City of Tempe Transportation Survey Report

Prepared For:

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Table of Contents

Executive Summary

The City of Tempe commissioned WestGroup Research to complete a survey of Tempe residents in an effort to gain insights into perceptions about public transit among both riders and non-riders, and perception and usage of other transportation programs. This report analyzes the data collected and, where appropriate, compares responses of the residents by meaningful demographic variables, as well as to data from the 2018 study and for the past ten years. This study was first conducted in 2001 and has continued to be conducted periodically. The most recent data collection was completed with 401 Tempe residents in September/October 2020. The margin of error for this sample size is +4.9% at a 95% level of confidence.

Rider Characteristics and Opinions

- Three in five Tempe residents (62%) reported using Tempe's transit service, including light rail, Orbit, Flash, and local bus/express. This usage level is consistent with the four measurements taken over the past eight years.

- Ridership frequencies reported in 2020 are consistent with 2018 levels. The higher proportion of residents who indicated taking advantage of Tempe public transit under unique circumstances in 2018 remained elevated in 2020 (43%). The percentage of daily riders remained stable at 2% and the proportion of those riding at least monthly measured at 12%, similar to 2018 (11%).

- As in 2018, 72% of transit riders reported using light rail in the past year, which is significantly lower than in 2016 (84%). Past year usage of Orbit/Flash neighborhood shuttles (33%) is consistent with prior years, however only 19% reported riding local or express buses in the past year which is down from 25% in 2018. These declines are likely due, at least in part, to the COVID-19 pandemic.

- Nearly one in four riders (22%) reported riding Tempe's transit system for more than ten years, which is down significantly from 35% in 2018, but similar to the 25% measured in 2016. In contrast, brand new ridership measures significantly higher in 2020 with 9% reporting they have been riding for less than one year (vs. 4% in 2018). This is likely due in part to a higher representation of younger riders in the 2020 sample.

- For the past ten years, convenience was the most popular reason given for riding public transit (mentioned by one in four riders). However, in 2020, the top reason for using public transit was to get to or from recreation (20%), followed by to avoid parking (12%), to go downtown (10%) and convenience (11% down significantly from 26% in 2018).

- Phoenix/Downtown Phoenix continues to be the most popular destination for transit trips (47%), followed distantly by recreational activities and Downtown Tempe (21% and 18%, respectively).

- Riders rated their level of satisfaction with 12 different aspects of riding the bus. Riders were most likely to be satisfied with driver courtesy and professionalism, cleanliness of the bus and comfort on the bus (97%, 94% and 94% very + somewhat satisfied). Riders were least satisfied with amenities at bus stops (58%).

Overall Perceptions and Satisfaction with Tempe's Transit System

- The most common "top of mind" impression was positive with 14% of residents describing it with words such as "good," "excellent" and "cool." While 12% immediately thought: they "do not use it," 11% suggested that *more and improved public transit is needed*.

- Three in five (58%) residents with an opinion report being highly satisfied with the Tempe transit system, which is similar to 2018 but significantly lower than in 2016, 2014 and 2012.

  - Residents satisfied with the transit system attributed their satisfaction to g*ood service* (21%), followed *good/convenient routes* (12%), *frequent and reliable service* (11%), and *cleanliness* (10%).

  - Residents who provided lower satisfaction ratings most often mentioned the need for better/more routes (16%), more cleaning (10%), and more frequent buses with extended hours (9%) as reasons for their ratings.

Potential Use of Tempe's Transit System

- Preference for a personal vehicle continues to be by far the most common reason given by non-riders as an explanation for not using public transit (45% mentioned).

- The two most effective benefits for persuading non- riders to use public transit appear to be *helps improve the environment* and *helps reduce air pollution* (61% and 58% somewhat or very effective).

- The two least effective benefits for persuading non-transit users to use public transit were *reduces your stress* and *saves time* with only one-third rating them as effective.

Tempe in Motion (TIM)

- After hitting a ten year high of 57% in 2018, total awareness of Tempe in Motion (TIM) decreased significantly to 46% which was similar to the 44% measured in 2016.

- Residents aware of TIM recalled hearing about it through signs on buses (16%), street banners (12%), bill inserts (10%) and flyers/brochures (9%) and TV (9%).

- Slightly more than two in five residents who heard about TIM via advertising of some kind indicated (42%) the advertising had a positive impact on their impression of

transportation options in Tempe. One in five (19%) indicated the advertising message persuaded them to try public transit in Tempe.

Tempe Bicycling and Walking

- Nearly two-thirds of residents (63%) reported having access to a bicycle.

- Among those with access to a bike, more than two thirds (68%) reported riding their bike at least once a month, which is similar to 2018. Those who have access to a bike but never or only occasionally ride it (31% of residents) most often blamed *hot weather* for not riding it more often (43%).

- Two in five (40%) of those with access to a bike who ride at least once a month reported riding for *exercise*, while 19% ride their bike *to parks*, 16% ride *to school*, and 15% ride *along the canal*.

- Residents who bicycle at least monthly say they do so primarily to get *exercise* (52%) and/or *for fun and recreation* (27%).

- Consistent with the prior three study periods, in 2020, more than two-thirds of residents indicated being satisfied with the quality of walking and biking paths in Tempe (67%).

- After being read a list of three possible sidewalk improvements in Tempe, survey participants were asked to rate how high of a priority each improvement should be for the City. *Security and comfort on sidewalks, such as addressing hazards, obstructions and width* received the largest percentage of high priority ratings (72%).

- After being read a list of six possible improvements to bikeways in Tempe, survey participants were asked to rate how high of a priority each improvement should be for the City. *Security and comfort on multi-use paths*, *ease of travel around barriers*, *miles of multi-use paths and dedicated bike lanes* received the highest percentage of priority ratings (70%, 68% and 64% respectively).

- In 2020, under one-half of residents (43%) had heard of Tempe's bike share system which is down significantly from 59% in 2018.   Despite awareness being down, usage is up – with 5% of all residents reporting they have ridden on a green GRID bike.

Tempe Youth Free Transit Pass Program

- In 2020, nearly one-half (45%) of residents who have children ages 6 to 18 have heard of the Tempe Youth Free Transit Pass

- Among parents aware of the program, school (35%), word of mouth (21%), and the library (13%) were the top ways they had learned about the Tempe Youth Free Transit Pass Program.

Conclusions

1. Despite the presence of the COVID-19 pandemic, the reported overall transit usage among Tempe residents over the past year stayed the same. It is possible that the phrasing "in the past year" covered up an impact of the pandemic and having a different time frame (e.g., past 30 days) would reveal a different finding. However, there was a decrease in the percent of riders reporting to take the local/express buses, which may reflect an impact from the pandemic.

   The shift in the "mix" of users first noted in 2018 (i.e., more infrequent or casual users, but fewer regular users) was still evident in 2020.   However, there was a notable increase in the percentage of riders new to public transit in Tempe, this was likely due, at least in part, to the successful effort to garner more survey participation from residents under the age of 55.

2. The percentage of bus users giving high satisfaction ratings for 11 of the 12 evaluated attributes increased from previous years. The biggest shifts occurred for cleanliness on the bus and safety on the bus – both up 9 points. While overall satisfaction with cleanliness was slightly higher than in the past, significantly more riders in 2020 suggested cleaner buses and bus stops (likely an impact of COVID-19 concerns), increased shade at stops, as well as improved transit services in general (more routes and increased frequency) were needed.

3. Overall satisfaction with the transit system in Tempe continued to decline for the third straight wave, primary driven by residents who are not using any of the public transit available in the City. Overall satisfaction among transit users did not change. Along with the typical requested improvements of more routes and better frequencies, the need for improved cleaning practices was again noted as a reason for dissatisfaction.

4. Awareness of Tempe in Motion (TIM) decreased significantly in 2020, particularly unaided awareness. It is possible this was impacted by the higher representation of younger and/or new-to-the City residents within the overall sample. The impact of the campaign on overall impressions of the system continues to be positive, however the percentage of residents indicating they are persuaded by the messaging continues to decline.

5. A majority of residents indicate they are highly satisfied with the quality of the walking and biking paths in Tempe, however residents feel that the top priority for both types of paths should be to increase the security and comfort on the paths.

I.   Introduction

A.   Background

The City of Tempe commissioned WestGroup Research to complete a telephone survey of Tempe residents in an effort to gain insights into perceptions about public transit among both riders and non-riders, and perception and usage of other transportation programs. This report analyzes the data collected by the survey and, where appropriate, compares responses of the residents by meaningful demographic variables, as well as to data from studies conducted over the past ten years - 2010, 2012, 2014, 2016, and 2018. The most recent data collection was completed with 401 Tempe residents during September 2020.   Due to size limitations, tables in the report do not show data from the studies conducted from 1998 to 2008.

In previous years, data was only collected by telephone. In 2020, data was primarily collected via telephone (330 surveys), but in an effort to complete more surveys with younger residents, an online survey conducted through a national panel company was added (71 surveys). Panel data was collected online from September 9 to September 29, 2020.   The telephone calls with Tempe residents were made by WestGroup interviewers working remotely in the Phoenix area from September 11 to October 14, 2020. A combination of random-digit dial (RDD) sample to contact "land line" households along with cell-phone sample database to reach cell-phone only households was used to access potential respondents. All phone numbers were manually dialed. Households were randomly selected according to Tempe zip codes.

Quotas were set as targets (using Census data) to achieve balanced representation of men and women as well as a representative distribution of the sample by age. Post-survey weighting was applied to the data for zip code, gender and age to make sure the final data achieved the targeted representative sample.

The survey was completed with 401 Tempe residents. The margin of error for this sample size is +4.9% at a 95% confidence level. Cross tabulations of the data collected in this survey are included under a separate cover.

B.   Sample Sizes and Associated Sampling Error

There is a certain amount of sampling "error" that occurs with survey research because of the variability that is present whenever a portion of a population is examined to provide insight into attitudes, opinions, and behaviors of the total population. This "error" does not imply an "error" on the part of the researcher, but reflects the likelihood that the estimates derived from interviewing a sample of the population differ from the numbers that would be obtained if the entire population were interviewed using the identical questions.

The amount of sampling error is determined almost entirely by the size of the subgroup of the sample and not by the size of the total sample interviewed. In other words, the sampling error

associated with respondents who are males residents vs. female residents is dictated by the size of these subgroups (n=208 and +6.9% for males, for example).

Based on a sample size of 401, **the overall sampling error for the total sample** (at the conventional 95% confidence level) is +**4.9%**. This means that the probability is 95% that our estimates are within 5 percentage points of the numbers we would have obtained had we interviewed every qualified resident in Tempe. If a response differs from the overall response of the sample by more than this percentage, the difference is said to be "statistically significant." Throughout this report, each sub-group in a table or chart may be identified with a superscript letter (such as [A], [B], and [C]). A letter after a number indicates that the number is statistically higher than the number in the column with that letter. This indicates a statistically significant difference and is referred to throughout the report as being "significantly" higher or lower than a comparative figure.

For example, in the table below, the 10% and 17% in the first and second rows of column B is significantly higher than the figures in column C (4% and 6%) at the 95% confidence level.

Frequency of Transit Usage
Demographic Breakdown

	2020 (n=401)	18-34 (n=136) (A)	Age 35-54 (n=136) (B)	55+ (n=124) (C)
Net Ride Daily or Weekly	**6%**	5%	10%[C]	4%
Net Ride at least Monthly	**12%**	13%	17%[C]	6%
Daily	2%	1%	4%	1%
Weekly	4%	4%	7%	3%
Monthly	6%	8%	7%[C]	2%
Every few months	7%	6%	8%	9%
Special/unique circumstances	43%	48%	38%	42%
Don't Use Transit	38%	34%	37%	44%

For trend tables and charts displaying yearly data; significant differences between 2020 and 2018 figures are shown using an asterisk. For example, in the table below, the 46% and 4% in the 2020 column is significantly different than the 57% and 12% in the 2018 column at the 95% confidence level. Statistical testing between earlier years is not shown in this report; however, important trends over time are called out when appropriate.

	2020 (n=401)	2018 (n=400)	2016 (n=401)
Total Awareness of TIM (Unaided + Aided)	**46%***	**57%**	**44%**
Unaided Awareness	4%*	12%	19%
Aided Awareness	43%	45%	25%

C.   Demographics

While quotas (based on Census data) were used as targets to achieve for a representative sample of Tempe residents, the total data were weighted in 2020 by gender, age and zip code to adjust for slight discrepancies between the targeted quotas and actual demographic representation in the final sample. An overview of respondent demographics follows in Table 1A. The addition of the web survey/panel component increased the percentage of younger residents, as did the quota targeting. Both of which likely have impacted the length of residency in Tempe as well.

Table 1a: Demographics

	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)	2010 (n=427)
Gender						
Male	52%	50%	52%	51%	50%	49%
Female	48%	50%	48%	49%	50%	51%
Years Lived in Tempe						
<1 year	4%*	<1%	1%	2%	2%	2%
1 – 2 years	11%*	3%	4%	5%	6%	5%
3 – 5 years	20%*	10%	9%	13%	6%	10%
6 – 10 years	18%*	10%	15%	14%	13%	15%
11 – 20 years	14%*	24%	24%	22%	25%	19%
20+ years	32%*	52%	48%	44%	49%	49%
Age						
18 – 34	34%	32%	32%	32%	32%	33%
35 – 54	34%	34%	34%	34%	33%	34%
55+	31%	33%	33%	33%	32%	33%
Average Age	45.6*	47.8	47.3	47.1	49.4	47.7
Education						
Some high school	2%	1%	2%	2%	1%	2%
High school graduate	7%	10%	10%	11%	10%	9%
Some college	26%	25%	26%	33%	24%	30%
College graduate	35%	38%	33%	32%	32%	29%
Post graduate	29%	25%	27%	19%	32%	29%
No answer/ Refused	1%	1%	2%	2%	1%	1%
Marital Status						
Married	46%	49%	52%	46%	54%	61%
Single	49%	48%	45%	50%	43%	36%
Refused	5%	3%	3%	3%	3%	3%

*Indicates significant difference compared to 2018 at a 95% confidence level.

Table 1b: Demographics

	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)	2010 (n=427)
Income						
<$20,000	5%	7%	7%	13%	9%	10%
$20 - $40,000	11%	15%	18%	18%	14%	14%
$40 - $60,000	14%	16%	19%	18%	11%	16%
$60 - $80,000	18%	18%	13%	8%	14%	14%
$80 - $100,000	11%	11%	7%	8%	10%	11%
$100,000+	32%	24%	20%	20%	20%	17%
$100K to $150,000	16%	12%	n/a	n/a	n/a	n/a
$150,000+	16%	12%	n/a	n/a	n/a	n/a
No answer/refused	9%	9%	16%	14%	21%	16%
Average Income	$89,958*	$79,072	$67,325	$63,700	$70,304	$67,047
Occupation						
Full-time	63%	60%	57%	46%	46%	47%
Part-time	7%	11%	6%	11%	8%	12%
Retired	16%	16%	20%	21%	28%	23%
Stay at home Spouse	5%	6%	3%	4%	6%	7%
Student	4%	3%	6%	8%	4%	7%
Unemployed/disabled	4%	3%	5%	7%	6%	6%
Refused	1%	2%	3%	3%	2%	1%
Zip Code						
85281	25%*	18%	21%	23%	19%	19%
85282	35%	32%	33%	32%	44%	38%
85283	26%	29%	24%	26%	22%	29%
85284	14%*	22%	22%	19%	15%	14%

*Indicates significant difference compared to 2018 at a 95% confidence level.
n/a = not applicable for these years; prior to 2018 the category was only "more than $100,000"

II.   Rider Characteristics and Opinions

A.   Current Use of Public Transit

1.   Tempe Transit Service Usage – Among All Residents

Three in five Tempe residents (62%) reported riding Tempe's transit service, including light rail, Orbit, Flash, and local bus/express. This usage level is consistent with the four measurements taken over the past eight years.

Similar to 2018, men and women were equally likely to ride public transit (both at 62%) Additionally, there were no significant differences found between other sub-groups or demographics in 2020 transit service usage.

Transit Service Usage in Tempe
Percentage of residents who ride Tempe transit service at all

2020	2018	2016	2014	2012	2010
62%	63%	62%	64%	63%	48%
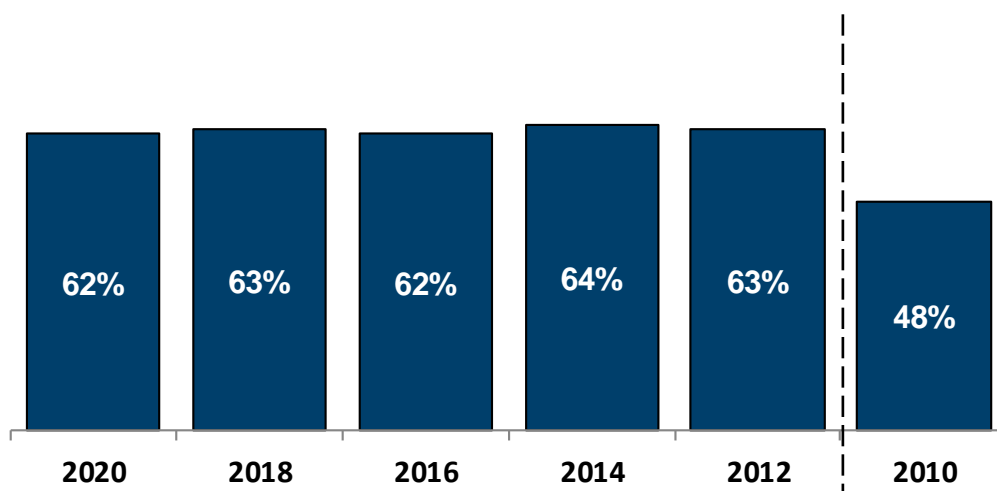
Note: Beginning in 2012, respondents were asked about *Tempe Transit Service* usage; in previous years, the question was about *Tempe city bus* usage.
2020 n=401, 2018 n=400, 2016 n=401, 2014 n=409, 2012 n=400, 2010 n=427

Q5: In general would you say you use Tempe's transit system (including light rail, Orbit, Flash and local bus/express)... [daily, weekly, monthly, every few months, only under special or unique circumstances]

2.   *General Public Transit Use – Among All Residents*

Ridership frequencies reported in 2020 are consistent with 2018 levels. The higher proportion of residents who indicated taking advantage of Tempe public transit under unique circumstances in 2018 remained elevated in 2020 (43%). The percentage of daily riders remained stable at 2%, which is significantly lower than in 2016 and 2014. The proportion of those riding at least monthly also measured at 12%, down from 16% in 2016 and 25% in 2014.

As was true in 2018, local bus, Orbit/Flash and Express riders were significantly more likely than rail only riders to report riding at least weekly (19% vs. 5%), and as expected light rail only riders were significantly more likely to say they generally ride transit under special or unique circumstances (82% vs. 46% of other riders).

Riders significantly more likely to report riding weekly or daily include those ages 35 to 54 (10% vs. 4% age 55+, compared to 5% 18-34 years old). Of note, there were no demographic groups significantly more likely than others to report using transit for special/unique circumstances. It was consistent across all residents.

Table 2a: Frequency of Transit Usage

	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)
Net Ride Daily or Weekly	**6%**	**5%**	**10%**	**16%**
Net Ride at least Monthly	**12%**	**11%**	**16%**	**25%**
Daily	2%	2%	5%	6%
Weekly	4%	3%	5%	10%
Monthly	6%	6%	6%	9%
Every few months	7%	10%	9%	8%
Special/unique circumstances	43%	42%	37%	31%
Don't Use Transit	38%	34%	38%	35%
Don't know/No answer	<1%	3%	<1%	<1%

No significant differences compared to 2018
Q5: In general would you say you use Tempe's transit system (including light rail, Orbit, Flash and local bus/express).

**Table 2b: Frequency of Transit Usage
Demographic Breakdown**

	2020 (n=401)	18-34 (n=136) (A)	Age 35-54 (n=136) (B)	55+ (n=124) (C)
Net Ride Daily or Weekly	**6%**	5%	10%^C	4%
Net Ride at least Monthly	**12%**	13%	17%^C	6%
Daily	2%	1%	4%	1%
Weekly	4%	4%	7%	3%
Monthly	6%	8%	7%^C	2%
Every few months	7%	6%	8%	9%
Special/unique circumstances	43%	48%	38%	42%
Don't Use Transit	38%	34%	37%	44%

^{A-C} Indicates significant differences compared to other sub-group at the 95% level.

3.   *Type of Transit Used in Tempe in Past Year - Among Transit Riders*

As in 2018, 72% of transit riders reported riding light rail in the past year, which is significantly lower than in 2016 (84%). Past year usage of Orbit/Flash neighborhood shuttles (33%) is consistent with prior years, however only 19% reported riding local or express buses in the past year which is down from 25% in 2018 and significantly fewer than in 2016 and 2014. This shift is likely due, at least in part, to the COVID-19 pandemic. Residents of the 85281 and 85282 zip codes were significantly more likely to report riding Orbit or Flash neighborhood shuttles than those in 85283 and 85284 (49% and 36% vs. 25% and 6%, respectively).

**Table 2c: Type of Transit Ridden in Tempe in Past Year
Trending Breakdown**

	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)
Light Rail	72%	73%	84%	79%
Orbit or Flash neighborhood shuttles	33%	32%	37%	36%
Local or express bus	19%	25%	28%	30%
Don't Know/Refused	15%	12%	7%	7%

*Indicates significant difference compared to 2018 at the 95% confidence level.
Q5a: Which of the following have you used in Tempe in the past year?

In 2020, younger riders (18 to 34 years old) were significantly more likely than those 55 and older to report riding light rail and neighborhood shuttles, but not buses which is typically the

case. Of note, residents 35 and older give a "don't know" response at a significantly higher rate than those 18 to 34 years old (15%-27% vs. 6%).

Additionally, a significantly higher proportion of those with annual household incomes under $40,000 report riding buses and/or shuttles compared to residents with higher household incomes.

Table 2d: Type of Transit Ridden in Tempe in Past Year
Demographic Breakdown

Transit Type	2020 (n=248)	Age			Income		
		18-34 (n=91) (A)	35-54 (n=86) (B)	55+ (n=70) (C)	<$40K (n=36) (D)	$40K-$80K (n=91) (E)	80K+ (n=104) (F)
Light Rail	72%	79%[C]	72%	63%	76%	74%	70%
Orbit or Flash neighborhood shuttles	33%	40%[C]	36%[C]	22%	44%[F]	40%[F]	22%
Local or express bus	19%	17%	27%[C]	14%	38%[F]	19%	15%
Don't Know/Refused	15%	6%	15%[A]	27%[A]	7%	13%	21%[D]

[A-F] Indicates significant differences compared to other sub-group at the 95% level.

B.   Length of Use of Transit System

Nearly one in four riders (22%) reported using Tempe's transit system for more than ten years, which is down significantly from 35% in 2018 but similar to the 25% measured in 2016. In contrast, brand-new ridership is up significantly in 2020 with 9% reporting they have been using transit in Tempe for less than one year (vs. 4% in 2018 and 5% in 2016). This is likely due, at least in part, to a higher representation of younger riders in the 2020 sample.

Of note, this was the first year that specific categories beyond "more than ten years" were available and 15% reported riding for 11 to 20 years and 8% reported they have been using transit in Tempe for more than twenty years.

Table 3a: Length of Use of Transit System

Time Riding	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)	2012 (n=252)	2010 (n=304)
Less than a year	9%*	4%	5%	6%	9%	14%
1 – 2 years	9%	6%	9%	10%	13%	27%
2 – 4 years	12%	13%	15%	24%	29%	13%
4 – 6 years	20%	19%	19%	23%	16%	10%
6 – 10 years	22%*	14%	22%	13%	13%	25%
More than 10 years	23% net*	35%	25%	18%	12%	NA
11 to 20 Years	15%	na	na	na	na	na
More than 20 Years	8%	na	na	na	na	na
Don't know	5%*	11%	4%	7%	8%	11%

Q8: How long have you been using the transit system in Tempe?
Indicates significant difference compared to 2018 at the 95% confidence level.

C.   Main Reasons for Using Public Transit

For the past ten years, convenience **was the most popular reason given for riding public transit with typically one in four riders mentioning it.   However, in 2020, the top reason for using public transit was** *to get to or from recreation* **(20%), followed by** *to avoid parking* **(12%),** *to go downtown* **(10%) and** *convenience* **(11% down significantly from 26%).**

Notably, mentions of using public transit *to avoid drinking and driving* and to *save money* increased significantly compared to 2018 and as might be expected are more likely to be mentioned by riders under the age of 55.

Table 3b: Main Reasons for Using Public Transit

Responses	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)	2012 (n=252)	2010 (n=304)
Get to/from recreation	20%	18%	22%	18%	14%	7%
To avoid parking	12%	11%	5%	3%	10%	7%
Convenient	11%*	26%	24%	27%	16%	24%
To go downtown	10%	9%	3%	3%	6%	5%
To avoid drinking and driving	7%	4%	3%	2%	-	-
Saves money	6%*	2%	3%	6%	7%	4%
Need to get to Phoenix	6%*	2%	4%	3%	-	-
Dislike driving/Take a break from driving	6%	5%	4%	1%	-	-
To get to/from work	5%	4%	3%	2%	-	-
Vehicle not available/car problems	4%	6%	3%	1%	-	-
Do not have a car	4%	5%	8%	12%	11%	9%
Get to/from school	3%	4%	5%	4%	2%	2%
A way to get around	3%	2%	3%	3%	2%	-
Protects the environment	3%	2%	1%	2%	1%	4%
To get to/from airport	3%	1%	3%	1%	1%	1%

Q9: What is the main reason you ride public transit?
*Indicates significant difference compared to 2018 at the 95% confidence level.
Note: Response categories with less than 2% mentions in 2020 not shown in table.

D.   Public Transit Destinations

Phoenix/Downtown Phoenix continues to be the most popular destination for transit trips; 47% of all transit riders surveyed named it as a destination. As was also the case in 2018, light rail only riders were significantly more likely to report Phoenix/Downtown Phoenix as a destination than were those who ride local buses and Orbit/Flash neighborhood shuttle either solely or in addition to riding light rail (61% vs. 34%).

Recreational activities and Downtown Tempe round out the top three destinations for transit riders (21% and 18%, respectively). Work, ASU and shopping were again frequently by one in ten riders.

Top Transit User Destinations
(Among transit users)

Destination	Percentage
Phoenix/Downtown Phoenix	47%
Recreational activities/Sporting Events	21%
Downtown Tempe	18%
Work	12%
ASU	10%
Shopping	9%

Q10: Where do you go when you use public transit? 2020 n=248

Despite the changes and challenges COVID-19 has caused this year, most destinations were reported at the same level as in the past with the exceptions of a significant increase in *restaurant* mentions and decrease in mentions of *errands* in general.

Table 4: Top Public Transit Trip Destinations
(Among public transit users)

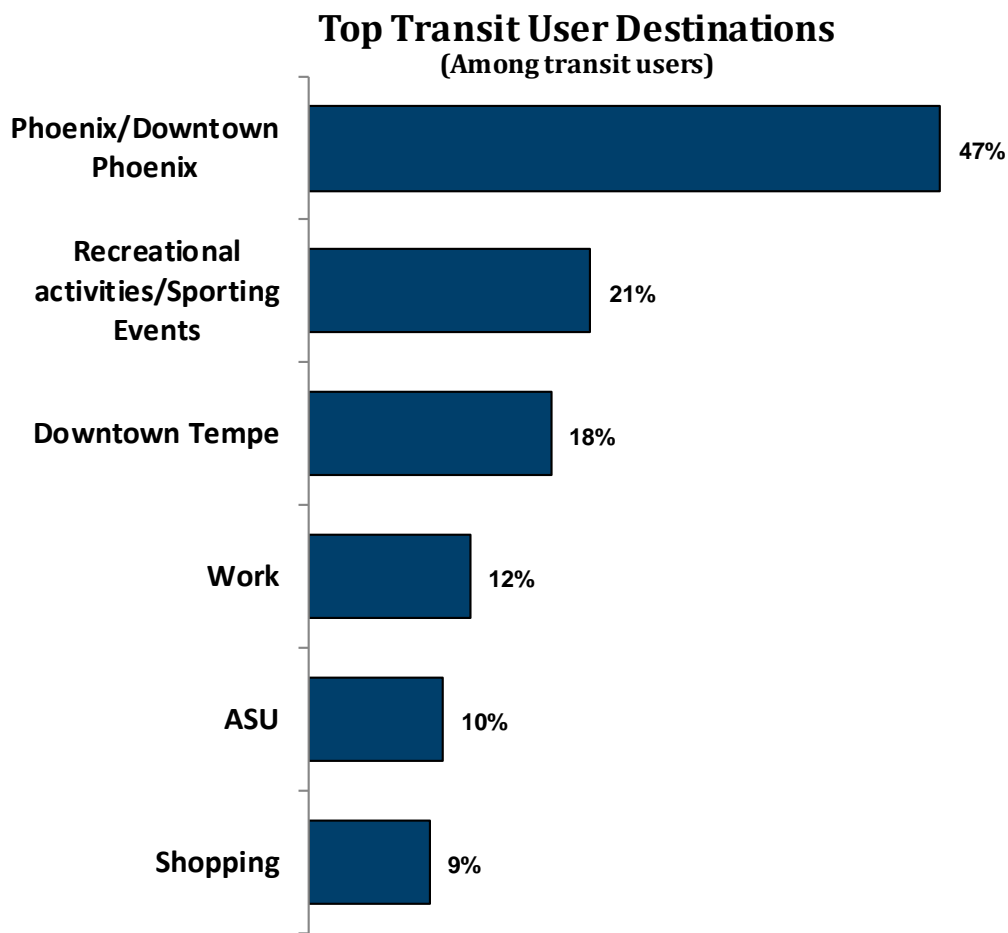| Responses	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)	2012 (n=252)	2010 (n=304)
DT Phoenix/Phoenix	47%	48%	25%	15%	26%	15%
Recreational activities	21%	26%	35%	39%	34%	38%
Downtown Tempe	18%	21%	14%	11%	13%	7%
Work	12%	13%	14%	19%	13%	20%
ASU	10%	12%	14%	15%	16%	16%
Shopping	9%	9%	4%	15%	12%	11%
Airport	5%	3%	4%	-	-	-
Restaurant	4%*	<1%	-	-	1%	3%
Around Tempe	3%	-	3%	<1%	-	-
Medical appointment	2%	1%	2%	2%	4%	2%
Library	2%	2%	2%	4%	3%	2%
Mesa	2%	1%	-	-	1%	<1%
Visit friends/family	1%	3%	2%	4%	5%	2%
Errands	1%*	3%	1%	6%	8%	5%
High School/school	1%	2%	4%	1%	-	-
Downtown (general)	1%	-	6%	1%	-	-

Q10: Where do you go when you use public transit?
*Indicates significant difference compared to 2018 at the 95% confidence level.
Note: Destinations with less than 2% mentions in 2020 not displayed unless necessary for prior

E.   Satisfaction with Bus Service

Bus riders were asked to rate their level of satisfaction with twelve different aspects of riding the bus. Riders rated the attributes by using four-point nominal scales ("very satisfied," "somewhat satisfied," "not very satisfied," and "not at all satisfied.").

Riders were most likely to be satisfied with *driver courtesy and professionalism*, *cleanliness of the bus* and *comfort on the bus* (97%, 94% and 94% very + somewhat satisfied, respectively). As has been the case since 2012, riders were least likely to express satisfaction with *bus service during major events*, *security at bus stops* and *amenities at bus stops* (71%, 70%, and 58%, respectively).

Although none of the shifts were statistically significant, eleven of the twelve attributes received higher ratings in 2020 compared to 2018 (up 1 to 9 points). *Major event bus service* remained stable (71% vs. 70%) and *amenities of bus stops* decreased by 8-points (58% vs. 67% in 2018).

Table 5a: 2020 Satisfaction with Bus Service
(Among bus riders)

Attribute	2020 (n=69)			% Very/somewhat satisfied			
	Very/ somewhat Satisfied	Very Satisfied	Somewhat Satisfied	2018 (n=87*)	2016 (n=128)	2014 (n=109)	2012 (n=141)
Driver courtesy and professionalism	97%	75%	22%	92%	93%	93%	93%
Cleanliness of the bus	94%	51%	43%	85%	88%	88%	92%
Comfort on the bus	94%	46%	48%	93%	92%	92%	95%
Ease of using the bus	91%	57%	34%	87%	93%	93%	91%
Safety on the bus	88%	45%	43%	79%	82%	82%	95%
Cleanliness of bus stops	88%	35%	53%	85%	85%	85%	NA
Hours of operation	86%	67%	19%	79%	84%	84%	NA
Route frequency	84%	52%	32%	80%	79%	79%	74%
Reliability/on-time performance of buses	82%	54%	28%	77%	86%	86%	80%
Bus service during major events	71%	37%	34%	70%	70%	70%	NA
Security at bus stops	70%	26%	44%	66%	65%	65%	NA
Amenities of bus stops	58%	20%	38%	67%	72%	72%	NA

Q11: In general how satisfied are you with…
*Due to a programming error, only 87 of the 115 bus/shuttle riders were asked this series of questions in 2018.
No significant differences compared to 2018

Among riders dissatisfied with one or more attribute, the most common suggestions to improve their satisfaction with buses was the addition of *shade at bus stops* (26%), *cleaner buses/bus stops* (23%), *more frequent buses* (19%) and *better or more routes* (19%).

Despite the very small sample sizes, the dramatic increase in suggestions to improve the cleanliness of buses and bus stops are likely due to the concerns over COVID-19 (23%/8 mentions up from 2% /1 mention in 2018).

Table 5b: Suggested Improvements

	2020 (n=38)	2018 (n=45)	2016 (n=69)	2014 (n=57)
Bus stops need shade	26%	21%	13%	17%
Inside of bus/bus stops need to be cleaner	23%*	2%	9%	10%
More frequent buses	19%	17%	32%	42%
Need better/more routes	19%	9%	15%	7%
Easier schedules to read/understand/accurate	14%	10%	5%	6%
Need more pullouts/more space for pick ups	12%	-	-	3%
Security on the bus/safer buses	8%	15%	11%	11%
More/better lighting at bus stops	8%	20%	8%	9%
Get rid of it/waste of money	7%	-	-	-
Better AC/temperature on the bus	6%	-	-	-
More restroom facilities	6%	-	-	-
Don't like the type of people that use the bus	5%	4%	8%	2%
Better parking for the light rail	5%	-	-	-
Improve transfers	3%	-	-	-
Light rail needs to be faster	3%	-	-	-
Don't know	2%	5%	5%	6%

Q11a: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the bus service?
Note: Response categories with less than 3% mentions in 2020 not shown in table.
*Indicates significant difference compared to 2018 at the 95% confidence level.

III.   Overall Perception and Satisfaction with Tempe's Transit System

A.   Top of Mind Impression of Transportation System in Tempe

When thinking about transportation in Tempe, aside from "not using it" (12%), residents' top of mind positive thoughts were most often related to it being *generally good* (14%) and *liking the free neighborhood shuttles* (9%). The top of mind negative association or suggestion was needing *more or improved transit* (11%).

Transit riders were significantly more likely than non-riders to immediately think of generally positive words such as "excellent" or "good" (17% vs. 9%) or of light rail (12% vs. 5%). Non-riders were significantly more likely to be unable to think of anything (13% vs. 4% don't know).

Table 6: Top of Mind Impression of Tempe Transportation System

	2020 (n=401)	2018 (n=400)	2020 Transit Rider (n=248) A	Non-Rider (n=153) B
Positive				
Good/excellent/cool (general positive)	14%*	23%	17%B	9%
Like free neighborhood shuttles/Orbit/Mercury/Venus/Blue buses	9%	7%	10%	8%
Lots of options/ can choose between bus, light rail, shuttles	7%	4%	8%	4%
Good bike lanes/paths/able to walk	6%*	1%	5%	7%
New street car system/trolleys	3%*	1%	5%B	1%
It's free	2%	3%	2%	2%
Neutral				
Never used it/don't use it	12%	9%	11%	15%
Light Rail (unspecified)	9%	7%	12%B	5%
Adequate/fine/average	7%	7%	6%	8%
The bus system/ bus (unspecified)	4%	6%	3%	4%
Negative/Suggestions				
Need more public transit/improved transit	11%	12%	12%	10%
General negative/don't like it	4%*	8%	4%	5%
Transit is a waste of money/expensive	5%	2%	4%	8%
Needs improvements (timing of lights, better routes, etc.)	3%	5%	3%	4%
Inconvenient/slow	3%	3%	4%	2%
Don't know	7%	8%	4%	13%A

Q4: *What is the first thing that comes to mind when you think about the transportation system in Tempe?* (As needed: *by transportation system we are talking about the way people can travel around Tempe by walking, riding a bike, or using public transit*). Responses less than 2% not shown (All open ends available under separate cover).
*Indicates significant difference compared to 2018 at the 95% confidence level.
AB Indicates significant differences compared to other sub-group at the 95% level.

B.   Overall Satisfaction with Tempe Transit System

Three in five (58%) residents with an opinion report being highly satisfied with the Tempe transit system. While this is similar to 2018, it remains significantly lower than in 2016 and 2018.   As in the past, current riders were more likely to provide a top-two rating (67% vs. 42% of non-riders).

Overall Satisfaction with Transit System
Among those with an opinion
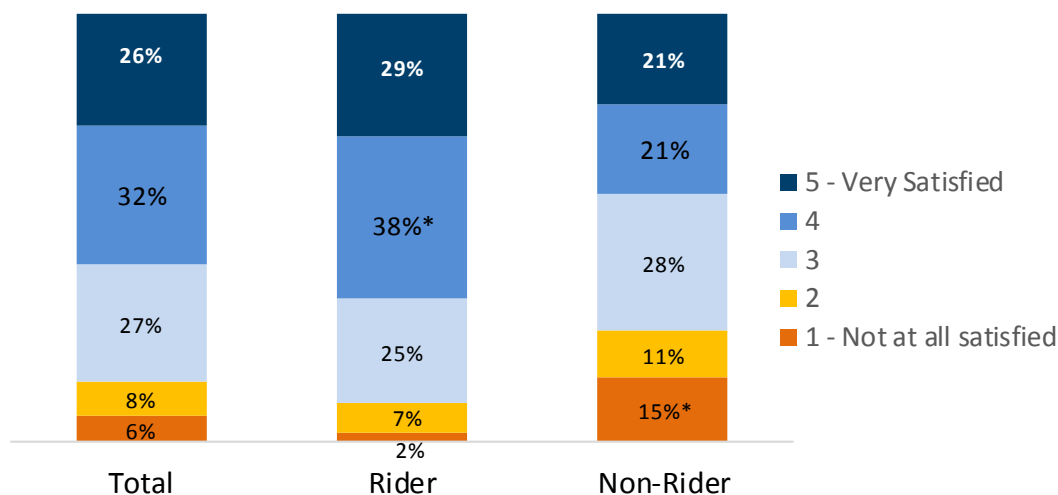
Total n=373, Rider: n=246, Non-Rider: n=127
*Indicates significant differences compared to other sub-group at the 95% level.

Table 7: Overall Satisfaction with Transit System in Tempe
(Among those with an opinion)

Satisfaction	2020 (n=373)	2018 (n=362)	2016 (n=352)	2014 (n=376)	2012 (n=355)
NET very + somewhat satisfied	**58%**	**60%**	**69%**	**72%**	**69%**
5 – Very satisfied	26%	28%	36%	37%	39%
4	32%	32%	33%	35%	30%
3	27%	29%	21%	17%	21%
2	8%	5%	5%	6%	5%
1 – Very dissatisfied	6%	6%	6%	5%	5%
Don't know (excluded from %)	8%	10%	12%	8%	11%

Q12. How satisfied are you with the quality of the transit system in Tempe?
No significant differences compared to 2018

As expected, transit riders were significantly more likely than non-riders to express satisfaction with the quality of the transit service in Tempe (67% vs. 42%). Although these results are similar to 2018, both ratings are lower than measured in 2016 when 78% of riders and 50% of non-riders were satisfied.

This year there were no significant differences in satisfaction by zip code. In 2018 residents living in the 85281 zip code were significantly more likely to be satisfied than those living in 85282 and 85284. However, in 2020, satisfaction among residents of 85281 dropped from 75% to 56%.

Overall Satisfaction with Transit Service
(Top Two Ratings)

Category	Very Satisfied - 5 rating	Satisfied - 4 rating	Total
Total	26%	32%	58%
Ridership			
Transit rider (A)	29%	38%[B]	67%[B]
Non-transit rider (B)	21%	21%	42%
Area			
85281 (C)	22%	34%	56%
85282 (D)	31%	33%	64%
85283 (E)	25%	32%	57%
85284 (F)	23%	28%	51%

■ Very Satisifed - 5 rating   ■ Satisfied - 4 rating
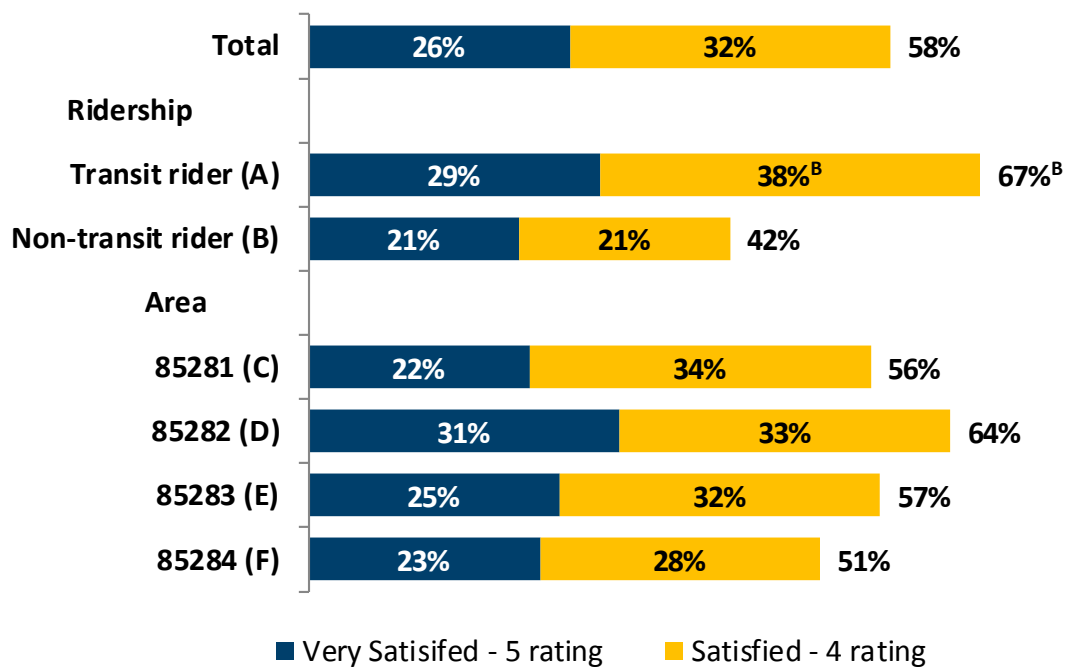
2020 n=373 (Among those with an opinion)

Residents satisfied with the transit system (rated "4" or "5") primarily attributed their satisfaction to *good service* (21%), *followed by good/convenient routes (*12%), *frequent and reliable service* (11%), and *cleanliness* (10%), which were also the top mentions in 2018.

Residents who gave lower ratings (1-3) most often mentioned the need for *better/more routes* (16%), *more cleaning* (10%) and *more frequent buses with extended hours* (9%) as reasons for their ratings. The top two mentions for the past six years were *better/more routes* and *more frequent buses with extended hours*.

Overall, significantly fewer people mentioned *good service*, *frequent/available or reliable service*, *transportation for those who need it,* and *easy to use* in 2020 than in 2018*.* Notably, only 4% expressed feeling uncomfortable with people who ride transit in 2020 (4 vs. 8% in 2018).

Table 8: Reason for Satisfaction Level

Responses	2020 (n=373)	2018 (n=362)	2020 Satisfaction Level 4,5 (n=216)	1,2,3 (n=156)
Positive				
Satisfied, good service	14%*	23%	21%	4%
Good routes, convenient routes	8%	7%	12%	4%
Frequent, available, reliable	7%*	15%	11%	-
It's clean	7%	7%	10%	3%
Provides transportation for those who need it	4%*	1%	7%	1%
Convenient (general)	4%	6%	6%	1%
Like the light rail/light rail is good	4%	5%	6%	1%
Saves money, cheap, free	3%	2%	5%	-
Easy to use	3%*	<1%	4%	<1%
Neutral				
Don't use it, never used it	11%	9%	4%	21%
Always room for improvement	6%*	11%	7%	5%
It's average/okay	2%	3%	2%	3%
Negative/Suggestions				
Need better/more routes, connections, doesn't go where I need to	11%	9%	7%	16%
More frequent buses, more hours	7%	8%	5%	9%
It was dirty/needs to be cleaned up a little bit	6%	3%	4%	10%
Uncomfortable with people who ride transit	4%*	8%	2%	6%
Bus driver does not stop at bus stops	3%	5%	2%	4%
Need more security	3%	3%	1%	7%
Buses take too long/it's slow	3%	1%	1%	6%
It's not convenient	2%*	<1%	<1%	5%
Don't know	4%	6%	3%	5%

Q12a: Please explain your rating. Note: Response categories with < 2% total mentions in 2020 not shown in table.

IV. Potential Use of Tempe's Transit System

A. Reasons for Not Riding Transit

***Preference for a personal vehicle* continues to be by far the most common reason given by non-riders as an explanation for not using public transit (45% mentioned).** An additional 7% reported *needing a car for business*. Other popular reasons were that they simply *do not need to use transit* (14%) and/or *find it to be inconvenient* (13%), *does not go where they need to go* (9%) or *it takes too long* (8%).

Notably, mentions of *transit is not secure* or concerns about safety decreased to 3% after spiking to 9% in 2018. In addition, compared to 2018, non-riders were significantly more likely in 2020 to cite *riding a bike instead* as a reason for not using public transit.

Table 9: Top Reasons for Not Using Public Transit

Reasons	2020 (n=153)	2018 (n=136)	2016 (n=152)	2014 (n=143)	2012 (n=148)
Prefer car	45%	49%	59%	58%	46%
Don't need to, don't have the need to use	14%	15%	4%	9%	6%
Inconvenient (general)	13%	14%	6%	4%	5%
Doesn't go where they need to go	9%	9%	7%	7%	12%
Takes too long	8%	13%	8%	6%	10%
Need car for business	7%	4%	7%	1%	--
Bus stop far away	6%	3%	11%	11%	12%
Ride bike instead	5%*	1%	3%	2%	--
Work from home/telecommute	4%	1%	3%	--	--
Too expensive	4%	1%	--	1%	2%
Buses are unreliable/not on time	4%	1%	1%	1%	--
Transit is not secure/safety	3%*	9%	3%	1%	--
Weather concerns/ too hot/cold/ raining	3%	4%	1%	<1%	1%
Don't like the type of people on transit	3%	2%	1%	--	--
Don't have to go far distances	2%	6%	3%	3%	5%
Inconvenient (unspecified)	2%	1%	1%	2%	8%
I don't work/retired	2%	--	1%	1%	5%
Buses are dirty	2%	1%	--	1%	--
Don't know	1%	3%	2%	2%	2%

Q6: People tell us different reasons why they do not use public transit like riding the bus or light rail. What are some of the reasons why you currently do not use public transit?
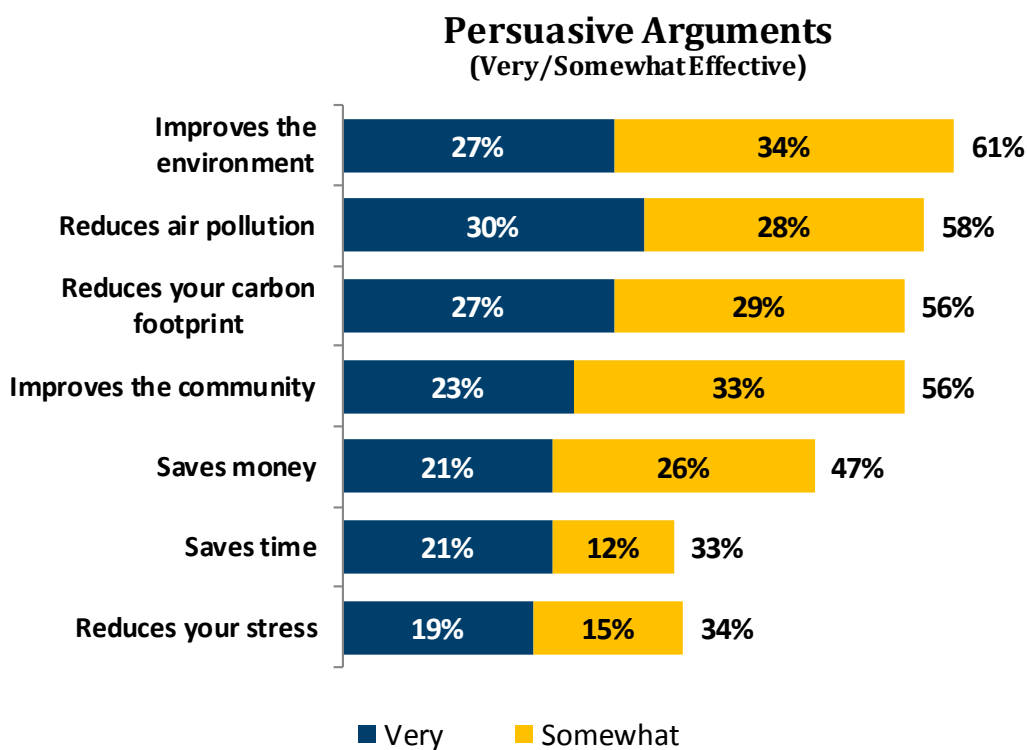 *Indicates significant difference compared to 2018 at the 95% confidence level.
  Note: Reasons with less than 2% mentions in 2020 not shown in table.

B.   Effectiveness of Persuasive Arguments

Residents who do not use public transit in Tempe were asked to rate the effectiveness of seven arguments of using public transit for persuading them to use the bus or light rail instead of their current mode. Ratings were completed on a four-point nominal scale ("very effective," "somewhat effective," "not very effective," and "not at all effective").

- **The two most effective arguments for persuading non-riders to use public transit appear to be *helps improve the environment* and *helps reduce air pollution.*** These were perceived as either "somewhat effective" or "very effective" by 61% and 58% of residents. These also ranked at the top in 2018.   However, *improves the community* made gains from 49% in 2018 to 56% in 2020 (data shown on next page).

- **The two least effective arguments for persuading non-transit users to use public transit were again *reduces your stress* and *saves time*** with approximately one-third rating them as "very" or "somewhat" effective (34% and 33%, respectively).

Persuasive Arguments
(Very/Somewhat Effective)

Argument	Very	Somewhat	Total
Improves the environment	27%	34%	61%
Reduces air pollution	30%	28%	58%
Reduces your carbon footprint	27%	29%	56%
Improves the community	23%	33%	56%
Saves money	21%	26%	47%
Saves time	21%	12%	33%
Reduces your stress	19%	15%	34%

■ Very   ■ Somewhat

Q7: For each of the following benefits to using public transit, please indicate how effective it would be in persuading you to use the bus or light rail instead of using your current mode of transportation.
2020 n=153 (Do not use transit in Tempe)

Table 10a: Effectiveness of Arguments to Persuade Transit Usage Historical
(Among those who do not use transit)

	Total 2020 (n=153)	Total 2018 (n=136)
Improves the environment		
Effective	61%	62%
Not effective	39%	32%
Reduces air pollution		
Effective	58%	62%
Not effective	42%	34%
Reduces carbon footprint		
Effective	56%	57%
Not effective	43%	35%
Improves the community		
Effective	56%	49%
Not effective	43%	41%
Saves money		
Effective	47%	49%
Not effective	52%	42%
Reduces stress		
Effective	34%	30%
Not effective	66%	62%
Saves time		
Effective	33%	29%
Not effective	67%	64%

Q7: For each of the following benefits to using public transit, please indicate how effective it would be in persuading you to ride the bus or light rail instead of using your current mode of transportation. Would it be very effective, somewhat effective, not very effective, or not at all effective? (Don't know and no answer percentages not shown.)
Note: In 2018, all of the benefits were re-worded thus there is no tracking data prior to 2018 for this question.
No significant differences compared to 2018
Effective = Very + Somewhat effective
Not Effective = Not very + Not at all effective

Younger non-riders were generally more likely than those 35 and older to rate all of the arguments as "effective" in persuading them to ride public transit. In most cases, the difference is statistically relevant in comparison to one or both of the older age groups.

Women were significantly more likely than men to rate *helps improves the environment* as "effective" (71% vs. 49%).

Table 10b: Effectiveness of Arguments to Persuade Transit Usage 2020
(Among those who do not use transit)

	Total 2020 (n=153)	Gender		Age		
		Male (n=80) (A)	Female (n=73) (B)	18-34 (n=46) (C)	35-54 (n=50) (D)	55+ (n=54) (E)
Improves the environment						
Effective*	61%	49%	74%A	76%D	53%	56%
Not effective**	39%	50%B	26%	24%	47%C	42%
Reduces air pollution						
Effective*	58%	51%	67%	69%	57%	53%
Not effective**	42%	49%B	33%	31%	43%	47%
Reduces carbon footprint						
Effective*	56%	50%	63%	75%DE	45%	51%
Not effective**	43%	48%	36%	25%	53%C	47%C
Improves the community						
Effective*	56%	49%	63%	76%DE	46%	49%
Not effective**	43%	48%	36%	24%	53%C	47%C
Saves money						
Effective*	47%	47%	47%	69%DE	44%	32%
Not effective**	52%	53%	52%	31%	54%C	68%C
Reduces stress						
Effective*	34%	39%	28%	49%E	32%	24%
Not effective**	66%	60%	72%	51%	68%	74%C
Saves time						
Effective*	33%	37%	28%	53%E	33%E	16%
Not effective**	67%	63%	72%	47%	67%	84%CD

Q7: For each of the following benefits to using public transit, please indicate how effective it would be in persuading you to ride the bus or light rail instead of using your current mode of transportation. Would it be very effective, somewhat effective, not very effective, or not at all effective? (Don't know and no answer percentages not shown.)
A-E Indicates significant differences compared to other sub-group at the 95% level.
* Very + Somewhat effective
** Not very + Not at all effective

Non-riders were asked if there were any other benefits that might effectively persuade them to use public transit, 17% indicated they felt they could be enticed by other benefits. The most popular suggestions by these 26 non-riders included more *destinations/more routes*, *faster service*, *more direct routes/less transfers*, and *safer* (each mentioned by 3 or 4 non-riders).

Table 10c: Other Benefits Effective in Persuading use of Public Transit

Other Benefits	2020 (n=153)
Yes, there are other benefits	**17%**
	(n=26)
If it went more places/had more routes	4
Faster service	3
More direct routes/less transfers	3
If it was safer	3
If they gave a tax deduction	3
If bus stops were closer to home/destination	3
Free bus rides	2
Cuts down on pollution/helps air quality	2
Lower cost of transportation/gas prices go up	2
More frequent service	1
If it's more reliable/on-time	1
Other	3
Don't know/No answer	1

Q7.Other: Are there any other benefits that would be somewhat or very effective in persuading you to use public transit?
Q7.OTH: What is that benefit?
Due to the small sample size, responses are listed as numbers instead of percentages

V.   Tempe in Motion (TIM)

A.   Awareness of Tempe in Motion

After reaching a ten year high of 57% in 2018, total awareness of Tempe in Motion (TIM) decreased significantly to 46%, which was similar to the 44% measured in 2016. Unaided awareness dropped significantly with only 4% able to name Tempe's transit program in an unaided manner (down from 12% in 2018) and 43% reported recognizing the name when they were asked in an aided manner (similar to 45% previously).

Of note, in response to the unaided question, 22% of residents named Orbit and 13% named Valley Metro as the name of Tempe's transportation program.

Total awareness of TIM was significantly higher among:

- Residents aged 35 to 54 (57% vs. 37% of younger residents, and compared to 45% of those 55+)
- Transit riders (53% vs. 36% non-riders)
- Long time Tempe residents (62% who have lived in Tempe for more than 10 years vs. 33% of newer residents)

Table 11: Awareness of TIM

	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)	2010 (n=427)
Total Awareness of TIM (Unaided + Aided)	**46%***	**57%**	**44%**	**50%**	**53%**	**54%**
Unaided Awareness	4%*	12%	19%	18%	21%	24%
Aided Awareness	43%	45%	25%	32%	32%	30%

Q13/14: What is the name of Tempe's transit/transportation program? Have you ever heard of TIM/Tempe in Motion?
 *Indicates significant difference compared to 2018 at the 95% confidence level.

B.   **Source of Awareness**

Residents aware of TIM recalled hearing about it through *signs on buses* (16%) *street banners,* (12%), *bill inserts* (10%), *flyers/brochures* (9%) and on *TV* (9%). These results are consistent with 2018 results.

Table 12: Top Sources of TIM Awareness
(Among those aware of TIM)

Responses	2020 (n=185)	2018 (n=227)	2016 (n=178)	2014 (n=204)	2012 (n=211)	2010 (n=230)
Signs on the buses	16%	20%	11%	15%	13%	18%
Street banner	11%	12%	20%	24%	29%	17%
Bill inserts	10%	10%	7%	3%	9%	2%
Flyers/brochures	9%	6%	2%	3%	2%	6%
TV	9%	5%	4%	3%	6%	9%
Internet/online ads	5%	8%	3%	3%	3%	4%
Sign (general)	5%	7%	6%	1%	--	--
Word of mouth	4%	4%	6%	4%	6%	3%
Billboard	4%	3%	2%	1%	--	--
On the light rail	4%	2%	2%	--	--	--
Direct mail	3%	3%	4%	3%	5%	5%
Library	3%	2%	4%	--	--	--
Work	3%	2%	--	2%	1%	1%
Newspaper/Print Ads	2%	4%	6%	5%	6%	6%
Bill inserts	2%	2%	7%	3%	9%	9%
Ad/commercial (unspecified)	2%	1%	2%	--	1%	1%
ASU/School	1%	4%	4%	5%	--	3%
The City	<1%*	4%	--	1%	1%	--
Radio	1%	3%	1%	--	<1%	<1%
Pandora/ Spotify	1%	2%	3%	2%	--	--
I live here/lived here a long time	1%	2%	2%	2%	--	--
Don't know	16%	14%	7%	13%	16%	12%

Q15: How did you hear about it?
*Indicates significant difference compared to 2018 at the 95% confidence level.
Note: Sources with less than 2% mentions in 2020 not shown in table.

C.   Advertising Impact on Perception of Tempe Transportation Options

Slightly more than two in five residents who heard about TIM via advertising of some kind (42%) indicated the advertising had a positive impact on their impression of transportation options in Tempe. Over one-half, 55%, said the advertising had *no effect* and only 1% reported it had a negative impact on their perceptions of the transportation system in Tempe.

Among those who indicated TIM advertising had a positive or neutral impact about their feelings of transportation options in Tempe, **one in five (19%) indicated the advertising message persuaded them to try public transit in Tempe**. Among those persuaded, the advertising sources they felt most influenced them to try to public transit were bill inserts, signs on buses, and street banners (each mentioned by 5-7 people).

Table 13: Advertising Effect on Perception
(Among those aware of TIM advertising through media)

	*2020 (n=152)	2018 (n=63)	2016 (n=71)	2014 (n=88)	2012 (n=94)	2010 (n=79)
Make you think more positively about transportation options in Tempe	42%	43%	54%	52%	42%	58%
Have no effect on your perceptions	55%	55%	39%	41%	52%	38%
Make you think negatively about transportation options in Tempe	1%	1%	2%	2%	2%	1%
Don't know	2%	2%	5%	5%	4%	3%
	*2020 (n=147)	2018 (n=61)	2016 (n=71)	2014 (n=83)	2012 (n=88)	2010
Advertising messages persuaded you to try public transit in Tempe	19%	21%	25%	20%	28%	N/A

Q16: How did the messages affect your perception of the transportation system in Tempe?
Q17: Did the advertising messages persuade you to try public transit in Tempe?
No significant differences compared to 2018.
*Note: Prior to 2020, questions were only asked of those with awareness of very specific advertising sources, but beginning in 2020 everyone aware of TIM through any advertising or media was asked to rate the impact on their perception. Only those who did not identify a source (don't know/lived here a long time) were excluded.

Table 14: Advertising Source with Most Influenced to Use Transit
(Among those who said message persuaded them to try transit)

Advertising Source	2020 (n=28)	2018 (n=12)*
Bill inserts	7	-
Signs on the buses	6	2
Street banners	4	3
TV	3	1
On the light rail	3	-
ASU	1	-
Flyers/brochures	1	1
Billboard	1	-
Pandora/Spotify	1	-
Direct mail	1	-
Newspapers/Print ads	1	-
Don't know/ Not aware of program	2	1
Other	1	1

Q18: What was the advertising source that most influenced your decision to try public transit in Tempe?
*Due to the small sample size, responses are listed as numbers instead of percentages

VI.   Tempe Bicycling and Walking

A.   Bicycle Usage

Nearly two-thirds of residents (63%) reported having access to a bicycle. This is statistically similar to the past eight years.

Residents aged 35 to 54 were significantly more likely than residents aged 55 or older to report having access to a bicycle they can ride when they want (69% vs. 57% and compared to 63% of younger residents)

Among those with access to a bike, more than two thirds (68%) reported riding their bike at least once a month, which is similar to the 66% measured in 2018.

Table 15: Access to and Frequency of Bike Use per Month

	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)	2010 (n=427)
Have access to bike	**63%**	**64%**	**62%**	**61%**	**62%**	**58%**
Frequency per Month						
Never/only occasionally	31%	33%	28%	30%	32%	35%
Once or twice	20%	22%	23%	18%	18%	17%
Three to five times	15%	19%	20%	17%	11%	13%
Six to ten times	12%	10%	8%	8%	12%	9%
>10 times	21%	15%	20%	27%	24%	24%
Don't know/not sure	1%	2%	1%	1%	2%	2%

Q19: Do you have access to a bicycle that you can ride when you want to?
Q20: How many times in a month do you ride your bike?
No significant differences compared to 2018

B.   Reasons Do Not Ride Bicycle More Often

Those who have access to a bike but never or only occasionally ride it (31% of residents) most often blamed hot weather for not riding it more often (43% mentioned it being "*too hot outside*"). Other key reasons given include: *it is too dangerous, it is inconvenient, and prefer to take car* (mentioned by 12% to 14%). Significantly fewer mentioned *laziness* as a reason for not riding their bike more often (1% down from 10% in 2018).

Table 16: Reasons for Not Riding More Often
(Among those who have access to a
bicycle but only ride it occasionally or never)

Responses	2020 (n=78)	2018 (n=84)	2016 (n=70)	2014 (n=74)
Too hot outside/hot weather	43%	47%	38%	32%
Too dangerous	14%	12%	1%	12%
Have a car/rather take car	13%	7%	6%	1%
Inconvenient/too busy	12%	10%	4%	8%
Bike not working properly/bike not functional	7%	3%	6%	5%
Physical condition/my health	6%	11%	9%	5%
Too much traffic	3%	7%	3%	2%
Distance/too far	3%	6%	9%	1%
Lazy/don't want to ride it	1%*	10%	4%	10%
Have little kids/drive kids around	1%	2%	6%	3%
Injury	1%	1%	1%	2%
Too old	1%	1%	-	2%
No need/nowhere to go	1%	1%	-	-
Not enough bike lanes/paths	1%	-	2%	2%
Other (responses <.5%)	5%	2%	9%	7%
Don't know/no answer	-	-	9%	6%

Q20a: What are some reasons you don't ride you bike more often?
*Indicates significant difference compared to 2018 at the 95% confidence level.
Note: Question added in 2014

C.   Bicycle Destinations

Two in five of those with access to a bike who ride at least once a month (40%) reported riding for *exercise*, while 19% ride their bike *to parks*, 16% ride *to school*, and 15% ride *along the canal*. After increasing significantly to 13% in 2018, the percentage of bicyclists reporting Mill Avenue/Downtown Tempe as their destination dropped to 4%, to a level consistent with prior study years.

Table 17: Bike Riding Destinations
(Among those who have access to a
bicycle and ride it at least 1x a month)

Responses	2020 (n=174)	2018 (n=167)	2016 (n=176)	2014 (n=174)	2012 (n=163)	2010 (n=155)
Exercise	40%	35%	44%	53%	58%	60%
Parks	19%	16%	10%	4%	6%	4%
Work/school/ASU	16%	12%	14%	29%	18%	27%
Along the canal	15%	11%	9%	4%	--	--
Restaurant/dinner	13%	9%	4%	3%	2%	1%
Store	11%	17%	13%	14%	15%	16%
Tempe Town Lake	11%	7%	5%	4%	6%	7%
The bar/when I've been drinking	6%	2%	3%	3%	1%	--
Run errands	6%	3%	2%	2%	3%	1%
Everywhere	5%	8%	3%	3%	2%	1%
Mill Avenue/Downtown Tempe	4%*	13%	5%	3%	5%	3%
Bike trails/mountain trails	4%	--	--	--	--	--
The Greenbelt	3%	--	--	--	--	--
Friend's house	3%	4%	4%	9%	7%	3%
Other	1%	2%	2%	2%	5%	2%

Q21: Where do you go when you ride your bike?
*Indicates significant difference compared to 2018 at the 95% confidence level.
Note: Destinations with less than 2% mentions in 2020 not shown in table.

D.   Main Reason for Riding a Bicycle

Residents who bicycle at least monthly say they do so primarily to get *exercise* (52%) and/or *for fun and recreation* (27%).

Table 18: Main Reason Ride a Bike
(Among those who have access to a
bicycle and ride it at least 1x a month)

Responses	2020 (n=174)	2018 (n=167)	2016** (n=176)
Exercise	52%	57%	54%
Fun/Recreation/leisure	27%	22%	26%
It's faster than walking/driving	5%	2%	-
Protects environment	4%	1%	1%
Convenient/easy	4%	3%	8%
Saves wear and tear on car/don't want to drive	2%	1%	4%
Good for health/medical reasons	1%	3%	5%
Saves money	1%	2%	4%
To get to school/work	1%	1%	4%
Do not have a car	1%	1%	2%
For the fresh air	1%	3%	1%
Other	1%	1%	2%
No answer	1%	-	1%

*Q22: What is the main reason you ride a bicycle?*
*Indicates significant difference compared to 2018 at the 95% confidence level.
**Question added in 2016.

E.   Overall Satisfaction with Bicycle and Pedestrian Paths

Consistent with the prior three study periods, in 2020, more than two-thirds of residents indicated being satisfied with the quality of walking and biking paths in Tempe (67% gave a rating of 4 or 5, where 5 means "very satisfied"). All other ratings remained stable, as well.

Overall Satisfaction with Tempe Walking and Bike Paths
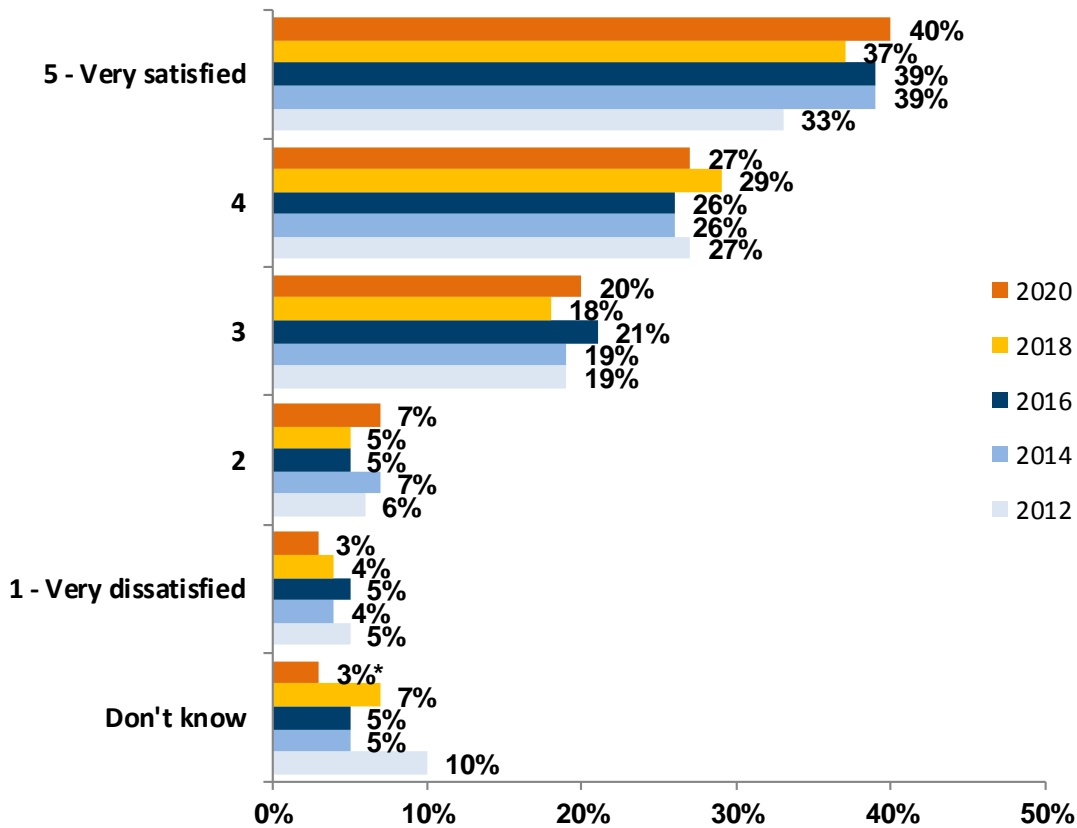
2020 n=401, 2018 n=400, 2016 n=401, 2014 n=409, 2012 n=400
Q23: How satisfied are you with the quality of the walking and biking paths in Tempe?
*Indicates significant difference compared to 2018 at the 95% confidence level.

Residents were asked to explain the reason(s) for their satisfaction ratings for bike and pedestrian paths. **Among those with an opinion, the most common positive reasons for ratings included *paths are everywhere, there are plenty of paths* (18%), paths are *properly maintained/well landscaped* (16%) and *paths are fine* (11%).**

While *plentiful paths* and *no problems with paths* were the top two mentions for the prior eight years, this year residents were significantly more likely to mention *appreciating that paths are properly maintained and well landscaped* (16% up from 6% in 2018 and 2016). **Top negative reasons included *paths don't seem safe enough/make them safer* (11%), *need more bike lanes* (5%), and *paths are _not_ maintained* (4% up significantly form 1% in 2018).**

Table 19: Reasons for Satisfaction Rating
(Among those with an opinion)

Responses	2020 (n=389)	2018 (n=370)	2016 (n=380)	2014 (n=390)	2012 (n=362)
Positive					
Paths are everywhere, plenty of paths	18%	15%	12%	12%	15%
Paths are properly maintained, well landscaped	16%*	6%	6%	4%	12%
Paths are fine the way they are, no problems	11%	12%	18%	29%	23%
Paths are safe	9%	4%	7%	5%	6%
Have good routes, connect well	8%	9%	6%	3%	6%
Paths are easy to use, accessible	6%	7%	5%	6%	6%
Have seen/noticed improvements/upgrades	3%	5%	5%	2%	--
Good for exercising/walking	3%	2%	--	--	<1%
Paths are well lit	2%	2%	4%	5%	5%
Like the paths along the canal	2%	1%	--	--	--
Neutral					
Never use paths, no knowledge of them	4%	4%	6%	5%	4%
There is always room for improvement	3%	1%	4%	4%	3%
Negative/Suggestions					
Paths don't seem safe enough, make them safer	11%	9%	9%	8%	10%
Need more bike lanes	5%	6%	4%	9%	11%
Paths are not maintained	4%*	1%	2%	2%	2%
Could use more paths	3%	2%	7%	6%	4%
Need more walking paths	3%	2%	1%	--	2%
Don't know	**<1%***	**3%**	**5%**	**6%**	**6%**

Q23a: Please explain your rating
   *Indicates significant difference compared to 2018 at the 95% confidence level.
   Note: Response categories with less than 2% total mentions in 2020 not shown in table.

F. Priority of Possible Sidewalk Improvements

Residents were read a list of three possible sidewalk improvements in Tempe and asked to rate how high of a priority each improvement should be for the City.

Security and comfort on sidewalks, such as addressing hazards, obstructions and width **received the highest percentage of high priority ratings** (72% rated a "4" or "5"). Notably, nearly one-half (45%) rated it as a "very high priority." **Approximately three in five residents placed a high priority on the need for** *miles of shaded sidewalks* (59% rated a "4" or "5"). With one-half of residents (49%) rating it as a high priority, *amenities along sidewalks like water fountains, lighting, art and signage* ranks as the lowest priority overall. While there were no statistically significant shifts compared to 2018, the proportion rating *miles of shade* and *amenities* as a high priority increased by seven-points.

Priority of Sidewalk Improvements
(Top Two Ratings 4 + 5 "Very high priority")

n=401   ■ "5" - Very High Priority   ■ "4" Rating
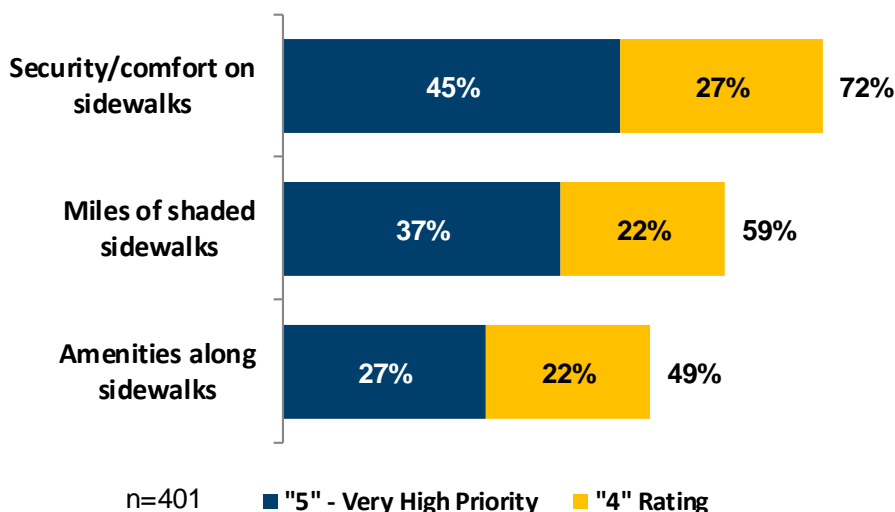
Table 20: 2020 Priority of Possible Sidewalk Improvements

Responses	"5 -Very High"	"4"	"3"	"2"	"1-Very Low"	No answer
Security/comfort on sidewalks such as addressing hazards, obstructions and width	45%	27%	14%	8%	5%	1%
Miles of shaded sidewalks	37%	22%	20%	12%	8%	<1%
Amenities along the sidewalks like water fountains, lighting, art, and signage	27%	22%	28%	11%	12%	<1%

Q24-26:.Now I am going to read you a list of possible sidewalk improvements. Please indicate how high of a priority each improvement should be for the City of Tempe. Please use a 1 to 5 scale where "1" means "a very low priority" and a "5" means it should be a "very high priority" for the City of Tempe. The first one is….

Table 21: Very High/High Priority of Possible Sidewalk Improvements by Year

Responses	2020 (n=401)	2018 (n=400)
Security/comfort on sidewalks such as addressing hazards, obstructions and width	72%	70%
Miles of shaded sidewalks	59%	54%
Amenities along the sidewalks like water fountains, lighting, art, and signage	49%	42%

Q24-26: Now I'm going to read you a list of possible sidewalk improvements. Please indicate how high of a priority each improvement should be for the City of Tempe.
No significant differences compared to 2018

G.   Priority of Possible Bikeway Improvements

Residents were read a list of six possible improvements to bikeways in Tempe and asked to rate how high of a priority each improvement should be for the City.

Security and comfort on multi-use paths, ease of travel around barriers, **and** ***miles of multi-use paths and dedicated bike lanes*** **received the highest percentage of priority ratings** (70%, 68% and 64% rated a "4" or "5"). More than one-half gave high priority ratings to *protected bike lanes with physical boundaries* (58%) and *shade along multi-use paths and bike lanes* (55%). With just under one-half (48%) rating the need for *amenities along multi-use paths like water fountains, lighting, art and signage* as a "4" or "5," this attribute ranked as the lowest priority.

Compared to 2018, priority ratings for all improvements increased slightly (1 to 4 percentage-point increases). None of the increases were statistically significant.

Priority of Bikeway Improvements
(Top Two Ratings 4 + 5 "Very high priority")

	"5" - Very High Priority	"4" Rating	Total
Security/comfort on multi-use paths	39%	31%	70%
Ease of travel through barriers	40%	28%	68%
Miles of multi-use paths & dedicated bike lanes on streets	37%	27%	64%
Protected bike lanes with physical barriers	33%	25%	58%
Shade along multi-use path/bike lanes	33%	22%	55%
Amenities along multi-use paths	25%	23%	48%

■ "5" - Very High Priority   ■ "4" Rating
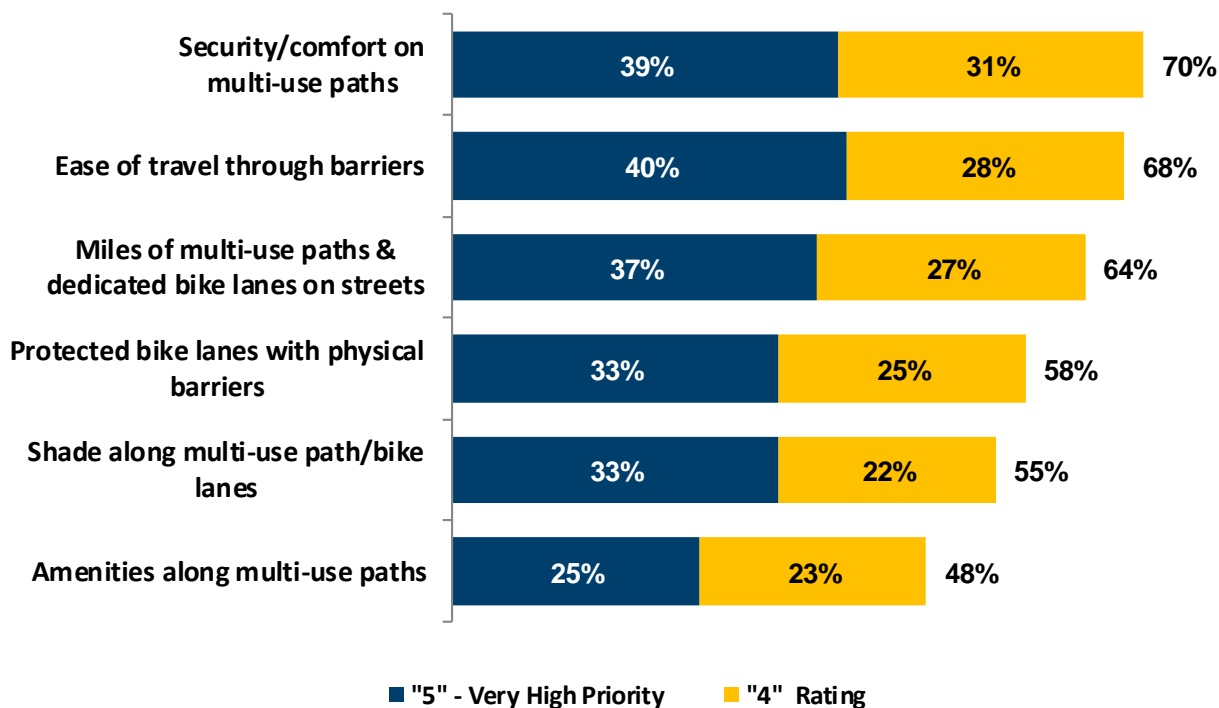
n=401

Table 22a: 2020 Priority of Possible Bikeway Improvements

Responses	"5 -Very High"	"4"	"3"	"2"	"1-Very Low"	No answer
Security/comfort on multi-use paths	39%	31%	18%	7%	5%	1%
Ease of travel through or around barriers such as railroad crossings, freeways, roads, the lake, etc.	40%	28%	20%	7%	5%	-
Miles of multi-use paths and dedicated bike lanes on streets	37%	27%	21%	6%	9%	1%
Protected bike lanes that have a physical barrier between traffic and bikes	33%	25%	18%	12%	11%	1%
Shade along the multi-use paths and bike lanes	33%	22%	21%	12%	12%	<1%
Amenities along the multi-use paths like water fountains, lighting, art and signage	25%	23%	26%	14%	11%	<1%

Q27-32: Now I am going to read you a list of possible bikeway improvements. Please indicate how high of a priority each improvement should be for the City of Tempe. Please use a 1 to 5 scale where "1" means "a very low priority" and a "5" means it should be a "very high priority" for the City of Tempe.

Table 22b: Very High/High Priority of Possible Bikeway Improvements by Year

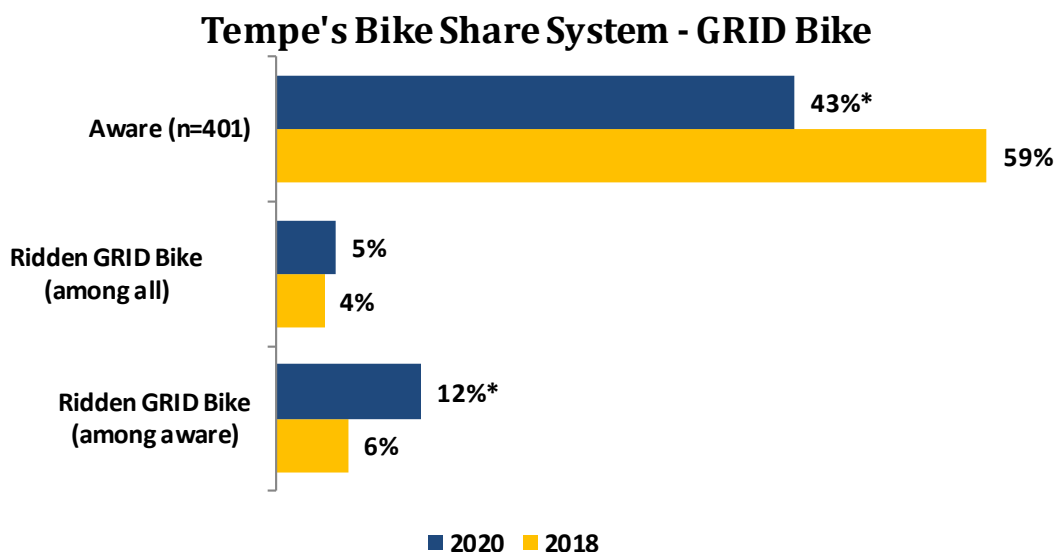| Responses	2020 (n=401)	2018 (n=400)
Security/comfort on multi-use paths	70%	67%
Ease of travel through or around barriers such as railroad crossings, freeways, roads, the lake, etc.	68%	65%
Miles of multi-use paths and dedicated bike lanes on streets	64%	62%
Protected bike lanes that have a physical barrier between traffic and bikes	58%	55%
Shade along the multi-use paths and bike lanes	55%	51%
Amenities along the multi-use paths like water fountains, lighting, art and signage	48%	47%

Q27-32: Now I'm going to read you a list of possible bikeway improvements. Please indicate how high of a priority each improvement should be for the City of Tempe.
No significant differences compared to 2018

H.   Bike Share System – GRID Bike

In 2020, under one-half of residents (43%) had heard of Tempe's bike share system which is down significantly from 59% in 2018.   Despite awareness being down, usage is up – with 5% of all residents reporting they have ridden on a green GRID bike (12% of those aware).

Among the 20 residents who have ridden a GRID bike, **one-half (10) reported being satisfied (rated 4 or 5) with the quality of the bike share system in Tempe.** Residents primarily report being satisfied with GRID Bike because they are *easy to access* (5 mentions), *convenient* to use (3 mentions) and are in *good condition* (3 mentions). Complaints included that there are *not enough/not easy to find* (6 mentions) and are *expensive* (3 mentions).

Tempe's Bike Share System - GRID Bike

Aware (n=401) 43%* 59%

Ridden GRID Bike (among all) 5% 4%

Ridden GRID Bike (among aware) 12%* 6%

■ 2020 ■ 2018

Q33: Have you ever heard of Tempe's bike share system?
Q34: Have you ridden on a green GRID bike?

Table 23: Satisfaction of Bike Share System
Among those who have ridden on a GRID bike

|	2020 (n=20)*	2018 (n=15)*
5 - Very satisfied	4	9
4	6	2
3	7	3
2	3	1
1 – Very dissatisfied	-	-

Q35: How satisfied are you with the quality of the bike share system in Tempe?
*Unweighted frequencies shown due to very small sample size.

VII.   Tempe Youth Free Transit Pass Program

In 2020, nearly one-half (45%) of residents who have children ages 6 to 18 have heard of the Tempe Youth Free Transit Pass. While this is down from the 56% measured in 2018, the decrease is not statistically significant. Awareness was significantly higher among parents who use public transit (55%), but 27% of non-riders have heard of it as well. Parents who have lived in Tempe for more than ten years had a significantly higher level of awareness than did newer residents (56% vs. 32% who have lived in Tempe for ten years or less).

Parents residing in 85281 and 85283 are most likely to be aware of the pass (55%) and those in 85282 are the least likely to be familiar with them (30%). *(Of note, none of these zip code differences are statistically relevant).*

Awareness of Tempe Youth Free Transit Pass

	2020	2018	2016	2014	2012	2008
Don't Know			2%	3%	1%	2%
No	55%	44%	60%	61%	54%	51%
Yes	45%	56%	38%	36%	45%	47%
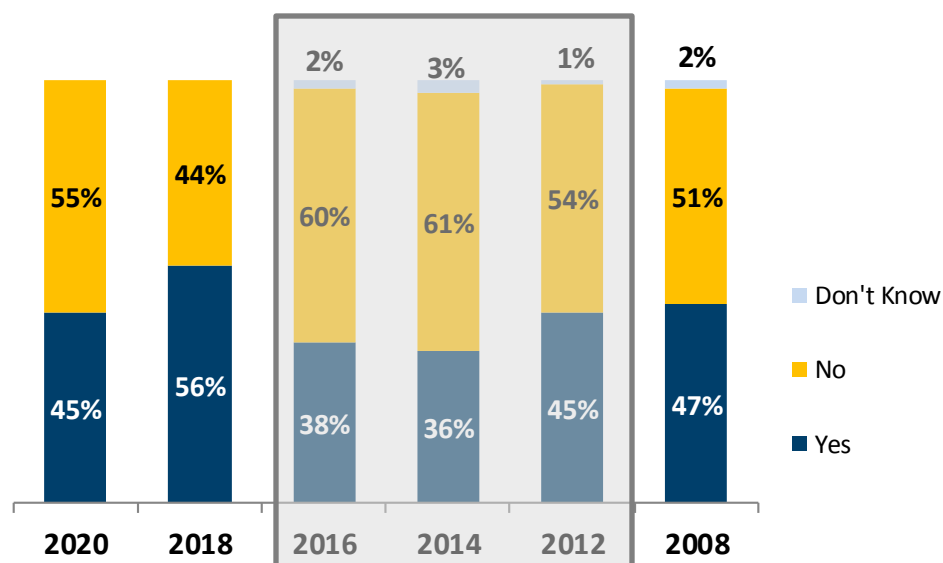
2020 n=95, 2018 n=84, 2016 n=401, 2014 n=409, 2012 n=400, 2008 n=98,
QD5: Have you ever heard of the Tempe Youth Free Transit Pass Program?
No significant differences compared to 2018
Note: 2020, 2018, and 2008: question was asked only of people with
children ages 6 years old and older. In 2012, 2014, and 2016 this question was asked of all residents.
This data is available in earlier reports.

Among parents aware of the program, *school* (35%), *word of mouth* (21%), and the *library* (13%) were the top ways they had learned about the Tempe Youth Free Transit Pass Program.

Table 24: Sources for Tempe Youth Transit Pass Program Information
(Among those aware of the program)

Sources	2020* (n=43)	2018* (n=47)	2008* (n=46)		2016 (n=150)	2014 (n=148)	2012 (n=179)
Through school	35%	52%	28%		24%	20%	24%
Word-of-mouth (friends/family)	21%	12%	33%		16%	20%	19%
Library	13%	12%	7%		11%	7%	7%
Bill insert	5%	3%	2%		8%	3%	7%
Letter from the City	5%	2%	4%		3%	5%	5%
Web site	4%	3%	4%		1%	2%	3%
Employer/work	4%	--	--		--	--	1%
At the park	2%	--	--		--	--	2%
Don't know	3%	3%	11%		7%	5%	10%

QD5a: How did you first hear about the Tempe Youth Free Transit Pass Program?
*In 2008 and again in 2018-2020, question was asked only of people with children aged 6 years and older.
Data for 2016-2014-2012 is shown for easy reference.
Note: Sources with less than 2% mentions in 2020 not shown

APPENDIX A: Questionnaire

City of Tempe – Tempe in Motion
Questionnaire – September 2020

Sample: 85281, 85282, 85283, 85284 = 400
Quotas: Males/Females 50/50 each quota group
Age distribution will be monitored for representativeness of sample English and Spanish

Good _____, may I please speak with _____? This is _____ calling from WestGroup
Research on behalf the City of Tempe. We are conducting a survey with Tempe residents about
important issues affecting the City's transportation system. This is not a telemarketing call; we
simply want your opinions on a variety of issues important to Tempe residents.

D1.   Gender: 1 Male   2 Female

1.   Are you a Tempe resident?
      Yes – CONTINUE
      No – THANK AND TERMINATE

1a. Did you answer this call using a cell phone?
      a. yes
      b. no

2.   What is your zip code?
      a. 85281
      b. 85282
      c. 85283
      d. 85284
      e. Other/Don't know/Refused – THANK AND TERMINATE

3.   What is your age?

3a.   How long have you lived in Tempe?
       a. Less than one year
       b. One to two years
       c. Three to five years
       d. Six to ten years
       e. Eleven to twenty years
       f. More than twenty years
       g. Refused/don't know/NA

4.   What is the first thing that comes to mind when you think about the transportation system in
      Tempe? IF NECESSARY, by transportation system we are talking about the way people can
      travel around Tempe by walking, riding a bike, or using public transit.

5.   In general would you say you use Tempe's transit system (including light rail, Orbit, Flash and
      local bus/express)?
      a. Daily
      b. Weekly
      c. Monthly
      d. Every few months
      e. Only under special or unique circumstances
      f. I don't use transit
      g. Don't know /NA

5a.   IF a, b, c, d or e IN Q5: Which of the following have you used in Tempe in the past year?
        MULTIPLE RESPONSES ALLOWED
        a. Local or express bus
        b. Orbit or Flash neighborhood shuttles
        c. Light rail

6.   *ASK IF "f- don't use transit" IN Q5: People tell us different reasons why they do not use*
        public transit like riding the bus or light rail. What are some of the reasons why you
        currently do not use public transit? What other reasons? DO NOT READ LIST (Multiple
        responses allowed)
        a. Prefer to drive my car
        b. Bus stops far away
        c. Takes too long
        d. Need car for business
        e. Doesn't go where we need to go
        f. Inconvenient
        REMOVE "DON'T KNOW HOW TO USE THE TRANSIT SYSTEM/BUS"
        g. No need to use it
        h. Health reasons/disability
        i. Don't have to go far distances
        j. Ride bike instead
        k. Work from home/Telecommute/Don't commute
        l. Don't feel safe / secure on transit
        m. Service isn't frequent enough
        n. Other: (SPECIFY: _____)   ___ _____
        o. Don't know

7.   ASK IF "f - don't use transit" IN Q5: For each of the following benefits to using public
        transit, please indicate how effective it would be in persuading you to use the bus or light
        rail instead of using your current mode. Would it be very effective, somewhat effective,
        not very effective, or not at all effective in persuading you to ride bus or light rail?

        a. Helps reduce air pollution
        b. Helps improve the environment
        c. Saves money
        d. Saves time
        e. Reduces your stress
        f. Improves the community
        g Reduces your carbon footprint
        h. Other: (SPECIFY: _____)
        i. DO NOT READ - None/DK/No answer

ASK IF a, b, c, d, e in Q5: ALL OTHERS SKIP TO Q12

8.   How long have you been using the transit system in Tempe? DO NOT READ LIST
        a. Less than a year
        b. 1 to 2 years
        c. 2 to 4 years
        d. 4 to 6 years
        e. 6 to 10 years
        f. 11 to 20 years
        g. More than 20 years

h. Don't know/NA

9.   What is the main reason you use public transit? DO NOT READ LIST
         a. Convenient
         b. Get to/from places
         c. Don't have a car
         d. Get to/from school
         e. To avoid parking
         f. Need to get to Phoenix
         g. Dislike driving/Take a break from driving
         h. Saves money
         i. Go to downtown
         j. A way to get around
         k. To avoid drinking and driving
         l. To get to/from work
         m. Vehicle not available/Have car problems
         n. Other (SPECIFY: _____)

10.   Where do you go when you use public transit? DO NOT READ LIST. (Multiple responses
         allowed)
         a. ASU
         b. Community College
         c. High School
         d. Work
         e. Shopping
         f. Errands
         g. Medical appointment
         h. Visit friends/family
         i. Recreational activities
         j. Library
         k. Downtown Phoenix
         l. Phoenix (general)
         m. Downtown Tempe
         n. Airport
         o. Other (SPECIFY:_____)

11.   ASK ONLY OF THOSE WHO ANSWER "A" OR "B" IN Q5a. For each of the
         following attributes, please tell me if you are very satisfied, somewhat satisfied,
         somewhat dissatisfied, or very dissatisfied. In general, how satisfied are you with:
         ROTATE LIST

	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied	DK/ no answer
a. Cleanliness of buses	4	3	2	1	0
b. Cleanliness of bus stops	4	3	2	1	0
c. Amenities at bus stops (e.g. shade, seating, bike racks)	4	3	2	1	0
d. Reliability/on-time performance of buses	4	3	2	1	0
e. Driver courtesy and professionalism	4	3	2	1	0
f. Route frequency	4	3	2	1	0
g. Hours of operation	4	3	2	1	0

h. Comfort on the bus	4	3	2	1	0
i. Ease of using the bus (e.g., using schedules, getting to the bus stop, paying fares)	4	3	2	1	0
j. Security at bus stops	4	3	2	1	0
k. Security on the bus	4	3	2	1	0
l. Bus service during major city events	4	3	2	1	0

11a.   ONLY ASK IF ANSWER IS SOMEWHAT DISSATISFIED OR VERY DISSATIFIED IN Q11: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the bus service? DO NOT READ LIST.

    a. More frequent buses
    b. Need better/more routes
    c. Bus stops need shade
    d. Security in the bus/safer
    e. Inside of the bus/bus stops need to be cleaner
    f. Don't like the type of people that use the bus
    g. More/better lighting at bus stops
    h. More courteous/professional bus drivers
    i. Easier schedules to read/understand/accurate
    j. More/better benches at bus stops
    k. Avoid having bus pass us by at bus stop
    l. Other (SPECIFY: _____)
    m. Don't know/Not sure
    n. Nothing

ASK ALL:

12.   How satisfied are you with the quality of the transit system in Tempe? Please rate your satisfaction level on a 1 to 5 scale where 5 means "very satisfied" and "1" means "very dissatisfied"

12a.   Please explain your rating. DO NOT READ LIST.

    a. Don't use it/Never used it
    b. Good routes/convenient routes
    c. Need better routes/need more routes/need more connections/doesn't go where I need to go
    d. More frequent buses/longer hour
    e. Always room for improvement
    f. Convenient (general- probe for specifics)
    g. Clean
    h. Dirty/needs to be cleaned up
    i. Like Light rail/Light rail is good
    j. Needs more security
    k. Uncomfortable with people who ride transit
    l. Other (SPECIFY: _____)

13.   To the best of your knowledge, what is the name of Tempe's transit/transportation program? DO NOT READ LIST
    a. Tempe in Motion – SKIP TO 15
    b. Valley Metro – ASK Q14

      c.   Orbit – ASK Q14
      c.   Other (SPECIFY: _____) – ASK Q14
      d. Don't know - ASK Q14

14.   Have you ever heard of Tempe in Motion? a. YES   b. NO (IF NO SKIP TO Q19)

15.   IF YES IN Q14 or "Tempe in Motion" in Q13: How did you hear about it? DO NOT READ
LIST

- a. Facebook
- b. Twitter
- c. NextDoor
- d. Instagram
- *e.* Street Banners
- *f.* Signs on Buses
- g. Bill inserts
- h. Word of Mouth
- i. Newspaper / Print ads
- j. Sign (general)
- k. Direct mail
- l. TV
- m. ASU / School
- n. Library
- o. Pandora or Spotify
- p. Internet / Online ads / web
- q. Just know / I live here / Lived here a long time
- r. Billboard
- s. Flyers / Brochure
- t. On Light Rail
- u. Other (SPECIFY:)
- v. Don't know/Not aware of program

16.   IF a THRU p OR R thru u selected in Q15: How did the messages affect your perception of the
         transportation system in Tempe? Did it….. READ LIST
         a. Make you think more positively about transportation options in Tempe
         b. Have no effect on your perceptions
         c. Make you think negatively about transportation options in Tempe
         d. DON'T READ – Don't know

17.   If a or b in Q16: Did the advertising messages persuade you to try public transit in Tempe?
         a. Yes
         b. No
         c. Don't know

18.   IF "a" in Q17: What was the advertising source that most influenced your decision to try public
         transit in Tempe? ONLY SHOW ITEMS SELECTED IN Q15. SINGLE RESPONSE.

- a. Facebook
- b. Twitter
- c. NextDoor
- d. Instagram
- *e.* Street Banners
- *f.* Signs on Buses
- g. Bill inserts

    h. Word of Mouth
    i. Newspaper / Print ads
    j. Sign (general)
    k. Direct mail
    l. TV
    m. ASU / School
    n. Library
    o. Pandora or Spotify
    p. Internet / Online ads / web
    q. Just know / I live here / Lived here a long time
    r. Billboard
    s. Flyers / Brochure
    t. On Light Rail
    u. Other (SPECIFY:)
    v. Don't know/Not aware of program

19. Do you have access to a bicycle that you can ride when you want to?
    a. Yes
    b. No – SKIP TO Q23

20.   IF YES IN Q19: How many times in a month do you ride your bike?
    a. None/never ride it/only ride it occasionally
    b. Once or twice
    c. Three to five times
    d. Six to ten times
    e. More than ten times
    f. Don't know/NA

20a.   If none/never ride it in Q20: What are some reasons you don't ride a bike more often?
    DO NOT READ LIST

    a. Physical condition / my health
    b. Distance / Too far
    c. Takes too long
    d. Bike not working properly / bike not functional
    e. Have little kids / drive kids around
    f. Prefer Car
    g. Time / Convenience / Too busy
    h. Lazy / Don't want to ride it
    i. Too much traffic
    j. Not enough bike lanes / paths
    k. Injury
    l. Have too much to carry
    m. Too dangerous
    n. Other
    o. Don't know/NA

21.   IF RIDE BIKE 1+ times in Q20: Where do you go when you ride your bike? DO NOT READ
    LIST
    a. Exercise
    b. Store

    c.   Work / school / ASU
    d.   Parks
    e.   Along the canals
    f.   Tempe Town Lake
    g.   Mill Avenue / Downtown Tempe
    h.   Friend's house
    i.   Restaurant / Dinner
    j.   Everywhere
    k.   The bar / when I've been drinking
    l.   The light rail
    m. Run errands
    n.   Nowhere/just riding for exercise
    o.   Other (SPECIFY:)

22.   What is the main reason you ride a bicycle? (DO NOT READ LIST)

    a.   Exercise
    b.   Fun/Recreation/Leisure
    c.   Convenient/Easy
    d.   Health reasons/Good for health/Medical reasons
    e.   Saves money
    f.   Saves wear and tear on my car
    g.   To get to school/work
    h.   Don't have a car
    i.   Not have to walk
    j.   Other (SPECIFY: _____)

ASK ALL:

23. How satisfied are you with the quality of the walking and biking paths in Tempe? Please rate your satisfaction level on a 1 to 5 scale where 5 means "very satisfied" and "1" means "very dissatisfied"

23a.   Please explain your rating. DO NOT READ LIST.

    a. No problems/Fine the way they are
    b. Plenty of paths/Paths are everywhere
    c. Make Paths safer/Paths need to be safer/Paths don't seem safe enough
    d. Paths are safe/Paths seem safe
    e. Good routes/routes connect well
    f. Paths are properly maintained/paths are well-landscaped
    g. Paths are easy to use/Paths are easy to access
    h. Improvements have been made/Noticed or seen upgrades
    i. Well-lit
    j. Need more bike lanes
    k. Need more walking paths
    l. More lanes/paths have been added
    m. No one uses bike lanes
    n. NEVER USE PATHS/NO KNOWLEDGE
    o. Other (SPECIFY: _____)

24-26. Now I am going to read you a list of possible sidewalk improvements. Please indicate how high of a priority each improvement should be for the City of Tempe. Please use a 1 to 5 scale where "1" means "a very low priority" and a "5" means it should be a "very high priority" for the City of Tempe. The first one is….

RANDOM ORDER 24-26	Very high priority	High priority	Somewhat of a priority	Low priority	Very low priority	DK / Refused
24. Miles of shaded sidewalks	5	4	3	2	1	0
25. Security/comfort on sidewalks such as addressing hazards, obstructions and width	5	4	3	2	1	0
26. Amenities along the sidewalks like water fountains, lighting, art, and signage	5	4	3	2	1	0

27-32. Now I am going to read you a list of possible bikeway improvements. Please indicate how high of a priority each improvement should be for the City of Tempe. Please use a 1 to 5 scale where "1" means "a very low priority" and a "5" means it should be a "very high priority" for the City of Tempe. The first one is….

RANDOM ORDER 27-32	Very high priority	High priority	Somewhat of a priority	Low priority	Very low priority	DK / Refused
27. Miles of multi-use paths and dedicated bike lanes on streets	5	4	3	2	1	0
28. Security/comfort on multi-use paths	5	4	3	2	1	0
29. Amenities along the multi-use paths like water fountains, lighting, art and signage	5	4	3	2	1	0
30. Ease of travel through or around barriers such as railroad crossings, freeways, roads, the lake, etc.						
31. Shade along the multi-use paths and bike lanes	5	4	3	2	1	0
32. Protected bike lanes that have a physical barrier between traffic and bikes	5	4	3	2	1	0

33.   Have you heard of Tempe's bike share system?
        a. Yes
        b. No
        c. Don't know

34. If Yes in Q33, have you ridden on a green GRID bike?
   a. Yes
   b. No
   c. Don't know

35. If Yes in Q34, how satisfied are you with the quality of the bikeshare system in Tempe? Please rate your satisfaction level on a 1 to 5 scale where 5 means "very satisfied" and "1" means "very dissatisfied"

35a.   Please explain your rating.

Demographics

I have just a couple more questions about you so that we can classify your responses with other people who answered the survey. All of this information will be kept confidential.

D2.   What is the highest grade of school or year of college that you have completed?
   a. Some high school
   b. High school graduate
   c. Some college
   d. College graduate
   e. Post graduate
   f. No answer

D3.   Are you married or single?
   a. Married
   b. Single
   c. No answer

D4 .   Do you have children ages 6 to 18?
   a. Yes
   b. No
   c. Don't know

D5. If yes in D4, have you ever heard of the Tempe Youth Free Transit Pass Program?
   a. Yes
   b. No
   c. Don't know

D5a.   IF YES IN D5: How did you first hear about the Tempe Youth Free Transit Pass Program? DO
        NOT READ LIST. SINGLE RESPONSE
        a.   Through the school
        b.   Received a postcard from the City
        c.   Advertisement
        d.   Web site
        e.   Twitter/Facebook
        f.   Other: (SPECIFY_____)
        g.   Don't know/Don't recall

D6.   Are you employed full-time, employed part-time, retired, a stay at home caregiver, a student or
        unemployed?
        a. Full-time
        b. Part-time
        c. Retired
        d. Stay at Home Spouse
        e. Student
        f. Unemployed
        g. Refused/NA

D7.   Was your annual household income before taxes last year:
        a. Less than $20,000
        b. $20,000 to $39,999
        c. $40,000 to $59,999
        d. $60,000 to $79,999
        e. $80,000 to $99,999
        f. $100,000 to $149,999
        f. More than $150,000
        g. No answer

Thanks for your time. That concludes our interview.