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Task

Urban sprawl has created many problems for modern society. One of the most significant problems is moving people from suburbs to downtown cores in a manner that is safe, efficient, and minimizes the effect on the environment. The average commute time in the Columbus metropolitan area is 43 minutes[6]. While this is not bad in comparison to some cities such as New York, the market still demands improvement. There are many potential strategies that could tap into the transit market in an area such as Columbus like light rail and smart highways[8].

Pains

- Traffic can be slow, especially during rush hour
- Reckless drivers
- Pollution
- Frequent construction required to maintain roads

Gains

- A new solution would cost commuters less
- A new solution would revitalize neighborhoods
- A new solution would restore green spaces

User Experience Chart

Ease of Use- Should be the same or as easy to operate as a modern car.

Fast Commute- Commute times need to decrease.

Safe- Should be safer than a modern car.

Private- Everyone should have their own vehicle.

Always Ready- Can get around anytime the user desires, not at scheduled times like a train or bus.

Reliable- Vehicle and any related systems always need to work .

Low cost- Cost of ownership including purchasing, maintenance, fuel, licensing, etc. should not be more than a modern car.

Internet Connectivity- Vehicle connects to the internet to share travel status with family, run diagnostics, track the vehicle, etc.

Customizable- User should have a similar range of choices to the modern car market.

Environmentally Friendly- Vehicle should be carbon neutral.

User Needs

User Need	Score(1-5)
Ease of Use	5
Fast Commute	5
Safe	5
Private	4
Always ready	4
Reliable	4
Low Cost	3
Internet connectivity	1
Customizable	2
Environmentally Friendly	2

The needs chart will be an essential piece of information when finalizing a project design. If a product does not need a user's needs, then he or she will be unlikely to purchase the project. The problem is that often times the end user does not know what their needs are, or how they would rank those needs if they conflict. A car buyer for example may put a high emphasis on having an expensive car that is a status symbol, but also have a need for a low cost of ownership due to budgetary restraints. The pairwise comparison allows to compare numerous needs at once and see how the user values each one over each other. This can yield very different results than simply asking people to give importance to each individual need without consideration of the others. This can yield surprising results such as ease of use, which users rank as an important need, only being normalized to a five.

Pairwise Comparison

The Pairwise comparison chart shows how people actually value each of the user needs in comparison with each of the other needs. People may think they really value safety but what if they had to choose between safety and a fast commute. The pairwise chart below is an example of a reweighted user needs chart using the pairwise method.

Persona

The graphic presented on page is an example of what we expect our typical user to be like. The persona includes things such as demographic information, hobbies, career info, etc. The persona helps clarify who the target audience is.

Pairwise Comparison

	Ease of Use	Fast Commute	Safe	Private	Always Ready	Reliable	Low Cost	Internet Connectivity	Customizable	Environmentally Friendly	Total	Normalized	Original
Ease of Use		0	0	0	1	1	0	1	1	1	5	3.7	5
Fast Commute	1		1	0	1	1	0	1	1	1	7	5.0	5
Safe	1	0		1	1	1	0	1	1	1	7	5.0	5
Private	1	1	0		1	0	0	1	1	1	6	4.3	4
Always Ready	0	0	0	0		0	0	1	1	1	3	2.3	4
Reliable	0	0	0	1	1		1	1	1	1	6	4.3	4
Low Cost	1	1	1	1	1	0		1	0	1	7	5.0	3
Internet Connectivity	0	0	0	0	0	0	0		0	1	1	1.0	1
Customizable	0	0	0	0	0	0	1	1		1	3	2.3	2
Environmentally Friendly	0	0	0	0	0	0	0	0	0		0	-	2



Ashley

- 34, Married with 3 chil/dren
- Nurse
- Columbus, OH



Profile

- Commutes 45 minutes to OSU Medical Center
- Vice-President of the PTA
- Volunteers at Franklin County Animal Shelter

Technology

- iPhone XR and iPad owner
- Drives Infiniti QX80
- Extensive PC usage at work
- Keeps family calendar electronically



Hobbies

- Coaches Her Daughter's Soccer Team
- Rocking Climbing with her Husband

Research Plan

We will be conducting an online survey in order to obtain research on what the needs of our potential users are. The survey will be spread online via Facebook, twitter, reddit, and discussion boards. The survey be anonymous so there are no concerns about using people's real names as we will not know what their names are. The survey data will not include any personally identifiable information but will include a few demographic questions such as age and gender. These questions as with all the others are optional and as it is online survey, survey takers may quit at anytime they choose. Each Team will contribute at least 10 questions to the survey and will post it publicly in at least two places online. The Questions will be presented in two different formats. First the survey takers will be asked to rate how important each of the user needs are to them, then they will be asked to select which need is more important between each need and each of the other needs. This will allow use to use a pairwise comparison to create a weighted average of the user needs. Please see Appendix for complete listing of survey questions and results.

Question Type 1:

How important is USER NEED A to you?

Least Important

Most Important

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question Type 2

Which is more important to you, USER NEED A or USER NEED B?

User Need A

User Need B

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Market Characteristics

The market for transportation is very broad because most everyone has to leave the house or have someone come to them in order to meet their basic needs. Transit has an affect on almost everything we do and thus almost everyone would be a stake holder to any significant changes to the transit system. If we take Columbus, Ohio as our market the stakeholders would include, but not limited to: Commuters, COTA bus system, small businesses, Ohio State University, Ohio Department of Transportation, large businesses, suburbanites, shipping companies, and many, many more. Virtually everyone in the area would be affected, some positively and unavoidably some negatively. Columbus represents an almost perfect to test in as it has demographics that almost perfectly represent the country as a whole[5][3]. The Columbus market includes approximately 900,000 in the city proper and 2 million in the metropolitan

area[4]. One must assume that essentially all of these people will make use of some form of transportation and thus number of potential users in the Columbus market is approximately 2 million.

The market in Columbus has a number of current alternative transit methods. These include cars, bikes, scooters, buses, taxis, ride hailing apps, and walking. Each of these have different characteristics which are shown in the competitive matrix below.

	Car	Bike	Scooter	Bus	Taxi	Uber	Walk
Ease of Use	✓	✗	✗	✓	✓	✓	✓
Fast Commute	✓	✗	✗	✗	✗	✓	✗
Safe	✓	✗	✗	✓	✓	✓	✓
Private	✓	✓	✓	✗	✓	✗	✗
Always ready	✓	✓	✗	✗	✗	✗	✓
Reliable	✗	✓	✗	✓	✓	✗	✓
Low Cost	✗	✓	✓	✓	✓	✓	✗
Internet connectivity	✗	✗	✓	✗	✗	✓	✗
Customizable	✓	✓		✗	✗	✗	✗
Environmentally Friendly	✗	✓	✓	✗	✗	✗	✓

Currently cars meet most of the needs of users but fall short in needs such as reliability and cost. Also, while cars generally have fastest commute of any of the current options in the local market, that changes quickly when there is heavy traffic. Bikes and scooters are good options part of the year, but their usefulness decreases as the weather gets cold or rainy. Buses in Columbus are generally reliable but have a stigma that would almost impossible to overcome[2]. Ubers take often take too long to arrive and the cost is can vary wildly. Uber also represents some serious ethical concerns regarding how they treat their drivers[1]. Walking is easy and reliable but very slow and not always safe for a number of reasons. Columbus does not currently have any kind of light rail option and that does not appear to be changing anytime soon[7].

Research Results

The main form of primary research for this project has been the online Google Forms survey. The results of the survey have been consolidated into an average in order to generate the pairwise comparison seen below. The results came from 13 respondents to the survey. Additional primary research was conducted by searching online discussion boards for conversations about traffic and commuting in Columbus, as well checking traffic maps. Examples are available in the appendix. This research allowed us to get a feeling about what people think are the pains in their commutes. Care must be taken because there is an inherent bias towards online postings being about bad experiences because few people take the time to post about how easy and uneventful their commute was.

Pairwise Comparison

	Ease of Use	Fast Commute	Safety	Privacy	Instant Access	Reliable	Low Cost	Smart	Customizable	Environmentally Friendly	Total	Normalized	Original
Ease of Use		0	0	1	0	0	0	1	1	1	4	2.1	4.2
Fast Commute	1		0	1	1	0	1	1	1	1	7	3.9	4.3
Safety	1	1		1	1	0	1	1	1	1	8	4.4	4.5
Privacy	0	0	0		0	0	0	1	1	0	2	1.0	3.3
Instant Access	1	0	0	1		0	1	1	1	1	6	3.3	3.9
Reliable	1	1	1	1	1		1	1	1	1	9	5.0	4.8
Low Cost	1	0	0	1	0	0		1	1	1	5	2.7	3.7
Smart	0	0	0	0	0	0	0		0	0	0	-	1.4
Customizable	0	0	0	0	0	0	0	1		1	2	1.0	2.4
Environmentally Friendly	0	0	0	1	0	0	0	1	0		2	1.0	2.6

Secondary Research

Secondary research was conducted in order to learn more about the user's needs, pains, gains, the local market, and other things. Secondary research was conducted using both google scholar and the regular google search engine. A list of references is provided is provided at the end of this document and sources are cited throughout.

References

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Appendix

A: Survey

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Transportation Survey

4. On a scale of 1 to 10 how important is instant access to transportation to you, i.e. not having to wait to leave? *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

5. On a scale of 1 to 10 how important is customizable transportation to you? *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

6. On a scale of 1 to 10 how important is environmentally friendly transportation to you? *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

7. On a scale of 1 to 10 how important is low cost transportation to you? *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

8. On a scale of 1 to 10 how important is privacy while commuting to you? *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

9. On a scale of 1 to 10 how important is reliable transportation to you? *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

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Transportation Survey

Transportation Survey

* Required

1. How do you currently commute to work or school? *

Mark only one oval.

- ☐ Car
- ☐ Bicycle
- ☐ Bus
- ☐ Taxi
- ☐ Uber/Lyft
- ☐ Walk
- ☐ Train
- ☐ Other
- ☐ Prefer not to say

2. What is your age? *

Mark only one oval.

- ☐ 16-18
- ☐ 18-25
- ☐ 25-35
- ☐ 45-55
- ☐ 55-65
- ☐ 65+
- ☐ Prefer not to Say

3. Please Enter your Gender *

Mark only one oval.

- ☐ Male
- ☐ Female
- ☐ Prefer not to say

Skip to question 4.

Ranked Choices

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Transportation Survey

58. Which is more important to you, fast commute or internet connectivity?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet Connectivity

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 Google Forms

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Transportation Survey

52. Which is more important to you, safety or reliability?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Reliability

53. Which is more important to you, fast commute or reliability?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Reliability

54. Which is more important to you, ease of use or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Ease of use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Customization

55. Which is more important to you, safety or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Customization

56. Which is more important to you, reliability or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet Connectivity

57. Which is more important to you, privacy or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Privacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Customization

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46. Which is more important to you, reliability or low cost?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Low cost

47. Which is more important to you, constant availability or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Constant Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Customization

48. Which is more important to you, safety or internet connectivity?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet Connectivity

49. Which is more important to you, ease of use or privacy?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Ease of Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Privacy

50. Which is more important to you, ease of use or a fast commute?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Ease of Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Fast Commute

51. Which is more important to you, reliability or ease of use?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ease of use

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Transportation Survey

40. Which is more important to you, privacy or being environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Privacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally Friendly

41. Which is more important to you, ease of use or internet connectivity?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Ease of use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet Connectivity

42. Which is more important to you, constant availability or low cost?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Constant Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Low Cost

43. Which is more important to you, fast commute or low cost?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Low cost

44. Which is more important to you, constant availability or being environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Constant Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally Friendly

45. Which is more important to you, safety or instant availability?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Instant Availability

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34. Which is more important to you, constant availability or internet connectivity?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Constant Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet Connectivity

35. Which is more important to you, ease of use or being environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Ease of use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally Friendly

36. Which is more important to you, privacy or internet connectivity?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Privacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet Connectivity

37. Which is more important to you, reliability or internet connectivity?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet Connectivity

38. Which is more important to you, safety or privacy?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Privacy

39. Which is more important to you, privacy or instant availability?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Privacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Instant availability

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28. Which is more important to you, Internet connectivity or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Internet Connectivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Customization

29. Which is more important to you, Internet connectivity or being environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Internet Connectivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally friendly

30. Which is more important to you, reliability or environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally Friendly

31. Which is more important to you, fast commute or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Customization

32. Which is more important to you, instant availability or ease of use?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Instant Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ease of use

33. Which is more important to you, low cost or being environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Low Cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally friendly

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Transportation Survey

22. Which is more important to you, low cost or ease of use?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Low cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ease of use

23. Which is more important to you, fast commute or being environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally Friendly

24. Which is more important to you, ease of use or safety?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Ease of Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Safety

25. Which is more important to you, fast commute or privacy?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Privacy

26. Which is more important to you, fast commute or instant availability?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Instant Availability

27. Which is more important to you, privacy or reliability?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Privacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Reliability

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Transportation Survey

16. Which is more important to you, privacy or low cost?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Privacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Low cost

17. Which is more important to you, safety or low cost?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Low Cost

18. Which is more important to you, constant availability or reliability?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Constant Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Reliability

19. Which is more important to you, low cost or customization?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Low Cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Customization

20. Which is more important to you, low cost or internet connectivity?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Low Cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Internet connectivity

21. Which is more important to you, customization or being environmentally friendly?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Customization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmentally friendly

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Transportation Survey

10. On a scale of 1 to 10 how important is safety while commuting to you? **Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

11. On a scale of 1 to 10 how important is a fast commute to you? **Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

12. On a scale of 1 to 10 how important is internet connected "smart" transportation to you? **Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

13. On a scale of 1 to 10 how important is ease of use to you? **Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Least Important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Important

Comparison

14. Which is more important to you, instant availability or ease of use?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Instant Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ease of use

15. Which is more important to you, fast commute or safety?*Mark only one oval.*

	1	2	3	4	5	6	7	8	9	10	
Fast Commute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Safety

B:Survey

Results

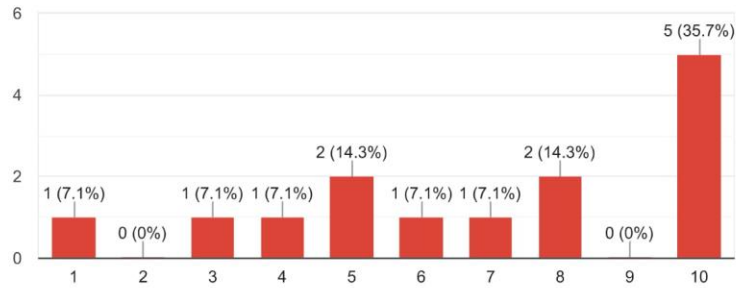
Results

9/20/2019

Transportation Survey

Which is more important to you, customization or being environmentally friendly?

14 responses



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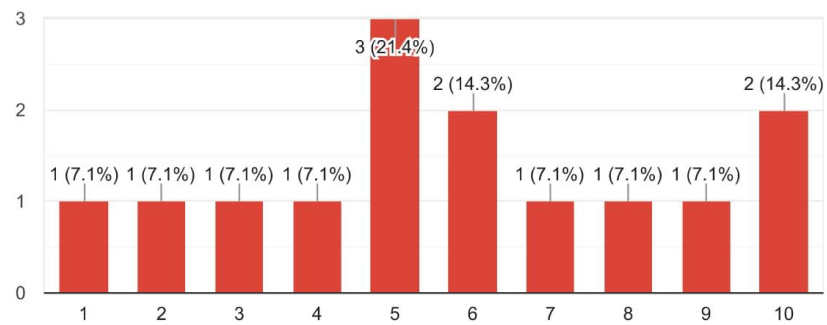
Google Forms

9/20/2019

Transportation Survey

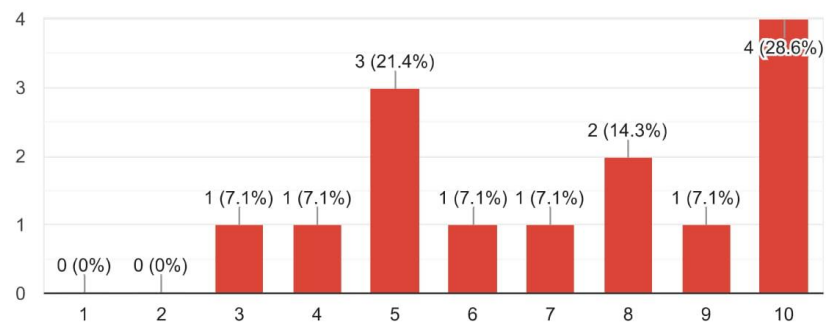
Which is more important to you, Internet connectivity or customization?

14 responses

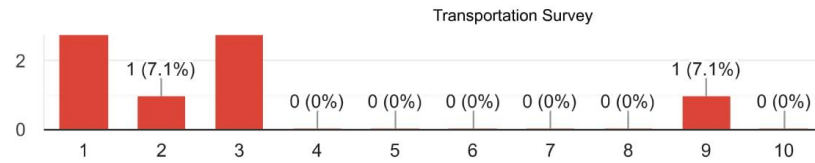


Which is more important to you, Internet connectivity or being environmentally friendly?

14 responses

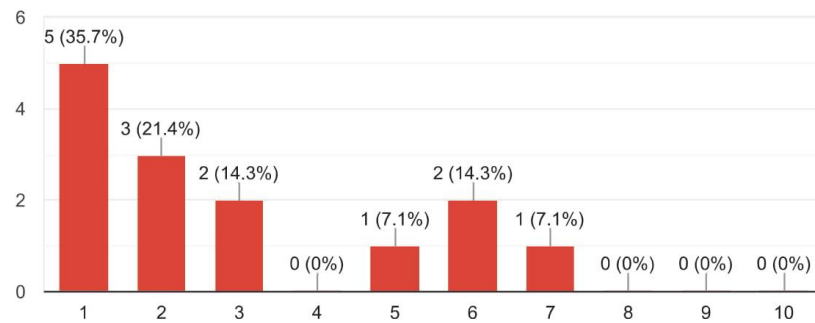


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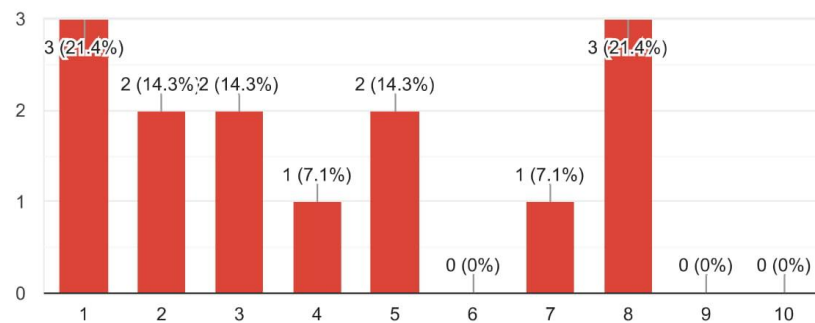
Which is more important to you, low cost or customization?

14 responses



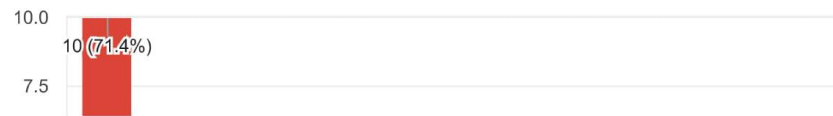
Which is more important to you, low cost or being environmentally friendly?

14 responses



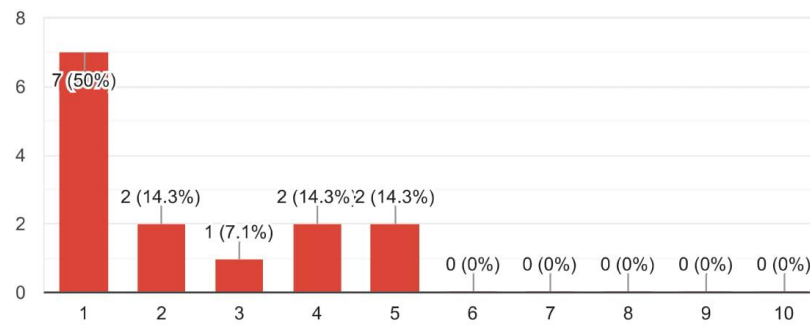
9/20/2019

Transportation Survey



Which is more important to you, reliability or environmentally friendly?

14 responses



Which is more important to you, low cost or internet connectivity?

14 responses

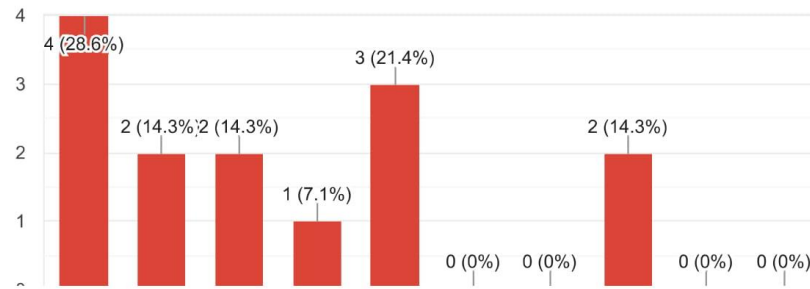


9/20/2019

Transportation Survey

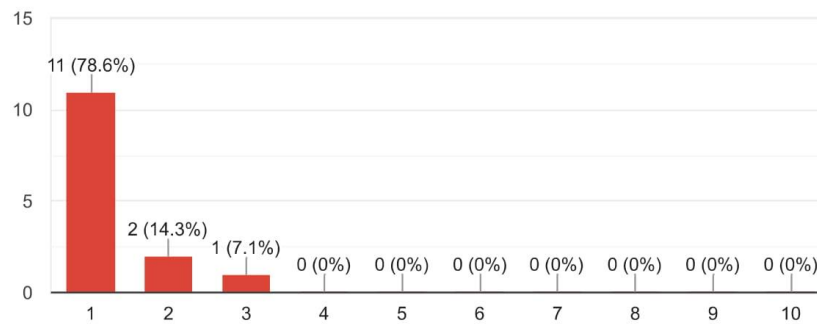
Which is more important to you, reliability or low cost?

14 responses



Which is more important to you, reliability or internet connectivity?

14 responses



Which is more important to you, reliability or customization?

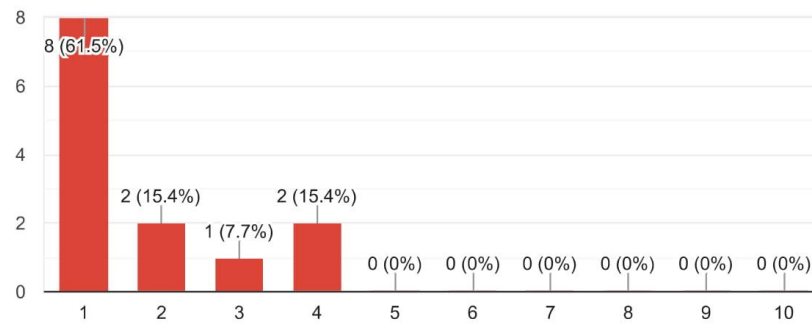
14 responses

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Transportation Survey

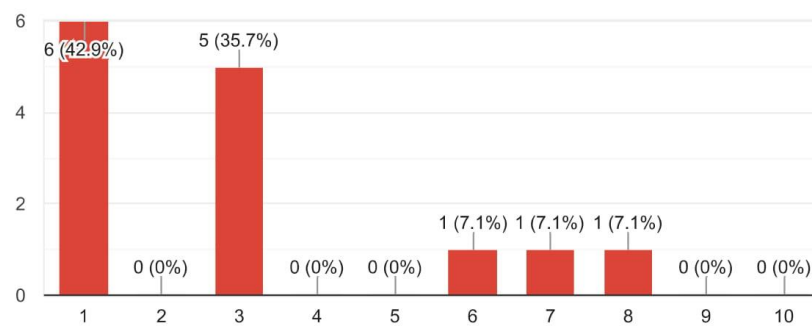
Which is more important to you, constant availability or customization?

13 responses



Which is more important to you, constant availability or being environmentally friendly?

14 responses



Which is more important to you, reliability or low cost?

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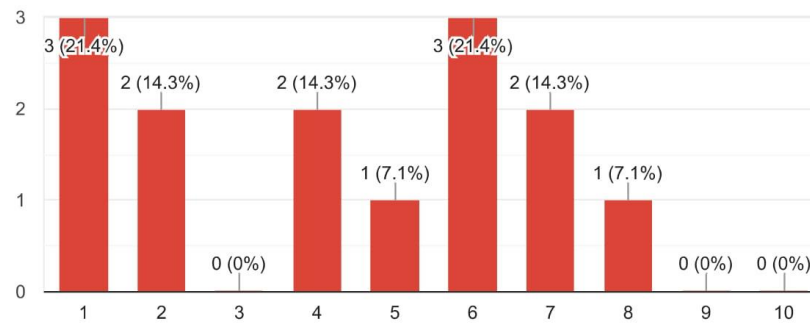
22/27

9/20/2019

Transportation Survey

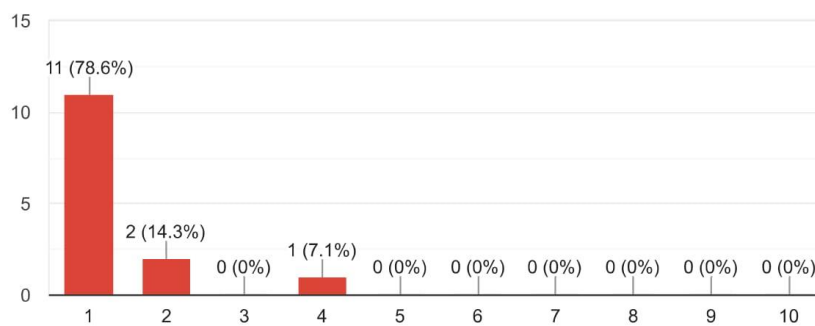
Which is more important to you, constant availability or low cost?

14 responses

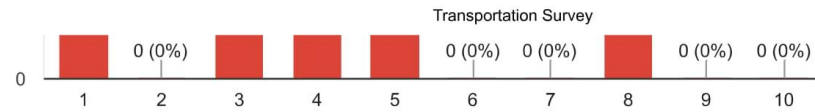


Which is more important to you, constant availability or internet connectivity?

14 responses

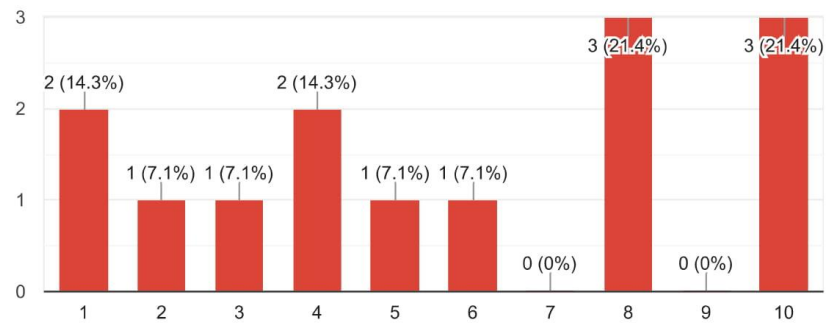


9/20/2019



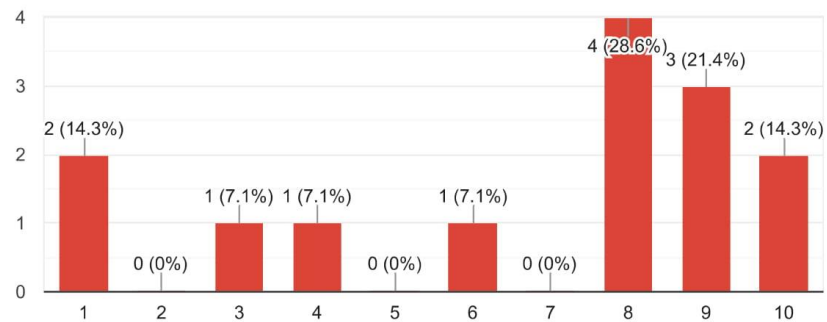
Which is more important to you, privacy or being environmentally friendly?

14 responses



Which is more important to you, constant availability or reliability?

14 responses



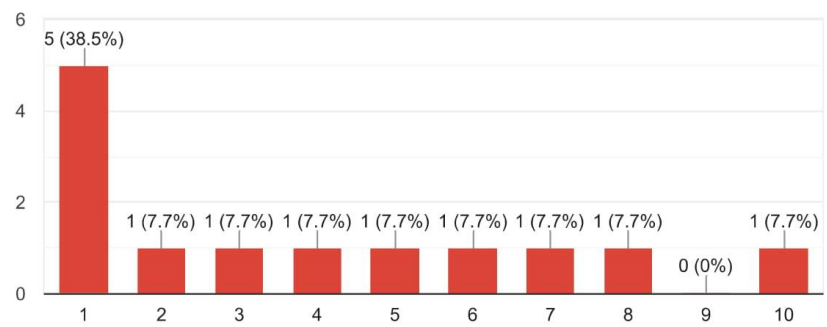
9/20/2019

Transportation Survey



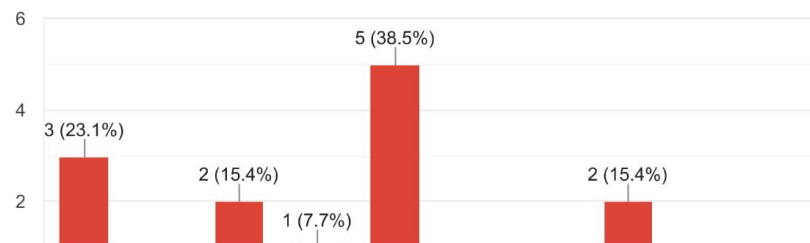
Which is more important to you, privacy or internet connectivity?

13 responses



Which is more important to you, privacy or customization?

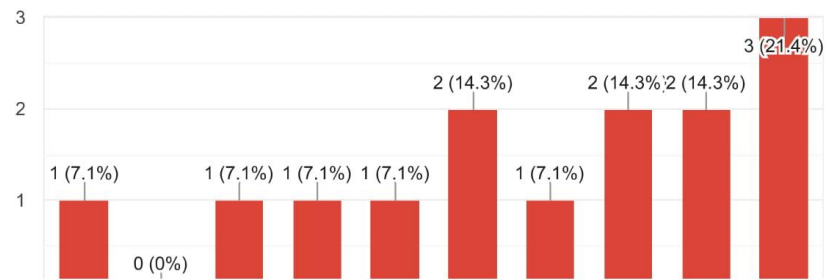
13 responses



9/20/2019

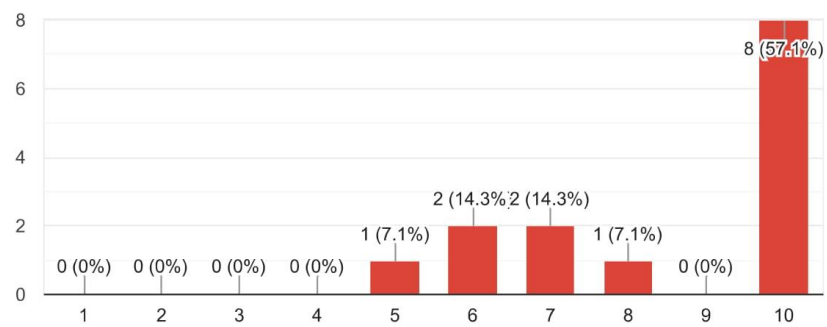
Transportation Survey

14 responses



Which is more important to you, privacy or reliability?

14 responses



Which is more important to you, privacy or low cost?

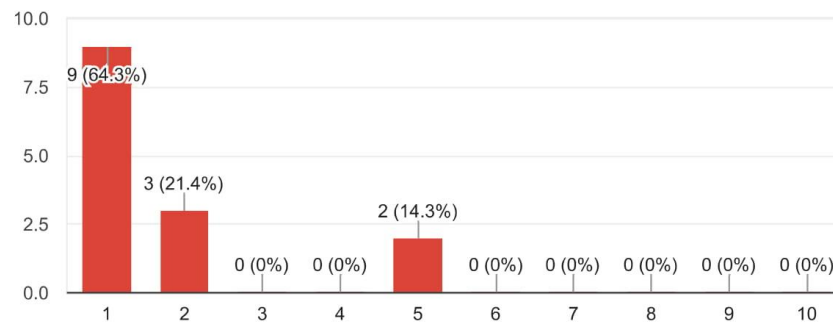
13 responses

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Transportation Survey

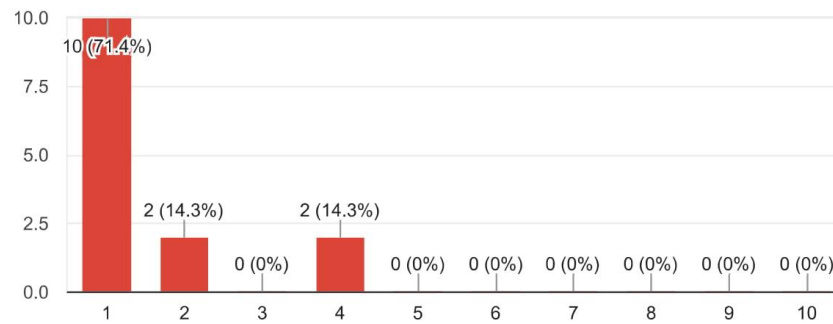
Which is more important to you, safety or internet connectivity?

14 responses



Which is more important to you, safety or customization?

14 responses

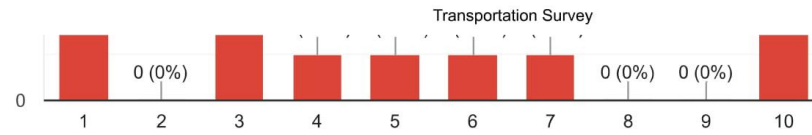


Which is more important to you, privacy or instant availability?

<https://docs.google.com/forms/d/1IY0GL4599IEdlZCv3SVLJRzLNGlafXyzFiB5Amdxit8/viewanalytics>

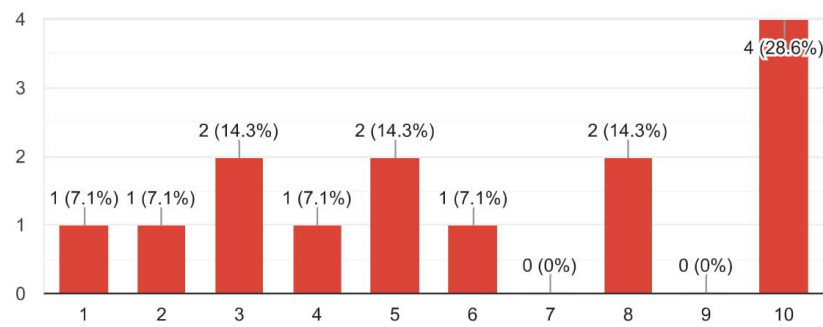
17/27

9/20/2019



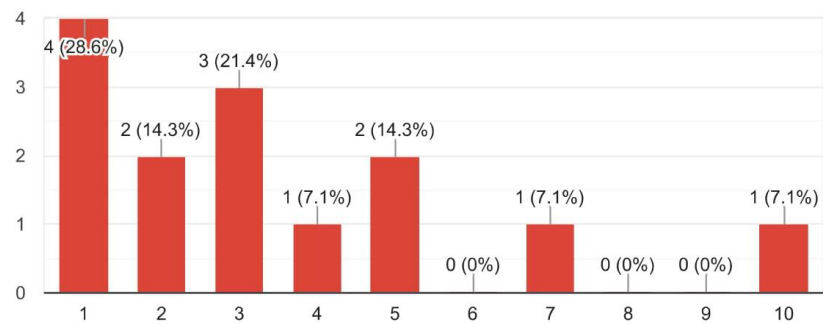
Which is more important to you, safety or reliability?

14 responses



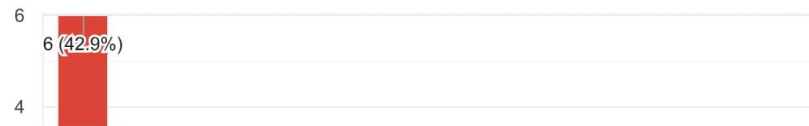
Which is more important to you, safety or low cost?

14 responses



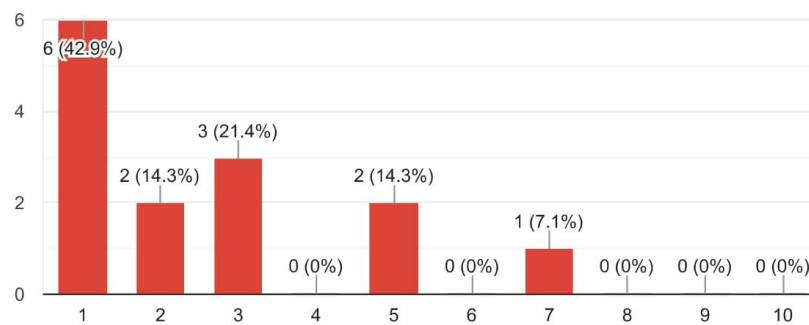
9/20/2019

Transportation Survey



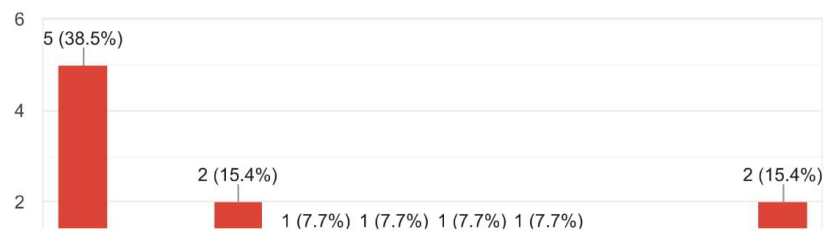
Which is more important to you, safety or privacy?

14 responses



Which is more important to you, safety or instant availability?

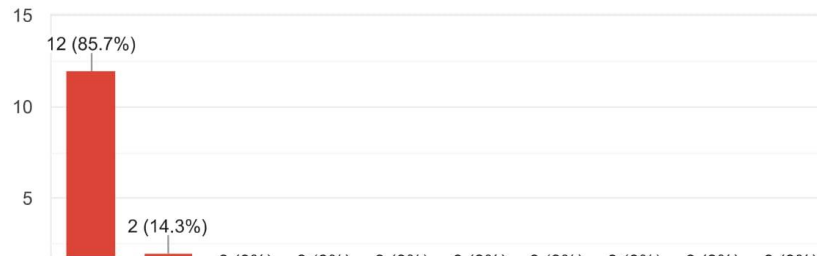
13 responses



9/20/2019

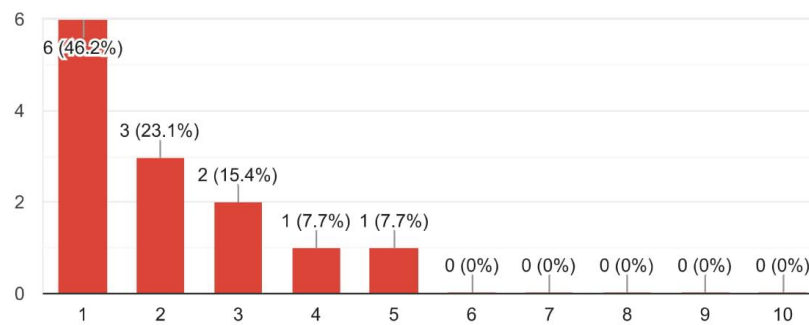
Transportation Survey

14 responses



Which is more important to you, fast commute or customization?

13 responses



Which is more important to you, fast commute or being environmentally friendly?

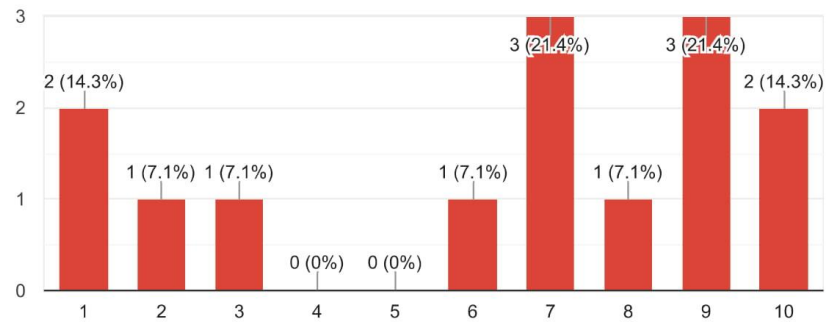
14 responses

9/20/2019

Transportation Survey

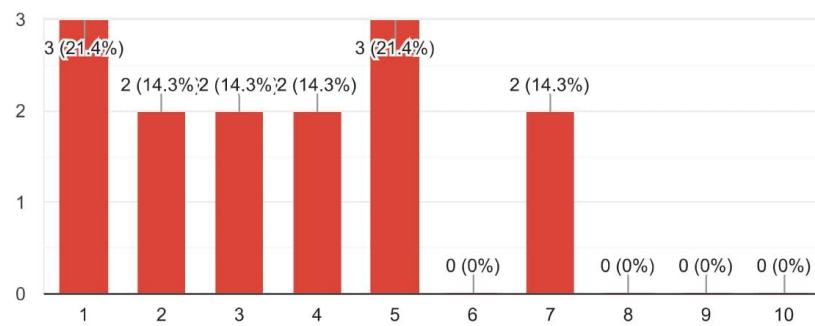
Which is more important to you, fast commute or reliability?

14 responses



Which is more important to you, fast commute or low cost?

14 responses



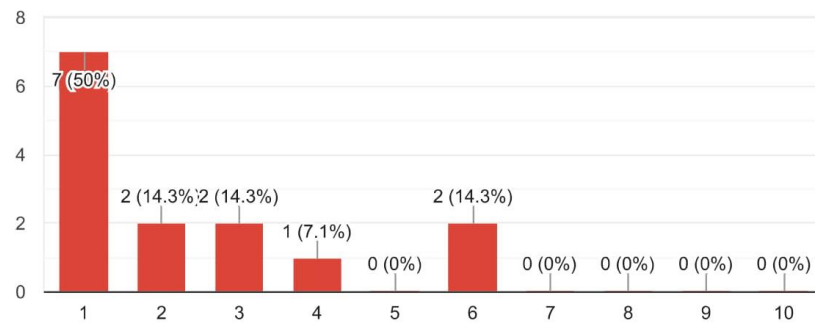
Which is more important to you, fast commute or internet connectivity?

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Transportation Survey

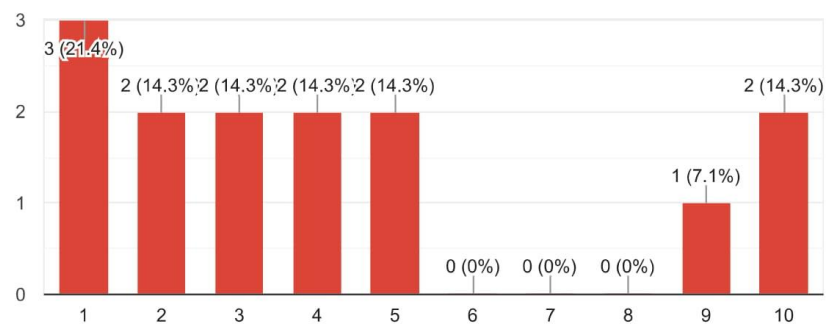
Which is more important to you, fast commute or privacy?

14 responses

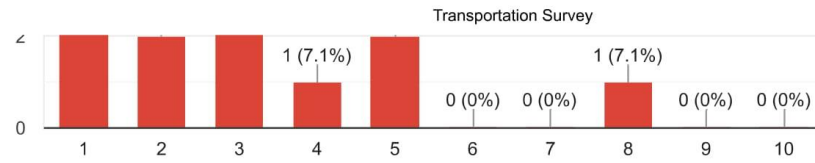


Which is more important to you, fast commute or instant availability?

14 responses

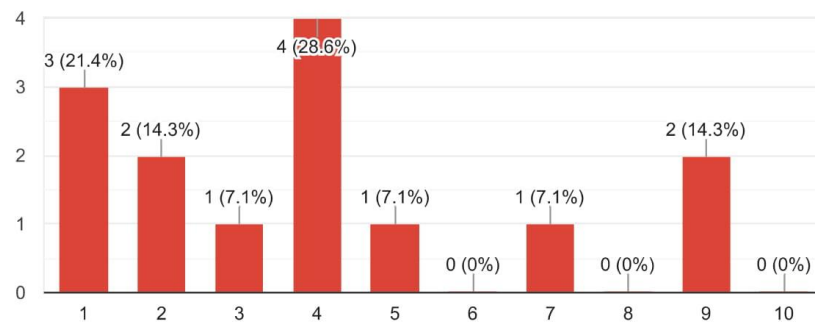


9/20/2019



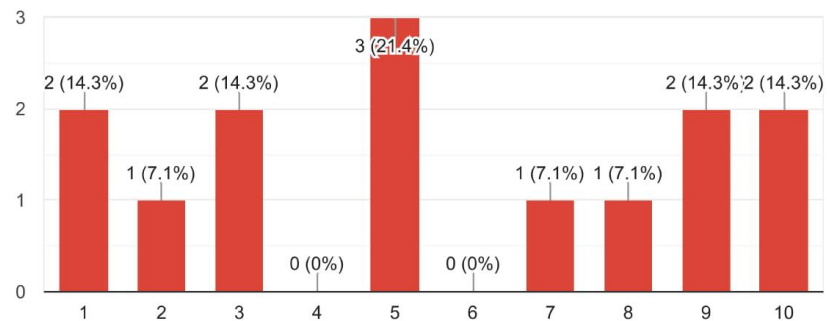
Which is more important to you, ease of use or being environmentally friendly?

14 responses



Which is more important to you, fast commute or safety?

14 responses



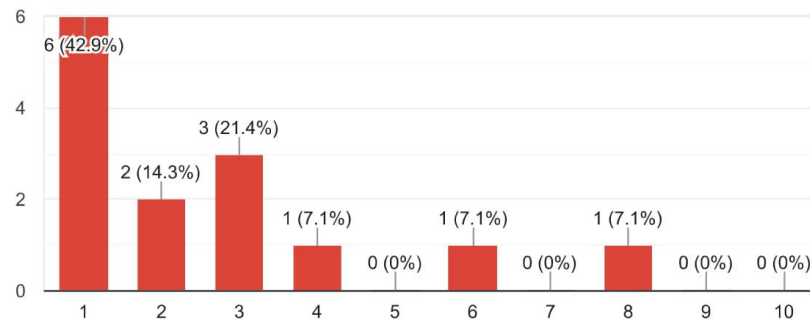
9/20/2019

Transportation Survey



Which is more important to you, ease of use or internet connectivity?

14 responses



Which is more important to you, ease of use or customization?

14 responses

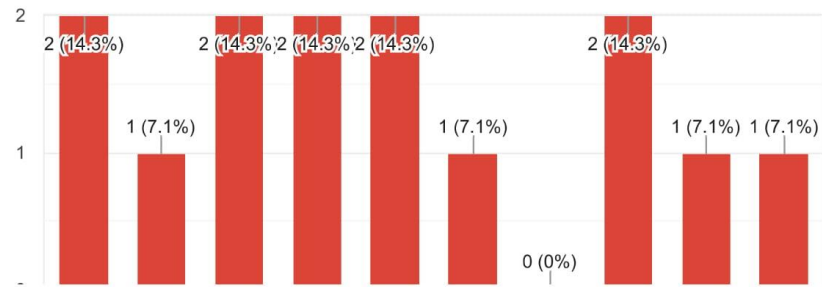


9/20/2019

Transportation Survey

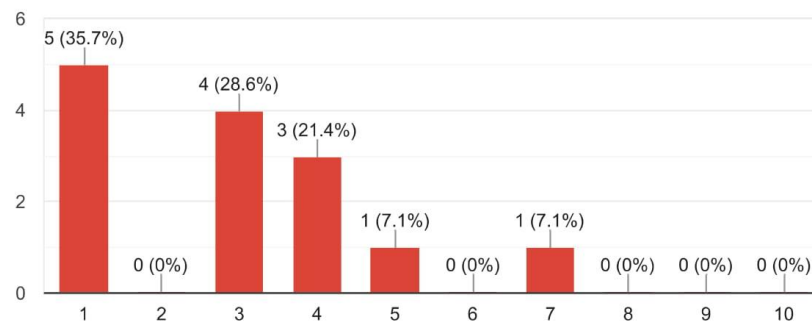
USC:

14 responses



Which is more important to you, reliability or ease of use?

14 responses



Which is more important to you, low cost or ease of use?

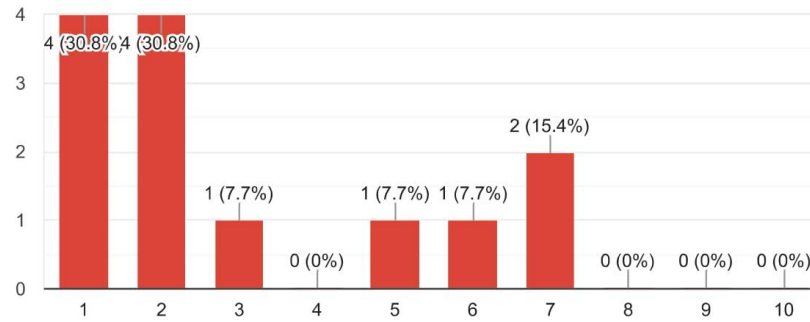
14 responses

9/20/2019

Transportation Survey

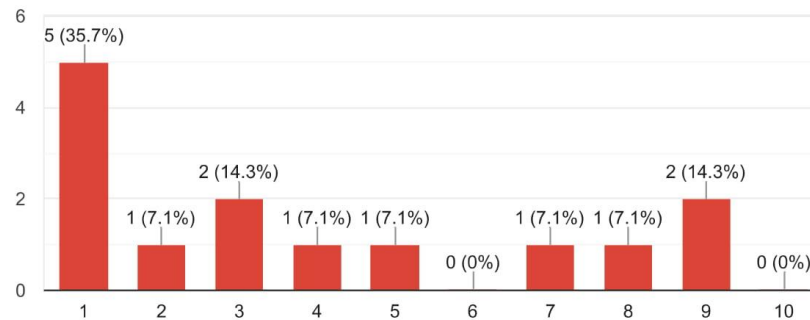
Which is more important to you, ease of use or privacy?

13 responses



Which is more important to you, instant availability or ease of use?

14 responses



Which is more important to you, instant availability or ease of use?

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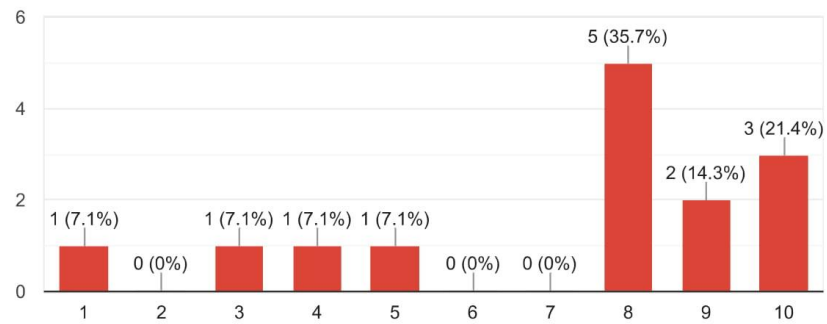
9/20/2019

Transportation Survey

Comparison

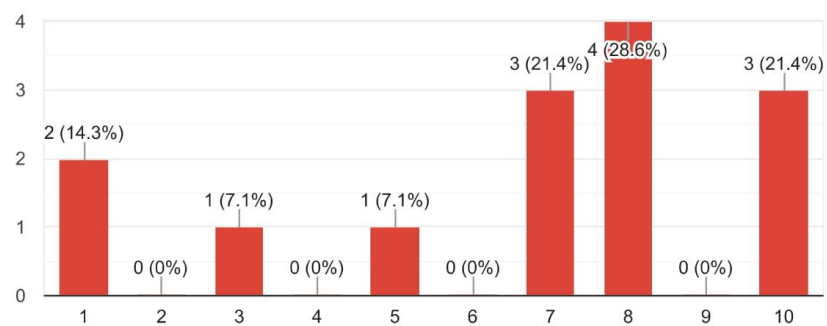
Which is more important to you, ease of use or a fast commute?

14 responses



Which is more important to you, ease of use or safety?

14 responses



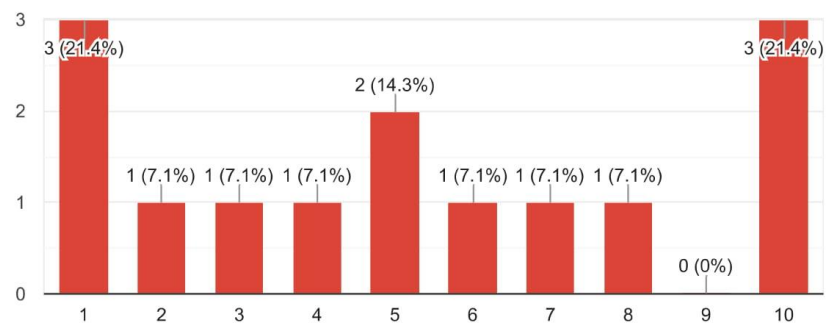
9/20/2019

Transportation Survey

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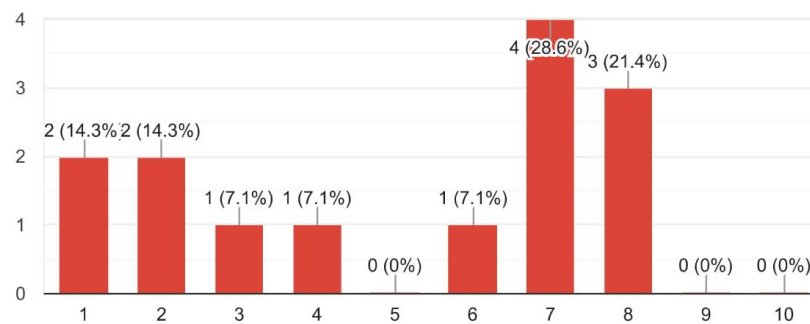
On a scale of 1 to 10 how important is customizable transportation to you?

14 responses

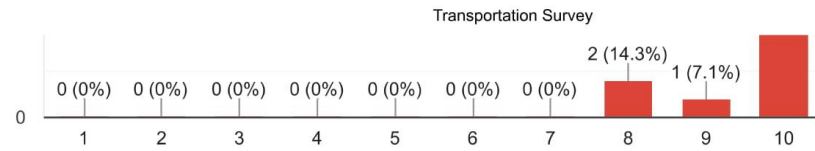


On a scale of 1 to 10 how important is environmentally friendly transportation to you?

14 responses

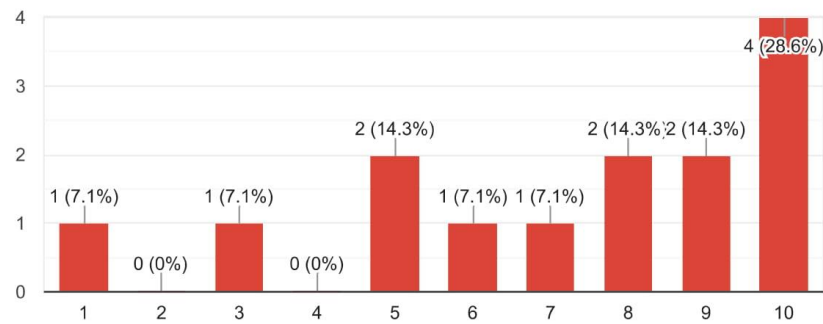


9/20/2019



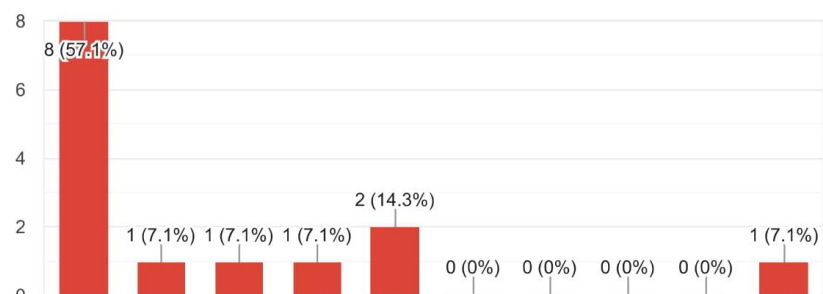
On a scale of 1 to 10 how important is low cost transportation to you?

14 responses



On a scale of 1 to 10 how important is internet connected "smart" transportation to you?

14 responses



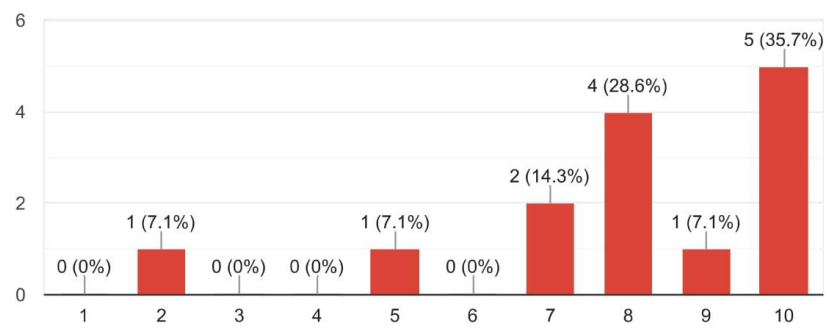
9/20/2019

Transportation Survey



On a scale of 1 to 10 how important is instant access to transportation to you, i.e. not having to wait to leave?

14 responses



On a scale of 1 to 10 how important is reliable transportation to you?

14 responses



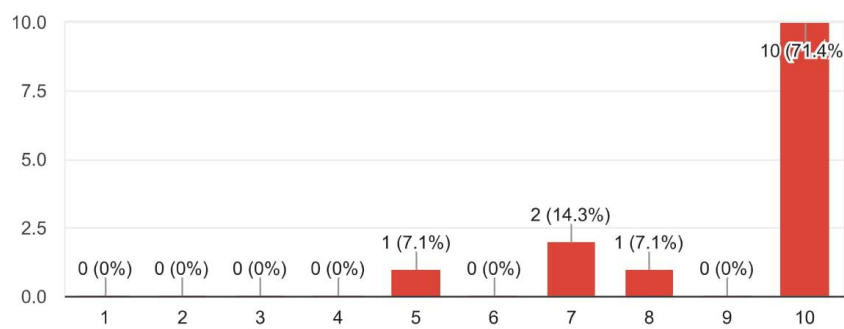
9/20/2019

Transportation Survey



On a scale of 1 to 10 how important is safety while commuting to you?

14 responses



On a scale of 1 to 10 how important is privacy while commuting to you?

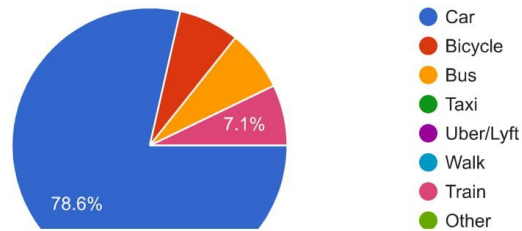
14 responses

9/20/2019

Transportation Survey

How do you currently commute to work or school?

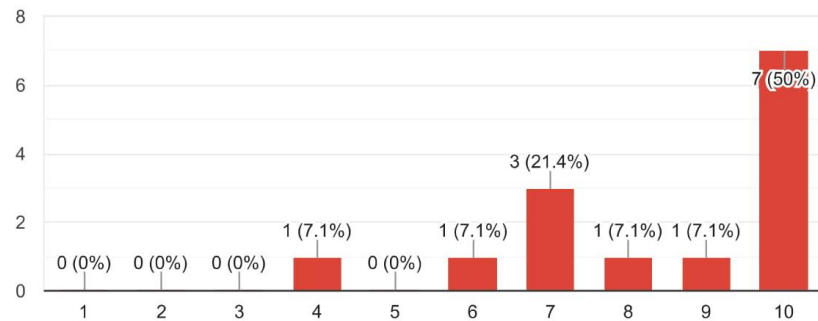
14 responses



Ranked Choices

On a scale of 1 to 10 how important is ease of use to you?

14 responses



On a scale of 1 to 10 how important is a fast commute to you?

14 responses

9/20/2019

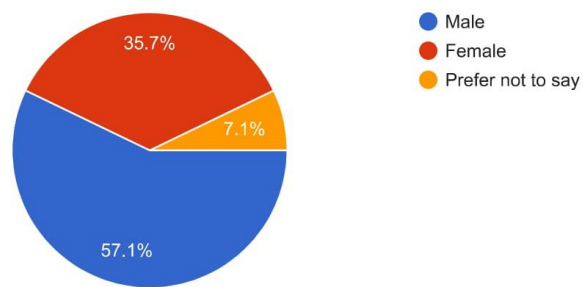
Transportation Survey

Transportation Survey

14 responses

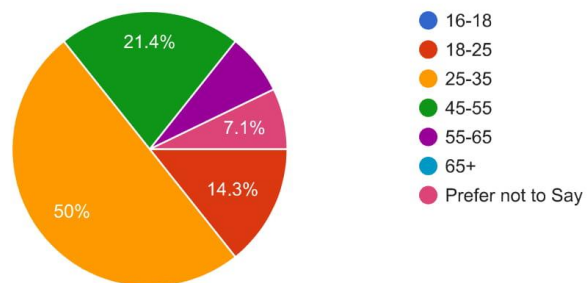
Please Enter your Gender

14 responses



What is your age?

14 responses



C:Online Primary Research