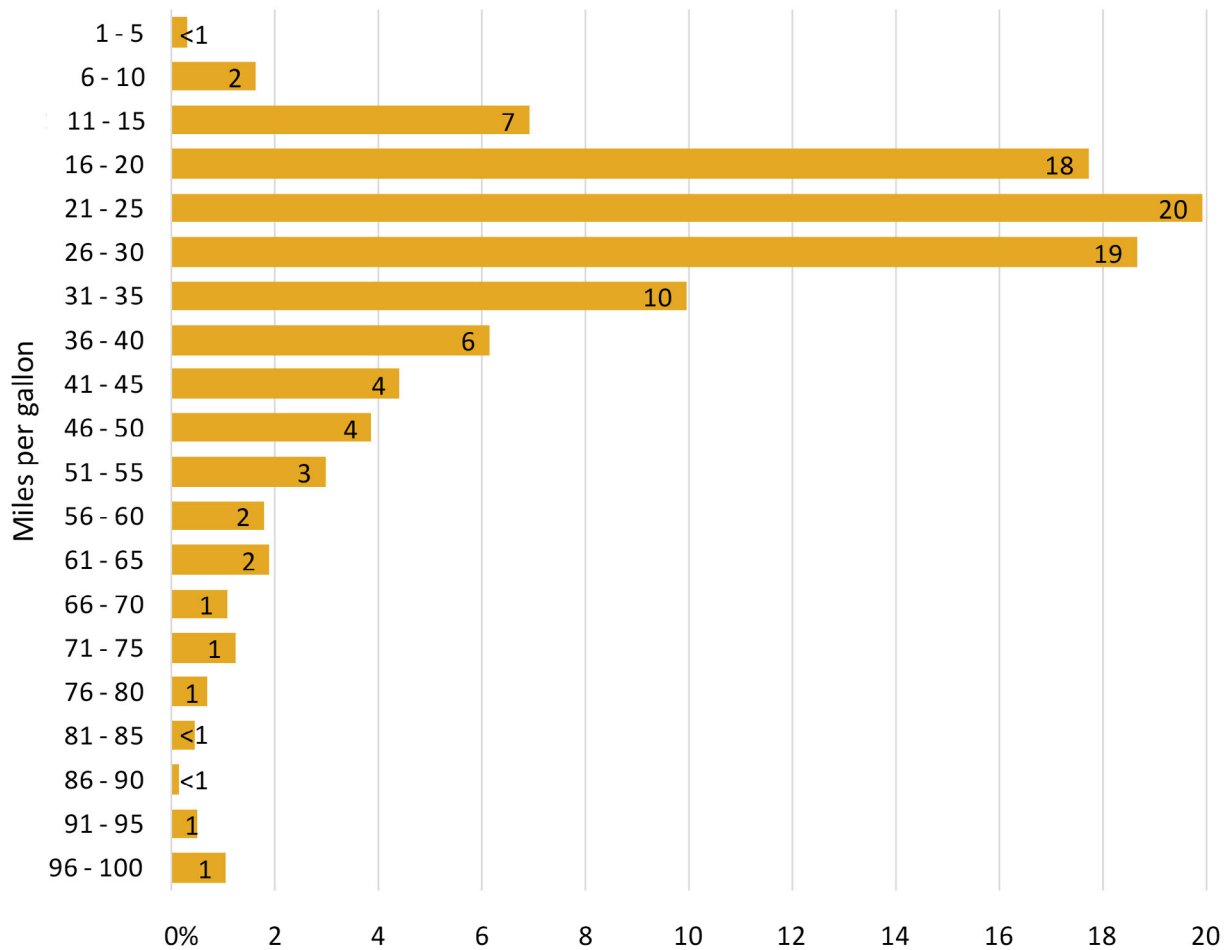
### 3.2 VEHICLE CHARACTERISTICS

Respondents were asked about several characteristics of the vehicle they had driven most frequently in the previous 12 months for personal reasons: vehicle make, model year, and estimated fuel efficiency. Slightly more than half of all vehicles (53%) came from 6 manufacturers: Ford (12%), Chevrolet (11%), Toyota (11%), Honda (8%), Nissan (6%), and Audi (5%). In terms of age, most vehicles were relatively new. Sixty percent of the vehicles were 1 to 10 years old, 30% were 11 to 20 years old, and 10% were 21 years or older (Figure 2).



**Figure 2. Age of Vehicle Respondents Drove the Most for Personal Reasons in the Previous 12 Months**

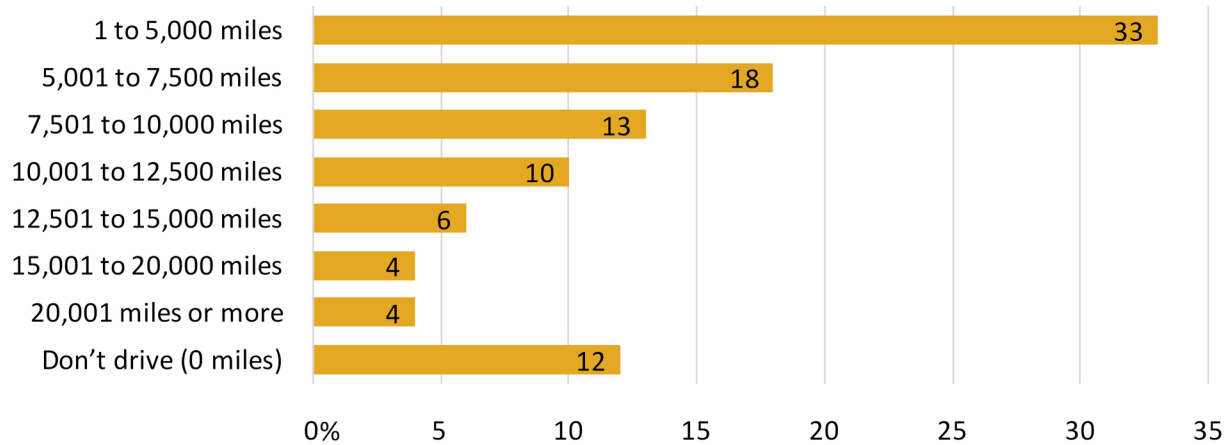
With respect to vehicle fuel efficiency, 18% of respondents said they did not know this for the vehicle they drove the most, and 6% reported an electric vehicle. Of those respondents who did give a fuel efficiency estimate, the mean value was 26.41 miles per gallon, with a standard deviation of 13.63. As Figure 3 shows, 19% had fuel efficiency of no more than 19 mpg, 45% had fuel efficiency of 20 – 30 mpg, and 36% had fuel efficiency over 31 mpg.



**Figure 3. Estimated Fuel Efficiency of the Vehicle Respondents Drove Most Often for Personal Reasons in the Previous Twelve Months (2023)**

### 3.3 ANNUAL MILES DRIVEN

The survey asked respondents who drove to report the mileage they drove in motorized vehicle for personal reasons during the previous 12 months (Figure 4). Across all respondents, including the 12% who did not drive, 51% drove no more than 7,500 miles. Just over a fifth (22%) drove 7,501 to 12,500 miles annually, and 15% drove more than 12,500 miles annually.



**Figure 4. Estimated Miles that Respondents Drove for Personal Reasons in the Previous Twelve Months (2023)**

### 3.4 MONTHLY TRANSPORTATION EXPENDITURES

Respondents were asked to estimate how much their household spent each for fuel, taxis or ridehailing services, tolls, parking, public transit fares, and “other” transportation expenses. Fuel was by the far the largest expense for most households, at a median cost of \$100 per month for those who made fuel purchases. Also, almost all households spent at least some money on fuel (90%). The next most common expenditure was taxi or ridehailing services; not only was the median monthly expenditure the second highest among the categories (\$30 for households who purchased these services), but the proportion of households paying for these services was as high as the proportion paying for any other type of expenditure other than fuel (31%).

**Table 3. Estimated Monthly Household Transportation Expenditures**

Expenditure type	Median <sup>a</sup> (\$)	\$0 (%)	\$1-\$50 (%)	\$51-\$100 (%)	\$101-\$100 (%)	\$151+ (%)
Fuel for personal vehicles	100	10	31	26	9	24
Taxis or ride-hailing services (e.g., Lyft or Uber)	30	69	23	6	1	2
Other transportation-related expenses	20	87	10	2	0	1
Tolls on bridges and highways, including express lane fees	20	69	28	2	0	1
Parking	20	73	24	2	1	1
Public transit (buses, trains, subways, ferries, etc.)	20	71	24	3	1	1

<sup>a</sup> Median values calculated with responses from respondents who indicated that their household spent some money for that expense type.

### **3.5 MOTOR VEHICLE CRASH EXPERIENCE**

The year's survey added in new questions to assess how prevalent vehicle crash experience is among U.S. adults. Seventeen percent of respondents reported having been in at least one motor vehicle crash in the previous 12 months. More specifically, 14% of all respondents had experienced a crash in the previous year while they were in a motor vehicle (as a passenger or driver), 3% had been in a collision when bicycling, and 4% had been in a collision when walking. (Some respondents reported more than one travel mode if they had experienced multiple crashes.) Respondents were also asked whether they had been injured in the past year in a motor vehicle collision. Twelve percent of all respondents had suffered some level of injury, and 4% reported a "serious" injury.

A related question asked whether respondents had a close friend or family member who had experienced a vehicle crash in the preceding year. Twenty-two percent responded yes.



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## 4. FINDINGS RELATED TO RESPONDENTS' VIEWS ON TRANSPORTATION SYSTEM NEEDS

This chapter presents key findings from a set of questions asking respondents about their views related to the quality of the current transportation system and priorities for improving it. (Appendix A presents the exact questionnaire language and complete top-line results.)

The 2021 Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act, or IIJA), represents a major investment to rebuild and improve infrastructure in the U.S. With the significant funding associated with the IIJA, it is critical that transportation professionals and policymakers identify spending priorities that not only meet identified critical infrastructure and service needs but also resonate with the public. If the public does not perceive that IIJA funding was spent wisely, it will be much harder to convince lawmakers to approve future legislation needed to maintain adequate revenue levels over time.

The nation's transportation needs far exceed available funding, even with the infusion of revenue from the IIJA, leaving policymakers to make difficult choices about which competing priorities they will fund. This survey fills a unique gap in understanding about public priorities for national transportation spending. Although a number of national surveys ask a few questions on this general topic, no other recent survey asks about a large number of different options so that policymakers can compare responses across spending possibilities. These relative preferences are far more revealing than the specific support levels for any one option.

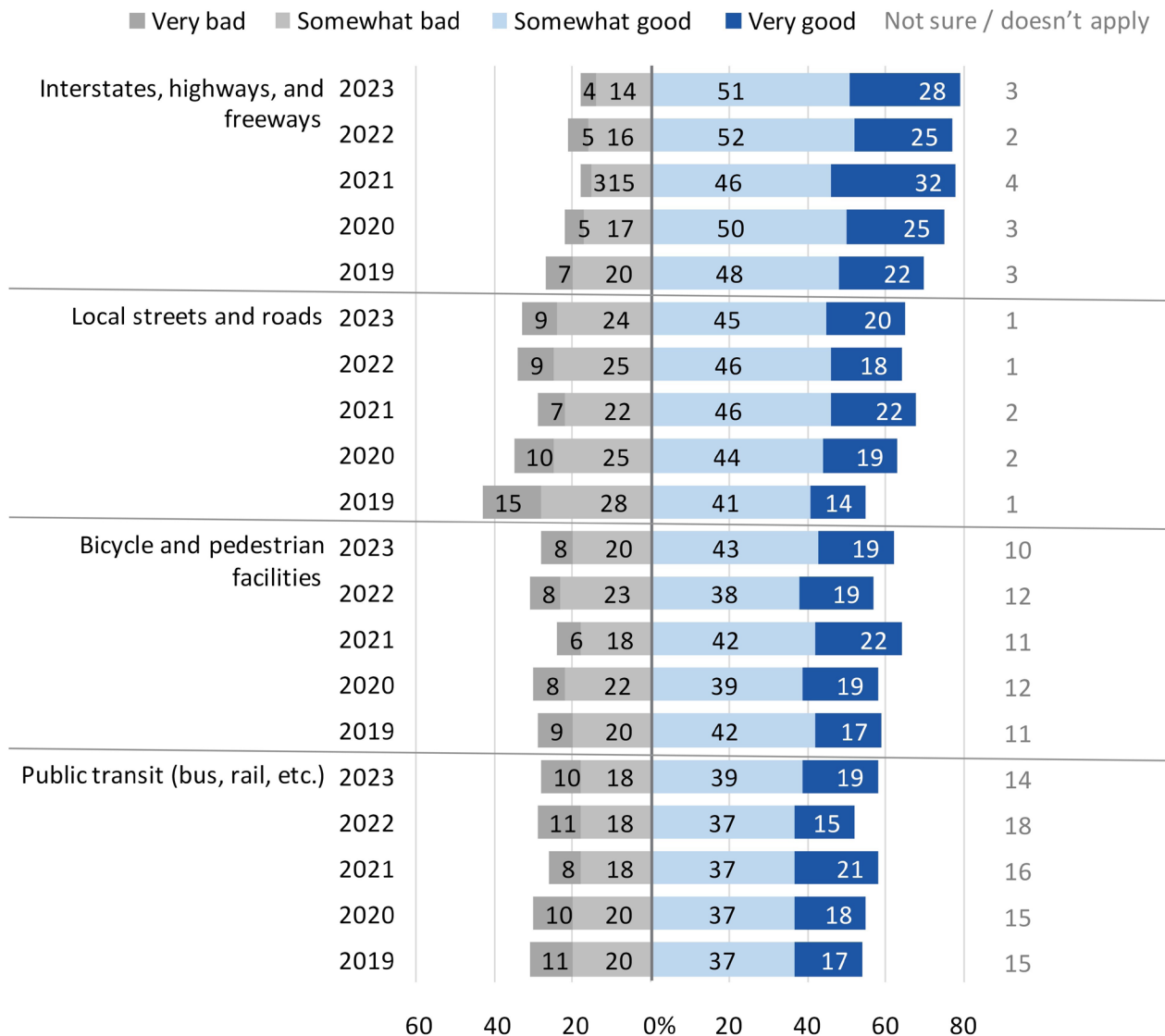
### 4.1 PERCEIVED QUALITY OF THE LOCAL TRANSPORTATION SYSTEM

Figure 5 shows how respondents assessed the quality of transportation infrastructure and services in their own community from 2019 to 2023. The grey bars to the left indicate the percentage of respondents who assessed each type of transportation infrastructure or service negatively (as somewhat or very bad), while the blue bars to the left show the percentage of respondents who assessed each item positively (as somewhat or very good). The figure also shows the percentage of respondents who responded "not sure/doesn't apply."

Across all years, the majority of respondents rated the transportation system positively, though with some reservations. For every item, more than half of respondents rated it as "somewhat" or "very" good. However, in all cases more people selected "somewhat" than "very" good.

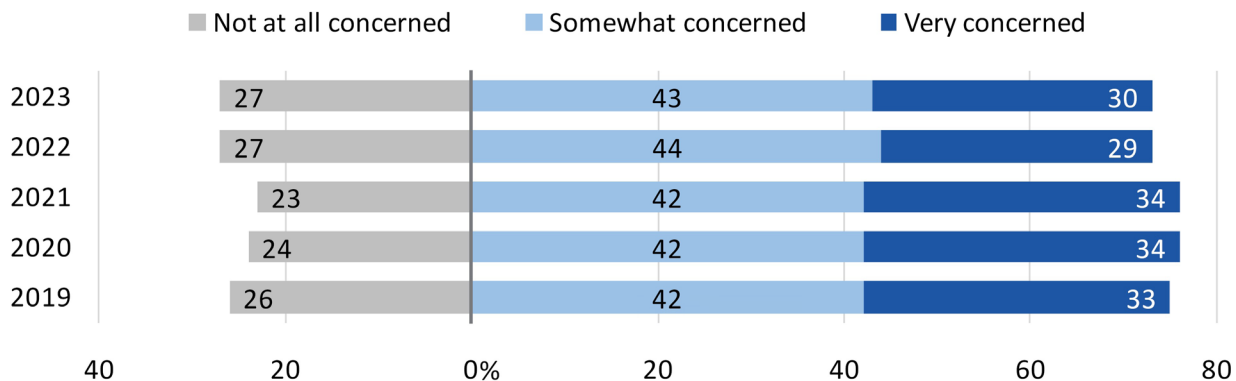
Comparing responses across the four items, the category "interstates, highways, and freeways" was rated positively by the largest percent of respondents for every year (77% in 2023). The other three items were rated positively by somewhat smaller majorities. In 2023, the percentage of respondents with a positive assessment was 64% for local streets and roads, 62% for bicycle and pedestrian facilities, and 58% for public transit.

Responses across the five years are very consistent, with small variations of just a few percentage points.



**Figure 5. Assessment of the Quality of Transportation Infrastructure and Services in “Your Community” (2019 – 2023)**

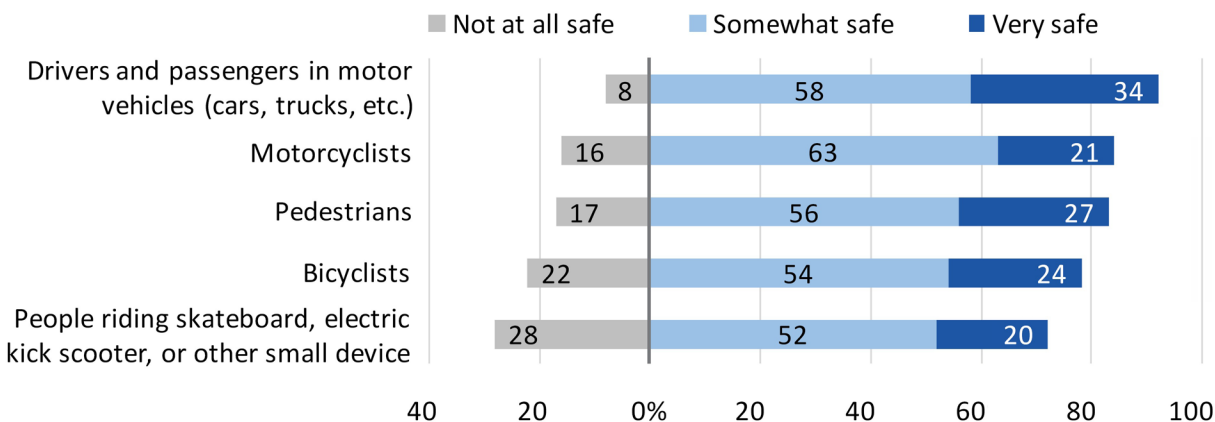
A separate question asked respondents if they were concerned about traffic congestion in their community (Figure 6). In 2023, 30% percent were very concerned, 43% somewhat concerned, and 27% not at all concerned. As with respondents' rating of transportation quality, the assessment of traffic congestion has changed very little since 2019.



**Figure 6. Level of Concern with Traffic Congestion (2019 – 2023)**

In 2022 and 2023 the survey asked a question about resiliency: “How concerned are you that disasters such as flooding, wildfires, or hurricanes will severely damage the transportation system in your community?” Somewhat fewer respondents were concerned about resiliency than congestion. In 2023, 62% were somewhat or very concerned about resiliency vs. 73% concerned about congestion.

Finally, the 2023 survey added a question asking respondents to rate the level of road safety in their communities for different travel modes (Figure 7). A minority felt “very safe” in any mode, ranging from 34% for occupants of motor vehicles to 20% for people riding on skateboards, electric kick scooters, or other small devices. The percent who felt the modes were “not at all safe” was 8% for motor vehicle occupants and two to three times as high for all other modes.



**Figure 7. Assessment of Road Safety in “Your Community,” by Mode (2023)**

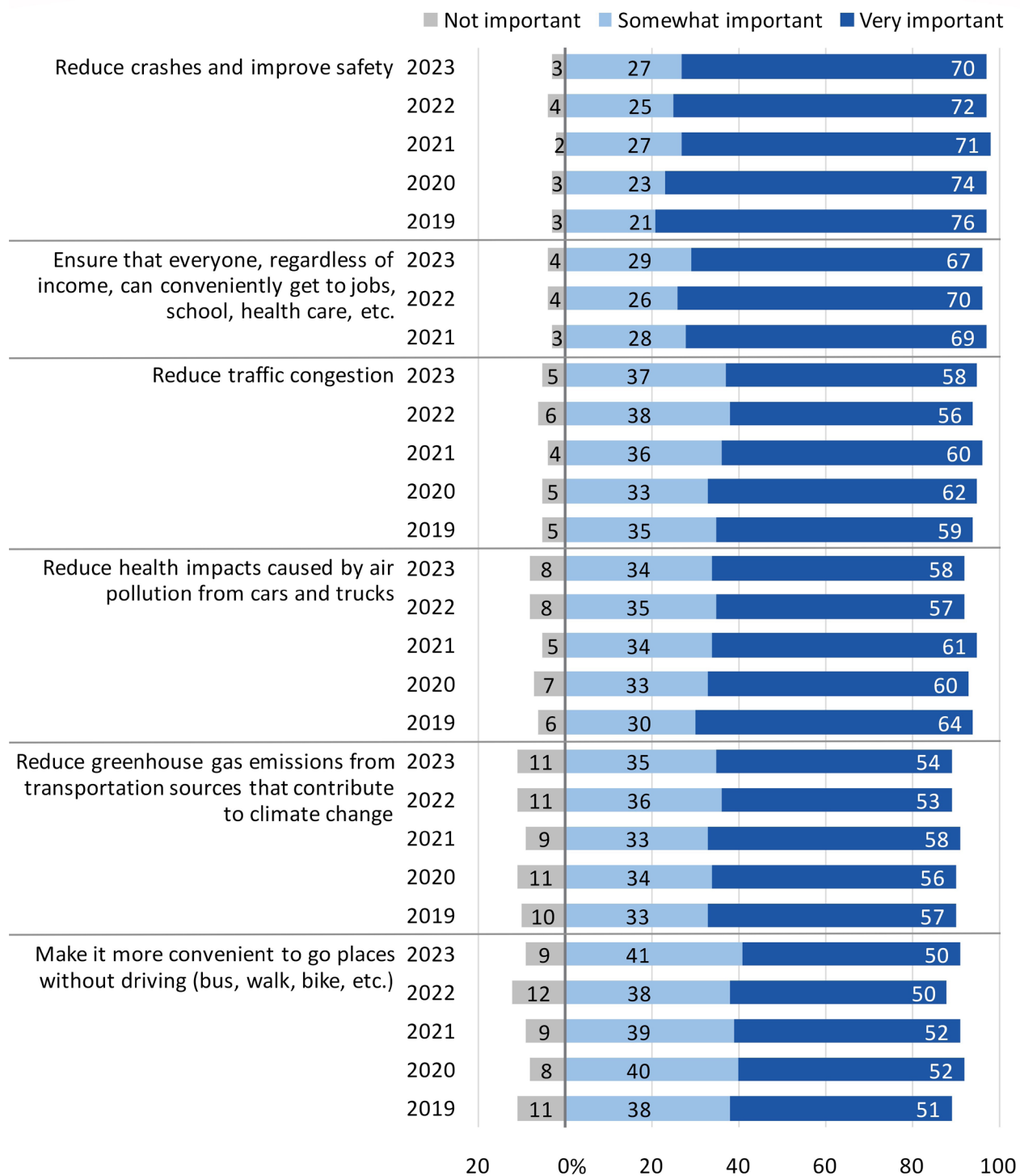
## 4.2 PRIORITIES FOR THE NATIONAL TRANSPORTATION SYSTEM

The next set of survey questions asked respondents about their priorities for improvements to the transportation system, asking first about national goals and then about preferred ways to spend federal gas tax revenues.

Figure 8 shows the importance that respondents placed on each of six goals for improving the national transportation system, from 2019 to 2023. The light and dark blue bars to the right indicate the percentages rating each goal as “somewhat” or “very” important, and the grey bars to the left represent the proportion rating the goal as “not important.” Year after year, virtually all respondents (88% or more) rated each of the goals as “somewhat” or “very” important, with more selecting “very” than “somewhat” important. In 2023, for example, 92% of respondents said it was “somewhat” or “very important” to reduce health impacts from air pollution caused by cars and trucks.

The most popular goal in all four years was to reduce crashes and improve safety. In every year, at least 96% rated that goal as somewhat or very important. This goal also received the highest percent of “very important” ratings for every year (from 70% to 76%).

Starting in 2021, the surveys introduced a new goal that was nearly as highly rated: to “ensure that everyone, regardless of income, can conveniently get to jobs, school, health care, etc.” In 2023, 96% rated the goal as either somewhat or very important, with 67% of all respondents rating it as very important.

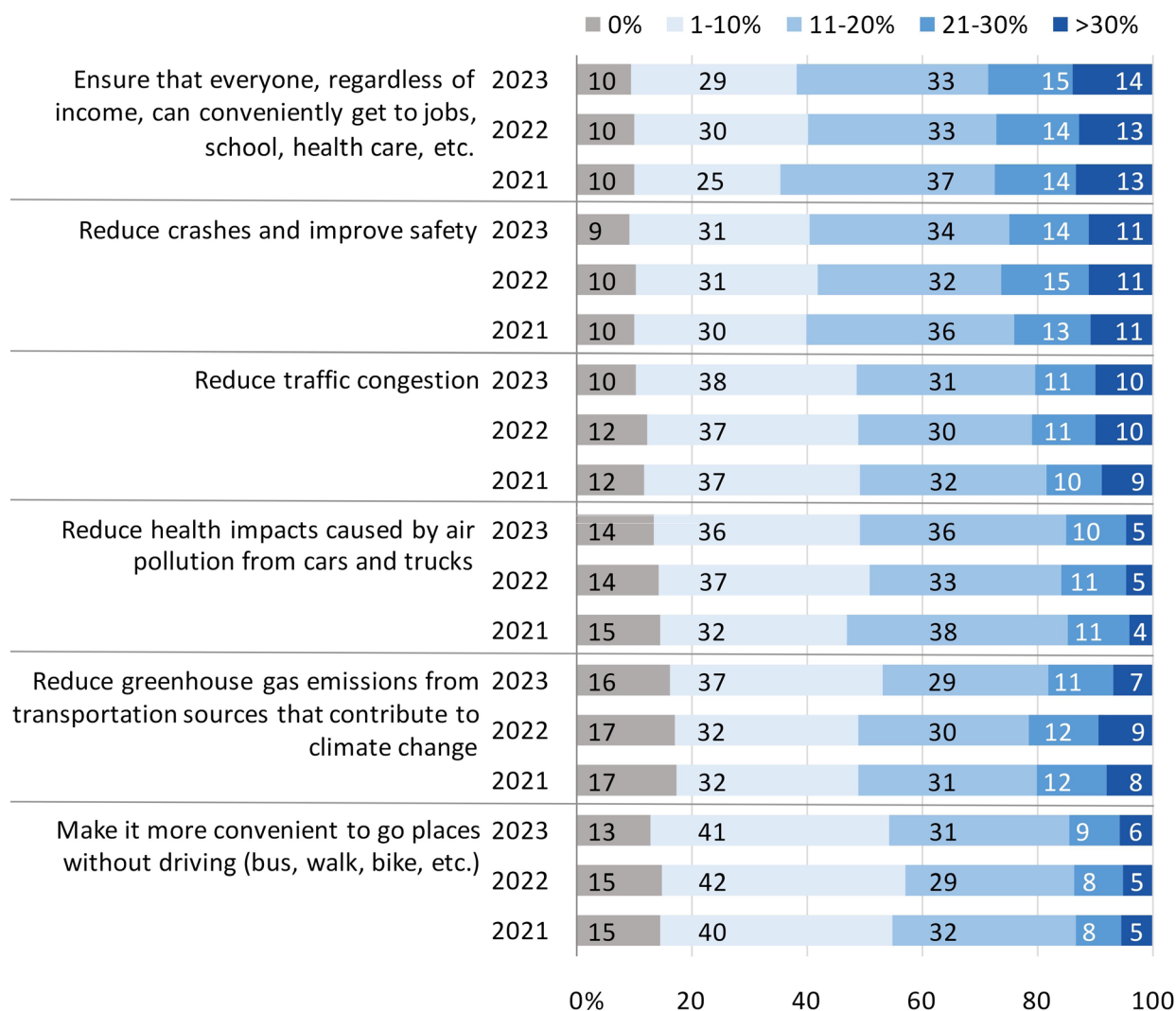


**Figure 8. Assessment of the Importance of Transportation-Related Goals (2019 – 2023)**

\*Option not included in the 2019 or 2020 surveys.

To explore with more nuance how much respondents valued each of the six goals, as of 2021 the survey included a question asking what percentage of transportation money

in the coming five years should be allocated to each goal (Figure 9). Every one of the six goals had reasonably strong support, with the mean value allocated ranging from 14% to 20%. However, across all three years, two goals were more popular: (1) ensuring that everyone, regardless of income, can access needed destinations and (2) reducing crashes and improving safety. Support was nearly identical. For example, in 2023 the mean amount that respondents would allocate was 20% for ensuring access and 19% for improving safety. The other four goals also had strong support, however, with the mean percent to allocate for each ranging from 14% to 17%.



**Figure 9. Percent of Federal Transportation Revenue that Respondents Would Allocate to Each Transportation-Related Goal for the U.S. (2021 – 2023)**

### 4.3 PREFERRED OPTIONS FOR SPENDING FEDERAL FUEL TAX REVENUE

The questionnaire next explained to respondents that the federal government collects a tax on gasoline and asked them to indicate how much of a priority they would place on each of 14 different categories of spending to improve transportation. The set of spending categories covered options to improve all modes (driving, public transit, walking, cycling/micromobility), improve transportation system resiliency, and support the adoption of electric vehicles. Figure 10 presents the results for 2019 to 2023.

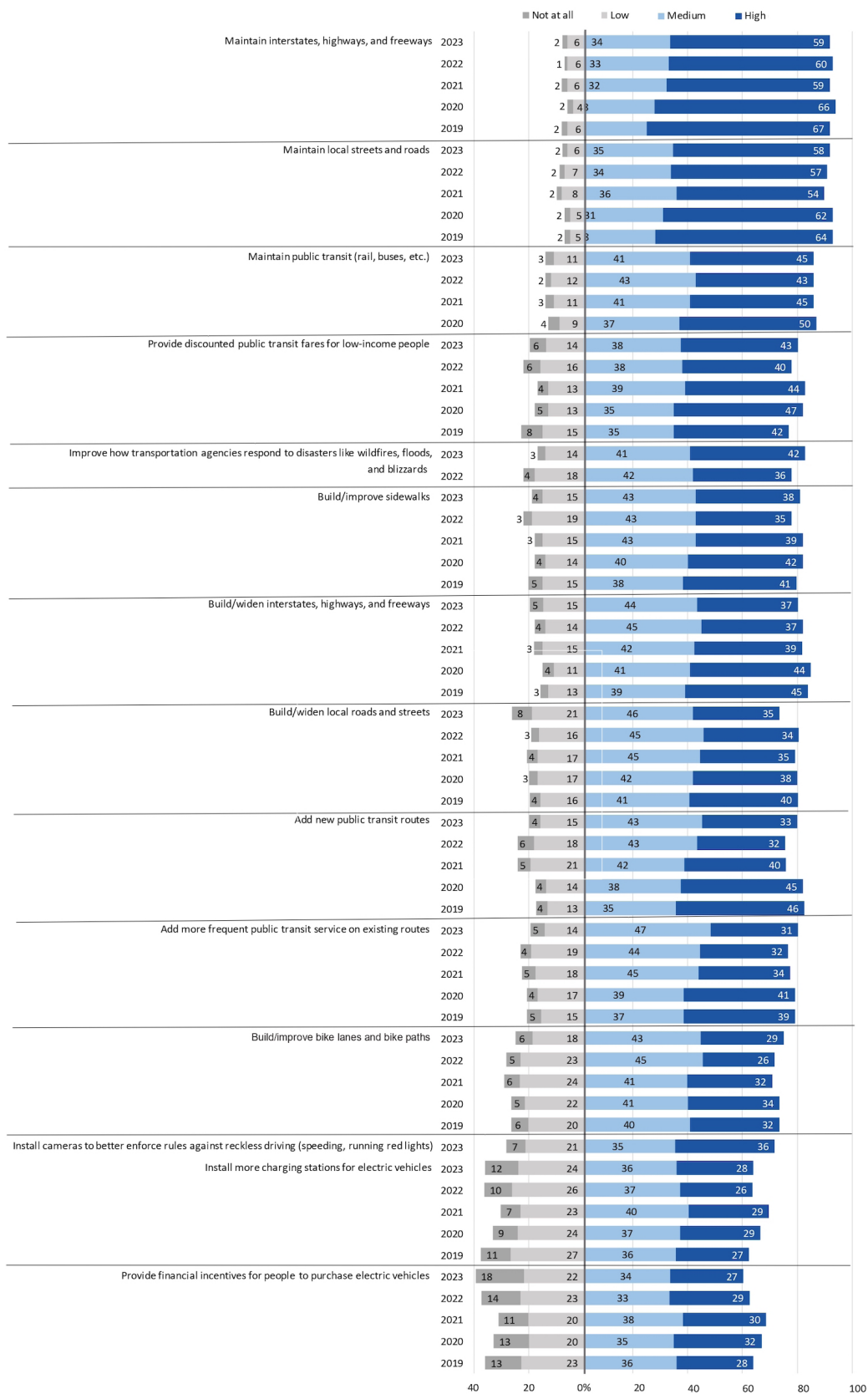
All options had strong support across the years. In every year, more than 60% of respondents rated every one of these options as of medium or high priority. Also, in no year did more than 14% rate any spending option as “not at all” a priority.

Comparing respondents' relative priorities, maintenance was a very high priority. The options to maintain highways and freeways and to maintain local streets and roads were both a priority for the largest number of respondents from 2019 through 2023 (93% for both in 2023). These priorities were the only options that each year were favored by at least 90% of respondents and had a “high priority” rating from at least half of respondents. Further, maintenance of public transit was almost important to most respondents (86% or 87% across the years).

Large majorities also supported improvements across all major travel modes, from building and widening local streets, roads, and highways, to increasing the frequency of public transit service and offering discounted fares to low-income riders, to building better walking and bicycling facilities. The two options with the lowest support both related to encouraging adoption of electric vehicles, but even for these, close to two-thirds of respondents rated each option as a medium or high priority.

For none of the spending options did support change notably over time. For every option, the difference between the year with highest and lowest values for high or medium priority varied no more than eight percentage points. For example, the percentage of respondents placing medium or high priority on the option to offer financial incentives to purchase electric vehicles ranged from a low of 61% in 2023 to a high of 68% in 2021.

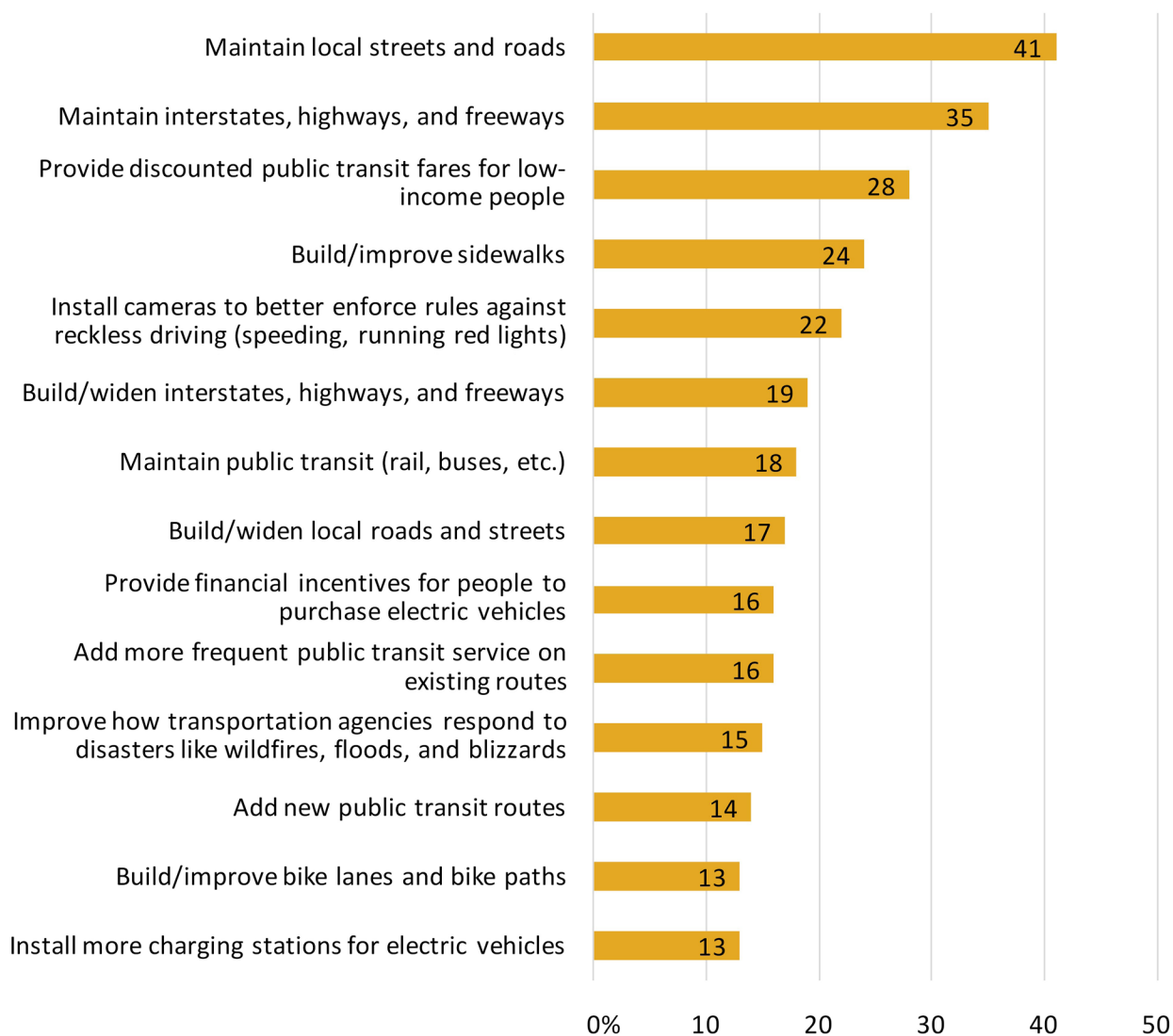
Finally, a follow-up question asked respondents to choose their three highest priorities from the list of 14 possible spending categories. As Figure 11 shows, no single option was selected by the majority of respondents. However, mirroring respondents' rating for each spending option, the most commonly selected top priorities were maintenance: maintaining local streets and roads (41%) and maintaining highways and freeways (35%). The most popular public transit-related option, “discounted public transit fares for low-income people,” was selected by 29% of respondents. As for active transportation, building/improving sidewalks was a top priority for 24%, though only 13% selected “build and improve bike lanes and paths” as a priority. Measures to support electric vehicle use were a priority for comparatively few respondents (16% of respondents selected “financial incentives to purchase electric vehicles” and 13% selected “more charging stations for electric vehicles”).



**Figure 10. Priority Placed on Different Options for Spending Federal Gas Tax Revenue (2019 – 2023)**

\*Option not included in the 2019 and 2020 surveys.





**Figure 11. Options Selected as a Top-Three Priority for Spending Federal Gas Tax Revenue (2023)**

#### 4.4 SUPPORT FOR RAISING TRANSPORTATION REVENUE WITH USER FEES

The survey asked respondents a conceptual question to gauge whether or not they thought revenue for the road system should be raised with user fees paid by drivers vs. with general taxes paid by all individual and corporate taxpayers:

As a general principle, how should the federal government raise money to pay for streets, roads, and highways?

- Taxes on driving and vehicles (for example, gas taxes, mileage fees, or annual vehicle fees)
- The federal income and business taxes

The respondents were essentially evenly split: 52% chose user fees (taxes on drivers and vehicles) and 48% preferred general taxes assessed on all tax payers.

A related question probed whether respondents preferred the concept of user fees that varies by system use vs. a flat annual fee.

Which of the following options would you prefer as a replacement for the gas tax?

- A mileage fee
- An annual charge that is the same for everyone no matter how much they drive

Again, the respondents were essentially evenly split: 52% chose the variable fee (mileage fee) and 48% chose the flat annual charge.

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## 5. FINDINGS ABOUT FEDERAL GAS TAXES

This chapter presents findings on questions related to knowledge and opinions about the federal gas tax. Topics covered include how recently respondents think the federal gas tax rate has been raised and support for different variants on raising the federal gas tax rate. (Appendix A presents the exact questionnaire language and topline results.)

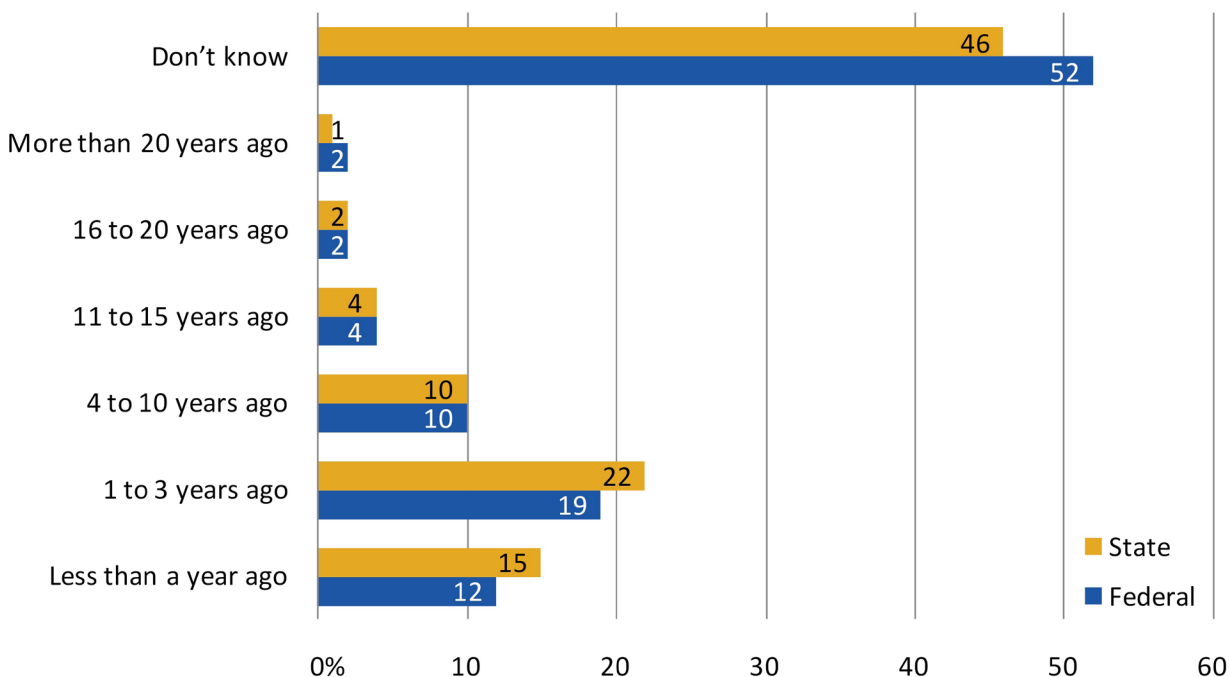
### 5.1 KNOWLEDGE ABOUT FEDERAL AND STATE GAS TAX RATES

Considerable anecdotal evidence suggests most Americans are unaware of how much they pay in fuel taxes, and surveys such as the 2019 report in this annual series have documented that most people overestimate the federal gas tax rate.<sup>11</sup> For the 2020 survey onwards, we added a question to gather evidence on a related aspect of the public's knowledge about the gas tax: their best guess about how recently the federal gas tax rate had been raised. To make the question easier to answer, respondents were asked to select a time range rather than specify the exact number of years. The options offered on the questionnaire were up to 3 years ago, 4 to 10 years ago, 11 to 15 years ago, 16 to 20 years ago, and more than 20 years ago.

Virtually none of the 2023 respondents—only 2%—knew that the federal gas tax has not been raised in more than 20 years (Figure 12). Forty-two percent believed that the tax had been raised within the past 10 years, and more than half simply said that they did not know (52%). The 2023 results are very similar to those from the prior surveys. For example, the percentage of people who knew that the federal gas tax rate had not been raised in more than 20 years was 3% in 2020 and then 2% for every year after.

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<sup>11</sup> Agrawal and Nixon, 2019.



**Figure 12. Belief About When Gas Tax Rates Last Increased: Federal and Respondent's State (2023)**

The survey asked respondents separately how recently they thought the gas tax rate had been raised in the state where they were living. The pattern of responses is remarkably similar to the way respondents answered the question about how recently the federal gas tax rate had been increased—despite the fact that 33 states have within the past decade enacted legislation that adjusted their fuel tax rates.<sup>12</sup> For example, 15% of respondents thought their state gas tax had been raised within the past year vs. 12% who said the same about the federal gas tax rate. A very large percentage of people who responded with “less than a year” did so for both rates (72%). Similarly, 65% of respondents who selected “1 to 3 years ago” selected that same timeframe for both rates. The fact that so many respondents estimated the same time frame for both state and federal rate increases suggests that some respondents may have been guessing, rather than answering based on information they remembered learning. Alternatively, respondents might have been influenced by the prevailing discourse on rising gas prices in the media, or they may have confused their state gas tax rate with the federal gas tax rate.

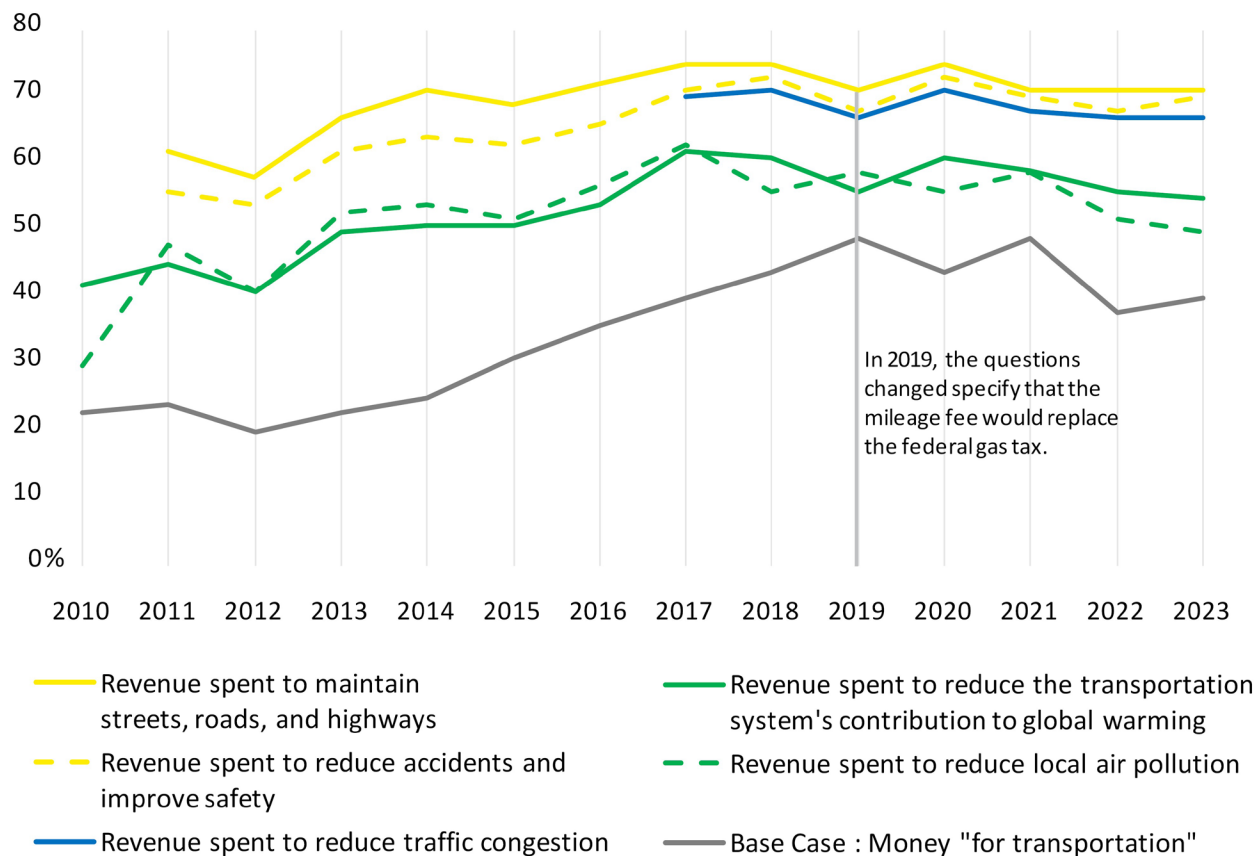
## 5.2 SUPPORT FOR RAISING THE FEDERAL GAS TAX RATE

The 2023 survey found that a majority of Americans would support higher taxes for transportation—under certain conditions (Figure 13 and Table 4). Only 40% supported the “base-case” option presented, which was a 10¢-per-gallon gas tax increase. For this option, respondents were told only that the tax revenues would be spent “for transportation.”

<sup>12</sup> National Conference of State Legislatures, “Report - Recent Legislative Actions Likely to Change Gas Taxes (April 24, 2023), <https://www.ncsl.org/transportation/recent-legislative-actions-likely-to-change-gas-taxes>.”

However, the five variants on that idea of a 10¢-per-gallon gas tax increase received from 50% to 71% support. For these alternatives, respondents were told that the revenue from the increase would be dedicated to a specific type of spending. The very highest level of support among all the tax options tested was for a gas tax increase of 10¢ per gallon with the proceeds dedicated to street, road, and highway maintenance. Seventy-one percent of respondents supported this option, an increase of 31 percentage points over support for the base-case gas tax increase. The next most popular options were a gas tax increase with funds devoted to reducing accidents and improving safety (70% support) and an increase with the funds devoted to reducing congestion (67%). As for the two options that linked a gas tax increase to environment objectives—reducing local air pollution or global warming emissions—both had majority support (55% and 50%, respectively).

Support for the different gas tax rate increase options has mostly risen since the options were first tested in either 2010 or 2011. The changes from year to year are small, usually no more than a few percentage points. The largest increases across the full time period have been in support for the base-case option (an increase of 17 percentage points) and the air pollution option (20 percentage points). For the base-case option, support more than doubled, from 23% to 40%. In contrast, the smallest increase (nine percentage points) has been for the most popular option, the maintenance variant. The only gas tax increase option that has seen support fall is the option with revenues spent to reduce traffic congestion. Since the option was first introduced to the survey in 2017, support has fallen slightly by three percentage points (from 70% to 67%).



**Figure 13. Trends in Support<sup>a</sup> for the Gas Tax Options (2010 – 2023)**

<sup>a</sup> “Support” is the sum of those who “strongly” or “somewhat” supported the tax option.

*Note:* In 2019, the survey mode changed from a random-digit-dial phone survey to an online panel survey. Comparisons of results from before and after should be interpreted with care, since changes in survey mode can affect responses.

**Table 4. Trends in the Percentage of Respondents Supporting<sup>a</sup> the Gas Tax Options, 2010 – 2023**

Tax option	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 <sup>b</sup>	2020	2021	2022	2023	Differences	
															2023 - 2011	2023 - 2022
Base case	23	24	20	23	25	31	31	36	34	40	44	49	38	40	16	2
Revenues spent to reduce local air pollution	30	48	41	53	54	52	56	57	58	63	56	59	52	50	2	-3
Revenues spent to reduce global warming	42	45	41	50	51	51	55	54	59	62	61	59	56	55	9	-1
Revenues spent to maintain streets, roads, and highways	-- <sup>c</sup>	62	58	67	69	71	75	78	72	75	75	71	71	70	8	0
Revenues spent to reduce accidents and improve safety	-- <sup>c</sup>	56	54	62	63	64	64	65	66	71	73	70	68	70	14	2
Revenues spent to reduce congestion	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	70	71	68	67	-- <sup>d</sup>	0

<sup>a</sup> Sum of those who “strongly” or “somewhat” supported the option.

<sup>b</sup> In 2019, the survey mode changed from a random-digit-dial phone survey to an online panel survey. Comparisons of results from before and after should be interpreted with care, since changes in survey mode can affect responses.

<sup>c</sup> This option was not included in the 2010 survey.

<sup>d</sup> This option was added in 2019.

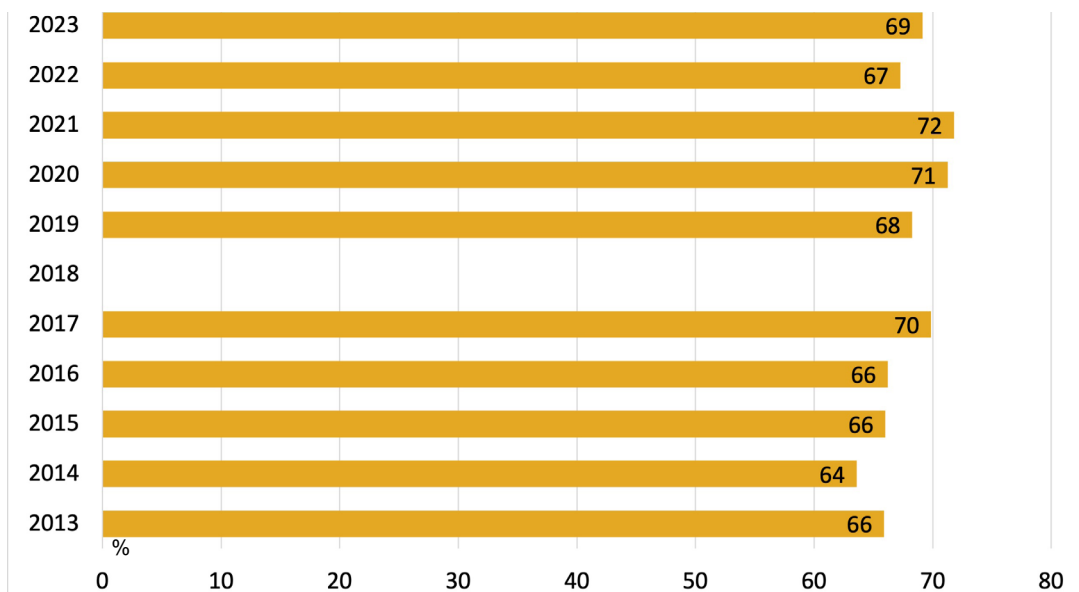
## 5.4 SUPPORT FOR SPENDING SOME GAS TAX REVENUE ON PUBLIC TRANSIT

Another survey question probed support for spending some gas tax revenue on public transit. The question was worded as follows:

Some people say that money from gas taxes should only be spent on roads and highways, since drivers pay the tax. Other people say gas tax money should be used to pay for public transit in addition to roads and highways, because transit helps reduce traffic congestion and wear-and-tear on the roads.

Would you support or oppose spending some gas tax money on public transit?<sup>13</sup>

The option was very popular with respondents. In 2023, more than two-thirds of respondents (69%) agreed with the concept of using some gas tax revenue to support public transit. Since the question was first asked in 2013, support has always been strong, though it varied modestly from 61% to 72%.



**Figure 14. Trends in Support<sup>a</sup> for Spending Some Gas Tax Revenue on Transit (2013 – 2023)**

<sup>a</sup> Sum of those who “strongly” or “somewhat” supported the option.

<sup>13</sup>Half of respondents received the question as worded above, and the other half received the question with the two statements in reverse order: “Some people say gas tax money should be used to pay for public transit in addition to roads and highways, because transit helps reduce traffic congestion and wear-and-tear on the roads. Other people say that money from gas taxes should only be spent on roads and highways, since drivers pay the tax. Would you support or oppose spending some gas tax money on public transit?”



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## 6. FINDINGS ABOUT MILEAGE FEES

The survey asked a variety of questions related to mileage fees, including respondents' support for replacing the gas tax with a mileage fee or creating a mileage fee for commercial vehicles, their opinions about different mileage fee rate structure options, and opinions about privacy and fairness.

### 6.1 OPINION ABOUT PRIVACY CONCERNS AND MILEAGE FEES

The survey asked respondents a question related to potential privacy concerns, worded as follows:

How much do you agree or disagree with the following statement?

I'm already tracked everywhere I go through my phone, so having my mileage tracked for a mileage fee wouldn't really bother me.

Fifty-five percent of respondents were concerned and 45% were not concerned.

### 6.2 OPINION ABOUT THE FAIRNESS OF A MILEAGE FEE COMPARED TO THE GAS TAX

The survey asked a question that probed respondents' views on the fairness of mileage taxes as compared to gas taxes:

Which of the following statements is closer to your opinion?

- A mileage fee is MORE fair than the gas tax because everyone pays the same for use of the roads, regardless of vehicle fuel efficiency or vehicle type (electric vs. gas vehicles)
- A mileage fee is LESS fair than the gas tax because the mileage fee doesn't give a break to people who buy cleaner vehicles.

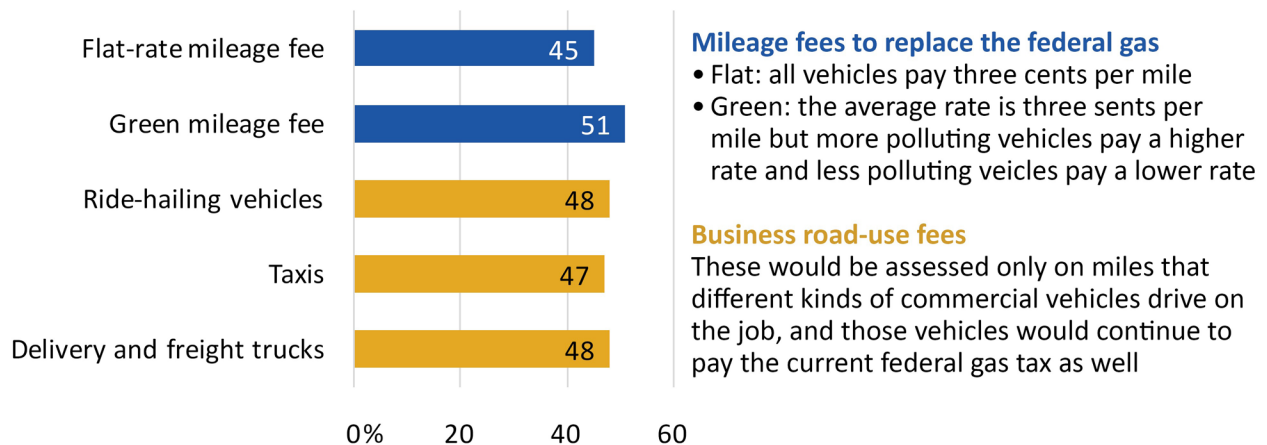
Fifty-four percent of respondents thought mileage fees were fairer than gas taxes and 46% thought they were less fair.

### 6.3 SUPPORT FOR DIFFERENT MILEAGE FEE OPTIONS

The survey asked respondents about their support for five variants on the idea of a new mileage fee. Two of these were variants on the concept of replacing the federal gas tax with a three-cents-per-mile fee on all travel. This rate was selected to be a simple number within the range of mainstream current policy discussion. (Previous surveys in the series used similar but not identical question language.) The other three options tested were variations on the concept of a new fee that commercial vehicles would pay in addition to fuel taxes. The specific wording for each question is as follows:

- *Flat-rate mileage fee to replace the gas tax:* Now, imagine that the US Congress decides to replace the gas tax with a mileage fee of 3¢ per mile driven. That means someone driving 10,000 miles a year would pay \$300. Vehicles would have an electronic meter to keep track of the miles driven. Would you support or oppose replacing the gas tax with such a mileage fee?
- *“Green” mileage fee to replace the gas tax:* A variation on the mileage tax just described is to have the tax rate vary depending upon how much the vehicle pollutes. On average, vehicles would be charged 3¢ per mile, but vehicles that pollute less would be charged less, and vehicles that pollute more would be charged more. Would you support or oppose this new mileage tax?
- *Business road-use fees:* Now imagine that the US Congress decides to keep the gas tax, but to add a new per-mile “Business Road-Use Fee” for miles that commercial vehicles drive on the job. (These vehicles would continue to pay the current gas tax, as well.) Would you support or oppose this new Business Road-Use Fee for the following types of commercial vehicles?
  - Delivery and freight trucks
  - Taxis
  - Ridehailing vehicles

As Figure 15 shows, support was close to 50% for all options. Comparing the two variants charged to all drivers, the “green” variant was modestly more popular. Fifty-one percent of respondents supported replacing the gas tax with the “green” mileage fee, for which the average rate would be three cents per mile, but vehicles that pollute less would be charged less and vehicles that pollute more would be charged more. In contrast, support for the flat-rate mileage fee was 6 percentage points lower (45%). Support for the three the business road-use fees was either 47% 48%.

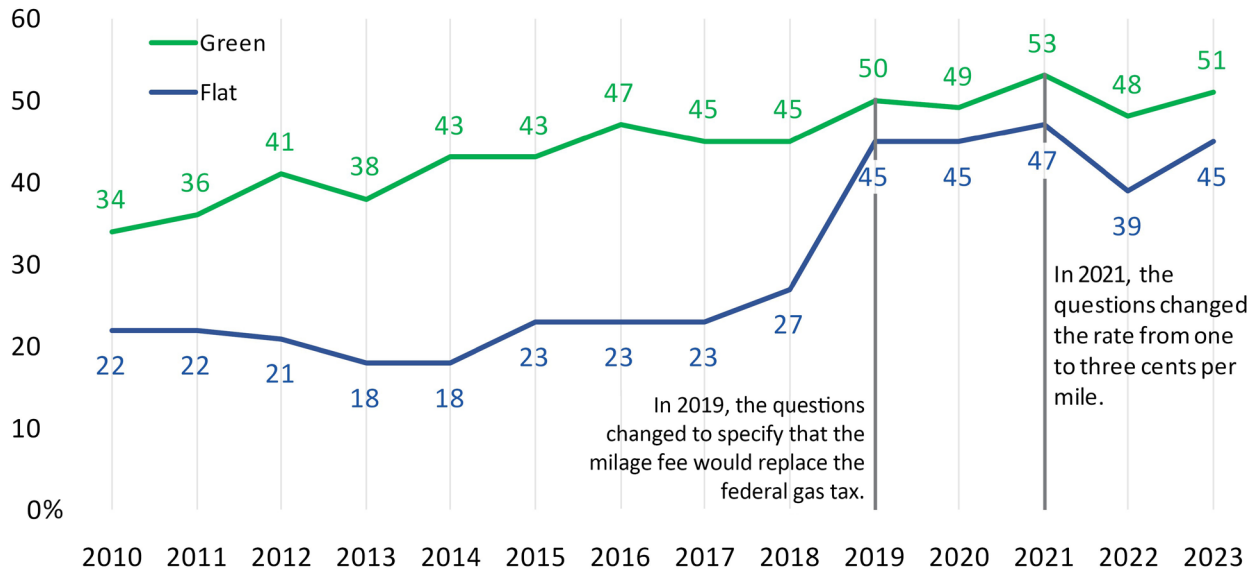


**Figure 15. Support<sup>a</sup> for the Five Mileage Fee Options (2023)**

<sup>a</sup> Support<sup>a</sup> is the sum of those who “strongly” or “somewhat” supported the fee option.

Support for mileage fees has risen slowly but steadily since 2010. Support for the flat-rate mileage fee has more than doubled, from 21% in 2010 to 45% in 2023. Support for the “green” version of the fee grew 17 percentage points, from 34% in 2010 to 51% in 2023. The options were to pay at the time of purchasing fuel or charging an electric vehicle, pay a monthly bill,

or pay an annual bill. The most popular option in 2023, selected by 45% of respondents, was to “Pay each time I purchase gas/diesel or charge an electric vehicle.” Thirty percent preferred a monthly bill, and the smallest number (25%) preferred an annual bill. The options were to pay at the time of purchasing fuel or charging an electric vehicle, pay a monthly bill, or pay an annual bill. The most popular option in 2023, selected by 45% of respondents, was to “Pay each time I purchase gas/diesel or charge an electric vehicle.” Thirty percent preferred a monthly bill, and the smallest number (25%) preferred an annual bill.



**Figure 16. Trends in Support<sup>a</sup> for Adopting the Flat and Green Mileage Fee Options (2010 – 2023)**

<sup>a</sup> Support<sup>a</sup> is the sum of those who “strongly” or “somewhat” supported the fee option.

## 6.5 PREFERRED FREQUENCY FOR PAYING A MILEAGE FEE

Another question fees asked respondents how frequently they would prefer to pay mileage fee charges, should such a fee be introduced. The options were to pay at the time of purchasing fuel or charging an electric vehicle, pay a monthly bill, or pay an annual bill. The most popular option in 2023, selected by 45% of respondents, was to “Pay each time I purchase gas/diesel or charge an electric vehicle.” Thirty percent preferred a monthly bill, and the smallest number (25%) preferred an annual bill.

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## 6.6 PREFERRED RATE STRUCTURES FOR A FEE ON ALL TRAVEL

The survey asked respondents about three rate structure options: whether electric vehicles should pay less than gas and diesel vehicles, whether low-income drivers should pay a reduced rate, and whether respondents would prefer a block-pricing rate structure that charges a lower rate for the first 5,000 miles driven annually.

### *Opinions about a Block-Pricing Rate Structure*

The survey asked respondents' opinion on the concept of a block-pricing rate structure:

If Congress creates a federal mileage fee, which of the following possible fee structures would be fairer?

- The fee is the same for every mile the vehicle drives during the year
- The fee is lower for the first 5,000 miles the vehicle drives during the year, and higher for all additional miles driven that year

The respondents were almost evenly split, with 48% preferring the block rate vs. 52% preferring that the fee be the same for every mile driven during the year.

### *Preferred Rate for Electric Vehicles*

The survey asked respondents their opinion on what rate electric vehicles should pay if Congress were to implement a mileage fee on all travel. The answer options were to charge electric vehicles the same rate as gas/diesel vehicles, half the rate, or nothing at all. Almost half (49%) thought electric vehicles should pay the same rate as gas and diesel vehicles, a third (36%) preferred charging electric vehicles only half, and a small minority (16%) preferred that there be no fee at all for electric vehicles.

### *Preferred Rate for Low-Income Drivers*

Another question asked respondents, "If Congress adopts a mileage fee, would you support or oppose charging a lower rate to low-income drivers?" Well over half (62%) agreed with this option.

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## 7. CONCLUSION

This chapter concludes the report with a summary of key survey findings on four themes: travel experiences, public goals for improving the transportation system, public opinion and knowledge about the federal gas tax, and opinions about adopting a federal mileage fee. These findings about public priorities suggest opportunities for policymakers to build support for transportation funding measures through careful program design.

### 7.1 SUMMARY OF FINDINGS

#### *Travel Experiences*

Key findings include the following points:

*American households are multimodal.* Even if travel by personal vehicle is the dominant mode, many people rely on other travel modes. When respondents were asked what modes of transportation they or their household members had used within the previous 30 days, 43% reported walk trips, 23% reported public transit trips, 15% reported bicycle trips, and 4% reported trips on a micro-mobility device, such as an electric kick-scooter. Further, 31% of respondents estimated that their households typically paid for some ride-hailing or taxi trips every month.

*Half of Americans drive less than 7,500 miles per year, and do so in a primary vehicle that is relatively new and moderately fuel efficient.* Sixty percent of respondents drove a vehicle no more than 10 years old, and the average fuel efficiency of their primary vehicle was 26 miles per gallon.

*Most Americans are (somewhat) content with the quality of transportation options in their community.* Seventy-nine percent of respondents rated the quality of interstates, highways, and freeways as somewhat or very good. Additionally, 65% of respondents said the same thing about the quality of local roads, 62% about bicycle and pedestrian facilities, and 58% about public transit. However, most respondents do not think the quality of transportation infrastructure is “very” good, with only the highways category breaking the 20% threshold (reaching 28%).

*Most Americans are (somewhat) concerned about traffic congestion and disaster readiness.* Seventy-three percent of respondents are somewhat or very concerned about traffic congestion, and 62% of respondents are “somewhat” or “very” concerned that disasters like fires or flooding will severely damage their community’s transportation infrastructure.

*Americans don’t believe the transportation system is very safe—perhaps because so many experience crashes.* One in six respondents (17%) reported having experienced a motor vehicle collision in the previous year, and one in nine (12%) had suffered an injury from a collision during the same period. Further, more than one in five respondents had a close friend or family member who had experienced a motor vehicle crash in the preceding year. This personal experience with collisions may explain why the majority of respondents did not rate roads in their community as “very safe” for vehicle passengers, pedestrians, or

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people riding bicycles or micro-mobility devices. Even for vehicle passenger safety, which was rated the most highly, only 34% rated their community as “very” safe.

### **Gas Tax Findings**

Key findings include the following points:

*Only 2% of respondents know that the federal gas tax rate has not been raised in more than 20 years.* More than half of respondents (51%) said they simply didn’t know when the federal rate was last raised, and another 41% incorrectly believed the rate had been raised within the past 10 years.

*The majority of respondents support raising the gas tax—if the revenue is dedicated to a specific transportation purpose.* The five gas-tax increase questions specifying that the revenue would be spent on specific kinds of projects had majority support. The most popular options were gas tax increases to support either maintenance or safety improvements. These options had 71% and 70% support, respectively.

*Support for raising the federal gas tax has risen over time.* Looking back to 2011, in every case where a gas tax increase option has been tested annually, support has risen over the years. The largest increase has been in support for the least popular option, which was a tax increase with the revenues to be spent generically “on transportation.” Here, support grew 16 percentage points, from 23% to 40%. In contrast, the gas tax increase to fund maintenance has seen the smallest increase (eight percentage points).

*Two-thirds of respondents believe it is appropriate to spend gas tax revenue on public transit.* When asked this question directly, more than two-thirds (69%) agreed.

### **Mileage Fee Findings**

Key findings include the following points:

*Support for mileage fees hovers around 50%.* Support for replacing the gas tax with a mileage fee ranged from 45% for a flat-rate fee on all travel to 51% for a “green” fee on all travel where the rate would vary according to the vehicle’s pollution emissions. Almost half of respondents supported creating a new “Business Road-Use Fee” that would be charged to taxis (47% support), delivery and freight trucks (48%), or ride-hailing vehicles (48%).

*Support for implementing a mileage fee on all travel rose from 2010 to 2023.* Support for the flat-rate mileage fee grew from just 22% in 2010 to 45% in 2023. Similarly, support for the green version grew from 33% in 2010 to 51% in 2023.

*A clear majority would like to see lower rates for low-income drivers.* Sixty-two percent of respondents said that if Congress adopts a mileage fee, they would support charging a lower rate to low-income drivers.

*Americans are evenly divided on whether electric vehicles should pay a lower rate than gas and diesel vehicles.* Fifty-one percent of respondents thought that electric vehicles should be charged either a lower rate than gas and diesel vehicles or no fee at all.

*Americans are evenly divided on the choice between a block-pricing vs. flat-rate fee structure.* Forty-eight percent of respondents supported a block-pricing rate structure where the rate is lower for the first 5,000 miles driven annually and higher for all additional miles driven that year.

*Three-quarters of Americans want to pay a mileage fee in small installments instead of paying annually.* Respondents were asked if they would prefer to pay for mileage fees annually, monthly, or each time they buy fuel or charge the vehicle. The last option was the most popular of the three: 45% preferred paying with each fuel or electricity purchase. Only 25% supported the annual billing option.

### ***Conceptual Preferences for Raising Transportation Funding***

*Americans are split on whether drivers or society as a whole should pay for road improvements and maintenance.* Fifty-two percent of respondents thought the government should raise revenue through taxes on driving (gas taxes, mileage fees, other fees), whereas 48% believed the revenue should come from general taxes such as the income tax.

*Americans are split on whether a mileage fee or flat annual fee would be a better replacement for the gas tax.* Fifty-two percent of respondents would prefer the gas tax to be replaced with a mileage fee, while 48% would prefer an annual charge that is the same regardless of the amount driven.

## **7.2 POLICY IMPLICATIONS**

The study findings suggest the following implications for policymakers.

*Mileage fees can be acceptable to the public—but only with careful program design.* The survey found that half or more supported variable rate structures such as charging lower rates to low-income drivers and less-polluting vehicles. Another popular design choice tested was to allow payment in small increments.

*Proposals to raise gas tax rates or adopt a mileage fee should commit to spending the revenue for a specific purpose that the public values.* Since 2010, the survey has consistently found that many more respondents support a gas tax increase if the money is dedicated to a specific transportation purpose, rather than being used generically “for transportation.” For example, in 2023, 70% of respondents backed a 10¢ gas tax increase if funds are strictly allocated towards either safety or maintenance, as opposed to only 40% if respondents are told the revenue will be spent generally “for transportation,” with no other details given.

*Prioritize maintenance and safety above all.* Multiple survey questions about transportation improvement goals and priorities for transportation spending consistently found that safety

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and maintenance were the highest priorities. Further, more than two-thirds of the 2023 respondents supported raising the federal gas tax rate if the money were dedicated to these purposes. In addition, the data reveals a clear preference for maintaining roadway infrastructure rather than expanding it.

Far more respondents viewed the upkeep of local streets/roads and freeways/highways as a high priority (58% and 59%, respectively) than viewed expanding local roads and freeways as a high priority (35% and 37%).

*Design spending and tax programs to improve environmental quality.* The majority of respondents rated as a “very important” goal for improving the transportation system both (1) reducing health impacts caused by air pollution from cars and trucks and (2) reducing greenhouse gas emissions from transportation sources. Similarly, the majority of respondents supported increasing the gas tax rate if the money were dedicated to programs either to reduce greenhouse gas emissions or air pollution emissions. The survey also found that respondents were more likely to support a mileage fee on all travel if the rate varied according to the vehicle’s pollution levels than if the rate were flat for all vehicles.

*Ensure that spending benefits all modes.* Although comparatively less popular than maintenance and safety, there was majority support for spending transportation revenue to support transit, walking, and cycling. Further, 50% of respondents thought it a very important goal to “make it more convenient to go places without driving.” This support for a multi-modal system is likely explained at least in part by the fact that many households are multi-modal; 43% of respondents said that in the previous month someone in their household had walked, and 25% reported that someone in the household had ridden transit.

*Design spending and tax programs to improve travel opportunities for low-income households.* In 2023, 67% of respondents said that it was a very important goal to “ensure that everyone, regardless of income, can conveniently get to jobs, school, health care, etc.,” and the majority placed a medium or high priority on spending revenue to on “provide discounted public transit fares for low-income people.” Further, if Congress were to implement a mileage fee, 62% of respondents supported charging a lower rate to lower-income drivers.

*Support research to determine the true number of vehicle crashes occurring annually.* The survey found crashes to be far more widespread than what is typically reported in the literature on U.S. road safety, underscoring a need for additional research to better understand the true extent of crashes. Most published research documents only crashes reported to police, insurance companies, and/or hospitals, yet it is well known that many crashes are never reported in any of these ways. For example, drivers who are undocumented or uninsured frequently avoid any official reporting, and pedestrian and bicycle collisions are also frequently unreported. A 2023 publication from the National Highway Traffic Safety Administration, one of the more thorough efforts to estimate the incidence of both reported and unreported crashes, estimated that 53% of crashes had gone unreported in 2019.<sup>14</sup> That study estimated a total about 14 million crashes in the U.S. in 2019, which translates

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<sup>14</sup> Lawrence Blincoe, et al, *The Economic and Societal Impact of Motor Vehicle Crashes, 2019 (revised)* (National Highway Traffic Safety Administration, February 2023).



to roughly 11% of Americans experiencing a crash if one assumes that there were 2.5 persons involved per crash and no person was involved in more than one crash.<sup>15</sup> Even this percent is far lower than our survey finding that 17% of adults had been in a crash in the previous year. Although there may well be some inaccuracies because the survey asked for self-reported crash experience, the finding suggests that more attention needs to be paid to understanding the prevalence of undocumented crashes.

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<sup>15</sup>This number is calculated using the following numbers reported in the Blincoe, et al, study: a 2019 national population of 328.2 million residents and 14,193,727 crashes.

## APPENDIX – TOPLINE RESULTS FOR 2023

This appendix shows the survey question language and responses for the overall set of respondents.

### Notes:

- Shows results with weighted data. Data has been weighted for gender, race, ethnicity, annual household income level, and age.
- Missing and refused responses were removed from the dataset before calculating the response rates.
- Columns of numbers in some tables do not sum to 100% due to rounding.

\* \* \*

We are interested in your opinions about the transportation system. The “transportation system” means local streets and roads, highways, and public transit services like buses, light rail, trains, and ferries.

### Q1. In your community, how is the quality of:

	Very good (%)	Somewhat good (%)	Somewhat bad (%)	Very bad (%)	Not sure / doesn't apply (%)
Interstates, highways, and freeways	28	51	14	4	3
Local streets and roads	20	45	24	9	1
Bicycle and pedestrian facilities	19	43	20	8	10
Public transit (bus, rail, etc.)	19	39	18	10	14

### Q2. How concerned are you about traffic congestion in your community?

	%
Very concerned	30
Somewhat concerned	43
Not at all concerned	27

### Q3. How concerned are you that disasters such as flooding, wildfires, or hurricanes will severely damage the transportation system in your community?

	%
Very concerned	25
Somewhat concerned	37
Not at all concerned	38

Q4. How would you rate the level of road safety in your community for each of the following?

	Very safe (%)	Somewhat safe (%)	Not safe (%)
Drivers and passengers in motor vehicles (cars, trucks, etc.)	34	58	8
Motorcyclists	21	63	16
Pedestrians	27	56	17
Bicyclists	24	54	22
People riding skateboard, electric kick scooter, or other small device	20	52	28

Q5. How important are the following transportation-related goals for the United States?

	Very important (%)	Somewhat important (%)	Not important (%)
Reduce crashes and improve safety	70	27	3
Ensure that everyone, regardless of income, can conveniently get to jobs, school, health care, etc.	67	29	4
Reduce health impacts caused by air pollution from cars and trucks	58	37	5
Reduce traffic congestion	58	34	8
Reduce greenhouse gas emissions from transportation sources that contribute to climate change	54	35	11
Make it more convenient to go places without driving (bus, walk, bike, etc.)	50	41	9

Q6. Now, imagine that Congress is deciding how to spend transportation money in the next 5 years. What percent of the money should go to each of the following goals? The total must add up to 100%.

	Mean (%)	0%	1-10%	11-20%	21-30%	>30%
Ensure that everyone, regardless of income, can conveniently get to jobs, school, health care, etc.	20	10	29	33	15	14
Reduce crashes and improve safety	19	9	31	34	14	11
Reduce traffic congestion	18	10	38	31	11	10
Reduce health impacts caused by air pollution from cars and trucks	15	14	36	36	10	5
Reduce greenhouse gas emissions from transportation sources that contribute to climate change	15	16	37	29	11	7
Make it more convenient to go places without driving (bus, walk, bike, etc.)	14	13	41	31	9	6

Q7. As you may be aware, the federal government charges a gas tax and spends the money collected for transportation. Listed below are different ways the government could spend that money to improve the transportation system. How much of a priority should each one be?

	High (%)	Medium (%)	Low (%)	Not at all (%)
Maintain interstates, highways, and freeways	59	34	6	2
Maintain local streets and roads	58	35	6	2
Maintain public transit (rail, buses, etc.)	45	41	11	3
Provide discounted public transit fares for low-income people	43	38	14	6
Improve how transportation agencies respond to disasters like wildfires, floods, and blizzards	42	41	14	3
Build/improve sidewalks	38	43	15	4
Build/widen interstates, highways, and freeways	37	44	15	5
Install cameras to better enforce rules against reckless driving (speeding, running red lights)	36	35	21	8
Build/widen local roads and streets	35	46	16	3
Add new public transit routes	33	43	18	6
Add more frequent public transit service on existing routes	31	47	19	4
Build/improve bike lanes and bike paths	29	43	23	5
Install more charging stations for electric vehicles	28	36	24	12
Provide financial incentives for people to purchase electric vehicles	27	34	22	18

Q8. Here is the same list of transportation purposes that the federal government could spend the gas tax money on. Select the three you think are most important.

	Selected as top 3 (%)
Maintain local streets and roads	41
Maintain interstates, highways, and freeways	35
Provide discounted public transit fares for low-income people	28
Build/improve sidewalks	24
Install cameras to better enforce rules against reckless driving (speeding, running red lights)	22
Build/widen interstates, highways, and freeways	19
Maintain public transit (rail, buses, etc.)	18
Build/widen local roads and streets	17
Provide financial incentives for people to purchase electric vehicles	16
Add more frequent public transit service on existing routes	16
Improve how transportation agencies respond to disasters like wildfires, floods, and blizzards	15
Add new public transit routes	14
Build/improve bike lanes and bike paths	13
Install more charging stations for electric vehicles	13

The next set of questions ask about the types of transportation your household uses and how much money your household spends on certain transportation-related expenses. As a reminder, “household” means all the people currently living with you in your home. (Do not include renters or tenants.) If you live in a dormitory, in a boarding house, or with roommates, just answer the following questions for yourself.

Q9. In the last 30 days, which types of transportation have you or any other members of your household used? Check all that apply.

	In the last 30 days (%)
Drive yourself (car, truck, motorcycle, etc.)	82
Walk	43
Ride as a passenger in a personal vehicle (exclude trips in taxis, rideshare like Uber/Lyft, etc.)	40
Public transit (bus, light-rail, ferry, etc.)	23
Bicycle	15
Ridesharing service like Uber or Lyft	13
Taxi	11
Airplane	7
Skateboard, electric kick scooter, or other small device	4
Other	1

Q10. In a typical month, how much does your household spend on the following expenses?

	\$0 (%)	\$1-50 (%)	\$51-100 (%)	\$101- \$100 (%)	\$151+ (%)
Fuel for personal vehicles	10	31	26	9	24
Taxis or ride-hailing services (e.g., Lyft or Uber)	69	23	5	1	2
Other transportation-related expenses	86	10	2	0	1
Tolls on bridges and highways, including express lane fees	69	28	2	0	1
Parking	73	24	2	1	1
Public transit (buses, trains, subways, ferries, etc.)	71	24	3	1	1

Q11. How often does your household not have enough money to pay for gasoline, transit fares, or other transportation costs?

	Frequently (%)	Occasionally (%)	Never (%)	Does not apply (%)
Not enough money for transportation costs	15	32	46	7

There are many ways the U.S. Congress could raise money to pay for maintaining and improving the transportation system. The next few questions ask your opinion about some of these options. In each case, assume that the money collected would be spent only for transportation purposes.

Q12. Right now the federal government collects a tax of 18¢ per gallon when people buy gasoline. One idea to raise money for transportation is to increase the federal gas tax by 10¢ a gallon, from 18¢ to 28¢. Would you support or oppose this gas tax increase?

	%
Strongly support	15
Somewhat support	25
Somewhat oppose	28
Strongly oppose	32

Q13. Now, imagine that the U.S. Congress decided that the best option to raise money for transportation is to increase the federal gas tax by ten cents per gallon. Would you support or oppose the gas tax increase if the new money were spent only on the following types of projects?

	Strongly support (%)	Somewhat support (%)	Somewhat oppose (%)	Strongly oppose (%)
Reduce accidents and improve safety	37	33	15	15
Maintain streets, roads, and highways	36	35	15	15
Reduce traffic congestion	33	35	17	16
Reduce the transportation system's contribution to global warming	25	29	21	24
Reduce local air pollution caused by the transportation system	21	29	25	25

Q14. Some people say that money from gas taxes should only be spent on roads and highways, since drivers pay the tax. Other people say gas tax money should be used to pay for public transit in addition to roads and highways, because transit helps reduce traffic congestion and wear-and-tear on the roads. Would you support or oppose spending some gas tax money on public transit?

	%
Support	69
Oppose	31

*Note:* Half of respondents received the question as worded here, and the other half received the question with the two statements in reverse order: “Some people say gas tax money should be used to pay for public transit in addition to roads and highways, because transit helps reduce traffic congestion and wear-and-tear on the roads. Other people say that money from gas taxes should only be spent on roads and highways, since drivers pay the tax. Would you support or oppose spending some gas tax money on public transit?”

Now, imagine that the U.S. Congress decides to replace the gas tax with a mileage fee of 3¢ per mile driven. That means someone driving 10,000 miles a year would pay \$300. Vehicles would have an electronic meter to keep track of the miles driven.

Q16. Would you support or oppose replacing the gas tax with such a mileage fee?

	%
Strongly support	15
Somewhat support	30
Somewhat oppose	23
Strongly oppose	33

Q17. If Congress adopts a mileage fee, would you support or oppose charging a lower rate to low-income drivers?

	%
Strongly support	29
Somewhat support	33
Somewhat oppose	18
Strongly oppose	21

Q18. A variation on the mileage fee concept is to have the fee rate vary depending upon how much the vehicle pollutes. On average, vehicles would be charged 3¢ per mile, but vehicles that pollute less would be charged less, and vehicles that pollute more would be charged more. Would you support or oppose this new mileage fee?

	%
Strongly support	15
Somewhat support	36
Somewhat oppose	23
Strongly oppose	25

Q19. Another variation on the mileage fee concept is to replace the gas tax with a mileage fee of 3¢ per mile for all gas and diesel vehicles, but with a different rate for all-electric vehicles. What rate per mile do you think electric vehicles should pay?

	%
The same rate as gas/diesel vehicles	49
Half the rate set for gas/diesel vehicles	35
Nothing (electric vehicles pay no fee)	16

Q20. Now imagine that the US Congress decides to keep the gas tax, but to add a new per-mile “Business Road-Use Fee” for miles that commercial vehicles drive on the job. (These vehicles would continue to pay the current gas tax, as well.) Would you support or oppose this new Business Road-Use Fee for the following types of commercial vehicles?

	Strongly support (%)	Somewhat support (%)	Somewhat op- pose (%)	Strongly oppose (%)
Delivery and freight trucks	19	29	26	25
Ridehailing vehicles	18	30	27	25
Taxis	18	30	28	23

Q21. How much do you agree or disagree with the following statement: I’m already tracked everywhere I go through my phone, so having my mileage tracked for a mileage fee wouldn’t really bother me.

	%
Strongly agree	17
Somewhat agree	28
Somewhat disagree	22
Strongly disagree	33

Q22. Which statement is closer to your opinion?

	%
A mileage fee is MORE fair than the gas tax because everyone pays the same for use of the roads, regardless of vehicle fuel efficiency or vehicle type (electric vs. gas vehicles)	54
A mileage fee is LESS fair than the gas tax because the mileage fee doesn't give a break to people who buy cleaner vehicles	46

Q23. If Congress creates a federal mileage fee, which of the following possible fee structures would be fairer?

	%
The fee is the same for every mile the vehicle drives during the year	52
The fee is <u>lower</u> for the first 5,000 miles the vehicle drives during the year, and higher for all additional miles driven that year	48



Q24. If Congress does create a federal mileage fee, how would you prefer to pay? Remember that the total amount you pay annually would be the same in each option.

	%
Pay each time I purchase gas/diesel or charge an electric vehicle	45
Pay a bill that comes once a month	30
Pay a bill that comes once a year	25

Q25. Which of the following options would you prefer as a replacement for the gas tax?

	%
A mileage fee	52
An annual charge that is the same for everyone no matter how much they drive	48

Q26. As a general principle, how should the federal government raise money to pay for streets, roads, and highways?

	%
Taxes on driving and vehicles (for example, gas taxes, mileage fees, or annual vehicle fees)	52
The federal income and business taxes	48

Q27. As best you remember, when did the federal gas tax rate last change?

	%
Less than a year ago	12
1 to 3 years ago	19
4 to 10 years ago	10
11 to 15 years ago	4
16 to 20 years ago	2
More than 20 years ago [correct answer]	2
Don't know	51

Q28. Now we have a question about the state where you live. As best you remember, when did the state gas tax rate last change?

	%
Less than a year ago	15
1 to 3 years ago	22
4 to 10 years ago	10
11 to 15 years ago	4
16 to 20 years ago	2
More than 20 years ago	1
Don't know	46

Q29. Have you been involved in any motor vehicle crashes in the last 12 months as a driver, passenger, pedestrian, bicyclist, etc.?

	%
Yes – 1 crash	11
Yes – more than 1 crash	6
No	83

Q30. How were you traveling when the crash(es) happened? If you were involved in more than one crash, check all that apply.

	%
Driving or riding as a passenger in a motor vehicle (car, truck, etc.)	14
Bicycling	3
Walking	4
Riding an electric-scooter, skateboard, or other small device	1
Other	1

*Note:* Question only asked of those who had been in a crash, but findings reported as a percentage of all respondents.

Q31. Were you injured as a result of the crash(es) in the last 12 months? If you were involved in more than one crash, check all that apply.

	%
Yes – injured	12
Serious injuries	4
Moderate injuries	4
Minor injuries	3
No	6

Q32. In the last 12 months, have any of your family members or close friends been involved in a motor vehicle crash as a driver, passenger, pedestrian, bicyclist, etc.?

	%
Yes	22
No	78

Q41 About how many miles did you, personally, drive during the past 12 months in all motorized vehicles? If you work, include the commute to and from work, but not any miles driven while on the job

	%
0 miles (Don't Drive)	15
1 to 5,000 miles	33
5,001 to 7,500 miles	18
7,501 to 10,000 miles	13
10,001 to 12,500 miles	10
12,501 to 15,000 miles	6
15,001 to 20,000 miles	4
20,001 miles or more	4

Now think about the vehicle you drove the most in the past 12 months, to get around for personal reasons like shopping, commuting to work, or vacation trips.

Q28 What is the make and model<sup>a</sup> of that vehicle?

	%
Ford	12
Chevrolet	11
Toyota	11
Honda	8
Nissan	6
Audi	5
Hyundai	4
BMW	4
Dodge	4
Kia	4
Jeep	3
Acura	2
GMC	2
Buick	2
Subaru	2
Mazda	2
Lexus	2
Chrysler	2
Volkswagen	1
Cadillac	1
Mercedes Benz	1
Other	11

<sup>a</sup> Models not shown in this appendix both because (1) so many were reported and (2) many respondents did not fully specify the model name.

*Note:* Question only asked of respondents who indicated that they drove in the past 12 months.

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**Q29 And what is the year of that vehicle?**


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	%
1 – 5 years	27
6 – 10 years	33
11 – 15 years	18
16 – 20 years	12
21+ years	10

*Note:* Question only asked of respondents who indicated that they drove in the past 12 months

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**Q43 Is this vehicle a 100% all-electric vehicle?**


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	%
Yes	10
No	90

*Note:* Question only asked of respondents who indicated that they drove in the past 12 months

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**Q44 How many miles per gallon does the vehicle get? Your best guess is fine.**


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	%
19 mpg or less	19
20 to 30 mpg	45
31 mpg or more	36

*Note:* Question only asked of respondents who indicated that they drove in the past twelve months and did not own an electric vehicle.

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**Q58 How would you describe the area where you live?**


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	%
Urban part of a city/region	33
Suburban part of a city/region	42
Small town	11
31 mpg or more	13

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