

Dear Phoenix Area Resident,

Arizona State University (ASU) invites you to take part in a research study to better understand residents' travel needs and opinions about transportation. Results of the study will be used to design future transportation options for our region. Your participation is voluntary, but very important. If you are unable to participate for any reason, any other adult in the household can complete the survey.

We are interested in your answer to every question, including those dealing with topics that might be less familiar to you. As a token of appreciation, the first 250 respondents will receive a **\$10 Amazon e-gift card** and all remaining respondents will be entered into a drawing to win one of the remaining one hundred **\$10 Amazon e-gift cards**.

Your individual responses will be treated in strict confidence. The results of the study will be published only in summary form so that your identity and privacy are protected. The survey will take about 30-40 minutes to complete, but we think you'll find it interesting and fun to do.

We would appreciate your completing the survey by **June 30**, **2019**. If you are unable to complete the survey by that date, we would still welcome your response as soon as possible. You may complete the survey online at <u>asutransportsurvey.com</u> using the following access code:

Access Code: 21XXXXX

Note: This access code is unique and can be used only once. Anybody else interested in participating in this study should contact Denise Silva at <u>denise.silva@asu.edu</u> to obtain a different access code. If you prefer to complete the survey on paper, please contact Denise Silva at <u>denise.silva@asu.edu</u> to get a paper copy of the survey mailed to you.

Thank you in advance for your participation in this important study. This study is sponsored by the US Department of Transportation under its University Transportation Centers Research and Technology program. For more information about the study, please visit <a href="www.tomnet-utc.org/asutransportsurvey">www.tomnet-utc.org/asutransportsurvey</a> or contact the study coordinator, Denise Silva, at <a href="mailto:denise.silva@asu.edu">denise.silva@asu.edu</a> or 480-727-3613.

Sincerely,

Ram M. Pendyala, PhD

Professor and Interim Director, School of Sustainable Engineering and the Built Environment Director, TOMNET – A USDOT Tier 1 University Transportation Center

Your submission of the completed survey (whether online or by mail) implies that you agree to participate in this study and are 18 years or older. This research is funded by the US Department of Transportation and conducted by Arizona State University. This study has been reviewed and approved by the Arizona State University Institutional Review Board for the protection of study participants. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you may contact the Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

# Section A: Attitudes and Preferences

To begin, we would like to learn about your attitudes and opinions on transportation and life in general. For each of the following statements, please choose the response that most closely matches your feelings. We want your honest opinion on each topic (or your *best guess*, for topics you are not very familiar with) – *remember, there are no "right" or "wrong" answers!* 

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I like to be among the first to have the latest technology.	0	0	0	0	0
The government should raise the gas tax to help reduce the negative impacts of transportation on the environment.	0	0	0	0	0
I feel uncomfortable around people I do not know.	0	0	0	0	0
I prefer to do one thing at a time.	0	0	0	0	0
Most of the time, I have no reasonable alternatives to driving.	0	0	0	0	0
I am too busy to do many of the things I like to do.	0	0	0	0	0
Car crash deaths are an unfortunate but unavoidable part of a modern, efficient transportation system.	0	0	0	0	0
I am committed to an environmentally-friendly lifestyle.	0	0	0	0	0
Having to wait can be a useful pause in a busy day.	0	0	0	0	0
I prefer to shop in a store rather than online.	0	0	0	0	0
Learning how to use new technologies is often frustrating for me.	0	0	0	0	0
I would be fine with renting out my car to people I do not know.	0	0	0	0	0
Having internet connectivity everywhere I go is important to me.	0	0	0	0	0
I prefer to live close to transit, even if it means I'll have a smaller home and live in a more densely populated area.	0	0	0	0	0
Sharing my personal information or location via internet-enabled devices concerns me a lot.	0	0	0	0	0
My daily travel routine is generally satisfactory.	0	0	0	0	0
When traveling in a vehicle, I prefer to be a driver rather than a passenger.	0	0	0	0	0
I prefer to live in a spacious home, even if it is farther from public transportation or many places I go.	0	0	0	0	0
I am committed to using a less polluting means of transportation (e.g., walking, biking, and public transit) as much as possible.	0	0	0	0	0
Public transit is a reliable means of transportation for my daily travel needs.	0	0	0	0	0
I tend to feel sick if I read while in a moving vehicle.	0	0	0	0	0
I like trying things that are new and different.	0	0	0	0	0
I try to make good use of the time I spend traveling.	0	0	0	0	0
The level of congestion during my daily travel bothers me.	0	0	0	0	0
I definitely like the idea of owning my own car.	0	0	0	0	0
The time spent traveling to places provides a useful transition between activities.	0	0	0	0	0
The reliability and quality of a car are more important than its brand.	0	0	0	0	0
I like the idea of having stores, restaurants, and offices mixed among the homes in my neighborhood.	0	0	0	0	0



# Section B: Household Vehicles and Residential Preferences

	estyle choic	•	ioid veriicies an	u residentiai pri	ererences will rie	eip us better	understand y	our transportation and
1.	Do you ha	ave a driver's li	cense? C	No O Yes				
2.	By "house	ehold" we mear tes/roommates	n "people who li	ve together and	ense (including y share at least so mbers of the sar	ome financial		
3.					and two-wheeler d, please enter "C			
4.	your hous		re than four veh					e to your household. It eport the vehicle you
	Vehicle	Make	Model	Model Year	Year Acquired	Fue	el Type	Annual Miles Driven (Estimate)
	Example	Toyota	Camry	2004	2008	● Gasoline O Hybrid	O Electric O Other	12,000
	1					O Gasoline O Hybrid	O Electric O Other	
	2					O Gasoline O Hybrid	O Electric O Other	
	3					○ Gasoline ○ Hybrid	O Electric O Other	
	4					O Gasoline O Hybrid	O Electric O Other	
5		Lane keeping s Backup camer Adaptive Cruis Automated bra Blind spot mor	system a se Control (ACC aking system	)	s <b>Vehicle 1</b> have	e? Please che	eck all that app	oly.



In the following questions, we are interested in the location where you currently live most of the time. For example, if you are a college student, please consider your local address when answering all questions, not your parents' home address.

6	6. What best describes the home you <b>currently</b> live in?								
0.									
	O Stand-alone home O Mobile home	O Attached home/townhon O Other (please specify):		○ Condo/apa —	ırtment				
7.	Do you rent or own your home	?							
	O Rent O Provided by somebody else (e.g., relative, employer) O Own O Other (please specify):								
8.	. What year did you move to your current address (e.g., 2010)?								
9.	9. Did you choose your current home <b>location</b> ?								
	<ul><li>○ No, my home location was chosen by others (e.g., spouse/partner)</li><li>○ Yes, I chose or helped choose my current home location</li></ul>								
10. This question focuses on your preferences about homes and neighborhoods. If you participated in choosing your current home, please tell us what features led you to choose your current residence. If not, imagine that you are planning a move now: which of the following features would you seek for your future home?									
			Do not want	Do not care	Want	Must have			
	ge home		0	0	0	0			
Bad	ckyard		0	0	0	0			
	igle family home (stand-alone ho		0	0	0	0			
	ose to work/school location (for o	one or more household	0	0	0	0			
	mbers)								
	se to shops/services		0	0	0	0			
	ose to parks/nature		0	0	0	0			
	ose to family/friends		0	0	0	0			
	od public schools		0	0	0	0			
	sy to walk or bike around neighb	oorhood	0	0	0	0			
	od access to public transit		0	0	0	0			
Lov	w crime neighborhood		0	0	0	0			
Se	ection C: Current Trav	vel Patterns							
		voi i attorno							
1.	At this time, you are:								
	<ul> <li>Both a worker and a s</li> <li>A worker (part-time o</li> <li>A student (part-time o</li> <li>Neither a worker nor s</li> </ul>	r full-time)	stion 6 on page	2.6					

Public transit: bus

Taxi

Walk

Public transit: light rail

Uber/Lyft/other ridehailing service

Bicycle (including bikesharing)

Other (please, specify): \_\_\_\_\_

E-scooter (e.g., Bird, Lime)

2.	On ave	erage, how many <b>days per week</b> do y	/ou							
	a.	Travel to work: b.	Travel to sch	nool:	_	c.Telecommuteforwork:				
	"Telecommute" refers to working from home or a location close to home, without the need to travel to the regular workplace at all.									
	If you o	do not commute to work or school, ple	ease go to 0	Question 6, o	on page 6.					
3.	3. How far do you live from your main work/school location? miles (estimate one-way trip distance)									
4.	On a typical day, how long does it take you to get from home to your main work/school location (one-way) by the <b>means</b> of transportation you use most often?									
	My trip typically takes minutes by:									
	Please d	choose the means of transportation us	sed most of	ten:						
	<ul> <li>○ private vehicle, driving alone.</li> <li>○ private vehicle, driving with passengers.</li> <li>○ private vehicle, driving with passengers.</li> <li>○ private vehicle, riding with others.</li> <li>○ carsharing services (e.g., Zipcar).</li> <li>○ bus.</li> <li>○ light rail.</li> <li>○ Uber/Lyft/other ridehailing services.</li> <li>○ taxi.</li> <li>○ bicycle (including bikesharing).</li> <li>○ e-scooter sharing service (e.g., Bird, Lime).</li> <li>○ walk.</li> <li>○ other mode not listed above.</li> </ul>									
5.		ering only your <u>travel to work/schoo</u> sportation.	<u>ol</u> , please in	dicate how o	often you typic	ally use <b>eac</b>	<b>ch</b> of the fo	llowing m	eans	
						I use it.				
			Not available	Available but I never use it	Less than one day a month	1-3 days a month	1-2 days a week	3 or more days a week		
	Driv	<b>e</b> private vehicle, alone	0	0	0	0	0	0		
		e private vehicle, with passengers	0	0	0	0	0	0		
	Ride	in private vehicle, with others	0	0	0	0	0	0		
	Cars	haring services (e.g., Zipcar)	0	0	0	0	0	0		



If you do not commute to work or school, please resume here.

6.	6. Considering only your <a href="mailto:errands/shopping/social/recreational">errands/shopping/social/recreational</a> trips, please indicate how often you typically use <a href="mailto:each">each</a> of the following means of transportation.  Note: The last question was about travel to work/school, while this question is about other trip purposes.							nch	
				_		l use it.			
			Not available	Available but I never use it	Less than one day a month	1-3 days a month	1-2 days a week	3 or more days a week	
	Drive private vehicle, a	lone	0	0	0	0	0	0	
	Drive private vehicle, w	ith passengers	0	0	0	0	0	0	
	Ride in private vehicle,	with others	0	0	0	0	0	0	
	Carsharing services (e.	g., Zipcar)	0	0	0	0	0	0	
	Public transit: bus		0	0	0	0	0	0	
	Public transit: light rail		0	0	0	0	0	0	
	Uber/Lyft/other ridehail	ng service	0	0	0	0	0	0	
	Taxi		0	0	0	0	0	0	
	Bicycle (including bikes	haring)	0	0	0	0	0	0	
	E-scooter (e.g., Bird, Li	me)	0	0	0	0	0	0	
	Walk		0	0	0	0	0	0	
	Other (please, specify):		. 0	0	0	0	0	0	
	Do you have any condition  Driving in general	·	,	No O	To some		Yes O	3	
	Driving in general  Driving at night			0	0		0		
	Taking public transit			0	0		0		
	Bicycling			0	0				
	Walking			0	0		0		
	waikiiig			O	O		U		
8.	Are there any adults (i.e., or fully limit their ability to		r) in your h ○ Yes	ousehold, oth	ner than yours	self, with cor	nditions tha	t either pa	rtially
9.	On average, how many mijob (e.g., bus driver, Uber/L		a week? P	lease <b>do not</b>	include mile	s you drive v	while "on the	e clock" for	r your
	O Zero O 101-200 miles	○ 1-25 miles ○ 201-300 miles		50 miles I-500 miles	<ul><li>○ 51-75 n</li><li>○ More th</li></ul>	niles nan 500 mile	○ 76-100 n es	niles	
10.	In the past 30 days, abou	t how many times d	id you have	e each of the	following del	ivered to yo	ur home?		
		Zero	1	2-3	4-6	5 7	7-10 N	Nore than	10
	a. Items purchased online	0	0	0	0		0	0	
	b.Prepared meals	0	0	0	0		0	0	

c. Groceries

We would now like to obtain some information about your **long-distance travel** (for vacation, business, visiting friends/relatives, etc.).

not include trips to and from work/school. Please count each complete round-trip as ONE trip, and classify it based on the primary destination, the main trip purpose, and the means of transportation that was used for the longest portion of the journey. If you made no long distance trips for a specific category, then please enter 0.
a. Number of long-distance trips for leisure/personal purposes since the beginning of the year:

\_\_\_\_\_Trips by car \_\_\_\_\_Trips by airplane \_\_\_\_\_Trips by other means
b. Number of long-distance trips for business purposes since the beginning of the year:

\_\_\_\_\_Trips by car \_\_\_\_\_Trips by airplane \_\_\_\_\_Trips by other means

12. Have you been to the Phoenix Sky Harbor or Mesa Gateway airports since the beginning of the year to either travel

11. About how many long-distance trips (at least 75 miles one-way) did you make since the beginning of the year? Do

### **Section D: Mobility on Demand**

This section asks questions about the use of mobility on demand (also called **ridehailing or ridesharing**) such as Uber and Lyft, which provide door-to-door transportation via a smartphone app, as well as other new mobility services such as carsharing and bike/scooter sharing. Ridehailing can be either **private** (involving only you and your own travel companions) or **shared** (involving pick-up/drop-off of other people you don't know). Even if you have never used these services, please answer all questions to the best of your ability.

1. How often do you generally use the following transportation services?

vourself or to pick-up/drop-off someone else who was traveling? O No

	l am not familiar with it	I am familiar but never used the service	I use it rarely (e.g., less than once a month)	I use it monthly	I use it weekly
Private ridehailing (e.g., Uber, Lyft)	0	0	0	0	0
Shared ridehailing <sup>a</sup> (e.g., uberPOOL, Lyft Share)	0	0	0	0	0
Carsharing (e.g., Zipcar, Share Now)	0	0	0	0	0
<b>Bikesharing</b> ( <i>e.g.</i> , Jump, Grid)	0	0	0	0	0
E-scooter sharing (e.g., Lime, Bird)	0	0	0	0	Ο

<sup>&</sup>lt;sup>a</sup> Shared ridehailing is an Uber/Lyft ride which you are sharing with other passengers not in your party.



If you have never used bikesharing or e-scooter sharing, please go to Question 3 on page 9.

2.	Co	nsidering the <b>last trip</b> you made using <b>bikesharing</b> or <b>e-scooter sharing</b> , please answer the following questions:
	a.	What type of service did you use for this trip?
		O Bikesharing O E-scooter sharing
	b.	When did you use it?
		<ul> <li>Weekday daytime</li> <li>Weeknight (excluding Friday night)</li> <li>Weekend daytime</li> <li>Weekend night time (including Friday night)</li> </ul>
	c.	What was the length of the trip?
		<ul> <li>○ Less than a mile</li> <li>○ 1 – 2 miles</li> <li>○ 3 – 4 miles</li> <li>○ 5 miles or more</li> </ul>
	d.	What was the primary purpose of the trip? Please check the best answer.
		<ul> <li>Work/school</li> <li>Shopping/errands</li> <li>Eating/drinking</li> <li>Social/recreational</li> <li>To access airport</li> <li>To access public transit</li> <li>Medical/dental</li> <li>Going/returning home from another location</li> <li>Just to enjoy the ride/try the new service</li> <li>Other (please, specify):</li> </ul>
	e.	Why did you use this service for the trip? Please check ALL that apply.
		<ul> <li>□ No need to park/parking was expensive or scarce</li> <li>□ For more physical exercise</li> <li>□ To save time</li> <li>□ To save money</li> <li>□ Public transit was not available</li> <li>□ Public transit was not convenient</li> <li>□ Private vehicle was not available</li> <li>□ Just to enjoy the ride/try the new service</li> <li>□ Other (please, specify):</li> </ul>
	f.	How would you have made this trip if the shared bikes or e-scooters were not available? Choose the most likely option.
		<ul> <li>Drive private vehicle, alone</li> <li>Drive private vehicle, with passengers</li> <li>Ride in private vehicle, with others</li> <li>Ride the bus</li> <li>Ride the light rail</li> <li>Use taxi</li> <li>Use Uber/Lyft</li> <li>Use my own bike or scooter</li> <li>Walk</li> <li>I would not have made this trip</li> <li>Other (please, specify):</li></ul>

If you have never used ridehailing services, please go to Question 6 on page 10.

3. Considering the last trip you recall using ridehailing services, please answer the following questions. If you don't remember all of the information precisely, your best guess is fine. You can also refer to your app to see trip details. O Private ridehailing (e.g., Uber, Lyft) What type of ridehailing service did you use? O Shared ridehailing (e.g., UberPOOL, Lyft Share) Where did you travel using this service? Provide To: \_\_\_\_\_ address or major cross-streets and city name. O Weekday daytime O Weeknight (excluding Friday night) When did you use it? Weekend daytime O Weekend night time (including Friday night) About how long was the **wait time** for this trip? minutes About how long was the travel time in the minutes vehicle? About how much did the trip cost?  $OR \square I$  don't know because someone else called the ride. O Work/school O Shopping/errands Eating/drinking O Social/recreational What was the primary **purpose** of the trip? O To access airport Please check the best answer. O To access public transit O Medical/dental O Going/returning home from another location Other (please, specify): \_ O I was the only passenger \_\_\_ Family members, friends or colleagues How many other passengers traveled with you? Other passengers matched via the app (for shared ridehailing) O **Drive** private vehicle, alone O **Drive** private vehicle, with passengers O Ride in private vehicle, with others O Ride the bus O Ride the light rail What would you have done if this service were O Use taxi not available? Choose the most likely option. O Use a bikesharing or e-scooter sharing service O Walk O Ride my personal bicycle or scooter O I would not have made this trip Other (please, specify): \_ Assume that **shared ridehailing** (e.g., uberPOOL O I already made this trip using shared ridehailing or Lyft Share) was available for this trip, allowing O I would not have used shared ridehailing for the trip for cheaper fares but longer travel times to reach 0 1-5 more minutes your destination. What is the maximum O 6-10 more minutes additional travel time you would have accepted if ○ 11-15 more minutes you had received a 50% discount? O 16 or more minutes



I use it more

often

0

0

0

0

I use it about the

same

0

0

0

0

Public transit: light rail	0	0		0	(	0
Taxi	0	0		0	(	0
Bicycle or e-scooter	0	0		0	(	0
Walk	0	0		0	(	0
If you have never used ridehailing services	s, please resume he	re.				
Please rate your level of agreement with e     Even if you do not currently use these serv					rvices (e.g., l	Uber/ Lyft).
		Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Ridehailing services are too expensive to use (e.g., daily or weekly) basis.	on a frequent	0	0	0	0	0
I would use ridehailing services more often if t more reliable.	he service was	0	0	0	0	0
Ridehailing services help me save time and m	oney on parking.	0	0	0	0	0
Ridehailing services help me avoid impaired dunder the influence).	riving (e.g., driving	0	0	0	0	0
Ridehailing services are good alternatives who temporarily unavailable (e.g., when it is being	•	0	0	0	0	0
Ridehailing services are good travel options for away from home.	or me when I am	0	0	0	0	0
Ridehailing services help me get to/from public	c transit stops.	0	0	0	0	0
Ridehailing services are good options for me verbublic transit is not available.	when or where	0	0	0	0	0

5. After beginning to use ridehailing services, how has your use of each of the following means of transportation changed?

I use it less

often

0

0

0

0

I have changed usage, but **not** 

because of

ridehailing

0

0

0

0

4. In the last month, about how much did you spend on ridehailing (such as Uber/Lyft) services?

\$0
\$1 - \$9
\$10 - \$29
\$30 - \$49
\$50 - \$74
\$75 - \$100
More than \$100

Drive private vehicle, alone

Public transit: bus

Drive private vehicle, with passengers

Ride in private vehicle, with others

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Ridehailing services allow me to live with fewer or no cars.	0	0	0	0	0
Traveling with a driver I don't know makes me feel uncomfortable.	0	0	0	0	0
For shared ridehailing (e.g., uberPOOL, Lyft Share), traveling with unfamiliar passengers makes me uncomfortable.	0	0	0	0	0
The lower cost of shared ridehailing (e.g., uberPOOL, Lyft Share) is worth the additional time picking up and dropping off other passengers.	0	0	0	0	0
The lack of a child safety seat prevents me from using ridehailing services.	0	0	0	0	0
The lack of equipment to accommodate disabilities prevents me from using ridehailing services.	0	0	0	0	0
Ridehailing service availability affects where I choose to live, work, and/or go to school.	0	0	0	0	0

7. Imagine that you call a ride through a smartphone app. For each of **the trip purposes** below, check whether you would choose the **private** (Option 1) or **shared** (Option 2) ridehailing options based on the trip features presented (trip cost, travel time, and the presence of additional passengers). Select only one option **in each row**. Note that the travel times for shared ridehailing include both your waiting time and the extra time picking up/dropping off other passengers.

	Option 1: Private ridehailing (e.g., Uber and Lyft)	Option 2: Shared ridehailing (e.g., uberPOOL and Lyft Share)
Social/Leisure	O \$ 18.00/ 20 minutes	O \$ 16.25/ 25 minutes/ 1 additional passengers
Shopping	○ \$ 13.00/ 10 minutes	○ \$ 9.75/ 13 minutes/ 2 additional passengers
Work/School	○ \$ 8.00/ 20 minutes	○ \$ 6.00/ 25 minutes/ 3 additional passenger

# Section E: Your Thoughts on Autonomous Vehicles

#### PLEASE READ THIS DESCRIPTION CAREFULLY:

An **Autonomous Vehicle (AV)** is a vehicle that drives itself without human supervision or control. It picks up and drops off passengers including those who do not drive (*e.g.*, children, elderly), goes and parks itself, and picks up and delivers laundry, groceries, or food orders on its own. When AVs become available, ridehailing companies (*e.g.*, Uber and Lyft) will use them to provide rides without a human driver in the vehicle. When answering the questions in this section, please assume a future in which **autonomous vehicles (AVs)** are widely adopted, but human-driven vehicles are still present.

<ol> <li>Which of the following st</li> </ol>	atements best describes	your familiarity	y with AVs?
---	-------------------------	------------------	-------------

$\sim$		ام ما		la a a # al	~£	۸ ۱ / <sub>م</sub>	hafa.a	401:100	414:4	survev.
$\smile$	'	nau	never	neard	OI	AVS	before	takınd	mis	survev.

- O I have heard of AVs, but don't know much about them.
- O I am somewhat familiar with AVs.
- O I am very familiar with AVs.
- O I have actually taken a ride in an AV.



2. Please rate your level of agreement with each of the following statements about AVs. We want your opinion even if you are not familiar with AVs.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
AVs would help me avoid impaired driving (e.g., under the effects of medication or alcohol).	0	0	0	0	0
AVs will eliminate my joy of driving.	0	0	0	0	0
AVs would make me feel safer on the street as a pedestrian or as a cyclist.	0	0	0	0	0
I would feel comfortable having an AV pick-up/drop-off children without adult supervision.	0	0	0	0	0
I am concerned about the potential failure of AV sensors, equipment, technology, or programs.	0	0	0	0	0
AVs would make traveling by car less stressful for me.	0	0	0	0	0
I would feel comfortable sleeping while traveling in an AV.	0	0	0	0	0
I would make more long-distance trips when AVs are available because I wouldn't have to drive.	0	0	0	0	0
I am concerned that my travel logs and personal information stored in AVs could be leaked.	0	0	0	0	0
I would send an AV to pick-up groceries/laundry/food orders by itself.	0	0	0	0	0
I will never ride in an AV.	0	0	0	0	0
I want the ability to take control of the AV at any time during the ride.	0	0	0	0	0
AVs would make it easy to share vehicles within my household because they can pick-up/drop-off household members on their own.	0	0	0	0	0
AVs would save me time and money for parking by dropping me off and parking themselves.	0	0	0	0	0

If you do not commute to work or school, please go to question 4 on the next page.

3.	Imagine	a future	e when	you have	e regula	r acce	ess to	an A	AV (by	ownir	ng, leas	sing, or	using	g automate	ed	ridehailing	serv	ices)
	and you	can do	other	activities	while i	iding	in an	AV.	How	much	longer	would	you	be willing	to	commute	in ar	n A∖
	(compare	ed to yo	ur curr	ent comm	nute)?													

$\circ$	Un	to 5	additional	minutes	(one wav)	١

O Between 5 and 15 additional minutes (one way)

O Between 15 and 30 additional minutes (one way)

O More than 30 additional minutes (one way)

O I would not accept a longer commute even when I have access to an AV

4.	Imagine a future when you can access ar	AV (by	owning,	leasing,	or using	automated	ridehailing	services).	How li	ikely
	would you change in each of the following	ways?								

	Very unlikely	Somewhat Unlikely	Neutral	Somewhat likely	Very likely
Make additional trips that I do not make now	0	0	0	0	0
Travel farther to go shopping or eat out	0	0	0	0	0
Travel farther to go to social/recreational activities	0	0	0	0	0
Travel and do more activities after dark	0	0	0	0	0
Make more long-distance road trips	0	0	0	0	0
Travel more in peak hours (because I can do other activities while traveling in an AV)	0	0	0	0	0
Move to a better location or home	0	0	0	0	0
Change my workplace to a location with better/more jobs	0	0	0	0	0
Tolerate congestion better because I don't have to drive	0	0	0	0	0

O I will be one of the first people to buy an AV.
O I will eventually buy an AV, but only after these vehicles are in common use.
O I will never buy an AV. <i>Please go to question 7, on this page.</i>

- 6. Suppose you were looking to purchase a new vehicle. The regular human-driven model of the vehicle you wish to purchase costs \$25,000. How much more would you be willing to pay for a fully autonomous version of the vehicle?
  - O Up to \$1,000 more

5. When do you expect to buy an AV?

- O Between \$1,000 and \$3,000 more
- O Between \$3,000 and \$5,000 more
- O Between \$5,000 and \$8,000 more
- O Greater than \$8,000 more
- O I would NOT be willing to pay any additional amount for the autonomous version of the vehicle
- 7. Suppose ridehailing companies (e.g., Uber and Lyft) will start using AVs to serve trip requests. Please rate your level of agreement with the following statements.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I will use AV ridehailing services alone or with coworkers, friends, or family.	0	0	0	0	0
I will use AV ridehailing services with other passengers I don't know.	0	0	0	0	0
I would be willing to pay extra for having a backup human driver inside the AV during my ride.	0	0	0	0	0
I would feel comfortable leasing my personal AV to ridehailing companies so that I can earn money when I am not using it.	0	0	0	0	0



	he number of cars your household or use as a ridehailing service?	currently owns	s, how mig	ht that <b>chan</b> g	ge when <i>F</i>	AVs are avail	able for
O Lil	kely own <b>fewer</b> cars than today kely own <b>the same</b> number of cars as kely own <b>more</b> cars than today	s today					
	have regular access to an AV (by ow lifferent modes of transportation char						
		Use I	Less	Use the	Same	Use N	1ore
	personal vehicle	С	)	0		0	
	ridehailing service	C		0		0	
Public transit:		C		0		0	
Public transit:	light rail	C		0		0	
Walk Bicycle or sco	otor	C		0		0	
Airplane	otei			0		0	
Allplane			•	O		O	
10. To what exte	ent do you agree with the following st	atements for	AVs?				
			Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
	e allowed on the market only when th safe as human drivers.	ey prove to	0	0	0	0	0
over that of pa	prioritize the safety of pedestrians a cassengers in the vehicle.	-	0	0	0	0	0
safety of diff pedestrians, b	nould be able to program how their Aferent groups in the event of a picyclists, other vehicles, or AV passe	crash ( <i>e.g.</i> , ngers).	0	0	0	0	0
less on city st		•	0	0	0	0	0
companies sl	ash, vehicle manufacturers and the hould be held responsible (insteadinger, or operator).		0	0	0	0	0
The govern lanes/areas.	ment should establish dedicate	ed AV-only	0	0	0	0	0
vehicles of the follow	s are now available for purchase, lead the streets are AVs. What wou wing scenarios? Please rank the all Please do not give the same rank to	ld you do whe ternatives <b>ba</b>	en faced w sed on y	ith your nex	t car pur	chase decisi	<b>on</b> in each
Scenario 1							
Options	<b>Option A:</b> Buy a regular vehicle		otion B: y an AV			Option C: a vehicle and ing/rental ser	
Costs	\$ 500/month + \$ 0.75/mile Average wait time: 0 minutes	\$ 500/mon Average wa				onth + \$ 2.25/ wait time: 6 r	
Rank		_					

### Scenario 2

Options	<b>Option A:</b> Buy a regular vehicle	<b>Option B:</b> Buy an AV	Option C: Don't buy a vehicle and use AV ridehailing/rental services
Costs	\$ 500/month + \$ 0.25/mile Average wait time: 0 minutes	\$ 625/month + \$ 0.50/mile Average wait time: 0 minutes	\$ 0/month + \$ 1.50/mile Average wait time: 6 minutes
Rank			

12.	Suppose you are traveling with family members to a neighborhood park in an AV. Which of the following	would you	do
	in the vehicle during your trip? Select up to three activities.		

□ Work, or study
☐ Talk on the phone/ send or read text messages/ teleconference
Read
□ Sleep
☐ Watch movies/ TV/ other entertainment
□ Play games
☐ Eat and drink
☐ Interact with other passengers
$\square$ Enjoy the scenery
$\square$ Watch the road, even though I would not be driving
□ I would not ride in an AV
☐ Other (please, specify):

13. Suppose you are going out to spend some time with your friends (e.g., going to their house or to a bar). You have the following seven options for your transportation. Rank the alternatives listed from most preferred (Rank 1) to least preferred (Rank 7). *Please do not give the same rank to multiple alternatives*.

Rank	Alternative	Wait time	In-vehicle travel time	Cost for entire trip
	Private vehicle: Use your own private vehicle (human-driven or AV)	No wait	24 minutes	\$1.00
	Bicycle	No wait	48 minutes	\$0.00
	Public transit: Use bus or rail	10 minutes	48 minutes	\$1.25
	<b>Private ridehailing</b> : Get a ride with a human-driven ridehailing service ( <i>e.g.</i> , Uber, Lyft)	6 minutes	24 minutes	\$30.00
	<b>Shared ridehailing</b> : Get a human-driven ride in a vehicle in which other passengers may be added.	7 minutes	34 minutes	\$15.00
	<b>AV private ridehailing</b> : Same as ridehailing, except that the vehicle will be autonomous.	6 minutes	24 minutes	\$30.00
_	<b>AV shared ridehailing</b> : Same as shared ridehailing, except that the vehicle will be autonomous.	7 minutes	34 minutes	\$15.00



# Section F: Background Information

We have reached the last section of this survey! To help us generalize the response from this small sample to the population as a whole, we would like to ask you a few background questions. Your privacy is guaranteed.

1.	In what year were you born?
2.	What is your gender?
	<ul><li>○ Male</li><li>○ Female</li><li>○ Other</li><li>○ Prefer not to answer</li></ul>
3.	Where were you born?
	<ul><li>○ United States or U.S. territory</li><li>○ Other country</li><li>○ Prefer not to answer</li></ul>
4.	Are you Hispanic or Latino?
	<ul><li>○ No</li><li>○ Yes</li><li>○ Prefer not to answer</li></ul>
5.	Which of the following categories do you identify with? Please check no more than two categories.
	<ul> <li>□ White/Caucasian</li> <li>□ Black/African American</li> <li>□ Native American</li> <li>□ Asian or Pacific Islander</li> <li>□ Other (please specify):</li> <li>□ Prefer not to answer</li> </ul>
6.	What is your educational background? Check the highest level of education you have attained.
	<ul> <li>○ Some grade/high school</li> <li>○ Completed high school or GED</li> <li>○ Some college or technical school</li> <li>○ Bachelor's degree(s) or some graduate school</li> <li>○ Completed graduate degree(s)</li> </ul>
7.	Including yourself, how many people live in your household?

# If you live alone, please go to question 9, on page 18.

8. Please describe the people who live with you.

	Relationship to you	Age category	Gender	Occupation
Person 2	<ul> <li>My partner/spouse</li> <li>My or my partner's child or grandchild</li> <li>My or my partner's parent or grandparent</li> <li>Other</li> </ul>	O to 4 years old O 5 to 12 years old O 13 to 17 years old O 18 to 24 years old O 25 to 44 years old O 45 to 64 years old O 65 or more years old	O Male O Female	O Part-time worker O Full-time worker O Part-time student O Full-time student O Both student and worker O Neither worker nor student
Person 3	<ul> <li>My partner/spouse</li> <li>My or my partner's child or grandchild</li> <li>My or my partner's parent or grandparent</li> <li>Other</li> </ul>	O 0 to 4 years old O 5 to 12 years old O 13 to 17 years old O 18 to 24 years old O 25 to 44 years old O 45 to 64 years old O 65 or more years old	O Male O Female	<ul> <li>Part-time worker</li> <li>Full-time worker</li> <li>Part-time student</li> <li>Full-time student</li> <li>Both student and worker</li> <li>Neither worker nor student</li> </ul>
Person 4	<ul> <li>My partner/spouse</li> <li>My or my partner's child or grandchild</li> <li>My or my partner's parent or grandparent</li> <li>Other</li> </ul>	O to 4 years old O 5 to 12 years old O 13 to 17 years old O 18 to 24 years old O 25 to 44 years old O 45 to 64 years old O 65 or more years old	O Male O Female	O Part-time worker O Full-time worker O Part-time student O Full-time student O Both student and worker O Neither worker nor student
Person 5	<ul> <li>My partner/spouse</li> <li>My or my partner's child or grandchild</li> <li>My or my partner's parent or grandparent</li> <li>Other</li> </ul>	O to 4 years old O 5 to 12 years old O 13 to 17 years old O 18 to 24 years old O 25 to 44 years old O 45 to 64 years old O 65 or more years old	O Male O Female	<ul> <li>Part-time worker</li> <li>Full-time worker</li> <li>Part-time student</li> <li>Full-time student</li> <li>Both student and worker</li> <li>Neither worker nor student</li> </ul>
Person 6	<ul> <li>My partner/spouse</li> <li>My or my partner's child or grandchild</li> <li>My or my partner's parent or grandparent</li> <li>Other</li> </ul>	O 0 to 4 years old O 5 to 12 years old O 13 to 17 years old O 18 to 24 years old O 25 to 44 years old O 45 to 64 years old O 65 or more years old	O Male O Female	O Part-time worker O Full-time worker O Part-time student O Full-time student O Both student and worker O Neither worker nor student
Person 7	<ul> <li>My partner/spouse</li> <li>My or my partner's child or grandchild</li> <li>My or my partner's parent or grandparent</li> <li>Other</li> </ul>	O to 4 years old O 5 to 12 years old O 13 to 17 years old O 18 to 24 years old O 25 to 44 years old O 45 to 64 years old O 65 or more years old	○ Male ○ Female	O Part-time worker O Full-time worker O Part-time student O Full-time student O Both student and worker O Neither worker nor student



City:	Sta	ate:	Zip code:			
. Please check the appropria	lease check the appropriate category for your annual household income before taxes.					
OLess than \$25,000						
○ \$25,000 to \$49,999						
○ \$50,000 to \$74,999						
○ \$75,000 to \$99,000						
○ \$100,000 to \$149,9						
○ \$150,000 to \$249,9 ○ \$250,000 or more	999					
ο φ200,000 of more						
. Knowing more about your w Please give the address or,	ork or school, please skip question ork/school location will help us ur if you prefer, major cross streets on a regular basis, enter the location	nderstand the	main workplace/school locat			
Knowing more about your well-	rork/school location will help us ur if you prefer, major cross streets in a regular basis, enter the location	nderstand the	main workplace/school locat ou travel most often.	tion. If you trav		
Knowing more about your we Please give the address or, to more than one location of City:  City:	rork/school location will help us ur if you prefer, major cross streets in a regular basis, enter the location	nderstand the close to you on to which yearte:	main workplace/school locate ou travel most often.  Zip code:  ng considered for a \$10 Ama	tion. <i>If you tra</i> v		
Knowing more about your well- Please give the address or, to more than one location of the control of the contr	rork/school location will help us ur if you prefer, major cross streets in a regular basis, enter the location streets.  Sta	nderstand the close to you on to which yearte:	main workplace/school locate ou travel most often.  Zip code:  ng considered for a \$10 Amased for the purpose of sending	azon e-gift cang the reward.		
Knowing more about your well- Please give the address or, to more than one location of the control of the contr	rork/school location will help us ur if you prefer, major cross streets in a regular basis, enter the location streets.  Standard	nderstand the close to you on to which yearte:	main workplace/school locate ou travel most often.  Zip code:  ng considered for a \$10 Amased for the purpose of sending	azon e-gift cang the reward.		
Knowing more about your water Please give the address or, to more than one location of the control of the contr	rork/school location will help us ur if you prefer, major cross streets in a regular basis, enter the location streets.  Standard	nderstand the close to you on to which yearte:	main workplace/school locate ou travel most often.  Zip code:  ng considered for a \$10 Amased for the purpose of sending	azon e-gift can		

Thank you for your valuable participation in this study! All your responses have been successfully recorded.