US Vehicle Choice Survey

UT Austin Internal Review Board # 2009-03-0095

Dear Respondent,

The Transportation Engineering Program of the Civil Engineering Department at The University of Texas at Austin is conducting a research study to explore vehicle choices, under various energy policies and vehicle technologies.

In today's world of volatile fuel prices and climate concerns, household vehicle ownership and usage patterns are important topics. This research project seeks to better understand the patterns of vehicle ownership and attitudes toward potential policies and technologies.

- The survey will take approximately 15 minutes to complete.
- The survey will ask questions about you, your household's current vehicle inventory, and your future vehicle preferences.
- No names or other identifying information will be used in preparing the data for analysis.
- There are no risks involved in participation in this study and no direct benefits.
- You are not obligated to participate in the survey and you can stop at anytime.
- Your input and opinions are **VERY IMPORTANT**, since it is critical that all perspectives and types of residents be represented in this survey.

If you have any questions or comments about this study please feel free to contact me personally at (512) 471-0210. If you have any questions about your rights as a research participant, please contact Jody Jenson, PhD., Chair of UT Austin's Institutional Review Board for the Protection of Human Subjects, (512) 471-8871.

Your completion of the survey indicates your willingness to participate in the study.

Thank you very much for your time and cooperation.

Sincerely,

Dr. Kara Kockelman

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Professor of Transportation Engineering & Faculty Sponsor

Survey is not complete unless all responses are provided.

Section 1 - Travel

1. Which of the following is your **primary means of travel** for the following activities? (Please select one means of travel for each activity.)

	Walk	Bicycle	Drive Alone	Drive with others (Carpool)	Bus	Not applicable
Work						
School						
Food Shopping						
Non-food Shopping						
Errand/Personal Business						
Social Activity						

2. How many **trips** did you make for the following purposes in the **last seven (7) days** (for example, number of visits to a destination would be counted as number of trips to that destination)?

	0	1-2	3-4	5-6	7-8	9 or more
Work						
School						
Food Shopping						
Non-food						
Shopping						
Errand/Personal						
Business						
Social Activity						

3. When traveling from **home**, How **far** are the following locations **ONE-WAY**? (Please specify the distance in **miles** for each of the most frequently visited locations.)

	Work place	Grocery store	Bus or Rail stop	Airport	Downtown
How FAR are each of the following					
locations from your home?					

4. Please answer the following questions about **LONG DISTANCE TRAVEL** (where your destination was **more than 100 miles** away from your starting location) over the **PAST**

TWELVE (12) MONTHS (Please enter the number of round trips). Plane Train (e.g. Amtrak) or Auto Bus (e.g. Greyhound) How many **ROUND** TRIPS did you make using this form of transport? How many **MILES** (TOTAL) did you travel using this form of transport for **LONG** distance travel? 6. Please specify the number of **transit** (**Rail or Bus**) stops within **0.25 mile** (1/4 mile) of your home? () Zero (0) () One (1) () Two (2) () Three (3) () Four or more (4+) (please specify) 7. Do you have any **comments** about or **issues** with the questions asked? Please describe.

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Section 2- Current and Past Vehicles

8. In order to forecast future vehicle ownership patterns and use, we need to know what **vehicles your household* presently owns**/uses, how many miles have been accumulated on each vehicle and how long they have been held/used. Please indicate the following for each of the vehicles used by your household*. Please look at your vehicle records since the information provided here is vital.

MAKE
MODEL
YEAR of manufacture
Average MILES traveled per year
YEAR of ACQUISITION**
Current ODOMETER reading
ODOMETER reading at the time of acquisition**

Notes: *A household includes all persons who occupy a housing unit such as a house, an apartment, a mobile home, a group of rooms or a single room. The occupants may be a single family, one person living alone, two or more families living together or any other group of related or unrelated persons who share living arrangements. **Acquisition refers to the date on which your household first obtained the vehicle, by purchase, gift, or leasing.

	Make (example: Toyota)	Model (example: Camry)	Year of manufacture (example: 2005)	Average miles traveled per year (example: 15000)	Year of acquisition (example: 2005)	Current odometer reading (example: 60,000 miles)	Odometer reading at the time of acquisition (example: 0 miles)
1							
2							
3							
4	_		_				
5							

9. Ar	e any of these vehicles leased vehicles? (If so, please indicate the number of the vehicle as
	in question 1.)
	Number of the vehicle as listed in question 1
1	•
2	
3	
4	

10. Over the past 10 years , how many different passenger vehicles have been registered to you or to any other members of your household? (Please specify a number.)
11. Please check the names of all the manufacturers of passenger vehicles that have been registered to you or to any other members of your household in the past 10 years. (Please include vehicles sold, scrapped, destroyed by a crash or given away.) (If this question does not apply to you, please skip.)
 () BMW () Chrysler (Chrysler, Dodge and Jeep) () Ford () GM (Buick, Chevrolet, GMC, Hummer, Pontiac, Saab and Saturn) () Honda () Hyundai () Kia () Mazda
 () Mercedes () Nissan () Toyota () Volkswagen () Volvo () Other
12. How did you obtain the vehicle most recently acquired by your household?
 () Purchased new () Purchased used – from used car lot () Purchased used – from family member () Purchased used – from newspaper advertisement () Purchased used – on line () Received free – from family member or friend () Other
13. What OTHER VEHICLES did you seriously consider PURCHASING during your most recent vehicle purchase? Please indicate the MAKE and MODEL of those vehicles in the space available.
Make (example: Toyota) Model (example: Camry) Vehicle 1 Vehicle 2 Make (example: Toyota) Model (example: Camry) ———————————————————————————————————

14. What are the most important characteristics that were missing in vehicles not purchased? (Please check only one option relevant to each vehicle.)

	Vehicle 1	Vehicle 2
Fuel economy was too low.		
Purchase price was too high.		
Vehicle type was not really what I wanted (e.g., compact car, SUV, pickup truck, etc).		
Vehicle appearance was not attractive enough.		
Resale value was a concern.		
Maintenance costs were too high.		
Amenities were missing (e.g., sunroof, power windows, GPS (global positioning system), CD/DVD player, etc.).	П	П
Cabin room/interior size was inadequate.		
Safety rating was a concern.		
Manual transmission was a concern.		
Other issue.		

15	What was the other issue .	Please explain?	(Please ski)	p the question	if the other	issue optior	1
wa	s not selected above.)						

16. Did you or your household sell, donate, scrap, lose (to a crash or other accident) or otherwise let go of a vehicle within **12 months** (**before or after**) of buying your most recent vehicle?

() Yes, I/we let go of another vehicle within the past 12 months.

() No, I/we did not let go of any other vehicle in that time period.

If "yes" in question 16 go to 17, else go to 20.

17. What vehicles have you/or your household sold, lost (to a crash or other accident) or given away in the **PAST**. Please indicate the **MAKE**, **MODEL**, **YEAR** of acquisition, approximate **MILES** traveled in the 12 months prior to letting go of the vehicle and **YEAR** of vehicle sale or loss for each of the vehicles used by your household?

	Make (example. Toyota)	Model (example. Camry)	Year of acquisition (example. 1990)	Miles traveled per year immediately prior selling or losing or giving away (example. 10,000 miles)	Last year of vehicle ownership (example. 2000)
1					
2					
3					
4					
5					

check only one option relevant to skip options for the other vehicles		. If you sold o	or gave up or	nly one vehic	ele please
	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	Vehicle 5
Maintenance costs too high					
Engine problems					
Crashed the vehicle					
Needed a larger vehicle with					
more seating					
Needed a vehicle with a better					
fuel economy					
Change in household income					
Change in family size					
Change in home location					
Change in employment status					
Gave it to my child					
Traded in for a new vehicle					
Needed a vehicle with more					
power					
Lease ran out					
Too many miles on the vehicle					
Other issue					

18. What was the main **REASON** for selling or losing or giving up this/these vehicle/s? (Please

19. What was the **other issue**. Please explain? (Please **skip** the question if the other issue option was not selected above.)

20. Which of the following **DECISIONS** are you considering at this time?

If decision is to "sell" (option2) or "buy and sell" (option3) go to question 21 else question 22

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⁽⁾ I am/we are thinking about **BUYING** a vehicle in the next year.

⁽⁾ I am/we are thinking about **SELLING** one or more vehicle/s in the next year.

⁽⁾ I am/we are thinking to **BUY** a vehicle and **SELL** one or more vehicle/s in the next year.

^() I/we do **not** intend to **BUY or SELL** our current vehicle/s in the next 12 months.

21. Please indicate the MAKE , MODEL for any vehicles you are presently considering SELLING or indicate the number of the vehicle as listed in question 1 .
Make (example.Toyota) Model(example. Camry) Number of the vehicle as listed in question 1 2
 22. If you had to buy a vehicle in the next 12 months, would you buy a new or used vehicle? I would definitely buy a NEW vehicle. I would probably buy a NEW vehicle. I dont know whether the purchased vehicle would be NEW or USED. I would probably buy a USED vehicle. I would definitely buy a USED vehicle.
23. Do you have any comments about or issues with the questions asked? Please describe.
Survey is not complete unless all responses are provided.

Section 3 - Consumer Vehicle Choice Preference

24. If you had to **BUY** or **LEASE** a new vehicle in the coming month, and could choose only from among the following, **which would you BUY** or LEASE? (**Note**: The **Fuel Economy** in miles per gallon (mpg) and **Purchase Price** in dollars for **each** of the different vehicles are given below. Please **select** only **one** of the following by clicking on the photo. For more information on these vehicles, please click on the link below each photo.)



Fuel Economy: 15 mpg Purchase Price: \$29,000 Ford F-150



Fuel Economy: 22 mpg Purchase Price: \$34,500 <u>Lexus ES 350</u>



Fuel Economy: 22 mpg Purchase Price: \$31,000 <u>Nissan Maxima</u>



Fuel Economy: 46 mpg Purchase Price: \$25,000 <u>Toyota Prius</u>



Fuel Economy: 20 mpg Purchase Price: \$28,000 Nissan Murano



Fuel Economy: 16 mpg Purchase Price: \$61,500 Hummer



Fuel Economy: 23 mpg Purchase Price: \$20,500 Ford Escape



Fuel Economy: 45 mpg* Purchase Price: \$33,000 Plug-In Hybrid Prius



25. Imagine that **GASOLINE PRICES** are hovering at \$5 per gallon and stay there for several more years. If you had to BUY or LEASE a new vehicle in the coming month, and could choose only from the following, which would you BUY or LEASE? (**Note**: The **Annual Fuel Costs** for driving **15,000 miles** each year and **Purchase Price** in dollars for each of the different vehicles are given below. Please **select** only **one** of the following by clicking on the photo. For more information on these vehicles please click on the link below each photo.)



Fuel Costs: \$4,125/year Purchase Price: \$29,000 Ford F-150



Fuel Costs: \$3,250/year Purchase Price: \$34,500 <u>Lexus ES 350</u>



Fuel Costs: \$2,875/year Purchase Price: \$31,000 <u>Nissan Maxima</u>



Fuel Costs: \$1,375/year Purchase Price: \$25,000 <u>Toyota Prius</u>



Fuel Costs: \$3,625/year Purchase Price: \$28,000 <u>Nissan Murano</u>



Fuel Costs: \$3,875/year Purchase Price: \$61,500 <u>Hummer</u>



Fuel Costs: \$2,875/year
Purchase Price: \$31,000

Ford Escape



Fuel Costs: \$775/year Purchase Price: \$33,000 <u>Plug-In Hybrid Prius</u>



Fuel Costs: \$4,125/year Purchase Price: \$28,500 <u>Honda Odyssey</u>



Fuel Costs: \$2,125/year Purchase Price: \$19,000 <u>Honda Civic</u>



Fuel Costs: \$2,000/year Purchase Price: \$15,000 <u>Toyota Yaris</u>



Fuel Costs: \$2,000/year Purchase Price: \$17,000 <u>Smart Car</u>

26. Imagine now that **GASOLINE PRICES** are instead hovering at \$7 per gallon and stay there for several more years. If you had to BUY or LEASE a new vehicle in the coming month, and could choose only from the following, which would you **BUY** or **LEASE**? (**Note**: The **Annual Fuel Costs** for driving **15,000 miles** each year and **Purchase Price** in dollars for **each** of the different vehicles are given below. Please **select** only **one** of the following by clicking on the photo. For more information on these vehicles please click on the link below each photo.)



Fuel Costs: \$5,775/year Purchase Price: \$29,000 Ford F-150



Fuel Costs: \$4,550/year Purchase Price: \$34,500 <u>Lexus ES 350</u>



Fuel Costs: \$4,025/year Purchase Price: \$31,000 <u>Nissan Maxima</u>



Fuel Costs: \$1,925/year Purchase Price: \$25,000 <u>Toyota Prius</u>



Fuel Costs: \$5,075/year Purchase Price: \$28,000 <u>Nissan Murano</u>



Fuel Costs: \$5,425/year Purchase Price: \$61,500 <u>Hummer</u>



Fuel Costs: \$3,850/year
Purchase Price: \$20,500

Ford Escape



Fuel Costs: \$1000/year Purchase Price: \$33,000 <u>Plug-In Hybrid Prius</u>



Fuel Costs: \$5,775/year Purchase Price: \$28,500 <u>Honda Odyssey</u>



Fuel Costs: \$2,975/year Purchase Price: \$19,000 <u>Honda Civic</u>



Fuel Costs: \$2,800/year Purchase Price: \$15,000 <u>Toyota Yaris</u>



Fuel Costs: \$2,900/year Purchase Price: \$17,000 <u>Smart Car</u>

27. Different vehicles have different **environmental consequences**. The U.S Environmental Protection Agency, U.S Department of Energy and researchers have estimated costs of various vehicle emissions. The following table uses such estimates to put monetary values on the **Global Warming** and **Health Impacts** of different vehicles. Given such estimates, **which would you BUY** or **LEASE**? (Estimates of these **external costs** (imposed on others) for driving **15,000 miles** each year and **purchase price** for **each** of the different vehicles are given below.) Please **select** only **one** of the following by clicking on the photo. For information on the cost estimates for each for these vehicles please click here.



\$740/year \$29,000 *Ford F-150*



\$480/year \$34,500 <u>Lexus ES 350</u>



\$495/year \$31,000 *Nissan Maxima*



\$240/year \$25,000 *Toyota Prius*



\$540/year \$28,000 *Nissan Murano*



\$965/year \$61,500 <u>Hummer</u>



\$620/year \$20,500 *Ford Escape*



\$79/year \$33,000 <u>Plug-In Hybrid Prius</u>



\$750/year \$28,500 *Honda Odyssey*



\$375/year \$19,000 *Honda Civic*



\$350/year \$15,000 *Toyota Yaris*



\$300/year \$17,000 <u>Smart Car</u>

28. If you had to **BUY** or LEASE a new vehicle in the coming month, and could choose one of the following two vehicles, which would you **BUY** or LEASE? (**Note**: Please **select** only **one** of the following by clicking on the photo. For more information on these vehicles, please click on the link below each photo.)



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		_			
		_			
		_			
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Survey is not complete unless all responses are provided.

Section 4 - Vehicle Policy

30. Consider a new policy where **REBATES** are given to those purchasing relatively fuel **EFFICIENT** vehicles and **FEES** are charged on the purchase of relatively **INEFFICIENT** vehicles. Assume the amounts vary with fuel economy, as shown in the chart below. How do you feel about such a policy?

Fuel Economy (in miles per gallon)	Rebate+/Fee-	
More than 40 MPG.	\$ 3,000 (rebate)	
40 MPG	\$ 2,000 (rebate)	
35 MPG	\$ 1,000 (rebate)	
30 MPG	\$ 0 (no fee/no rebate)	
25 MPG	\$ 1,000 (fee)	
20 MPG	-\$ 2,000 (fee)	
15 MPG	-\$ 3,000 (fee)	
less than 10 MPG	\$ 4,000 (fee)	
 () I strongly oppose this policy. () I somewhat oppose this policy. () I am neutral regarding this policy. () I somewhat support this policy. () I strongly support this policy. 		
31. Does your residential unit have a garage or a carport with access to electricity which can be used to charge a plug-in hybrid vehicle (PHEV)? () Yes () No		

If "yes" in question 31 go to question 32, else go to question 33.

32. How far from your parking spot is there a garage or a carport with access to electricity which can be used to charge a plug-in hybrid vehicle (PHEV)? () Less than 25 feet () 25-50 feet () 50-75 feet () 75-100 feet () More than 100 feet
33. How many parking spots does your residential unit have? () Zero (0) () One (1) () Two (2) () Three (3) () Four (4) () Five (5) () More than five (5) (Please specify a number.)
34. At your workplace , how far is a carport or garage with access to electricity ? () Less than 25 feet () 25-50 feet () 50-75 feet () 75-100 feet () More than 100 feet () Not aware of the distance
35. If gasoline prices rise to \$6 per gallon and stay there, would you do any of the following? () Pay an additional \$2,500 to buy a hybrid version of your vehicle in order to reduce your gasoline use by 30%. () Pay an additional \$4,000 to buy a plug-in hybrid version of your vehicle, in order to reduce your gasoline use by 45% (assuming you travel about 20 miles per day on its battery only.) () Adapt to the change. () Don't know what I would do. () Other
If "adapt to the change" in question 35 go to question 36, else go to question 37.
36. How would you adapt to the change when gasoline prices rise to \$6 per gallon and stay there? (Please check all the apply .)
 () Use public transportation more () Carpool more often () Walk/Bike more to nearby places rather than using the vehicle () Cut back on other expenditures () Other

37. Suppose you are going to buy a new vehicle today, and the hybrid gasoline/electric version vehicle costs \$3,000 more than the standard model of the same vehicle. Would you still seriously consider buying it? () Yes, I would seriously consider buying it even if, it costs \$3,000 more. () I would not consider such an option. () I have no opinion on this. () Other
38. Under current gasoline price uncertainties , would your household consider buying a plug-in hybrid electric vehicle (PHEV)? Such vehicles generally require battery re-charging after moderate use and cost \$6,000 more than a comparable gas-powered vehicle. But they are expected to save owners 50% or more in fuel costs and will likely be made available in the make & model of a Toyota Camry, Ford Focus, Chevy Malibu, Ford Escape, Honda Odyssey and others.
() Yes, I/we would consider buying such a vehicle.() No, I/we would not consider buying such a vehicle.
39. If you were considering purchasing a new vehicle today , please RANK the three most important characteristics , according to their priority level (with first priority being most important to you, and third priority being the third most important to you). Characteristics First priority Second priority Third priority
40. Do you have any comments about or issues with the questions asked? Please describe.
Survey is not complete unless all responses are provided.

Section 4 - Demographics 41. Including yourself, **HOW MANY PEOPLE** live in your household? (Please do not include anyone who usually lives somewhere else or is just visiting, such as a college student away at school.) () One (1) () Two (2) () Three (3) () Four or more (4+) (Please specify exact number.) 42. How many persons **UNDER the age of 16 years** usually live in your home? () Zero (0) () One (1) () Two (2) () Three (3) () Four or more (4+) (Please specify exact number.) 43. Including yourself, how many **WORKERS** usually live in your home? (Please include all the persons in your household who get paid for working full-time, part-time or are selfemployed.) () Zero (0) () One (1) () Two (2) () Three (3) () Four or more (4+) (Please specify exact number.) 44. How many persons in your household hold a **DRIVER'S LICENSE**? () Zero (0) () One (1) () Two (2) () Three (3) () Four or more (4+) (Please specify exact number.) 45. Which of the following best describes your households **TOTAL annual INCOME** from all sources, before taxes, for all members of vour household in 2008? (Income data is very important for developing models that predict vehicle ownership behavior and thus changes in vehicle composition of households over time.) () Less than \$10,000 () \$10,000-19,999 () \$20,000-29,999 () \$30,000-39.999 () \$40,000-49,999 () \$50,000-59,999 () \$60,000-74,999

() \$75,000-99,999	
() \$100,000-124,999	
() \$125,000-149,999	
() \$150,000-199,999	
() \$200,000 or more	
46. What is your AGE ?	
() Less than 25 years old	
() 25-34	
() 35-44	
() 45-54	
() 55-64	
() 65 or more years of age	
47. Are you male or female?	
() Male	
() Female	
48. Which of the following best describes you	r ETHNICITY?
() Hispanic	
() Asian	
() African American	
() Caucasian/White	
() Other (Please specify.)	
49. Which of the following best describes you	
() I work full-time (35 hours or more p	,
() I work part-time (less than 35 hours	per week).
() I am a homemaker.	
() I am self-employed.	
() I am unemployed, but looking for en	1 2
() I am unemployed, and not looking f	or employment.
() I am retired.	
50 What is the highest level of EDUCATION	J 11-4-49
50. What is the highest level of EDUCATION	you have completed?
() Did not complete high school	
() High school (or equivalent)	- avivalant\
() Associate's or technical degree (or e	equivalent)
() Bachelor's degree() Master's degree or higher	
() iviasier's degree or nigher	
51. What state do you live in?	

52. Wha	at city do you live in?	
you with	would like to send you a copy of our report , if that is on any follow-up questions we may have. (This is especiel er provided here.) Please allow us to do that by providing	ally helpful if we need to clarify
54. Do y	you have any comments or suggestions for us?	
	Survey is not complete unless all responses	are provided.