

## **Supplementary Material A. Survey Questionnaire**

*Note to Manuscript Reader: Three versions of the survey were released, one for each state where it was fielded (i.e., Vermont, New Hampshire, and Maine). The following survey questionnaire was provided to the Vermont respondents. All surveys are identical except for the stated state.*

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Start of Block: Consent to Participate

### **Consent to Participate in a University of Vermont Research Study**

We invite you to take part in a study conducted by the University of Vermont Transportation Research Center about how transportation is paid for. Funding for this study was provided by the US Department of Transportation. To be eligible to participate, you must be at least 18 years of age and be willing to take an anonymous online survey that should take less than 20 minutes to complete. There is no cost to participate in this study. As a participant in this study, there is no direct benefit for you; however, information from this study may benefit people in the future.

#### **Protecting Your Privacy**

Your participation in this study is completely voluntary. You are free to withdraw from the survey at any point. There are no known risks to participating in this survey. Anonymous survey responses will be stored on a secure server until the completion of this study. We will not collect or associate names, addresses, or other identifying information about you with the information you provide in the survey to protect your confidentiality. Your responses will remain anonymous. The data from this study will only be reported in aggregate and only used to support transportation research. We will provide a report describing the study results on our website (<https://www.uvm.edu/cems/trc/trc-research-reports>) when the study is completed.

#### **Contact Information**

If you have any questions or concerns about this study, please feel free to contact Clare Nelson (TRC Research Assistant) at [clare.nelson@uvm.edu](mailto:clare.nelson@uvm.edu) or Dr. Gregory Rowangould (Principal Investigator) at [growangould@uvm.edu](mailto:growangould@uvm.edu) or (802) 656-3596. If you have questions regarding your rights as a research participant, then you may contact the Director of the UVM Research Protections Office at (802) 656-5040.

\*It is recommended you print this information sheet for your records before continuing.

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End of Block: Consent to Participate

Start of Block: Attitudes and Beliefs



In which state do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland

- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina

- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- I do not reside in the United States

*Skip To: End of Block If 50 States, D.C. and Puerto Rico != Vermont*

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Page Break

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State your level of agreement with the following statements. Providing this information helps ensure our research gets input from a broad range of viewpoints.

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Taxes are an irreplaceable form of funding for state and federal programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes the government needs to pass laws to help protect vulnerable populations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I trust my state government.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would prefer less government involvement in my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Funding for state programs is mismanaged.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental threats such as global warming and deforestation have been exaggerated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently think about whether my travel choices have an impact on the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Vehicle emissions in my state have a large impact on air quality.

I frequently think about how my choices will impact my community.

Driving a car is good for society.

My lifestyle is dependent on having a car.

Owning a vehicle provides me with freedom.

Technology does more harm than good.

I'm tracked everywhere I go through my phone.

Technology has made life too complicated.

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Page Break



Your location can be tracked through your phone and other electronic devices. How comfortable are you with your location being tracked by the following?

	1 (Not at all concerned)	2	3	4	5 (Very concerned)
The federal government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The state government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private companies (such as Google, Apple, and Microsoft)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobile Apps (such as Uber, Weather apps, Fitness apps)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vehicle Navigation System (such as finding directions in your car)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

You will now have the opportunity to vote on two proposed policies on how to pay for transportation. Please review the policies carefully before responding.

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Page Break

Vermont is considering alternatives to the gas tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the gas tax would remain revenue neutral, so the total amount of money collected by the state would remain the same, but the amount paid by individual drivers may increase, decrease, or stay about the same.

**Vermont plans to replace the current fuels tax with a flat fee of \$220 per year per vehicle.**

How would you vote?

Yes

No

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Page Break

Vermont is considering alternatives to the gas tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the gas tax would remain revenue neutral, so the total amount of money collected by the state would remain the same, but the amount paid by individual drivers may increase, decrease, or stay about the same.

**Vermont plans to replace the current fuels tax with a mileage-based user fee of 2 cents per mile.**

How would you vote?

Yes

No

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Page Break

Do you have access to a vehicle that you use regularly?

- Yes
- No

*Skip To: Q72 If Do you have access to a vehicle that you use regularly? = No*

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Now we want to learn more about the vehicle you **most frequently** use.

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What is the fuel type for your primary vehicle?

- Gasoline
  - Diesel
  - Gasoline Hybrid (not plug-in)
  - Plug-in Hybrid (PHEV)
  - Fully Electric (BEV)
  - Other \_\_\_\_\_
- 

*Display This Question:*

*If What is the fuel type for your primary vehicle? = Gasoline*

*Or What is the fuel type for your primary vehicle? = Diesel*

*Or What is the fuel type for your primary vehicle? = Gasoline Hybrid (not plug-in)*

*Or What is the fuel type for your primary vehicle? = Fully Electric (BEV)*

*Or What is the fuel type for your primary vehicle? = Other*

*Or Or What is the fuel type for your primary vehicle? Text Response Is Not Empty*

Do you know the fuel economy of your primary vehicle (mpg)?

- Yes
- No

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*Display This Question:*

*If Do you know the fuel economy of your primary vehicle (mpg)? = No*

*Or What is the fuel type for your primary vehicle? = Plug-in Hybrid (PHEV)*



What is the vehicle type?

- Car
- SUV
- Pick-Up Truck
- Minivan
- Sports Car
- Other \_\_\_\_\_

Display This Question:

If What is the fuel type for your primary vehicle? = Plug-in Hybrid (PHEV)



What percentage of your driving is all-electric?

- 0 %
  - 10 %
  - 20 %
  - 30 %
  - 40 %
  - 50 %
  - 60 %
  - 70 %
  - 80 %
  - 90 %
  - 100 %
-

Display This Question:

If Do you know the fuel economy of your primary vehicle (mpg)? = Yes



How many miles per gallon (mpg) do you typically get out of your primary vehicle?

- 5-10 mpg
- 11-15 mpg
- 16-20 mpg
- 21-25 mpg
- 26-30 mpg
- 31-35 mpg
- 35+ mpg

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Page Break



How many miles do you travel (per year) in your primary vehicle?

- 1,000 - 5,000 mi
- 5,000 - 10,000 mi
- 10,000 - 15,000 mi
- 15,000 - 20,000 mi
- 20,000 - 30,000 mi
- More than 30,000 mi

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Page Break

Display This Question:

*If Consent to Participate in a University of Vermont Research Study We invite you to take part in... Not Displayed*

$$\$e{\text{round}((q://QID74/SelectedChoicesRecode * 0.492 / q://QID11/SelectedChoicesRecode), 0)}$$

Display This Question:

*If Consent to Participate in a University of Vermont Research Study We invite you to take part in... Not Displayed*

$$\$e{\text{round}((q://QID74/SelectedChoicesRecode * 0.492 / q://QID45/SelectedChoicesRecode), 0)}$$

Display This Question:

*If Consent to Participate in a University of Vermont Research Study We invite you to take part in... Not Displayed*

$$\$e{\text{round}((q://QID74/SelectedChoicesRecode * 0.00492 * (100 - \{Q100/SelectedChoicesRecode\}) / q://QID45/SelectedChoicesRecode), 0)}$$

Display This Question:

*If Consent to Participate in a University of Vermont Research Study We invite you to take part in... Not Displayed*

$$\$e{\text{round}((q://QID74/SelectedChoicesRecode * 0.0196), 0)}$$

Page Break

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## What is the gas tax?

The gas tax you pay at the pump is a state tax plus a federal tax. This next section will ask you some questions about the Vermont gas tax.

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Page Break

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Which of the following is true?

- The Vermont gas tax varies with the price of gas.
  - The Vermont gas tax varies with the amount of gas you buy.
  - Both
- 

Page Break

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*Display This Question:*

*If Which of the following is true? = Both*

Correct! In most cases, the Vermont gas tax is a **set price per gallon of gas**. When prices rise above \$4.00 per gallon, there is a small additional tax varying with price.

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*Display This Question:*

*If Which of the following is true? = The Vermont gas tax varies with the price of gas.*

*Or Which of the following is true? = The Vermont gas tax varies with the amount of gas you buy.*

Not quite! In most cases, the Vermont gas tax is a **set price per gallon of gas**. When prices rise above \$4.00 per gallon, there is a small additional tax varying with price.

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Page Break

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The Vermont gas tax was last increased...

- 1-3 years ago
- 4-8 years ago
- 9-12 years ago
- 13 to 20 years ago
- 20+ years ago

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Page Break

*Display This Question:*

*If The Vermont gas tax was last increased... = 9-12 years ago*

Correct! It has been **nearly 10 years** since Vermont's gas tax was raised. It has remained at a constant 24 cents per gallon of gas since 2014.

*Display This Question:*

*If The Vermont gas tax was last increased... = 1-3 years ago*

*Or The Vermont gas tax was last increased... = 4-8 years ago*

*Or The Vermont gas tax was last increased... = 13 to 20 years ago*

*Or The Vermont gas tax was last increased... = 20+ years ago*

You may be surprised that it's been **nearly 10 years** since Vermont's gas tax was raised. It has remained at a constant 24 cents per gallon of gas since 2013.

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Page Break

Gas tax revenues gathered in Vermont are spent on...

- Any state government program
- Only transportation related projects
- Only highway related projects

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Page Break

*Display This Question:*

*If Gas tax revenues gathered in Vermont are spent on... = Only transportation related projects*

Correct! Gas taxes can only be spent on **transportation related projects**. This includes maintenance for roads and bridges, mass transit projects, and new construction.

*Display This Question:*

*If Gas tax revenues gathered in Vermont are spent on... = Any state government program*

*Or Gas tax revenues gathered in Vermont are spent on... = Only highway related projects*

Not quite. Gas taxes can only be spent on **transportation related projects**. This includes maintenance for roads and bridges, mass transit projects, and new construction.

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Page Break

### Concept check!

Your friend says that if gas taxes are increased, some of the money may go towards increasing funding for public schools. Is this possible?

- Yes, it's possible.
- No, it's not possible.

Display This Question:

*If Concept check! Your friend says that if gas taxes are increased, some of the money may go towards... = No, it's not possible.*

Correct!

Display This Question:

*If Concept check! Your friend says that if gas taxes are increased, some of the money may go towards... = Yes, it's possible.*

Not quite! Keep in mind, funding from gas taxes can only be spent on transportation related projects.

Page Break

Display This Question:

*If Do you have access to a vehicle that you use regularly? = Yes*

You will now have the opportunity to reconsider your vote on two policies that would change the way transportation is paid for in Vermont. Please review the policies carefully before responding.

Page Break

Display This Question:

*If Do you know the fuel economy of your primary vehicle (mpg)? = Yes  
And Do you have access to a vehicle that you use regularly? = Yes*

Vermont is considering alternatives to the gas tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the gas tax would remain revenue neutral, so the total amount of money collected will remain the same.

Based on the information you provided about how much you drive and the vehicle you use, we estimate you currently pay  $\$\{Q78/QuestionText\}$  in gas taxes per year.

**Vermont plans to replace the current gas tax with a flat fee of \$220 per year per vehicle.**

How would you vote?

Yes

No

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*Display This Question:*

*If Do you know the fuel economy of your primary vehicle (mpg)? = No*

*And Do you have access to a vehicle that you use regularly? = Yes*

Vermont is considering alternatives to the gas tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the gas tax would remain revenue neutral, so the total amount of money collected will remain the same.

Based on the information you provided about how much you drive and the vehicle you use, we estimate you currently pay  $\$\{Q110/QuestionText\}$  in gas taxes per year.

**Vermont plans to replace the current gas tax with a flat fee of \$220 per year per vehicle.**

How would you vote?

Yes

No

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*Display This Question:*

*If What is the fuel type for your primary vehicle? = Plug-in Hybrid (PHEV)*

*And Do you have access to a vehicle that you use regularly? = Yes*

Vermont is considering alternatives to the gas tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the gas tax would remain revenue neutral, so the total amount of money collected will remain the same.

Based on the information you provided about how much you drive and the vehicle you use, we estimate you currently pay  $\$\{Q109/QuestionText\}$  in gas taxes per year.

**Vermont plans to replace the current gas tax with a flat fee of \$220 per year per vehicle.**

How would you vote?

Yes

No

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Page Break

*Display This Question:*

*If Do you know the fuel economy of your primary vehicle (mpg)? = Yes*

*And Do you have access to a vehicle that you use regularly? = Yes*

Vermont is considering alternatives to the gas tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the gas tax would remain revenue neutral, so the total amount of money collected would remain the same.

Based on the information you provided about how much you drive and the vehicle you use, we estimate you currently pay  $\$\{Q78/QuestionText\}$  in gas taxes per year.

**Vermont plans to replace the current fuels tax with a mileage-based user fee of 2 cents per mile. We estimate you would spend  $\$\{Q80/QuestionText\}$  in this fee per year.**

How would you vote?

Yes

No

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*Display This Question:*

*If Do you know the fuel economy of your primary vehicle (mpg)? = No*

*And Do you have access to a vehicle that you use regularly? = Yes*

Vermont is considering alternatives to the fuels tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the fuels tax would remain revenue neutral, so the total amount of money collected will remain the same.

Based on the information you provided about how much you drive and the vehicle you use, we estimate you currently pay  $\$\{Q110/QuestionText\}$  in gas taxes per year.

**Vermont plans to replace the current fuels tax with a mileage-based user fee of 2 cents per mile. We estimate you would spend  $\$\{Q80/QuestionText\}$  in this fee per year.**

How would you vote?

Yes

No

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*Display This Question:*

*If What is the fuel type for your primary vehicle? = Plug-in Hybrid (PHEV)*

*And Do you have access to a vehicle that you use regularly? = Yes*

Vermont is considering alternatives to the fuels tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the fuels tax would remain revenue neutral, so the total amount of money collected will remain the same.

Based on the information you provided about how much you drive and the vehicle you use, we estimate you currently pay  $\$\{Q109/QuestionText\}$  in gas taxes per year.

**Vermont plans to replace the current fuels tax with a mileage-based user fee of 2 cents per mile. We estimate you would spend  $\$\{Q80/QuestionText\}$  in this fee per year.**

How would you vote?

Yes

No

**End of Block: Attitudes and Beliefs**

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**Start of Block: Education**

Timing  
First Click  
Last Click  
Page Submit  
Click Count

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### What is a mileage-based user fee?

The following video will walk you through the basics.

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You'll be asked a few questions at the end.  
(The survey will advance once the video is complete)

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Page Break

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Using Odometer readings would be a low-cost way to replace the gas tax with a mileage-based user fee.

- True
  - False
- 

Page Break

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*Display This Question:*

*If Using Odometer readings would be a low-cost way to replace the gas tax with a mileage-based user... = True*

Correct! **Odometer readings can be easily collected** during annual inspections or when you register your vehicle.

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Page Break

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Which option will not charge users for miles they travel out of state?

- Odometer Readings
- ID Tags
- On-Board Devices

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Page Break

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*Display This Question:*

*If Which option will not charge users for miles they travel out of state? != Odometer Readings*

*And Which option will not charge users for miles they travel out of state? != ID Tags*

*And Which option will not charge users for miles they travel out of state? = On-Board Devices*

Correct! **On-Board Devices** are the only option that will not charge you for miles travelled out of state.

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Page Break

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ID Tags are scannable tags that have certain information about your vehicle.

- True
- False

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Page Break

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*Display This Question:*

*If ID Tags are scannable tags that have certain information about your vehicle. = True*

Correct! Scanning an ID Tag reveals specific information about your car, like the fuel economy.



The gas tax was originally designed as a road user fee, but now the price you pay depends more on your vehicle's fuel economy.

- True
- False

**Correct!** When the gas tax was put in place **in 1919, vehicles used very similar amounts of gas**, so the price per gallon was a fair way to charge drivers for their roadway travel.

As technology progressed, vehicle fuel economy began varying widely. Now the price you pay in taxes depends a lot more on your vehicle's fuel economy than it used to.

Assume a mileage-based user fee is replacing the gas tax in Vermont. The state is deciding the best way to know how far vehicles drive.

Rank your support for each of the three mileage-based user fee program-styles (*discussed in the video*).

	Strongly Against	Somewhat Against	Neutral	Somewhat Support	Strongly Support
Odometer Readings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ID Tags	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On-Board Devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Now that you've learned more about the gas tax and mileage-based fees, we'd like to give you a chance to reconsider your original vote on the two policies.

Please read the prompts carefully before responding.

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Page Break

Vermont is considering alternatives to the fuels tax. The current gas tax is struggling to collect funds in a fair way due to... more fuel efficient vehicles, more electric and hybrid vehicles, and increasing costs for roadway maintenance and construction. Alternatives to the fuels tax would remain revenue neutral, so the total amount of money collected will remain the same, but the amount paid by individual drivers may increase, decrease, or stay about the same.

**Vermont plans to replace the current fuels tax with a flat fee of \$220 per year per year.**

How would you vote?

Yes

No

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Page Break

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**Vermont plans to replace the current fuels tax with a mileage-based user fee of 2 cents per mile.**

How would you vote?

Yes

No

How important were the following in your decision to vote for or against a mileage-based user fee?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Privacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost difference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to meet future needs for road/bridge funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rank how fair you feel a mileage-based user fee would be for...

	Not at all fair	Slightly unfair	Neutral	Very fair	Extremely Fair
You	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Vermonters, generally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those in rural areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those in urban areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those with lower incomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those with higher incomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there any other comments or feedback you'd like to provide regarding your support or opposition for a mileage-based fee?

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**End of Block: Education**

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**Start of Block: Demographics**

This final section will ask some questions about you and your household.

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In what year were you born?

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Please state your gender.

Female

Male

I identify as... \_\_\_\_\_

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What is the highest level of school you have completed or the highest degree you have received?

- Less than high school degree
  - High school graduate (high school diploma or equivalent including GED)
  - Some college but no degree
  - Associate degree in college (2-year)
  - Bachelor's degree in college (4-year)
  - Master's degree
  - Doctoral degree
  - Professional degree (JD, MD)
- 

Are you Spanish, Hispanic, or Latino or none of these?

- Yes
  - No
-

What is your race? (Mark all that apply)

- White
  - Black or African American
  - American Indian or Alaska Native
  - Asian or Asian American
  - Native Hawaiian or other Pacific Islander
  - Other, please specify \_\_\_\_\_
- 

How many children (under 18) live in your household?

\_\_\_\_\_

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How many adults (18 or over) live in your household, including yourself?

\_\_\_\_\_

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What is your current employment status?

- Employed full time
  - Employed part time
  - Unemployed and currently looking for work
  - Unemployed and not currently looking for work
  - Student
  - Retired
  - Unable to work
- 

Please state your yearly household income.

- Less than \$20,000
  - \$20,000 to \$34,999
  - \$35,000 to \$49,999
  - \$50,000 to \$74,999
  - \$75,000 to \$99,999
  - \$100,000 to \$149,999
  - More than \$150,000
- 



What is your ZIP code?

\_\_\_\_\_

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Page Break

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If you would like to leave any additional comments, please type them below.

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**End of Block: Demographics**

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**Start of Block: Block 4**

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