



PUBLIC MEETING AGENDA

Transportation Commission

MEETING DATE

Tuesday, December 13, 2022 from 7:30 to 9 a.m.

MEETING LOCATIONS

Join Via Cisco Webex

<https://tempe.webex.com/tempe/onstage/g.php?MTID=ed3d6aaa0a46e7fe6bf2ec49ff71a2611>

Event password: 3mmJnJmmB37

United States Toll+1-408-418-9388

Access Code/Event Number: 2492 478 6248

AND

Tempe Transportation Center
Don Cassano Community Room
200 E. Fifth Street, 2nd floor
Tempe, Arizona, 85281

AGENDA ITEM	PRESENTER	ACTION or INFORMATION
1. Public Appearances The Transportation Commission welcomes public comment for items listed on this agenda. There is a three-minute time limit per citizen.	JC Porter, Commission Chair	Information
2. Approval of Meeting Minutes The Commission will be asked to review and approve meeting minutes from the November 8, 2022 meeting.	JC Porter, Commission Chair	Action
3. Commission Business Acknowledge outgoing Commissioners Jeremy Browning, Alice Bimrose and John Christoph.	JC Porter, Commission Chair	Information
4. 2022 Transportation Satisfaction Survey Results Kathy DeBoer with WestGroup Research will present the findings from the 2022 Transportation Satisfaction resident survey.	Kath DeBoer, WestGroup Research	Information
5. McClintock Drive Paving Project Update Staff will provide an update on the completion of the project.	Cathy Hollow, Engineering & Transportation Department	Information
6. Department & Regional Transportation Updates Staff and commission members will provide information on relevant meetings and events.	Engineering & Transportation Department Staff and Transportation Commissioners	Information

7. Future Agenda Items Commission may request future agenda items.	JC Porter, Commission Chair	Information
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According to the Arizona Open Meeting Law, the Transportation Commission may only discuss matters listed on the agenda. The city of Tempe endeavors to make all public meetings accessible to persons with disabilities. With 48 hours advance notice, special assistance is available at public meetings for sight and/or hearing-impaired persons. Please call 350-4311 (voice) or for Relay Users: 711 to request an accommodation to participate in a public meeting.



Minutes City of Tempe Meeting of the Transportation Commission November 8, 2022

Minutes of the meeting of Tempe Transportation Commission held on Tuesday, November 8, 2022 at 7:30 a.m. via Cisco Webex and at the Tempe Transportation Center located at 200 E. Fifth Street, Tempe AZ 85281.

(MEMBERS) Present:

Jeremy Browning
Susan Conklu
Amanda Nelson
Dawn Hocking
Alice Bimrose
Paul Hubbell

Pam Goronkin
David A. King
John Christoph
JC Porter
Peter Schelstraete
David Sokolowski

(MEMBERS) Absent:

Bobbie Cassano
Alana Chavez Langdon
Brian Fellows

City Staff Present:

Shelly Seyler, Deputy Engineering & Transportation Director
Robert Yabes, Principal Planner
Chase Walman, Senior Transportation Planner
Sue Taaffe, Senior Management Assistant
Trent, Luckow, Sergeant
Laura Kajfez, Neighborhood Services Specialist
Keith Burke, Deputy City Manager

Bonnie Richardson, Principal Planner
TaiAnna Yee, Public Information Officer
Lyle Begiebing, Transportation Planner
Sam Stevenson, Senior Transportation Planner
Eric Iwersen, Transit Manager
Tony Belleau, Transportation Planner
Abel Gunn, Transportation Financial Analyst

Guests Present: Kattie Boligitz

Commission Chair JC Porter called the meeting to order at 7:37 a.m.

Agenda Item 1 – Public Appearances

None

Agenda Item 2 – Minutes

JC Porter introduced the minutes of the October 11, 2022 meeting of the Transportation Commission and asked for a motion for approval with one change under Agenda Item 7 – changing David King's name to David Sokolowski.

Motion: Commissioner Dawn Hocking

Second: Commissioner Pam Goronkin

Decision: Approved by Commissioners

Jeremy Browning
Susan Conklu
Amanda Nelson
Dawn Hocking
Alice Bimrose
Paul Hubbell

Pam Goronkin
David A. King
John Christoph
JC Porter
Peter Schelstraete
David Sokolowski

Agenda Item 3 – Annual Report

Shelly Seyler presented the 2022 Transportation Commission Annual Report including the 2023 Transportation Commission goals.

A motion was made for approval of the 2022 Annual Report while recognizing that staff will have to add the December attendance list to the report prior to sending it to the City Clerk.

Motion: Commissioner Paul Hubbell

Second: Commissioner Dawn Hocking

Decision: Approved by Commissioners

Jeremy Browning
Susan Conklu
Amanda Nelson
Dawn Hocking
Alice Bimrose
Paul Hubbell

Pam Goronkin
David A. King
John Christoph
JC Porter
Peter Schelstraete
David Sokolowski

Agenda Item 4 – Streetcar Update

Tony Belleau provided an update about the Streetcar. Topics included:

- Route
- Ridership
- Next steps
- Extension study

Discussion included battery performance, vehicle delivery, improving headways in shared lanes, traffic signal optimization and the alternatives analysis.

Agenda Item 5 – Transit Security Update

Trent Luckow made a presentation about FY 21/22 transit security. Topics included:

- Light Rail ridership
- Light Rail security
- Bus security
- Allied Universal Security
- Tempe Streetcar
- Staffing shortages
- Types of violations

Discussion included McClintock and Apache area, additional funding for security, proactive policing along the Apache corridor, perceptions of the corridor, transit facilities along McClintock Drive and homeless outreach.

Agenda Item 6 – Upcoming Transportation Public Meetings & Announcements

John Christoph mentioned that he spoke to Councilmember Keating about his Council subcommittee addressing the idea of self-funding some Tempe bus routes if Proposition 400E is not on the ballot.

JC Porter stated that ASU purchased an electric coach bus to test throughout the year.

JC Porter thanked John Christoph for serving on the Commission and wished him luck in his future endeavors.

Agenda Item 7 – Future Agenda Items

The following future agenda items have been previously identified by the Commission or staff:

- December 13
 1. Commission Business
 2. Transportation Survey Results
 3. McClintock Drive Paving Project Update
- January 10
 1. Commission Business
 2. Smith Road Improvements
- February 14
 1. Speed reduction, compliance, and tickets issued near “35 mph only when lights flashing” devices
 2. General Plan 2050 – Circulation Element
 3. Grand Canal Connection Project
- March 14
 1. Smith Road Improvements
 2. Crime Prevention Through Environmental Design
 3. Personal Delivery Devices
- April 11
 1. ADA Transition Plan and recently completed ADA facilities
- May 9
 1. North/South Bike/Ped Project
- June 13
- July 11
- August 14
- September 12
- October 10
- TBD: Bike Bait (once program resumes)

The next meeting is scheduled for December 13, 2022. The meeting was adjourned 8:40 a.m.

Prepared by: Sue Taaffe
Reviewed by: Shelly Seyler

City of Tempe Transportation Satisfaction Survey

December 13, 2022

Methodology & Research Objectives

Research Objectives:

- Survey of Tempe residents to gain insights into perceptions about public transit among both riders and non-riders, and perception and usage of other transportation programs

Methodology:

- 401 Tempe residents (249 telephone – land line and cell - and 151 online)
- Margin of error is +4.9% at a 95% confidence level

No Incentive Offered

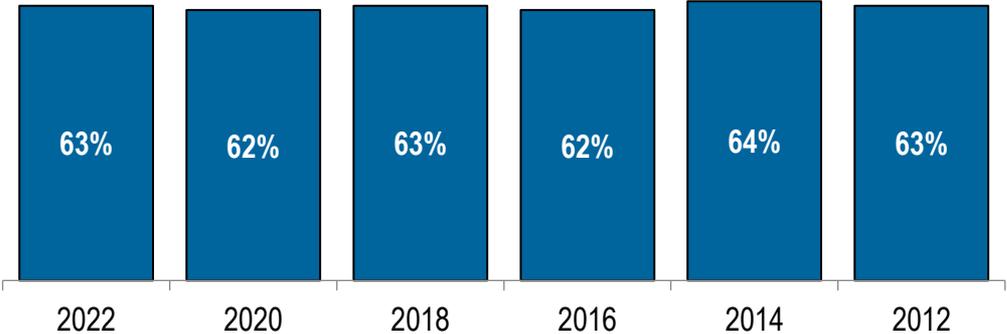
Survey Dates:

- Online: September 7 to October 6, 2022
- Phone: September 9 to October 18, 2022

Rider Characteristics and Opinions

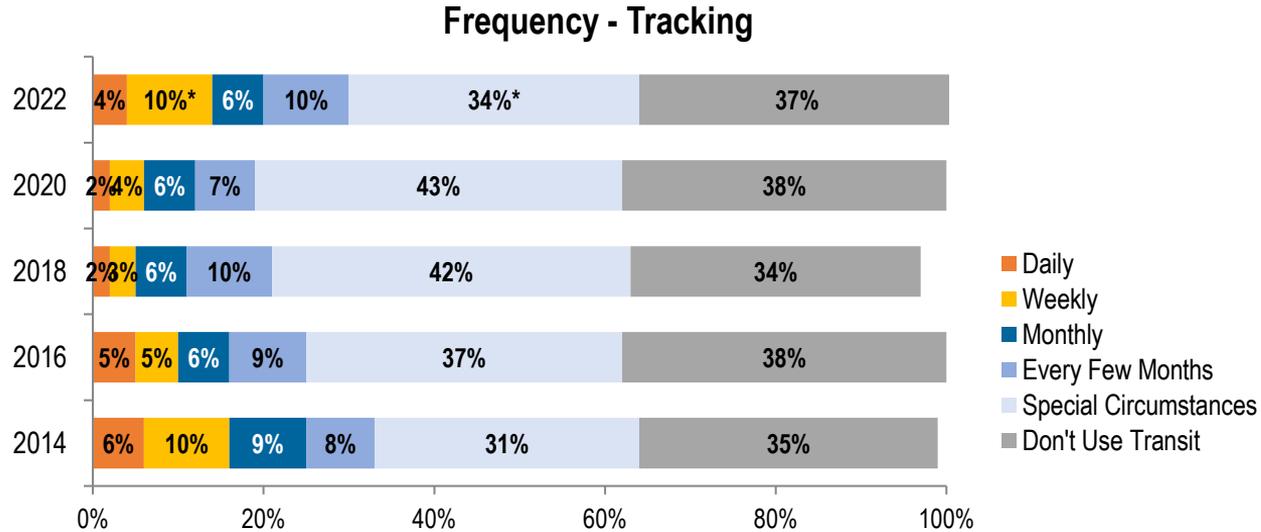
Transit Usage

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

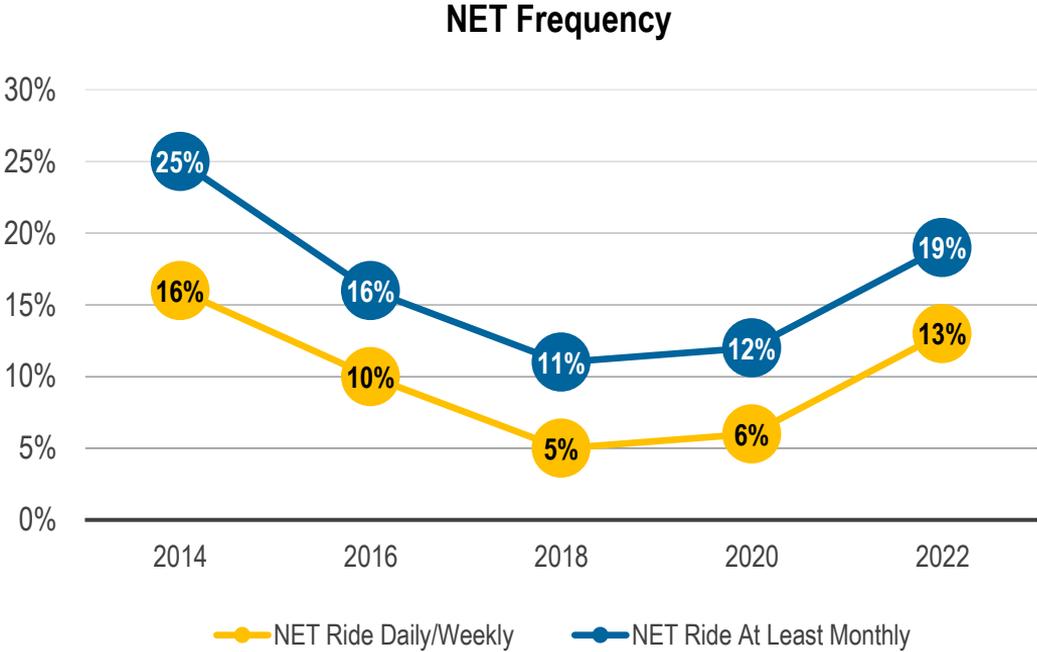


Frequency of Transit Usage

- Riders significantly more likely to report riding weekly include those:
 - Ages 18 to 34 (21% vs. 9% age 35+),
 - Living in 85281 (31% vs. 10% other zips), and
 - Who have lived in Tempe for less than 10 years (20% vs. 8% 11+ years).

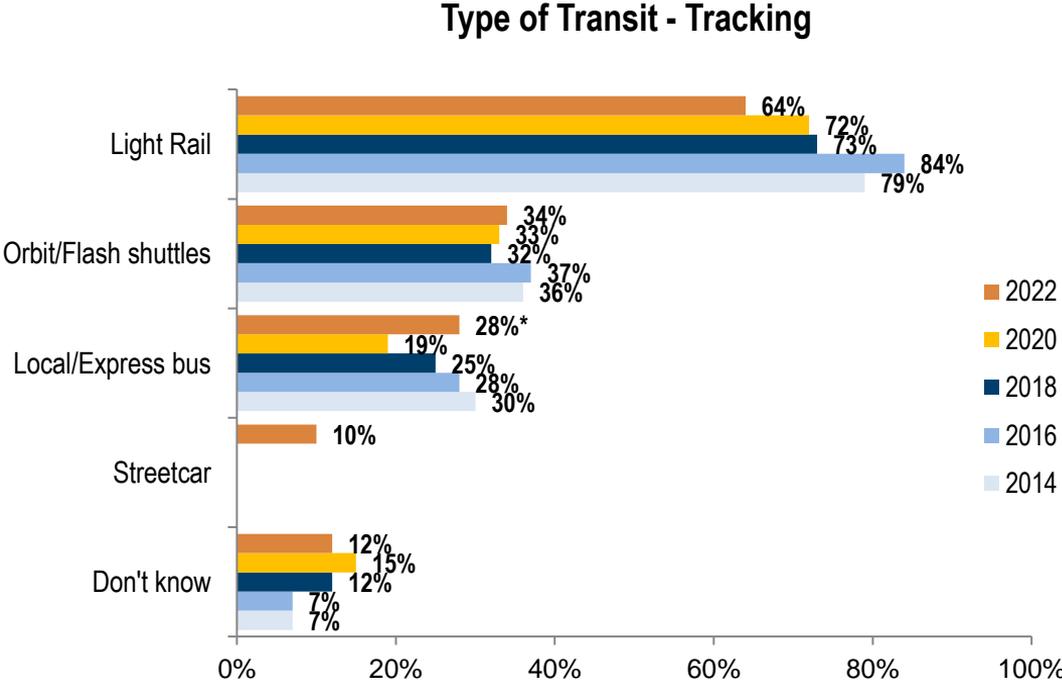


Frequency of Transit Usage



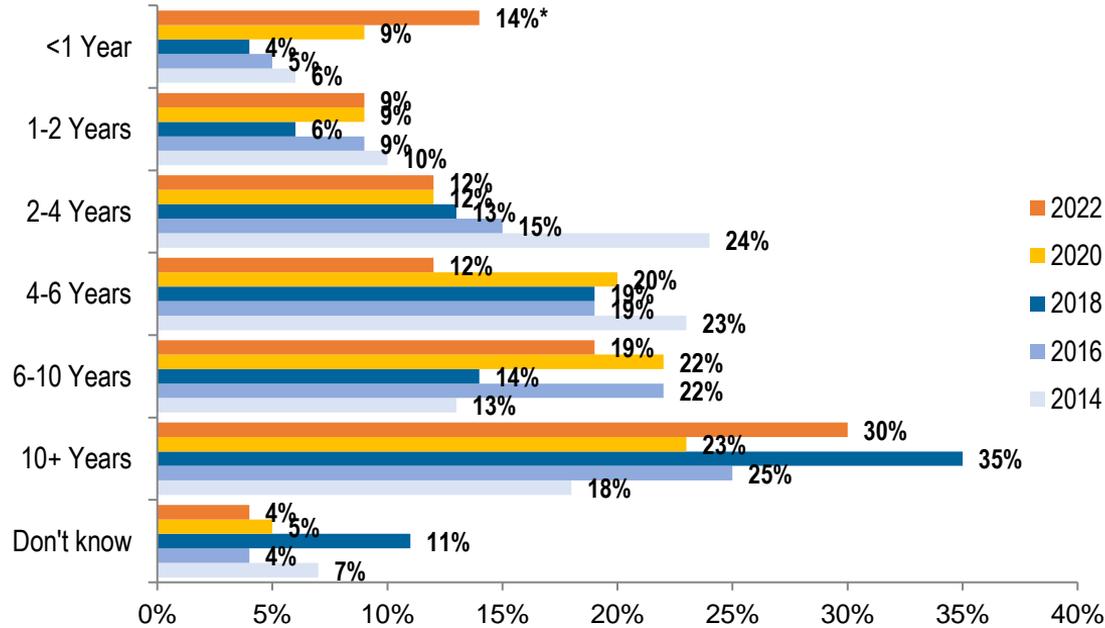
Type of Transit Used Among Riders

- In 2022, younger riders (18 to 34 years old) were significantly more likely than those 55 and older to report riding local/express buses and the Streetcar (35% vs. 17% bus; 18% vs. 4% Streetcar).
- Additionally, a much higher proportion of those with annual household incomes under \$80,000 reported riding buses and/or shuttles compared to residents with higher household incomes.

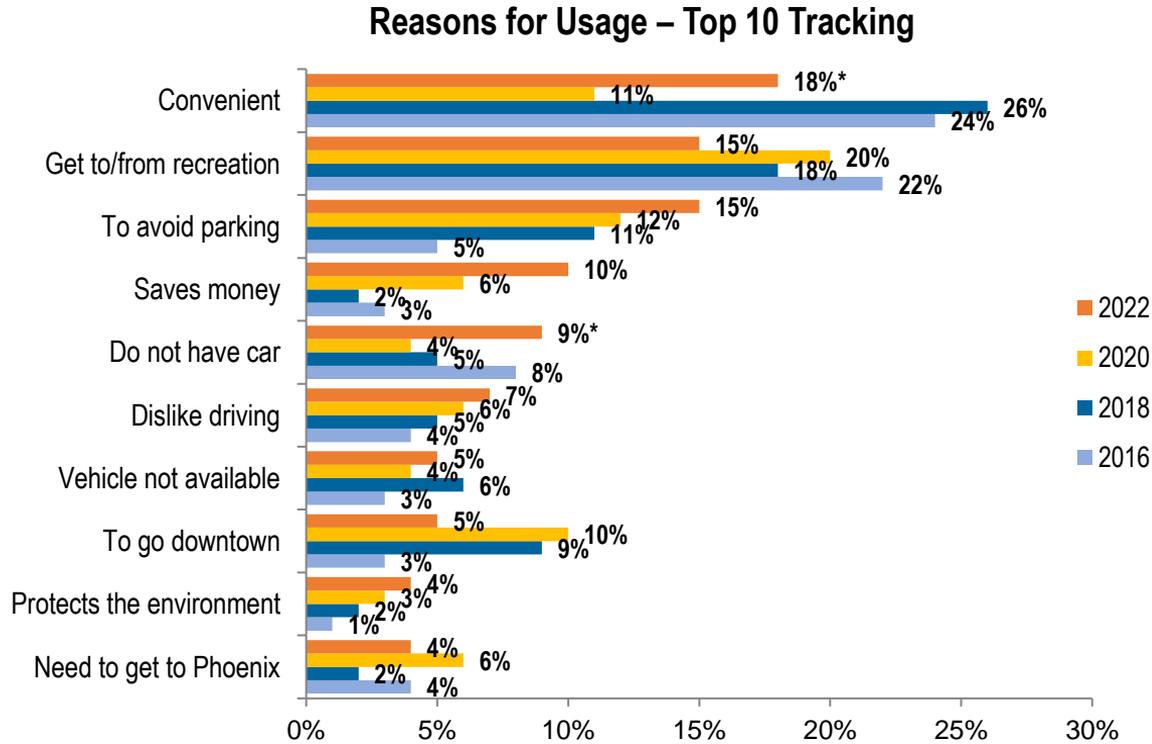


Length of Transit Usage Among Riders

Length of Transit Usage - Tracking

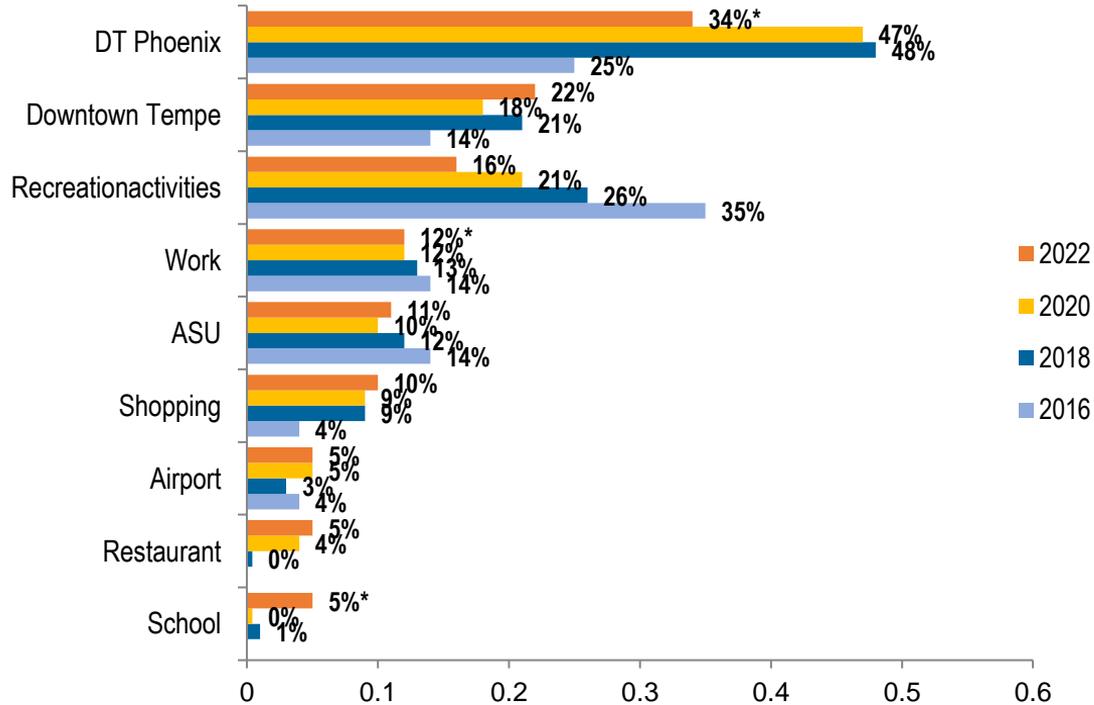


Reasons for Usage Among Riders



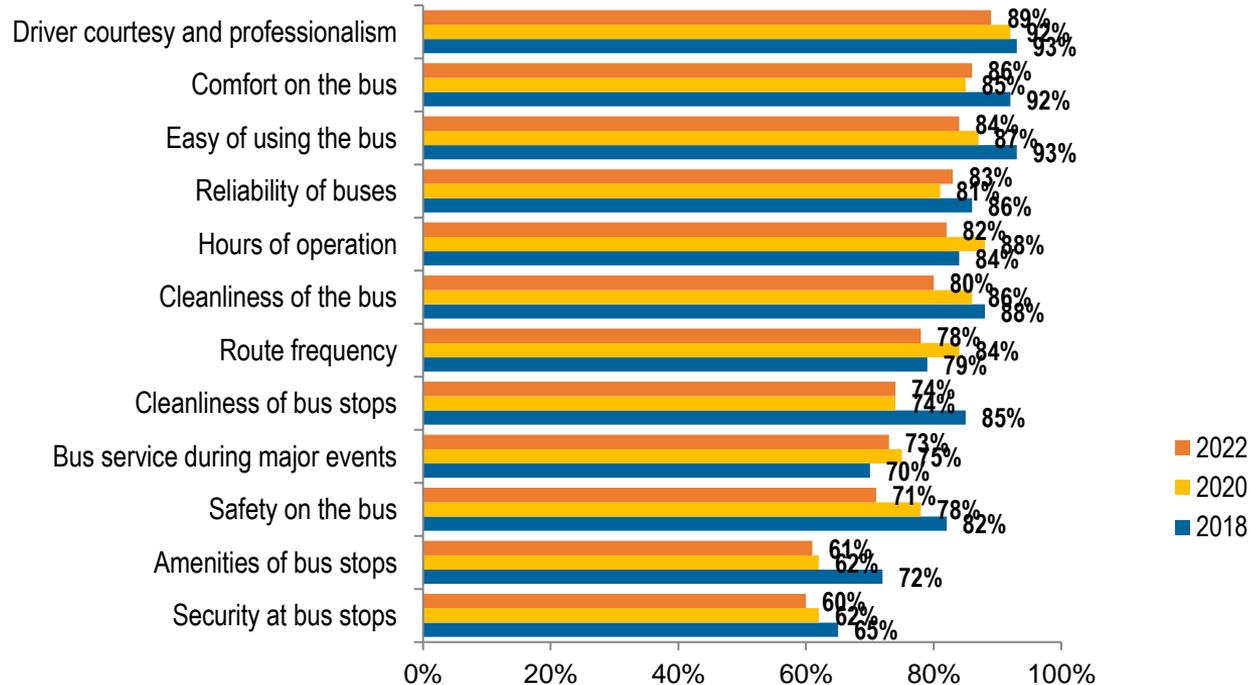
Destinations Using Transit Among Riders

Destinations – Top 9 Tracking



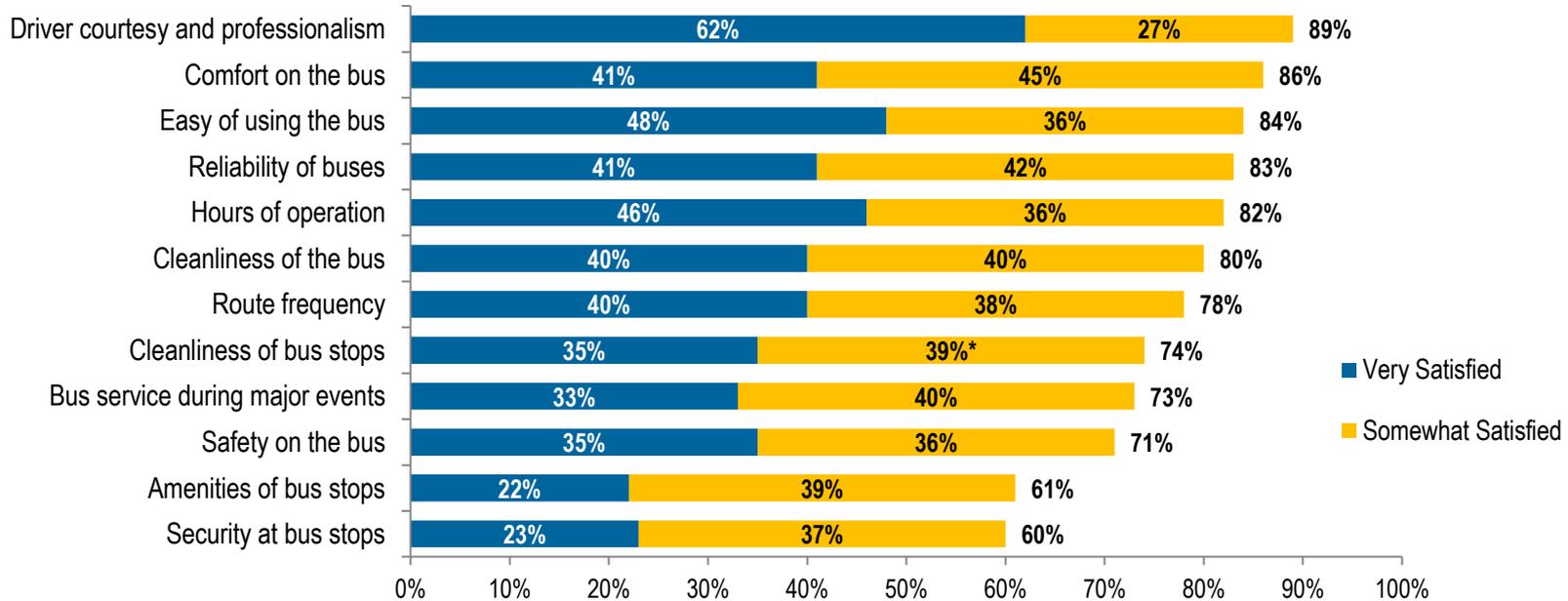
Bus Satisfaction Among Riders

Bus Top-Two Satisfaction - Tracking



Bus Satisfaction Among Riders

Bus Top-Two Satisfaction - 2022



Suggested Improvements

Among Dissatisfied Bus Riders

	2022 (n=85)	2020 (n=38)	2018 (n=45)	2016 (n=69)	2014 (n=57)
Inside of bus/bus stops need to be cleaner	24%	23%	2%	9%	10%
More frequent buses	22%	19%	17%	32%	42%
Bus stops need shade	20%	26%	21%	13%	17%
Security on the bus/safer buses	19%	8%	15%	11%	11%
Don't like the type of people that use the bus	17%*	5%	4%	8%	2%
Need better/more routes	8%	19%	9%	15%	7%
More courteous/professional drivers	8%	-	6%	-	-
More/better bus routes	7%	2%	-	-	-
More/better benches at bus stops	4%	-	6%	-	-
More/better lighting at bus stops	3%	8%	20%	8%	9%
Easier way to pay the fare	3%	-	-	-	-
Easier schedules to read/understand/accurate	2%	14%	10%	5%	6%
Improve transfers	1%	3%	-	-	-
Busses should be free/inexpensive	1%	-	-	-	-
More handicapped accessible	1%	-	-	-	-
Don't know	1%	2%	5%	5%	6%

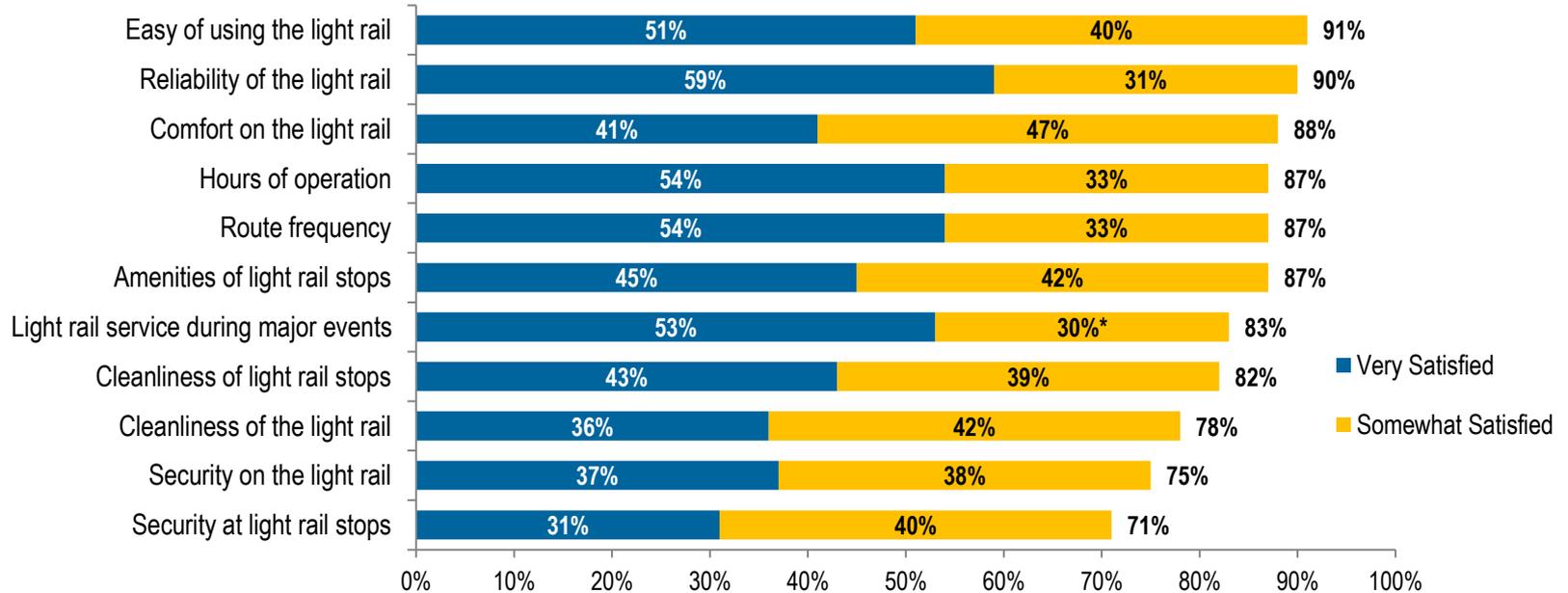
Q11a: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the bus service?

Note: Response categories with less than 1% mentions in 2022 not shown in table.

*Indicates significant difference compared to 2020 at the 95% confidence level.

Light Rail Satisfaction Among Riders

Light Rail Top-Two Satisfaction - 2022



Suggested Improvements

Among Dissatisfied Light Rail Riders

	2022 (n=84)
Security in the train/safer	38%
Inside of the light rail/at stops need to be cleaner	27%
Don't like the type of people that use the train	18%
More frequent light rail	17%
Later service/later times for weekdays//run 24 hours a day	9%
Light rail stops need shade	8%
Broken payment machines/make sure payment machines are working	7%
Need better/more routes	3%
Better payment system/more payment options/smart phone payments	3%
Check tickets/get rid of free riders	3%
Easier schedules to read/understand/accurate	3%
More/better lighting at train stops	1%
Other	5%
Don't know	4%

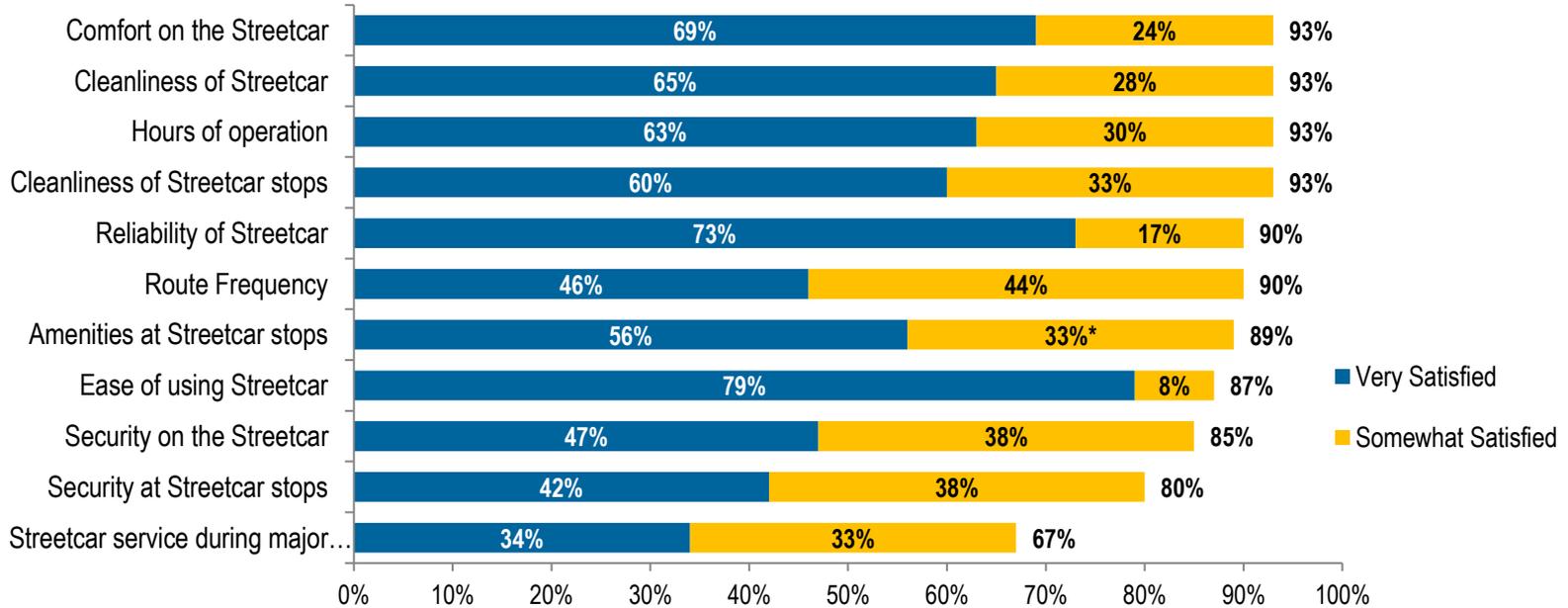
Q12a: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the light rail?

Note: Response categories with less than 1% mentions in 2022 not shown in table.

Streetcar Satisfaction Among Riders

- Notably, only 3 respondents indicated dissatisfaction due to wanting more streetcar routes/access and easier scheduling.

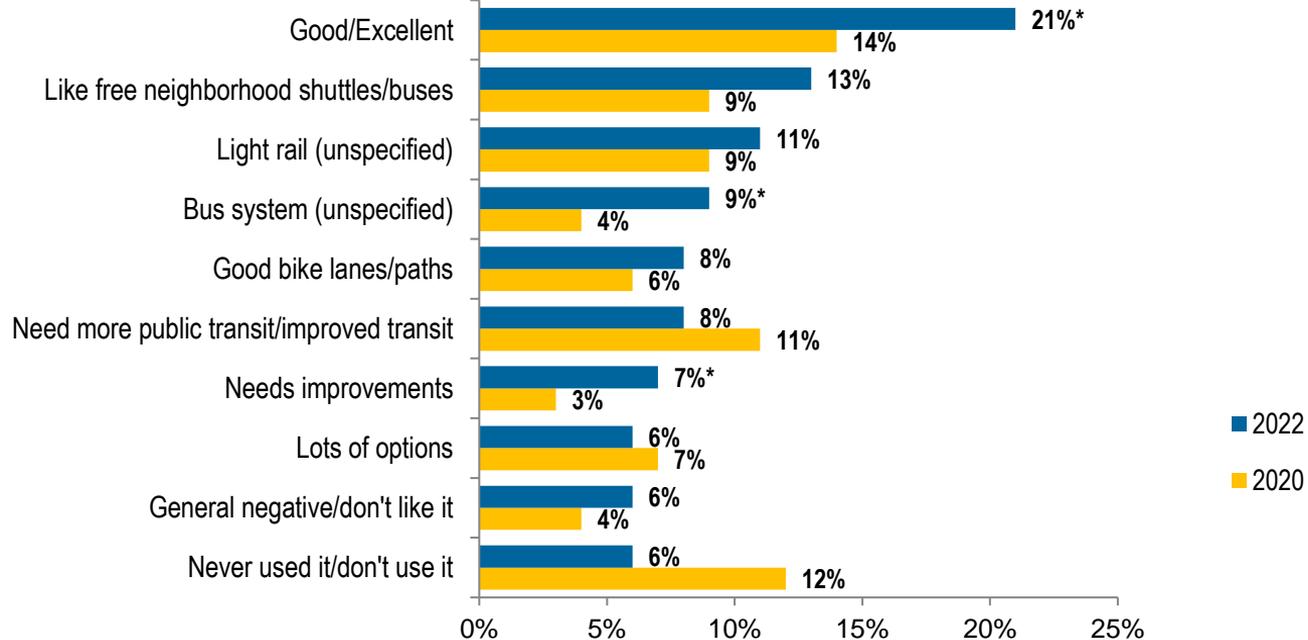
Streetcar Top-Two Satisfaction - 2022



Overall Perception and Satisfaction with Tempe's Transit System

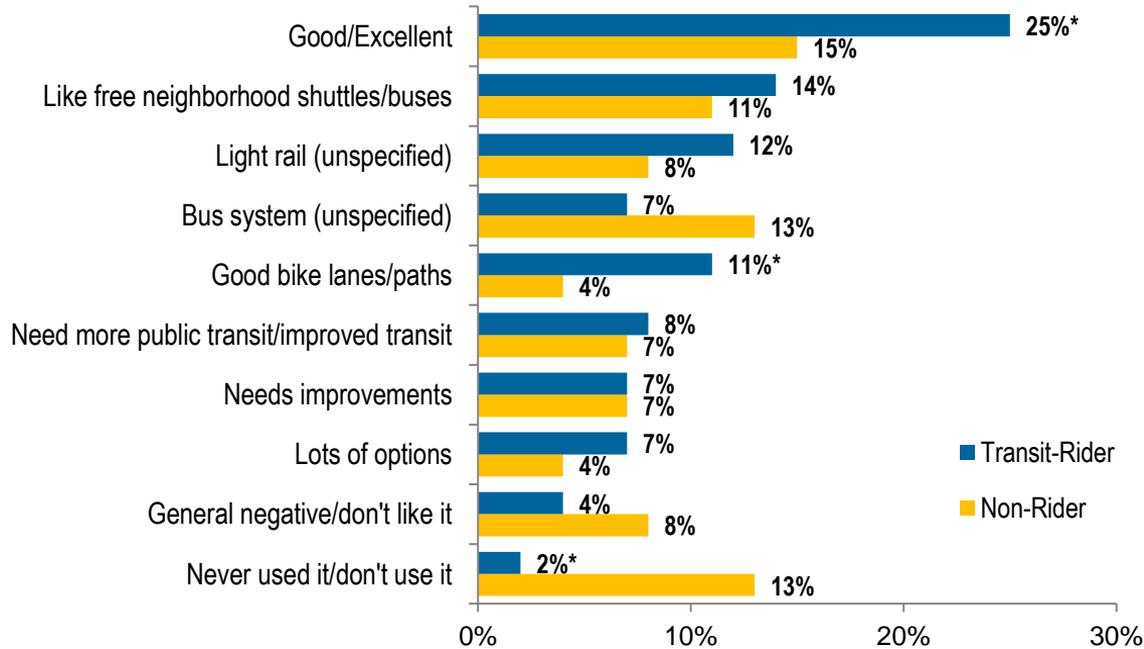
Top-of-Mind Impressions of Transit System

Top 10 Responses - Tracking



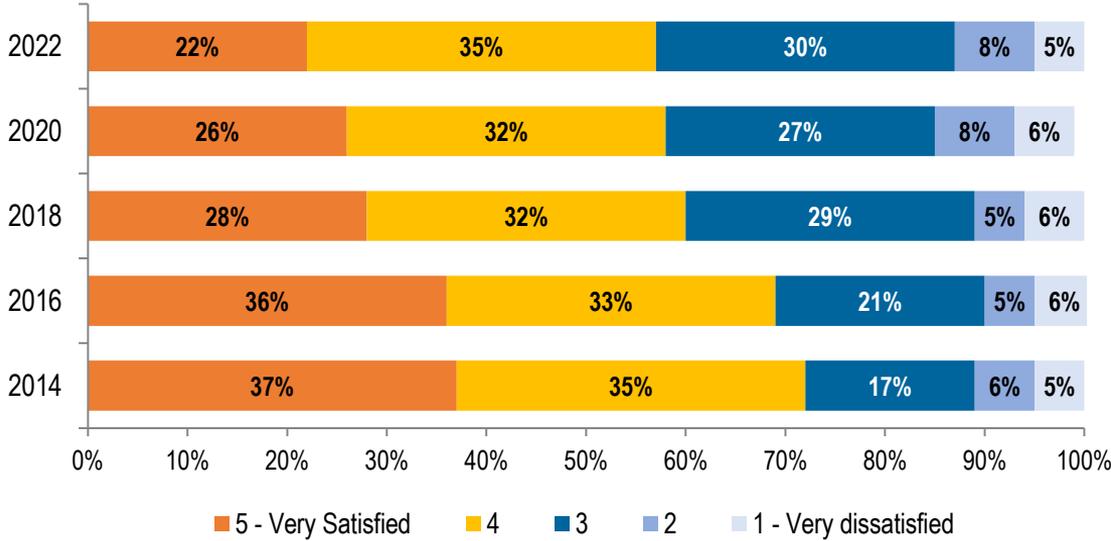
Top-of-Mind Impressions of Transit System

Top 10 Responses – Transit Rider Vs. Non-Rider 2022



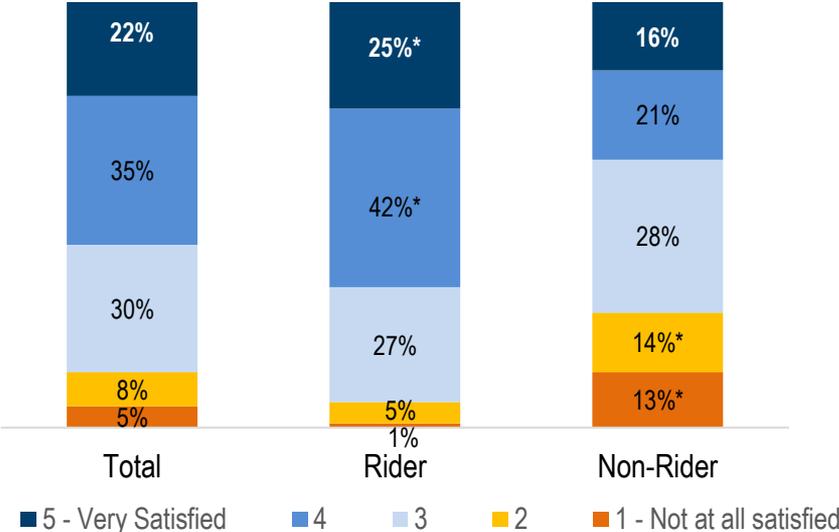
Overall Satisfaction with Transit System

Overall Satisfaction - Tracking



Overall Satisfaction with Transit System

Overall Satisfaction – Rider Vs. Non-Rider



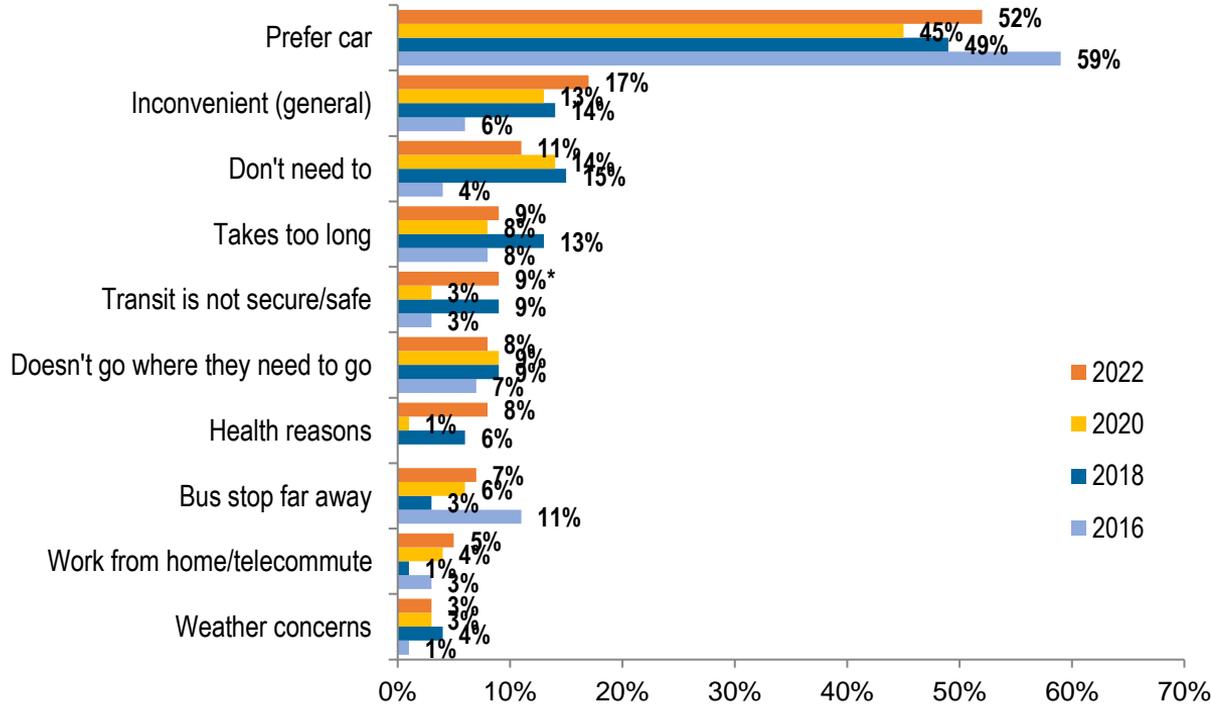
Total n=371, Rider: n=251, Non-Rider: n=119

*Indicates significant differences compared to other sub-group at the 95% level.

Reasons for Not Riding Transit

Reasons for Not Using Transit

Reasons for Not Using Transit – Top 10 Tracking



Tempe Bicycling and Walking

Bike Usage, Frequency, and Destinations

- Notably, there were no significant changes in responses this year compared to 2020

Access and Frequency

	2022 (n=400)	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)
Have access to bike	56%	63%	64%	62%	61%	62%
Frequency per Month						
Never/only occasionally	36%	31%	33%	28%	30%	32%
Once or twice	18%	20%	22%	23%	18%	18%
Three to five times	18%	15%	19%	20%	17%	11%
Six to ten times	8%	12%	10%	8%	8%	12%
>10 times	19%	21%	15%	20%	27%	24%
Don't know/not sure	<1%	1%	2%	1%	1%	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 2020

Bike Usage, Frequency, and Destinations

Destinations

Responses	2022 (n=143)	2020 (n=174)	2018 (n=167)	2016 (n=176)	2014 (n=174)	2012 (n=163)
Exercise	39%	40%	35%	44%	53%	58%
Parks	24%	19%	16%	10%	4%	6%
Along the canal	15%	15%	11%	9%	4%	-
Store	15%	11%	17%	13%	14%	15%
Work/school/ASU	12%	16%	12%	14%	29%	18%
Restaurant/dinner	10%	13%	9%	4%	3%	2%
Tempe Town Lake	10%	11%	7%	5%	4%	6%
Friend's house	7%	3%	4%	4%	9%	7%
Everywhere	5%	5%	8%	3%	3%	2%
Run errands	4%	6%	3%	2%	2%	3%
The bar/when I've been drinking	3%	6%	2%	3%	3%	1%
Mill Avenue/Downtown Tempe	3%	4%	13%	5%	3%	5%
Bike trails/mountain trails	2%	4%	-	-	-	-
Locally	2%	1%	-	1%	1%	-
Other	-	1%	2%	2%	2%	5%

- Notably, there were no significant changes in responses this year compared to 2020

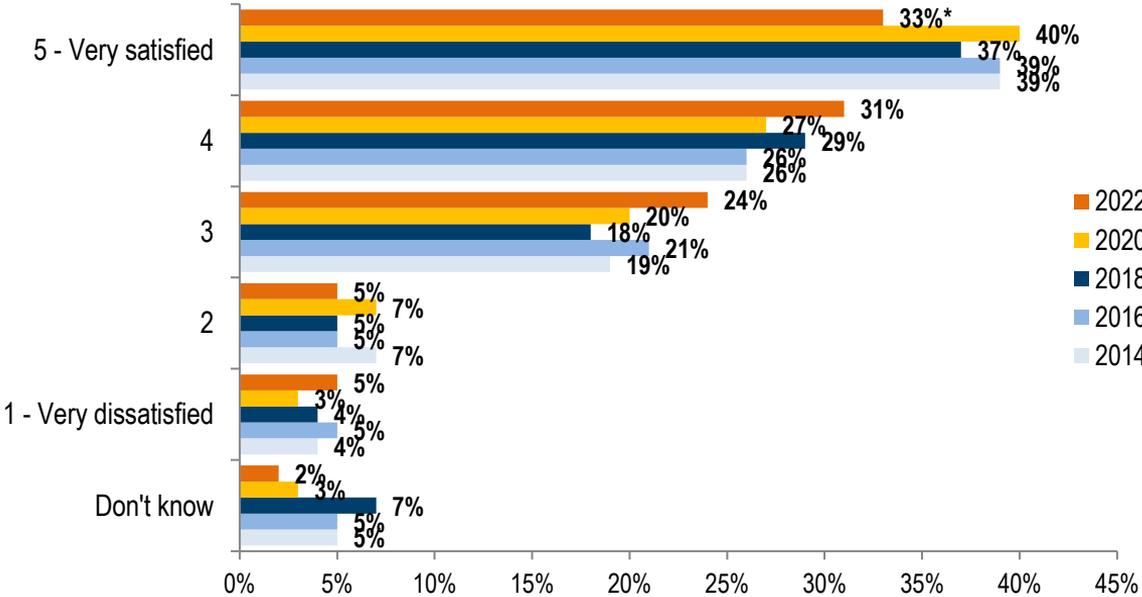
Q21: Where do you go when you ride your bike?

No significant difference between 2022 and 2020 at the 95% confidence level.

Note: Destinations with less than 2% mentions in 2022 not shown in table.

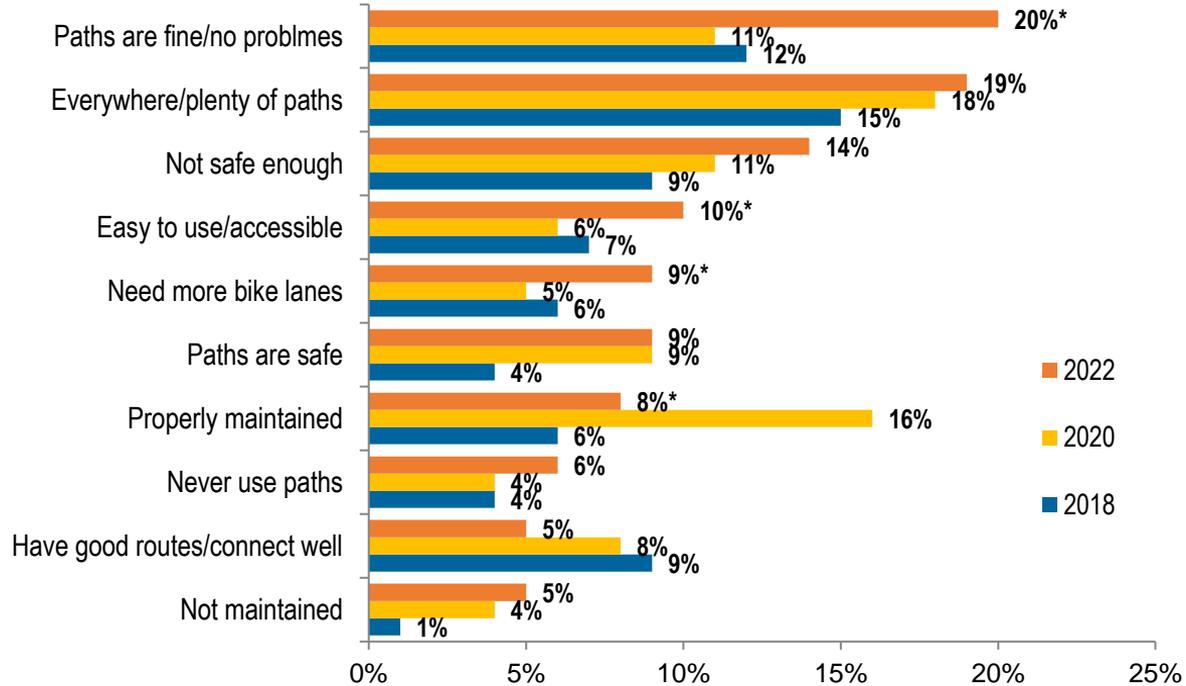
Satisfaction with Walking and Bike Paths

Overall Satisfaction – Tracking



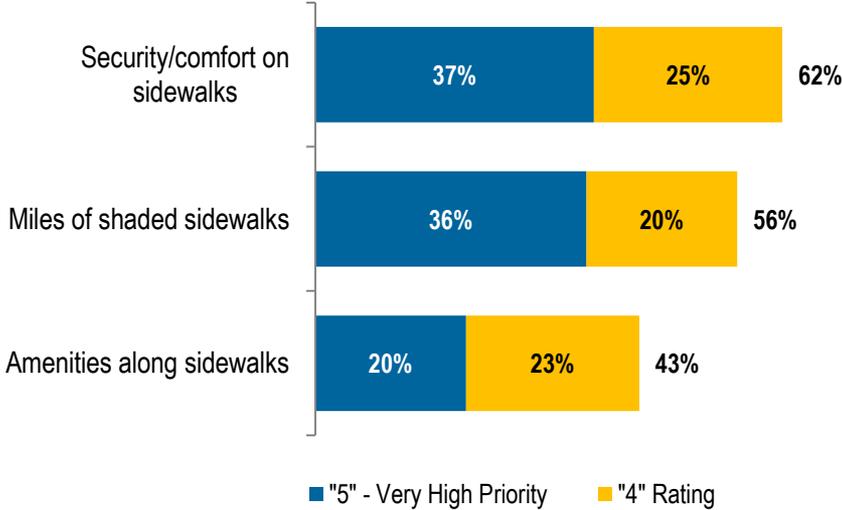
Reasons for Satisfaction Ratings

Reasons for Satisfaction Ratings – Top 10 Tracking



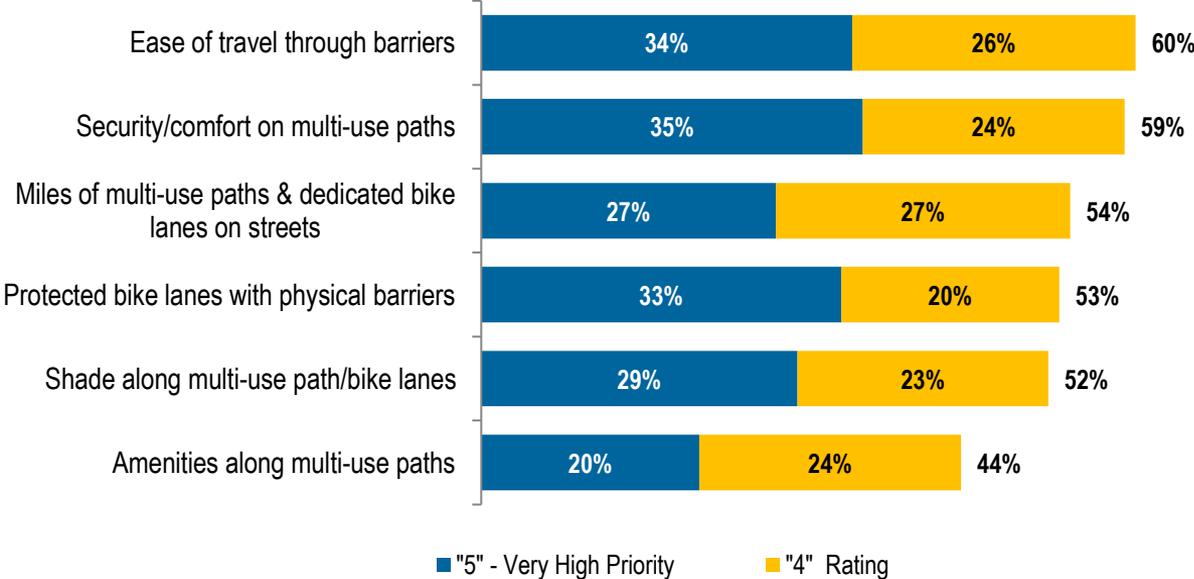
Sidewalk Improvement Priorities

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



Bikeway Improvement Priorities

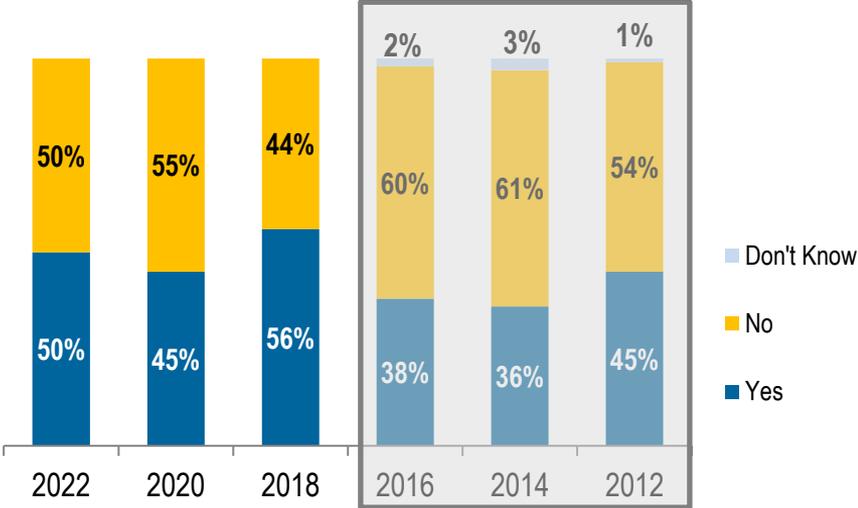
Priority of Bikeway Improvements
(Top Two Ratings 4 + 5 "Very high priority")



Tempe Youth Free Transit Pass Program

Youth Free Transit Pass

Awareness of Tempe Youth Free Transit Pass



Conclusions

Increased Usage

While overall the percentage of residents using transit has remained stable there were several indicators that usage has increased for many riders. There are more riders reporting a more regular frequency (daily, weekly, or monthly), the percent using local or express routes has increased, and more current riders are new to public transit.

Streetcar Satisfaction

It appears residents are enjoying the new Streetcar service. The Streetcar received high satisfaction ratings on almost all attributes and some residents indicated the reason their overall satisfaction with transportation in Tempe is high is because there are a lot of options available.

Safety

While generally satisfaction with bus and light rail services is strong, safety is the attribute with the lowest satisfaction for both and it is also a frequent suggestion on a reason for dissatisfaction with the transit service in Tempe.

Bike/Walking Paths

A large portion of Tempe residents are taking advantage of the bike and walking paths and appreciate the expansiveness of the network. Improving the safety on the paths was the top priority mentioned by those using the sidewalks and/or the bikeways.

City of Tempe Transportation Survey Report

Prepared For:



September/October 2022



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Questionnaire Appendix A

Cross Tabulations (Available under separate cover)

Executive Summary

The City of Tempe commissioned WestGroup Research to complete a survey of Tempe residents to gain insights into perceptions about public transit among both riders and non-riders, as well as 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 2020 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 400 Tempe residents in September/October 2022. The margin of error for this sample size is $\pm 4.9\%$ at a 95% level of confidence.

Rider Characteristics and Opinions

- Three in five Tempe residents (63%) reported using Tempe's transit service, including light rail, Orbit, Flash, Streetcar and local bus/express. This usage level is consistent with the five measurements taken over the past ten years.
- Ridership frequencies reported in 2022 were the highest since 2014 and were significantly higher than those reported in 2020. Two in ten reported to ride daily (4%), weekly (10%, up significantly from 4%), or monthly (6%). Conversely, the proportion of residents who indicated taking advantage of Tempe public transit under unique circumstances decreased significantly compared to 2020 (34%, down from 43%).
- This year, the City of Tempe opened their Streetcar service in May of 2022 and one in ten transit users reported riding the Streetcar (10%).
- Although the reported usage of the Orbit/Flash shuttles remained stable (34%), a significantly higher percentage of residents reported using the Local or Express bus this year compared to 2020 (28% vs. 19%). Conversely, light rail usage decreased slightly (64%, down from 72%).
- Three in ten riders (30%) reported using Tempe's transit system for more than ten years, which is up slightly from 23% in 2020, but still lower than the 35% measured in 2018. In contrast, brand-new ridership is up again significantly in 2022 with 14% reporting they have been using transit in Tempe for less than one year (vs. 9% in 2020 and 4% in 2018).
- After a significant dip in 2020, convenience has returned to being the most popular reason given for riding public transit with two in ten mentioning it in 2022 (18%, up significantly from 11%). Other top reasons were to get to or from recreation (15%), to avoid parking (15%), saves money (10%) and do not have car (9%, up significantly from 4%).

- Although significantly lower this year than in 2020, Phoenix/Downtown Phoenix continues to be the most popular destination for transit (34%, down from 47%), followed distantly by Downtown Tempe and recreational activities (22% and 16%, 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, comfort on the bus and ease of using the bus (89%, 86% and 84% Very + Somewhat satisfied, respectively). As has been the case since 2016, riders were least likely to express satisfaction with amenities and security at bus stops (61% and 60%, respectively).
- When riders rated their level of satisfaction with 11 different aspects of riding the light rail, riders were most likely to be satisfied with ease of using the light rail, reliability, and comfort on the light rail (91%, 90% and 88% Very + Somewhat satisfied, respectively). Light rail riders were least likely to express satisfaction with security at light rail stops (71%).
- Lastly, riders rated their level of satisfaction with 11 different aspects of riding the Streetcar. Riders were most likely to be satisfied with comfort on the Streetcar, cleanliness on the Streetcar, hours of operation, and cleanliness of Streetcar stops (each 93%). Riders were least likely to express satisfaction with Streetcar service during major city events (67%).

Overall Perceptions and Satisfaction with Tempe's Transit System

- The most common "top of mind" impression was positive with 21% of residents describing it with words such as "good," "excellent" and "cool" (up significantly from 14%). One in ten suggested that *more* (8%) and *improved* (7%) *public transit is needed*, while 6% reported they "don't use it".
- Three in five (57%) residents with an opinion reported being highly satisfied with the Tempe transit system. While this is similar to 2020 and 2018, it remains significantly lower than in 2016 and 2014.
 - Residents satisfied with the transit system (rated "4" or "5") primarily attributed their satisfaction to good/convenient routes (18%), followed by good service (16%), frequent and reliable service (15%), and lots of options (9%).
 - Residents who gave lower ratings (1-3) most often mentioned the need for more frequent buses with extended hours (13%), more security (10%) and better/more routes (9%) as reasons for their ratings.

Reasons for Not Using Public Transit

- Preference for a personal vehicle continued to be by far the most common reason given by non-riders as an explanation for not using public transit (52% mentioned).

Tempe Bicycling and Walking

- Nearly two thirds of residents (63%) reported having access to a bicycle.
- Among those with access to a bike, roughly two-thirds (64%) reported riding their bike at least once a month, which is just slightly lower than the 67%-69% reported in 2018-2020.
- Those who have access to a bike but never or only occasionally ride it (36% of residents) most often blamed hot weather for not riding it more often (35% mentioned it being “too hot outside”).
- Two in five (39%) of those with access to a bike who ride at least once a month reported riding for *exercise*, while 24% ride their bike *to parks*, 16% and 15% ride *along the canal* and/or *to the store*.
- Residents who bicycle at least monthly said they do so primarily to get *exercise* (44%, down from 52%) and/or *for fun and recreation* (26%).
- Nearly two-thirds of residents indicated being satisfied with the quality of walking and biking paths in Tempe (64% gave a rating of “4” or “5 - Very satisfied”).
 - Among those with an opinion, the most common positive reasons for ratings included paths fine the way they are (20%), paths are everywhere, there are plenty of paths (19%), and paths are easy to use and accessible (10%).
- 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 (62%).
- 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. *Ease of travel around barriers* and *security and comfort on multi-use paths* received the highest percentage of priority ratings (60% and 59% rated a “4” or “5”).

Tempe Youth Free Transit Pass Program

- In 2022, exactly one-half (50%) 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 (32%), the bill insert (12%), and the library (10%) were the top ways they had learned about the Tempe Youth Free Transit Pass Program.

Conclusions

1. While overall the percentage of residents using transit has remained stable there were several indicators that usage has increased for many riders. There are more riders reporting a more regular frequency (daily, weekly, or monthly), the percent using local or express routes has increased, and more current riders are new to public transit.
2. It appears residents are enjoying the new Streetcar service. The Streetcar received high satisfaction ratings on almost all attributes and some residents indicated the reason their overall satisfaction with transportation in Tempe is high is because there are a lot of options available.
3. While generally satisfaction with bus and light rail services is strong, safety is the attribute with the lowest satisfaction for both and it is also a frequent suggestion on a reason for dissatisfaction with the transit service in Tempe.
4. A large portion of Tempe residents are taking advantage of the bike and walking paths and appreciate the expansiveness of the network. Improving the safety on the paths was the top priority mentioned by those using the sidewalks and/or the bikeways.

I. Introduction

A. Background

The City of Tempe commissioned WestGroup Research to complete a telephone survey of Tempe residents 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 - 2012, 2014, 2016, 2018 and 2020. The most recent data collection was completed with 400 Tempe residents during September and October 2022. Due to size limitations, tables in the report do not show data from the studies conducted from 1998-2010.

In previous years, data was only collected by telephone. In 2022, data was primarily collected via telephone (249 surveys), but to complete more surveys with younger residents, an online survey conducted through a national panel company was added (151 surveys). Panel data was collected online from September 7 to October 6, 2022. The telephone calls with Tempe residents were made by WestGroup interviewers from September 9 to October 18, 2022. A combination of random-digit dial (RDD) sample to contact "land line" households along with cell-phone sample database to reach cellphone 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 gender and age to make sure the final data achieved the targeted representative sample.

The survey was completed with 400 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 male residents vs. female residents is dictated by the size of these subgroups (n=195 and $\pm 7.0\%$ for males, for example).

Based on a sample size of 400, **the overall sampling error for the total sample** (at the conventional 95% confidence level) is $\pm 4.9\%$. 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 21% and 29% in the first and second rows of column A is significantly higher than the figures in column B and C (11% and 7%; 16% and 12%) at the 95% confidence level.

Frequency of Transit Usage Demographic Breakdown

	2022 (n=400)	Age 18-34 (n=136) (A)	35-54 (n=136) (B)	55+ (n=124) (C)
Net Ride Daily or Weekly	13%	21%^{BC}	11%	7%
Net Ride at least Monthly	19%	29%^{BC}	16%	12%
Daily	4%	5%	3%	4%
Weekly	10%	16% ^C	9% ^C	3%
Monthly	6%	8%	5%	5%
Every few months	10%	11%	9%	9%
Special/unique circumstances	34%	25%	40% ^A	36%
Don't Use Transit	37%	35%	33%	42%

For trend tables and charts displaying yearly data, significant differences between 2022 and 2020 figures are shown using an asterisk. For example, in the table below, the 28% in the 2022 column is significantly different than the 19% in the 2020 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.

	2022 (n=251)	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)
Light Rail	64%	72%	73%	84%	79%
Orbit or Flash neighborhood shuttles	34%	33%	32%	37%	36%
Local or express bus	28%*	19%	25%	28%	30%
Streetcar	10%	-	-	-	-
Don't Know/Refused	12%	15%	12%	7%	7%

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 2022 by gender and age 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. This year, reported length of residency among respondents was slightly longer than in 2020 (55% 10+ years vs. 46% 2020).

Table 1a: Demographics

	2022 (n=400)	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)
Gender						
Male	49%	52%	50%	52%	51%	50%
Female	50%	48%	50%	48%	49%	50%
Nonbinary/other	1%	-	-	-	-	-
Years Lived in Tempe						
<1 year	7%	4%	<1%	1%	2%	2%
1 – 2 years	10%	11%	3%	4%	5%	6%
3 – 5 years	14%*	20%	10%	9%	13%	6%
6 – 10 years	14%	18%	10%	15%	14%	13%
11 – 20 years	17%	14%	24%	24%	22%	25%
20+ years	38%	32%	52%	48%	44%	49%
Age						
18 – 34	34%	34%	32%	32%	32%	32%
35 – 54	34%	34%	34%	34%	34%	33%
55+	31%	31%	33%	33%	33%	32%
Average Age	45.1	45.6	47.8	47.3	47.1	49.4
Education						
Some high school	1%	2%	1%	2%	2%	1%
High school graduate	7%	7%	10%	10%	11%	10%
Some college	28%	26%	25%	26%	33%	24%
College graduate	42%*	35%	38%	33%	32%	32%
Post graduate	21%*	29%	25%	27%	19%	32%
No answer/ Refused	1%	1%	1%	2%	2%	1%
Marital Status						
Married	46%	46%	49%	52%	46%	54%
Single	52%	49%	48%	45%	50%	43%
Refused	2%*	5%	3%	3%	3%	3%

*Indicates significant difference compared to 2020 at a 95% confidence level.

Table 1b: Demographics

	2022 (n=400)	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)
Income						
<\$20,000	6%	5%	7%	7%	13%	9%
\$20 - \$40,000	13%	11%	15%	18%	18%	14%
\$40 - \$60,000	15%	14%	16%	19%	18%	11%
\$60 - \$80,000	15%	18%	18%	13%	8%	14%
\$80 - \$100,000	11%	11%	11%	7%	8%	10%
\$100,000+	31%	32%	24%	20%	20%	20%
\$100K to \$150,000	17%	16%	12%	n/a	n/a	n/a
\$150,000+	14%	16%	12%	n/a	n/a	n/a
No answer/refused	9%	9%	9%	16%	14%	21%
Average Income	\$85,898	\$89,958	\$79,072	\$67,325	\$63,700	\$70,304
Occupation						
Full-time	60%	63%	60%	57%	46%	46%
Part-time	10%	7%	11%	6%	11%	8%
Retired	16%	16%	16%	20%	21%	28%
Stay at home Spouse	4%	5%	6%	3%	4%	6%
Student	7%*	4%	3%	6%	8%	4%
Unemployed/disabled	3%	4%	3%	5%	7%	6%
Refused	1%	1%	2%	3%	3%	2%
Zip Code						
85281	20%	25%	18%	21%	23%	19%
85282	33%	35%	32%	33%	32%	44%
85283	23%	26%	29%	24%	26%	22%
85284	20%*	14%	22%	22%	19%	15%

*Indicates significant difference compared to 2020 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

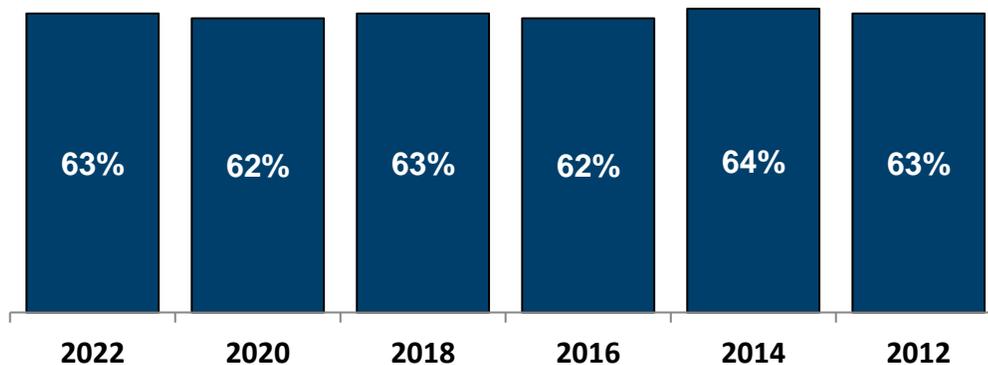
A. Current Use of Public Transit

1. Tempe Transit Service Usage – Among All Residents

Three in five Tempe residents (63%) reported riding Tempe’s transit service, including light rail, Orbit, Flash, Streetcar and local bus/express. This usage level is consistent with the measurements taken over the past ten years.

Similar to previous years, men and women were equally likely to ride public transit (66% men and 62% women). Notably, residents living in 85281 were significantly more likely to report using some sort of transit (81% vs. 55%-64% other zips).

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



Note: Beginning in 2012, respondents were asked about *Tempe Transit Service* usage; in previous years, the question was about *Tempe city bus* usage.

2022 n=400; 2020 n=401, 2018 n=400, 2016 n=401, 2014 n=409, 2012 n=400

Q5: In general would you say you use Tempe’s transit system (including light rail, Streetcar, 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 2022 were the highest since 2014 and were significantly higher than those reported in 2020. Two in ten residents reported to ride daily (4%), weekly (10%, up significantly from 4%), or monthly (6%). Conversely, the proportion of residents who indicated taking advantage of Tempe public transit under unique circumstances decreased significantly compared to 2020 (34%, down from 43%).

As was true in previous years, local bus, Orbit/Flash and Express riders were significantly more likely than rail only riders to report riding at least weekly (33% vs. 10%), and as expected, light rail only riders were significantly more likely to say they generally ride transit under special or unique circumstances (64% vs. 36% of other riders).

Riders significantly more likely to report riding weekly include those ages 18 to 34 (21% vs. 9% age 35+), living in 85281 (31% vs. 10% other zips), and residents who have lived in Tempe for less than 10 years (20% vs. 8% 11+ years).

Table 2a: Frequency of Transit Usage

	2022 (n=400)	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)
Net Ride Daily or Weekly	13%*	6%	5%	10%	16%
Net Ride at least Monthly	19%*	12%	11%	16%	25%
Daily	4%	2%	2%	5%	6%
Weekly	10%*	4%	3%	5%	10%
Monthly	6%	6%	6%	6%	9%
Every few months	10%	7%	10%	9%	8%
Special/unique circumstances	34%*	43%	42%	37%	31%
Don't Use Transit	37%	38%	34%	38%	35%
Don't know/No answer	<1%	<1%	3%	<1%	<1%

*Indicates significant difference compared to 2020 at a 95% confidence level.

Q5: In general would you say you use Tempe’s transit system (including light rail, Streetcar Orbit, Flash and local bus/express).

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

	2022 (n=400)	Age		
		18-34 (n=136) (A)	35-54 (n=136) (B)	55+ (n=124) (C)
Net Ride Daily or Weekly	13%	21%^{BC}	11%	7%
Net Ride at least Monthly	19%	29%^{BC}	16%	12%
Daily	4%	5%	3%	4%
Weekly	10%	16% ^C	9% ^C	3%
Monthly	6%	8%	5%	5%
Every few months	10%	11%	9%	9%
Special/unique circumstances	34%	25%	40% ^A	36%
Don't Use Transit	37%	35%	33%	42%

^{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

This year, the City of Tempe opened their Streetcar service in May of 2022 and one in ten transit users reported riding the Streetcar (10%). **Although the reported usage of the Orbit/Flash shuttles remained stable (34%), a significantly higher percentage of residents reported using the Local or Express bus this year compared to 2020 (28% vs. 19%).** This is similar to reported usage prior to the COVID-19 pandemic (25%-30% 2014-2018). Conversely, light rail usage decreased slightly (64%, down from 72%). Residents of the 85281, 85282 and 85283 zip codes were significantly more likely to report riding Orbit or Flash neighborhood shuttles than those in 85284 (34%, 46% and 37% vs. 6%, respectively).

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

	2022 (n=251)	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)
Light Rail	64%	72%	73%	84%	79%
Orbit or Flash neighborhood shuttles	34%	33%	32%	37%	36%
Local or express bus	28%*	19%	25%	28%	30%
Streetcar	10%	-	-	-	-
Don't Know/Refused	12%	15%	12%	7%	7%

*Indicates significant difference compared to 2020 at the 95% confidence level.

Q5a: Which of the following have you used in Tempe in the past year?

In 2022, younger riders (18 to 34 years old) were significantly more likely than those 55 and older to report riding local/express buses and the Streetcar (35% vs. 17% bus; 18% vs. 4% Streetcar).

Additionally, a much higher proportion of those with annual household incomes under \$80,000 reported 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	2022 (n=251)	Age			Income		
		18-34 (n=88) (A)	35-54 (n=90) (B)	55+ (n=71) (C)	<\$40K (n=56) (D)	\$40K-\$80K (n=77) (E)	80K+ (n=96) (F)
Light Rail	64%	69%	63%	60%	62%	70%	65%
Orbit or Flash neighborhood shuttles	34%	38%	34%	29%	36%	46% ^F	23%
Local or express bus	28%	35% ^C	30% ^C	17%	43% ^F	37% ^F	18%
Streetcar	10%	18% ^C	9%	4%	8%	12%	12%
Don't Know/Refused	12%	3%	14% ^A	19% ^A	9%	7%	16% ^{DE}

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

B. Length of Use of Transit System

Three in ten riders (30%) reported using Tempe’s transit system for more than ten years, which is up slightly from 23% in 2020 but still lower than the 35% measured in 2018. In contrast, brand-new ridership was up again significantly in 2022 with 14% reporting they had been using transit in Tempe for less than one year (compared to 9% in 2020 and 4% in 2018).

Of note, this was the second time that specific categories beyond “more than ten years” were available and 19% reported riding for 11 to 20 years and 11% reported they have been using transit in Tempe for more than twenty years.

Table 3a: Length of Use of Transit System

Time Riding	2022 (n=251)	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)	2012 (n=252)
Less than a year	14%*	9%	4%	5%	6%	9%
1 – 2 years	9%	9%	6%	9%	10%	13%
2 – 4 years	12%	12%	13%	15%	24%	29%
4 – 6 years	12%	20%	19%	19%	23%	16%
6 – 10 years	19%	22%	14%	22%	13%	13%
More than 10 years	30%	23%	35%	25%	18%	12%
11 to 20 Years	19%	15%	na	na	na	na
More than 20 Years	11%	8%	na	na	na	na
Don’t know	4%	5%	11%	4%	7%	8%

Q8: How long have you been using the transit system in Tempe?

*Indicates significant difference compared to 2020 at the 95% confidence level.

C. Main Reasons for Using Public Transit

After a significant dip in 2020, *convenience* has returned to being the most popular reason given for riding public transit with two-in-ten mentioning it in 2022 (18%, up significantly from 11%). Other top reasons were to get to or from recreation (15%), to avoid parking (15%), it saves money (10%) and do not have car (9%, up significantly from 4%).

Notably, mentions of using public transit to avoid drinking and driving decreased significantly compared to 2020, returning to 2018 measures. Older riders were significantly more likely to mention *convenience* as their main reason compared to those under the age of 35 (23% 35+ vs. 5% <35).

Table 3b: Main Reasons for Using Public Transit

Responses	2022 (n=251)	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)	2012 (n=252)
Convenient	18%*	11%	26%	24%	27%	16%
Get to/from recreation	15%	20%	18%	22%	18%	14%
To avoid parking	15%	12%	11%	5%	3%	10%
Saves money	10%	6%	2%	3%	6%	7%
Do not have a car	9%*	4%	5%	8%	12%	11%
Dislike driving/Take a break from driving	7%	6%	5%	4%	1%	-
Vehicle not available/car problems	5%	4%	6%	3%	1%	-
To go downtown	5%	10%	9%	3%	3%	6%
Protects the environment	4%	3%	2%	1%	2%	1%
Need to get to Phoenix	4%	6%	2%	4%	3%	-
To avoid drinking and driving	3%*	7%	4%	3%	2%	-
To get to/from work	3%	5%	4%	3%	2%	-
A way to get around	3%	3%	2%	3%	3%	2%
To get to/from airport	3%	3%	1%	3%	1%	1%
Get to/from places	3%	2%	2%	2%	4%	-
Get to/from school	2%	3%	4%	5%	4%	2%
It's free	2%	-	-	-	1%	1%

Q9: What is the main reason you ride public transit?

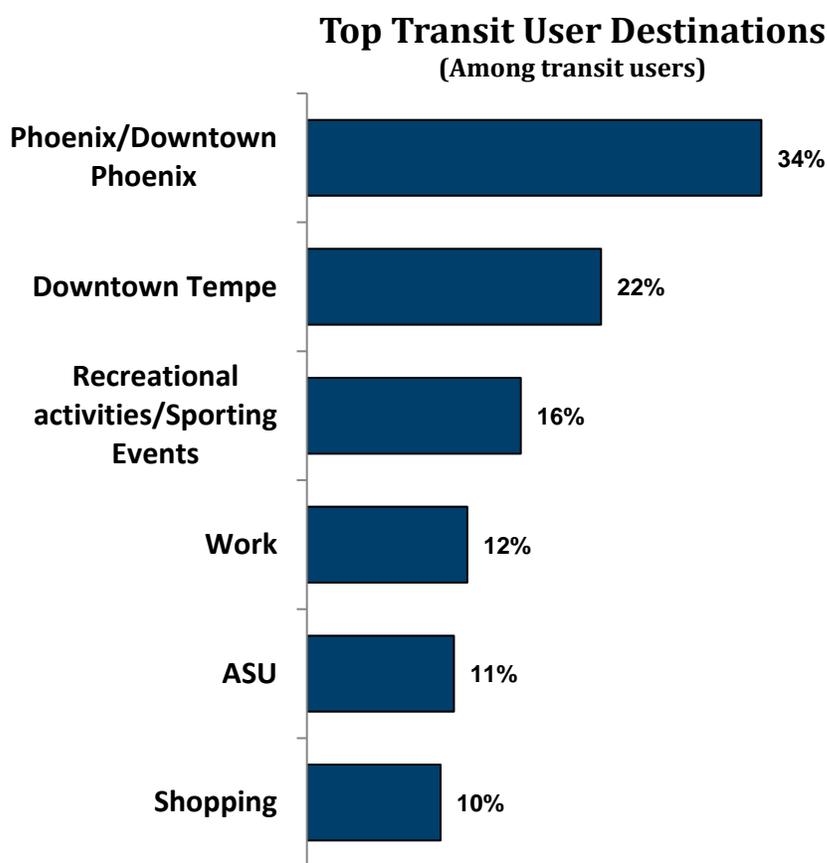
*Indicates significant difference compared to 2020 at the 95% confidence level.

Note: Response categories with less than 2% mentions in 2022 not shown in table.

D. Public Transit Destinations

Although significantly lower this year than in 2020, Phoenix/Downtown Phoenix continues to be the most popular destination for transit trips with 34% of all transit riders surveyed naming 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 (44% vs. 24%).

Downtown Tempe and recreational activities again rounded out the top three destinations for transit riders (22% and 16%, respectively). Similar to 2020, work, ASU and shopping were frequently mentioned by one in ten riders (each 10%-12%).



Q10: Where do you go when you use public transit? 2022 n=251

Unsurprisingly, there were more mentions of school this year as a destination for riders (5%, up from 0.2% in 2020). This is likely due to most students returning to in-person classes after the COVID-19 pandemic. All other mentions remained similar to prior years.

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

Responses	2022 (n=251)	2020 (n=248)	2018 (n=253)	2016 (n=246)	2014 (n=256)	2012 (n=252)
DT Phoenix/Phoenix	34%*	47%	48%	25%	15%	26%
Downtown Tempe	22%	18%	21%	14%	11%	13%
Recreational activities	16%	21%	26%	35%	39%	34%
Work	12%	12%	13%	14%	19%	13%
ASU	11%	10%	12%	14%	15%	16%
Shopping	10%	9%	9%	4%	15%	12%
Airport	5%	5%	3%	4%	-	-
Restaurant	5%	4%	<1%	-	-	1%
School (unspecified)	5%*	<1%	1%	-	-	1%
Bus stops/ other forms of transit	3%	-	-	-	-	-
Around Tempe	1%	3%	-	3%	<1%	-
Medical appointment	3%	2%	1%	2%	2%	4%
Library	3%	2%	2%	2%	4%	3%
Mesa	2%	2%	1%	-	-	1%
Visit friends/family	3%	1%	3%	2%	4%	5%
In/around neighborhood	2%	3%	<1%	-	-	1%

Q10: Where do you go when you use public transit?

*Indicates significant difference compared to 2020 at the 95% confidence level.

Note: Destinations with less than 2% mentions in 2022 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, comfort on the bus* and *ease of using the bus* (89%, 86% and 84% Very + Somewhat satisfied, respectively). As has been the case since 2016, riders were least likely to express satisfaction with *amenities and security at bus stops* (61% and 60%, respectively).

Although none of the shifts were statistically significant, nine of the twelve attributes received lower ratings in 2022 compared to 2020 (down 1 to 7 points). *Comfort on the bus* and *reliability* rose slightly (1 or 2 percentage points) while *cleanliness of bus stops* remained stable at 74%.

Table 5a: 2022 Satisfaction with Bus Service
(Among bus riders)

Attribute	2022 (n=126)			% Very/somewhat satisfied			
	Very/ somewhat Satisfied	Very Satisfied	Somewhat Satisfied	2020 (n=108)	2018 (n=87*)	2016 (n=128)	2014 (n=109)
Driver courtesy and professionalism	89%	62%	27%	92%	93%	93%	93%
Comfort on the bus	86%	41%	45%	85%	92%	92%	95%
Ease of using the bus	84%	48%	36%	87%	93%	93%	91%
Reliability/on-time performance of buses	83%	41%	42%	81%	86%	86%	80%
Hours of operation	82%	46%	36%	88%	84%	84%	NA
Cleanliness of the bus	80%	40%	40%	86%	88%	88%	92%
Route frequency	78%	40%	38%	84%	79%	79%	74%
Cleanliness of bus stops	74%	35%	39%	74%	85%	85%	NA
Bus service during major events	73%	33%	40%	75%	70%	70%	NA
Safety on the bus	71%	35%	36%	78%	82%	82%	95%
Amenities of bus stops	61%	22%	39%	62%	72%	72%	NA
Security at bus stops	60%	23%	37%	62%	65%	65%	NA

Q11: In general how satisfied are you with...
No significant differences compared to 2020

Among riders dissatisfied with one or more attributes, the most common suggestions to improve their satisfaction with buses was the addition of *cleaner buses/bus stops* (24%), *more frequent buses* (22%), *shade at bus stops* (20%), and *better or more security on buses* (19%).

To note, concerns for *cleanliness* since the COVID-19 pandemic has remained high while mentions of *not liking the people using the bus* increased significantly since 2020 (17% vs. 5%).

Table 5b: Suggested Improvements

	2022 (n=85)	2020 (n=38)	2018 (n=45)	2016 (n=69)	2014 (n=57)
Inside of bus/bus stops need to be cleaner	24%	23%	2%	9%	10%
More frequent buses	22%	19%	17%	32%	42%
Bus stops need shade	20%	26%	21%	13%	17%
Security on the bus/safer buses	19%	8%	15%	11%	11%
Don't like the type of people that use the bus	17%*	5%	4%	8%	2%
Need better/more routes	8%	19%	9%	15%	7%
More courteous/professional drivers	8%	-	6%	-	-
More/better bus routes	7%	2%	-	-	-
More/better benches at bus stops	4%	-	6%	-	-
More/better lighting at bus stops	3%	8%	20%	8%	9%
Easier way to pay the fare	3%	-	-	-	-
Easier schedules to read/understand/accurate	2%	14%	10%	5%	6%
Improve transfers	1%	3%	-	-	-
Busses should be free/inexpensive	1%	-	-	-	-
More handicapped accessible	1%	-	-	-	-
Don't know	1%	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 1% mentions in 2022 not shown in table.

*Indicates significant difference compared to 2020 at the 95% confidence level.

F. Satisfaction with Light Rail

In a new addition in 2022, light rail riders were asked to rate their level of satisfaction with eleven different aspects of riding the light rail. 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 *ease of using the light rail, reliability, and comfort on the light rail* (91%, 90% and 88% Very + Somewhat satisfied, respectively). Light rail riders were least likely to express satisfaction with *security on the light rail and security at light rail stops* (75% and 71%, respectively).

Table 6a: 2022 Satisfaction with Light Rail
(Among light rail riders)

Attribute	2022 (n=162)		
	Very/ somewhat Satisfied	Very Satisfied	Somewhat Satisfied
Ease of using the light rail	91%	51%	40%
Reliability/on-time performance of light rail	90%	59%	31%
Comfort on the light rail	88%	41%	47%
Hours of operation	87%	54%	33%
Route frequency	87%	54%	33%
Amenities of light rail stops	87%	45%	42%
Light rail service during major events	83%	53%	30%
Cleanliness of light rail stops	82%	43%	39%
Cleanliness of the light rail	78%	36%	42%
Security on the light rail	75%	37%	38%
Security at light rail stops	71%	31%	40%

Q12: In general how satisfied are you with...

Among riders dissatisfied with one or more attributes, the most common suggestions to improve their satisfaction with light rail was the addition of *security in the train* (38%), *cleaner trains/stops* (27%), *don't like the people riding the train* (18%), and *more frequent light rail* (17%).

Women were more likely than men to indicate they want more *security in the trains* (57% vs. 19% men).

Table 6b: Suggested Improvements

	2022 (n=84)
Security in the train/safer	38%
Inside of the light rail/at stops need to be cleaner	27%
Don't like the type of people that use the train	18%
More frequent light rail	17%
Later service/later times for weekdays//run 24 hours a day	9%
Light rail stops need shade	8%
Broken payment machines/make sure payment machines are working	7%
Need better/more routes	3%
Better payment system/more payment options/smart phone payments	3%
Check tickets/get rid of free riders	3%
Easier schedules to read/understand/accurate	3%
More/better lighting at train stops	1%
Other	5%
Don't know	4%

Q12a: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the light rail?

Note: Response categories with less than 1% mentions in 2022 not shown in table.

G. Satisfaction with Streetcar

Also new in 2022, Streetcar riders were asked to rate their level of satisfaction with eleven different aspects of riding the Streetcar. Riders rated the attributes by using four-point nominal scales (“very satisfied,” “somewhat satisfied,” “not very satisfied,” and “not at all satisfied.”).

Streetcar riders were most likely to be satisfied with *comfort on the Streetcar, cleanliness on the Streetcar, hours of operation, and cleanliness of Streetcar stops* (each 93% Very + Somewhat satisfied). Riders were least likely to express satisfaction with *Streetcar service during major city events* (67%).

Table 7a: 2022 Satisfaction with Streetcar
(Among Streetcar riders)

Attribute	2022 (n=26)		
	Very/ somewhat Satisfied	Very Satisfied	Somewhat Satisfied
Comfort on the Streetcar	93%	69%	24%
Cleanliness of Streetcar	93%	65%	28%
Hours of operation	93%	63%	30%
Cleanliness of Streetcar stops	93%	60%	33%
Reliability/on-time performance of Streetcar	90%	73%	17%
Route frequency	90%	46%	44%
Amenities at Streetcar stops (e.g. shade, seating, bike racks)	89%	56%	33%
Ease of using the Streetcar (e.g., using schedules, getting to the Streetcar stop, paying fares)	87%	79%	8%
Security on the Streetcar	85%	47%	38%
Security at Streetcar stops	80%	42%	38%
Streetcar service during major city events	67%	34%	33%

Q12NEW: In general how satisfied are you with...

Just three Streetcar riders were dissatisfied with one or more attributes. Of these three, their suggestions to improve their satisfaction with the Streetcar was *more frequent Streetcar*, *more/better routes*, and *easier schedules to read/understand* (each mentioned by one rider).

Table 7b: Suggested Improvements

	2022 (n=3)
More frequent Streetcar	1
Need better/more routes	1
Easier schedules to read/understand/accurate	1
Other	1

Q12NEWa: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the Streetcar service?

Note: Responses reported in frequency due to small sample size

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

A. Top of Mind Impression of Transportation System in Tempe

When describing their perceptions of the transportation system in Tempe, residents' top of mind positive images were most often related to it being *generally good* (21%, up significantly from 14%) and *liking the free neighborhood shuttles* (13%). The top-of-mind negative associations or suggestions were *needing more transit* (8%) and *needing improvements* (7%, up significantly from 3%).

Transit riders were significantly more likely than non-riders to immediately think of generally positive words such as "excellent" or "good" (25% vs. 15%), "good bike lanes" (11% vs. 4%) or of light rail in general (7% vs. 1%). Non-riders were significantly more likely to think of "traffic" or "congestion" (9% vs. 4% riders).

Table 8: Top of Mind Impression of Tempe Transportation System

	2022 (n=400)	2020 (n=401)	2022	
			Transit Rider (n=251) A	Non- Rider (n=147) B
Positive				
Good/excellent/cool (general positive)	21%*	14%	25% ^B	15%
Like free neighborhood shuttles/Orbit/Mercury/Blue buses	13%	9%	14%	11%
Good bike lanes/paths/ able to walk	8%	6%	11% ^B	4%
Lots of options/ can choose between bus, light rail, shuttles	6%	7%	7%	4%
Like the light rail	5%	-	7% ^B	1%
It's free	4%	2%	4%	5%
Like the scooters	3%	1%	2%	5%
Neutral				
Light rail (unspecified)	11%	9%	12%	8%
The bus system/ bus (unspecified)	9%*	4%	7%	13%
Never used it/don't use it	6%	12%	2%	13% ^A
New street car system/trolleys	6%	3%	5%	6%
Adequate/fine/average	4%	7%	4%	4%
Negative/Suggestions				
Need more public transit/improved transit	8%	11%	8%	7%
Needs improvements (timing of lights, better routes, etc.)	7%*	3%	7%	7%
General negative/don't like it	6%	4%	4%	8%
Traffic/ congestion	6%	1%	4%	9% ^A
Unsafe/dangerous	3%	-	2%	3%
Inconvenient/slow	3%	3%	2%	6%
Don't know	3%*	7%	2%	4%

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 3% not shown (All open ends available under separate cover).

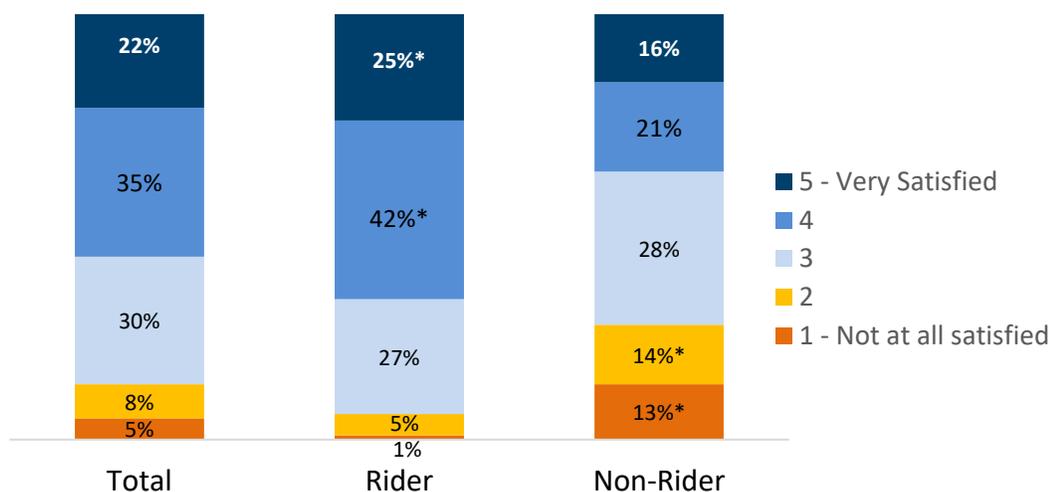
*Indicates significant difference compared to 2020 at the 95% confidence level.

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

B. Overall Satisfaction with Tempe Transit System

Three in five (57%) residents with an opinion reported being highly satisfied with the Tempe transit system. While this is similar to 2020 and 2018, it remains significantly lower than measures found in 2016 and 2014. As in the past, current riders were more likely to provide a top-two rating (67% vs. 37% of non-riders). Riders over the age of 55 were much more likely to report satisfaction (4/5 – Very satisfied) than younger riders (65% vs. 52% 35-54 and 55% 18-34). This year there were no significant differences in satisfaction by zip code or other sub-groups.

Overall Satisfaction with Transit System
Among those with an opinion



Total n=371, Rider: n=251, Non-Rider: n=119

*Indicates significant differences compared to other sub-group at the 95% level.

Table 9: Overall Satisfaction with Transit System in Tempe
(Among those with an opinion)

Satisfaction	2022 (n=371)	2020 (n=373)	2018 (n=362)	2016 (n=352)	2014 (n=376)
NET Very + Somewhat satisfied	57%	58%	60%	69%	72%
5 – Very satisfied	22%	26%	28%	36%	37%
4	35%	32%	32%	33%	35%
3	30%	27%	29%	21%	17%
2	8%	8%	5%	5%	6%
1 – Very dissatisfied	5%	6%	6%	6%	5%
Don't know (excluded from %)	8%	8%	10%	12%	8%

Q12. How satisfied are you with the quality of the transit system in Tempe?
No significant differences compared to 2020

Residents satisfied with the transit system (rated “4” or “5”) primarily attributed their satisfaction to *good/convenient routes* (18%), followed by *good service* (16%), *frequent and reliable service* (15%), and *a lot of options* (9%).

Residents who gave lower ratings (1-3) most often mentioned the need for *more frequent buses with extended hours* (13%), *more security* (10%) and *better/more routes* (9%) as reasons for their ratings.

Overall, significantly more people mentioned *a lot of options* (6%, up from 2%) and *always room for improvement* (11%, up from 6%) in 2022 than in 2020.

Table 10: Reason for Satisfaction Level

Responses	2022 (n=371)	2020 (n=373)	2022 Satisfaction Level	
			4,5 (n=212)	1,2,3 (n=159)
Positive				
Satisfied, good service	11%	14%	16%	5%
Good routes, convenient routes	11%	8%	18%	2%
Frequent, available, reliable	10%	7%	15%	4%
There are a lot of options (general)	6%*	2%	9%	2%
Convenient (general)	6%	4%	8%	2%
It's clean	5%	7%	7%	3%
Saves money, cheap, free	4%	3%	5%	2%
Like the light rail/light rail is good	3%	4%	5%	1%
Provides transportation for those who need it	3%	4%	2%	4%
Neutral				
Don't use it, never used it	12%	11%	7%	18%
Always room for improvement	11%*	6%	12%	9%
It's average/okay	4%	2%	1%	8%
Negative/Suggestions				
Need better/more routes, connections, doesn't go where I need to	9%	11%	8%	9%
More frequent buses, more hours	8%	7%	4%	13%
It was dirty/needs to be cleaned up a little bit	6%	6%	3%	9%
Need more security	6%	3%	2%	10%
Uncomfortable with people who ride transit	4%	4%	3%	7%
Bus driver does not stop at bus stops	3%	3%	2%	5%
Extend the light rail/more routes	3%	2%	1%	5%
Don't know	2%	4%	1%	4%

Q12a: Please explain your rating. Note: Response categories with < 3% total mentions in 2022 not shown in table.

IV. Reasons for Not Riding Transit

Preference for a personal vehicle continued to be by far the most common reason given by non-riders as an explanation for not using public transit (52% mentioned). Other popular reasons were that they simply *find transit to be inconvenient* (17%), they *do not need to use transit* (11%), *it takes too long* (9%) and/or *is not safe/secure* (9%).

Notably, mentions of *transit is not secure* or concerns about safety increased back up to 9% after decreasing to 3% in 2020. *Health reasons* also rose dramatically as a reason for not using transit in 2022 (8%, up from 1%). Lastly, this year showed significantly fewer mentions of *riding their bike* (1%, down from 5%).

Table 11: Top Reasons for Not Using Public Transit

Reasons	2022 (n=147)	2020 (n=153)	2018 (n=136)	2016 (n=152)	2014 (n=143)
Prefer car	52%	45%	49%	59%	58%
Inconvenient (general)	17%	13%	14%	6%	4%
Don't need to, don't have the need to use	11%	14%	15%	4%	9%
Takes too long	9%	8%	13%	8%	6%
Transit is not secure/safety	9%*	3%	9%	3%	1%
Doesn't go where they need to go	8%	9%	9%	7%	7%
Health reasons	8%*	1%	6%	-	-
Bus stop far away	7%	6%	3%	11%	11%
Work from home/telecommute	5%	4%	1%	3%	-
Weather concerns/ too hot/cold/ raining	3%	3%	4%	1%	<1%
Buses are dirty	3%	2%	1%	--	1%
Buses are not safe/secure	3%	2%	1%	-	-
Don't like the type of people on transit	2%	3%	2%	1%	--
Convenience (unspecified)	2%	2%	1%	1%	2%
Bus stops are not safe	1%	1%	-	-	-
Ride bike instead	1%*	5%	1%	3%	2%
Too expensive	1%	4%	1%	--	1%
Buses are unreliable/not on time	1%	4%	1%	1%	1%
Don't have to go far distances	1%	2%	6%	3%	3%
I don't work/retired	1%	2%	-	1%	1%
Don't know how to use transit system	1%	-	1%	4%	-
Inconvenient bus schedule times	1%	-	3%	-	-
Don't know	<1%	1%	3%	2%	2%

Q6: People tell us different reasons why they do not use public transit like riding the bus or light rail or Streetcar.

*What are some of the reasons why you currently do not use public transit? *Indicates significant difference compared to 2020 at the 95% confidence level. Note: Reasons with less than 2% mentions in 2022 not shown in table.*

V. Tempe Bicycling and Walking

A. Bicycle Usage

Over one-half of residents (56%) reported having access to a bicycle. Although not a statistically significant decrease, this is somewhat lower than the 61%-64% found in the last ten years.

Residents aged 35 to 54 were significantly more likely than other residents to report having access to a bicycle they can ride when they want (68% vs. 46% 18-34 and 55% 55+). Men were also much more likely to report having a bicycle compared to women (62% vs. 51% women) while residents living in 85281 were least likely to have a bicycle available (28% vs. 57%-69% other zips).

Among those with access to a bike, roughly two-thirds (64%) reported riding their bike at least once a month, which is just slightly lower than the 67%-69% reported in 2018-2020.

Table 17: Access to and Frequency of Bike Use per Month

	2022 (n=400)	2020 (n=401)	2018 (n=400)	2016 (n=401)	2014 (n=409)	2012 (n=400)
Have access to bike	56%	63%	64%	62%	61%	62%
Frequency per Month						
Never/only occasionally	36%	31%	33%	28%	30%	32%
Once or twice	18%	20%	22%	23%	18%	18%
Three to five times	18%	15%	19%	20%	17%	11%
Six to ten times	8%	12%	10%	8%	8%	12%
>10 times	19%	21%	15%	20%	27%	24%
Don't know/not sure	<1%	1%	2%	1%	1%	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 2020

B. Reasons Do Not Ride Bicycle More Often

Those who have access to a bike but never or only occasionally ride it (36% of residents) most often blamed hot weather for not riding it more often (35% mentioned it being “*too hot outside*”). Other key reasons given included: *it is too dangerous, it is inconvenient, their health* and they *prefer to take car* (each mentioned by 9%-19%). Men were significantly more likely to report not riding more often due to *inconvenience* compared to women (17% vs. 2% women).

Table 18: Reasons for Not Riding More Often

(Among those who have access to a bicycle but only ride it occasionally or never)

Responses	2022 (n=82)	2020 (n=78)	2018 (n=84)	2016 (n=70)	2014 (n=74)
Too hot outside/hot weather	35%	43%	47%	38%	32%
Too dangerous	19%	14%	12%	1%	12%
Inconvenient/too busy	10%	12%	10%	4%	8%
Physical condition/my health	10%	6%	11%	9%	5%
Have a car/rather take car	9%	13%	7%	6%	1%
Have little kids/drive kids around	5%	1%	2%	6%	3%
Bike not working properly/bike not functional	4%	7%	3%	6%	5%
Too much traffic	4%	3%	7%	3%	2%
Usually walk	4%	-	-	-	-
Distance/too far	3%	3%	6%	9%	1%
Too old	3%	1%	1%	-	2%
Not enough bike lanes/paths	3%	1%	-	2%	2%
Injury	2%	1%	1%	1%	2%
Lazy/don't want to ride it	1%	1%	10%	4%	10%
Have too much to carry	1%	-	-	-	-
Get exercise another way	1%	-	-	-	-
Takes too long	1%	-	2%	-	-
Other (responses <.5%)	2%	5%	2%	9%	7%
Don't know/no answer	2%	-	-	9%	6%

Q20a: What are some reasons you don't ride you bike more often?

No significant difference between 2022 and 2020 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 (39%) reported riding so for *exercise*, while 24% ride their bike *to parks*. Another 15% ride *along the canal* or *to the store* (up from 11%), while 12% ride *to school* (down from 16%).

Table 19: Bike Riding Destinations

(Among those who have access to a bicycle and ride it at least 1x a month)

Responses	2022 (n=143)	2020 (n=174)	2018 (n=167)	2016 (n=176)	2014 (n=174)	2012 (n=163)
Exercise	39%	40%	35%	44%	53%	58%
Parks	24%	19%	16%	10%	4%	6%
Along the canal	15%	15%	11%	9%	4%	-
Store	15%	11%	17%	13%	14%	15%
Work/school/ASU	12%	16%	12%	14%	29%	18%
Restaurant/dinner	10%	13%	9%	4%	3%	2%
Tempe Town Lake	10%	11%	7%	5%	4%	6%
Friend’s house	7%	3%	4%	4%	9%	7%
Everywhere	5%	5%	8%	3%	3%	2%
Run errands	4%	6%	3%	2%	2%	3%
The bar/when I’ve been drinking	3%	6%	2%	3%	3%	1%
Mill Avenue/Downtown Tempe	3%	4%	13%	5%	3%	5%
Bike trails/mountain trails	2%	4%	-	-	-	-
Locally	2%	1%	-	1%	1%	-
Other	-	1%	2%	2%	2%	5%

Q21: Where do you go when you ride your bike?

No significant difference between 2022 and 2020 at the 95% confidence level.

Note: Destinations with less than 2% mentions in 2022 not shown in table.

D. Main Reason for Riding a Bicycle

Residents who bicycle at least monthly said they do so primarily to get **exercise (44%, down from 52%) and/or for fun and recreation (26%)**. Another 7% ride their bike to **save money**, which is a significant increase compared to 2020.

Table 20: Main Reason Ride a Bike

(Among those who have access to a bicycle and ride it at least 1x a month)

Responses	2022 (n=143)	2020 (n=174)	2018 (n=167)	2016** (n=176)
Exercise	44%	52%	57%	54%
Fun/Recreation/leisure	26%	27%	22%	26%
Saves money	7%*	1%	2%	4%
It's faster than walking/driving	4%	5%	2%	-
Convenient/easy	3%	4%	3%	8%
Good for health/medical reasons	3%	1%	3%	5%
Do not have a car	3%	1%	1%	2%
For the fresh air	3%	1%	3%	1%
Saves wear and tear on car/don't want to drive	2%	2%	1%	4%
To get to school/work	2%	1%	1%	4%
Go shopping	2%	-	2%	-
Protects environment	1%	4%	1%	1%
Other	2%	1%	1%	2%
No answer	-	1%	-	1%

Q22: What is the main reason you ride a bicycle?

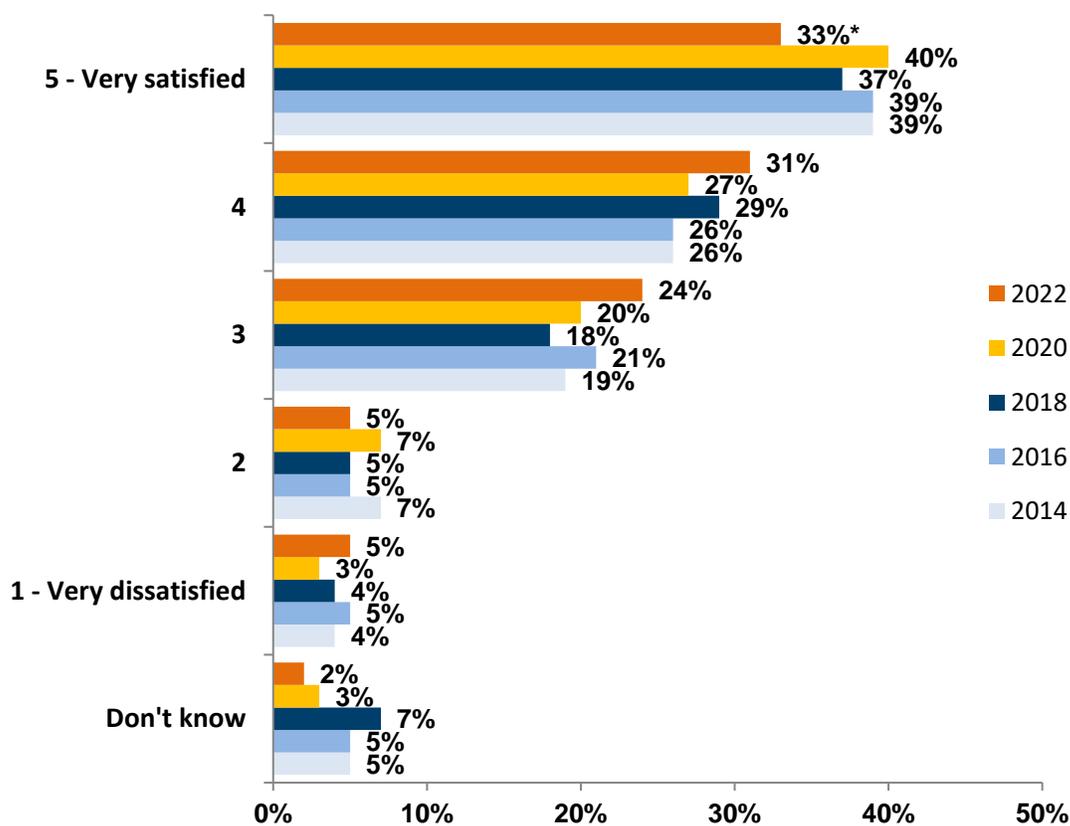
**Indicates significant difference compared to 2020 at the 95% confidence level.*

***Question added in 2020.*

E. Overall Satisfaction with Bicycle and Pedestrian Paths

Nearly two-thirds of residents indicated being satisfied with the quality of walking and biking paths in Tempe (64% gave a rating of “4” or “5 - Very satisfied”). Although the top-two measure is consistent with previous findings, it is notable that the percentage of those providing a “5 – Very satisfied” rating decreased significantly this year compared to 2020 (33%, down from 40%).

Overall Satisfaction with Tempe Walking and Bike Paths



2022 n=400; 2020 n=401, 2018 n=400, 2016 n=401, 2014 n=409

Q23: How satisfied are you with the quality of the walking and biking paths in Tempe?

*Indicates significant difference compared to 2020 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 fine the way they are* (20%), *paths are everywhere, there are plenty of paths* (19%), and *paths are easy to use and accessible* (10%).** This year, residents were significantly more likely to mention *paths are fine the way they are*, *paths are easy to use*, and *paths are wide enough* compared to 2020.

Top negative reasons included *paths don't seem safe enough/make them safer* (14%), *need more bike lanes* (9%, up significantly from 5%), and *paths are not maintained* (5%).

Table 21: Reasons for Satisfaction Rating
(Among those with an opinion)

Responses	2022 (n=392)	2020 (n=389)	2018 (n=370)	2016 (n=380)	2014 (n=390)
Positive					
Paths are fine the way they are, no problems	20%*	11%	12%	18%	29%
Paths are everywhere, plenty of paths	19%	18%	15%	12%	12%
Paths are easy to use, accessible	10%*	6%	7%	5%	6%
Paths are properly maintained, well landscaped	8%*	16%	6%	6%	4%
Paths are safe	9%	9%	4%	7%	5%
Have good routes, connect well	5%	8%	9%	6%	3%
Paths are wide enough	4%*	1%	1%	-	-
Paths are well lit	2%	2%	2%	4%	5%
Like the paths along the canal	2%	2%	1%	-	-
Neutral					
Never use paths, no knowledge of them	6%	4%	4%	6%	5%
There is always room for improvement	2%	3%	1%	4%	4%
Negative/Suggestions					
Paths don't seem safe enough/make them safer	14%	11%	9%	9%	8%
Need more bike lanes	9%*	5%	6%	4%	9%
Paths are not maintained	5%	4%	1%	2%	2%
Could use more paths	3%	3%	2%	7%	6%
Need more walking paths	3%	3%	2%	1%	-
Educate drivers/bikers on "sharing the road"	3%*	<1%	1%	-	-
Better illumination	2%	1%	1%	-	-
Too many homeless people	2%	-	-	-	-
Don't know	1%	<1%	3%	5%	6%

Q23a: Please explain your rating

*Indicates significant difference compared to 2020 at the 95% confidence level.

Note: Response categories with less than 2% total mentions in 2022 not shown in table.

A. 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.

As was true last year, security and comfort on sidewalks, such as addressing hazards, obstructions and width received the highest percentage of high priority ratings (62% rated a “4” or “5”). However, this is statistically lower than the 72% measured in 2020. **Additionally, over one-half of residents placed a high priority on the need for miles of shaded sidewalks (56% rated a “4” or “5”).** With four in ten residents (43%) rating it as a high priority, *amenities along sidewalks like water fountains, lighting, art and signage* ranks as the lowest priority overall, which is similar to prior years.

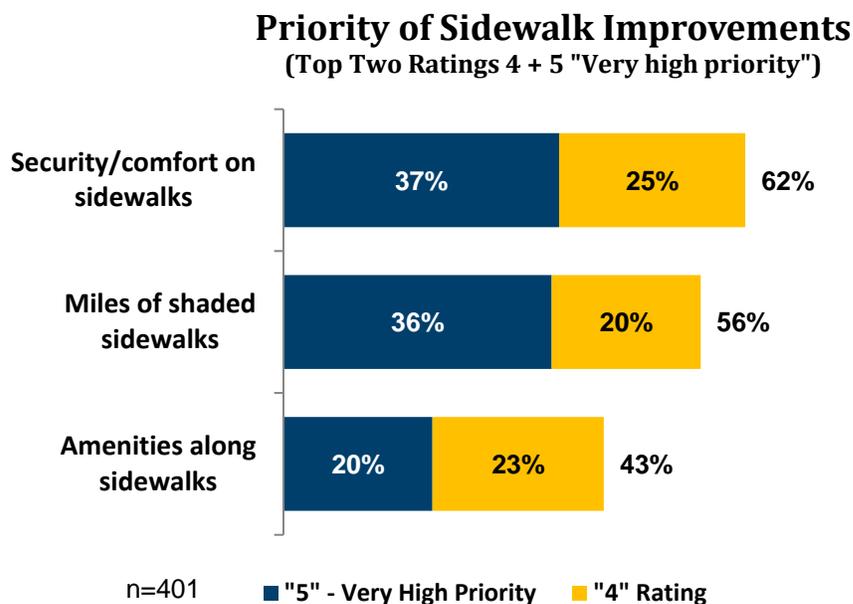


Table 22: 2022 Priority of Possible Sidewalk Improvements

Responses	"5 -Very High"	"4"	"3"	"2"	"1-Very Low"	No answer
Security/comfort on sidewalks such as addressing hazards, obstructions and width	37%	25%	21%	7%	8%	2%
Miles of shaded sidewalks	36%	20%	22%	12%	8%	2%
Amenities along the sidewalks like water fountains, lighting, art, and signage	20%	23%	28%	15%	12%	3%

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 23: Very High/High Priority of Possible Sidewalk Improvements by Year

Responses	2022 (n=400)	2020 (n=401)	2018 (n=400)
Security/comfort on sidewalks such as addressing hazards, obstructions and width	62%*	72%	70%
Miles of shaded sidewalks	56%	59%	54%
Amenities along the sidewalks like water fountains, lighting, art, and signage	43%	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.

*Indicates significant difference compared to 2020 at the 95% confidence level.

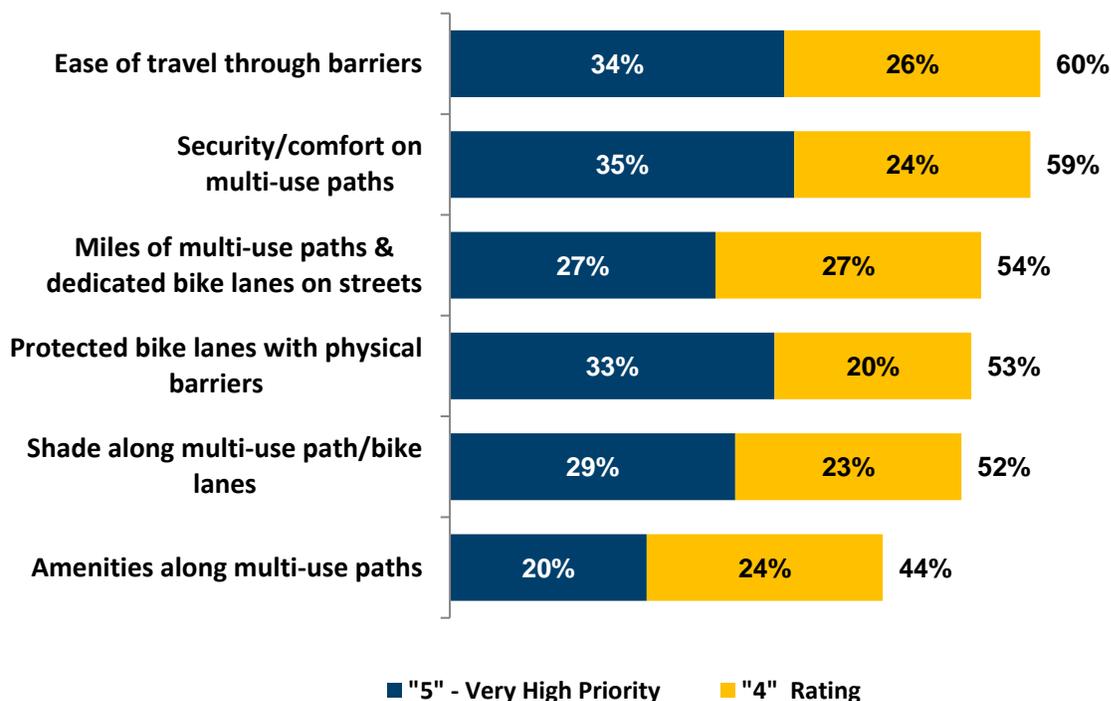
B. Priority of Possible Bikeway Improvements

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.

Ease of travel around barriers and security and comfort on multi-use paths received the highest percentage of priority ratings (60% and 59% rated a “4” or “5”). More than one-half gave high priority ratings to miles of multi-use paths and bike lanes (54%), protected bike lanes with physical boundaries (53%) and shade along multi-use paths and bike lanes (52%). With just under one-half (44%) 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 2020, priority ratings for all improvements decreased at least slightly with the top three improvements showing statistically significant decreases.

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



n=400

Table 24a: 2020 Priority of Possible Bikeway Improvements

Responses	"5 -Very High"	"4"	"3"	"2"	"1-Very Low"	No answer
Ease of travel through or around barriers such as railroad crossings, freeways, roads, the lake, etc.	34%	26%	24%	9%	5%	2%
Security/comfort on multi-use paths	35%	24%	23%	10%	7%	1%
Miles of multi-use paths and dedicated bike lanes on streets	27%	27%	24%	9%	11%	2%
Protected bike lanes that have a physical barrier between traffic and bikes	33%	20%	20%	10%	14%	2%
Shade along the multi-use paths and bike lanes	29%	23%	23%	10%	13%	1%
Amenities along the multi-use paths like water fountains, lighting, art and signage	20%	24%	28%	15%	12%	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 24b: Very High/High Priority of Possible Bikeway Improvements by Year

Responses	2022 (n=400)	2020 (n=401)	2018 (n=400)
Ease of travel through or around barriers such as railroad crossings, freeways, roads, the lake, etc.	61%*	68%	65%
Security/comfort on multi-use paths	59%*	70%	67%
Miles of multi-use paths and dedicated bike lanes on streets	54%*	64%	62%
Protected bike lanes that have a physical barrier between traffic and bikes	53%	58%	55%
Shade along the multi-use paths and bike lanes	52%	55%	51%
Amenities along the multi-use paths like water fountains, lighting, art and signage	44%	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.

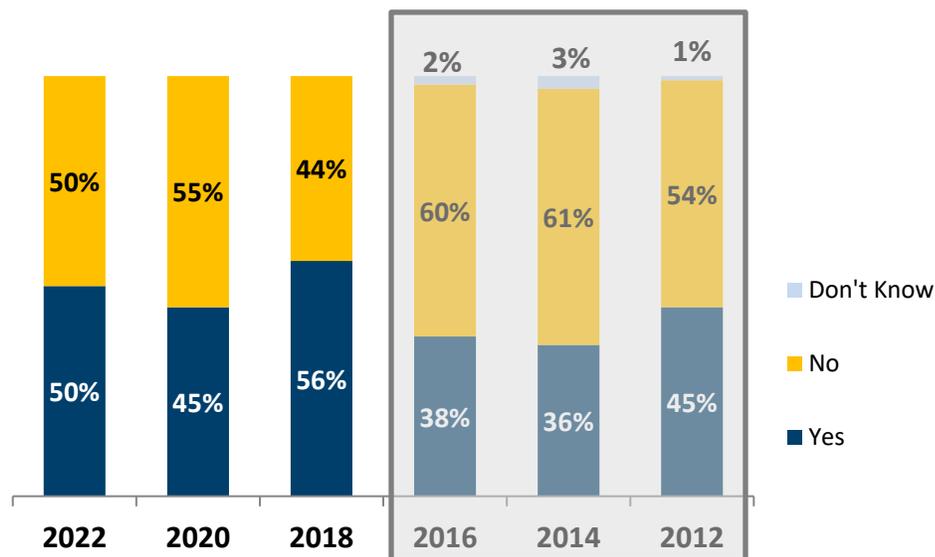
*Indicates significant difference compared to 2020 at the 95% confidence level.

VII. Tempe Youth Free Transit Pass Program

In 2022, exactly one-half (50%) of residents who have children ages 6 to 18 have heard of the Tempe Youth Free Transit Pass. While this is still down from the 56% measured in 2018, it is a slight rebound from the 45% measured in 2020.

Awareness was significantly higher among parents who use public transit (58%), but 38% of non-riders have heard of it as well. Parents who have lived in Tempe for more than twenty years had a significantly higher level of awareness than did newer residents (70% vs. 36% who have lived in Tempe for ten years or less).

Awareness of Tempe Youth Free Transit Pass



2022 n=400; 2020 n=95, 2018 n=84, 2016 n=401, 2014 n=409, 2012 n=400

QD5: Have you ever heard of the Tempe Youth Free Transit Pass Program?

No significant differences compared to 2018

Note: 2022, 2020, and 2018: 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* (32%), the *bill insert* (12%), and the *library* (10%) were the top ways they had learned about the Tempe Youth Free Transit Pass Program.

Significantly less reported hearing about the program through *word of mouth* this year than in 2020 (8%, down from 21%).

Table 26: Sources for Tempe Youth Transit Pass Program Information
(Among those aware of the program)

Sources	2022* (n=45)	2020* (n=43)	2018* (n=47)	2016 (n=150)	2014 (n=148)	2012 (n=179)
Through school	32%	35%	52%	24%	20%	24%
Bill insert	12%	5%	3%	8%	3%	7%
Library	10%	13%	12%	11%	7%	7%
Word-of-mouth (friends/family)	8%*	21%	12%	16%	20%	19%
Letter from the City	6%	5%	2%	3%	5%	5%
Advertisement	6%	1%	5%	3%	1%	-
Employer/work	4%	4%	-	-	-	1%
Flyer/pamphlet	4%	-	-	-	-	-
Twitter/Facebook	2%	-	-	-	-	-
Newspaper	2%	-	-	-	-	-
News letter	2%	-	-	-	-	-
Don't know	8%	3%	3%	7%	5%	10%

QD5a: How did you first hear about the Tempe Youth Free Transit Pass Program?

*In 2018-2022, 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 2022 not shown

*Indicates significant difference compared to 2020 at the 95% confidence level.

APPENDIX A: Questionnaire

**City of Tempe – Tempe in Motion
Questionnaire – September 2022**

Sample: 85281, 85282, 85283, 85284, 85288 = 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.

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. 85288
 - f. Other/Don't know/Refused – THANK AND TERMINATE
3. What is your age?
- D1. What gender should I record for you? Please stop me when I state what applies to you.
 - a. Male
 - b. Female
 - c. Non-binary
 - d. Prefer to self-describe
 - e. Prefer not to answer
- 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, Streetcar, Orbit, Flash and local bus/express)?
- Daily
 - Weekly
 - Monthly
 - Every few months
 - Only under special or unique circumstances
 - I don't use transit
 - 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
- Local or express bus
 - Orbit or Flash neighborhood shuttles
 - Light rail
 - Streetcar
 - don't know/Refused
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, light rail or Streetcar. What are some of the reasons why you currently do not use public transit? What other reasons? DO NOT READ LIST (Multiple responses allowed)*
- Prefer to drive my car
 - Bus stops far away
 - Takes too long
 - Need car for business
 - Doesn't go where we need to go
 - Inconvenient
 - Don't know how to use the transit system/bus
 - No need to use it
 - Health reasons/disability
 - Don't have to go far distances
 - Ride bike instead
 - Work from home/Telecommute/Don't commute
 - Don't feel safe / secure on transit
 - Service isn't frequent enough
 - Other: (SPECIFY: _____)
 - Don't know

REMOVE QINTRO2/Q7 AND Q7.OTHER IN OESP

ASK IF a, b, c, d, e in Q5: ALL OTHERS SKIP TO Q13

7. How long have you been using the transit system in Tempe? DO NOT READ LIST
- Less than a year
 - 1 to 2 years
 - 2 to 4 years
 - 4 to 6 years
 - 6 to 10 years
 - 11 to 20 years
 - More than 20 years
 - Don't know/NA

8. 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: _____)

9. 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: _____)

10. **ASK ONLY OF THOSE WHO ANSWER “A” OR “B” IN Q5a.** For each of the following attributes of the Local Bus, Orbit or Neighborhood Shuttle systems, 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

10a. ONLY ASK IF ANSWER IS SOMEWHAT DISSATISFIED OR VERY DISSATISFIED IN Q10: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the bus or shuttle 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

11. QNEWRAIL: ASK ONLY OF THOSE WHO ANSWER “C – Light rail” IN Q5a For each of the following attributes of the light rail system, 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 light rail	4	3	2	1	0
b. Cleanliness of light rail stops	4	3	2	1	0
c. Amenities at light rail stops (e.g. shade, seating, bike racks)	4	3	2	1	0
d. Reliability/on-time performance of light rail	4	3	2	1	0
e. Route frequency	4	3	2	1	0
f. Hours of operation	4	3	2	1	0
g. Comfort on the light rail	4	3	2	1	0
h. Ease of using the light rail (e.g., using schedules, getting to the light rail stop, paying fares)	4	3	2	1	0
i. Security at light rail stops	4	3	2	1	0

j. Security on the light rail	4	3	2	1	0
k. light rail service during major city events	4	3	2	1	0

11a. QNEWRAILa: ONLY ASK IF ANSWER IS SOMEWHAT DISSATISFIED OR VERY DISSATISFIED IN Q11: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the light rail service?

- a. More frequent trains
- b. Need better/more routes
- c. Rail stops need shade
- d. Security in the train/safer
- e. Inside of the train/ at stops need to be cleaner
- f. Don't like the type of people that use the train
- g. More/better lighting at train stops
- h. Easier schedules to read/understand/accurate
- i. Other (SPECIFY: _____)
- j. Don't know/Not sure
- k. Nothing

Q12. QNEWCAR: ASK ONLY OF THOSE WHO ANSWER “D – Streetcar” IN Q5a For each of the following attributes of the Streetcar, 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 Streetcar	4	3	2	1	0
b. Cleanliness of Streetcar stops	4	3	2	1	0
c. Amenities at Streetcar stops (e.g. shade, seating, bike racks)	4	3	2	1	0
d. Reliability/on-time performance of Streetcar	4	3	2	1	0
e. Route frequency	4	3	2	1	0
f. Hours of operation	4	3	2	1	0
g. Comfort on the Streetcar	4	3	2	1	0
h. Ease of using the Streetcar (e.g., using schedules, getting to the Streetcar stop, paying fares)	4	3	2	1	0
i. Security at Streetcar stops	4	3	2	1	0
j. Security on the Streetcar	4	3	2	1	0
k. Streetcar service during major city events	4	3	2	1	0

Q12a. QNEWCARa. ONLY ASK IF ANSWER IS SOMEWHAT DISSATISFIED OR VERY DISSATISFIED IN QNEWCAR: You indicated dissatisfaction with some of the attributes, what could be done to improve your satisfaction with the Streetcar service? DO NOT READ LIST.

- a. More frequent Streetcars
- b. Need better/more routes
- c. Stops need shade
- d. Security in the Streetcar/safer
- e. Inside of the Streetcar/at stops need to be cleaner
- f. Don't like the type of people that use the Streetcar
- g. More/better lighting at stops
- h. Easier schedules to read/understand/accurate
- i. Other (SPECIFY: _____)
- j. Don't know/Not sure
- k. Nothing

ASK ALL:

13. 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"
- 13a. 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: _____)
14. Do you have access to a bicycle that you can ride when you want to?
- a. Yes
 - b. No – SKIP TO Q18
15. IF YES IN Q14: 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
- 15a. If none/never ride it in Q15: 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
16. IF RIDE BIKE 1+ times in Q15: 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:)
17. IF RIDE BIKE 1+ times in Q15 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:

18. 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"
- 18a. 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: _____)

19-21. 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 19-21	Very high priority	High priority	Somewhat of a priority	Low priority	Very low priority	DK / Refused
19. Miles of shaded sidewalks	5	4	3	2	1	0
20. Security/comfort on sidewalks such as addressing hazards, obstructions and width	5	4	3	2	1	0
21. Amenities along the sidewalks like water fountains, lighting, art, and signage	5	4	3	2	1	0

22-27. 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
22. Miles of multi-use paths and dedicated bike lanes on streets	5	4	3	2	1	0
23. Security/comfort on multi-use paths	5	4	3	2	1	0
24. Amenities along the multi-use paths like water fountains, lighting, art and signage	5	4	3	2	1	0

25. Ease of travel through or around barriers such as railroad crossings, freeways, roads, the lake, etc.						
26. Shade along the multi-use paths and bike lanes	5	4	3	2	1	0
27. Protected bike lanes that have a physical barrier between traffic and bikes	5	4	3	2	1	0

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. HISPANIC:** Do you identify as being Hispanic, Latino, or of Spanish Origin?
- a. Yes
 - b. No
 - c. Prefer not to answer
- D8. RACE:** How would you best describe your race?
- d. White
 - e. Black or African American
 - f. Asian
 - g. American Indian or Alaska Native
 - h. Native Hawaiian or other Pacific Islander
 - i. Other <text>
 - j. Prefer not to answer
- 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.

MEMORANDUM

TO: Tempe Transportation Commission
FROM: Catherine Hollow, City Traffic Engineer, 480-350-8445
DATE: December 13, 2022
SUBJECT: McClintock Drive Project Update
ITEM #: 5



PURPOSE:

The purpose of this presentation is to provide information to the Transportation Commission on the McClintock Drive Project as requested by the Commission.

RECOMMENDATION OR DIRECTION REQUESTED:

For information only

CITY COUNCIL STRATEGIC PRIORITY:

Under Quality of Life, the Council has adopted the following performance measure:

- 3.27 Achieve a travel time index average at or below 1.25 along major streets during rush hour traffic with no individual segments exceeding 2.0.

BACKGROUND INFORMATION:

McClintock Drive, from Broadway to Guadalupe, was repaved in 2016. As part of the re-paving, striping modifications were installed that removed the third southbound travel lane. Residents voiced their concerns about the re-striping, and as a result, staff was directed to develop options and re-evaluate for the segment between Apache and Del Rio.

Several concepts were developed and presented to the public. Council provided direction to restore the third southbound lane. Also, the project was to provide standard bike lanes and minimize right of way takes.

UPDATES

Construction started in March 2021. In general, there are three 10' southbound lanes, two 10' northbound lanes, two 5.5-foot bike lane, and a center turn lane. Eight-foot sidewalks are provided on both sides of the road.

The project was essentially completed in September 2022. The only remaining work items are completing the signal installations. Signal detection systems and communications still need to be connected at Alameda, Campus, and Del Rio.

McClintock Drive Project Update

Transportation Commission
December 13, 2022



Tempe

Making waves in the desert



- The McClintock Dr project was initiated to re-instate the third southbound travel lane while maintaining bike lanes



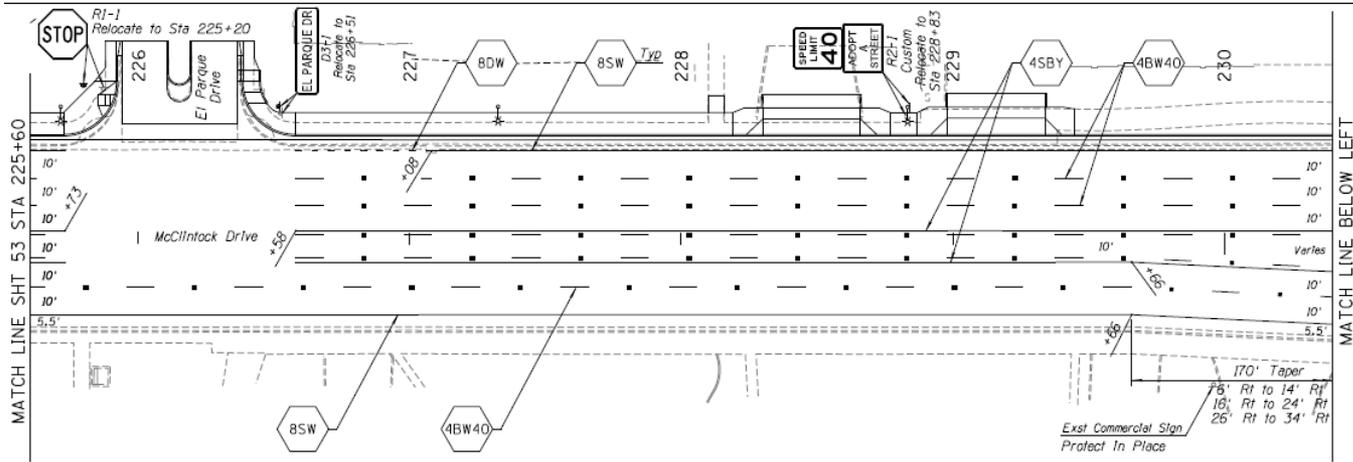


- The project looked at several concepts. The concepts were presented to the public. The selected concept minimized right of way takes



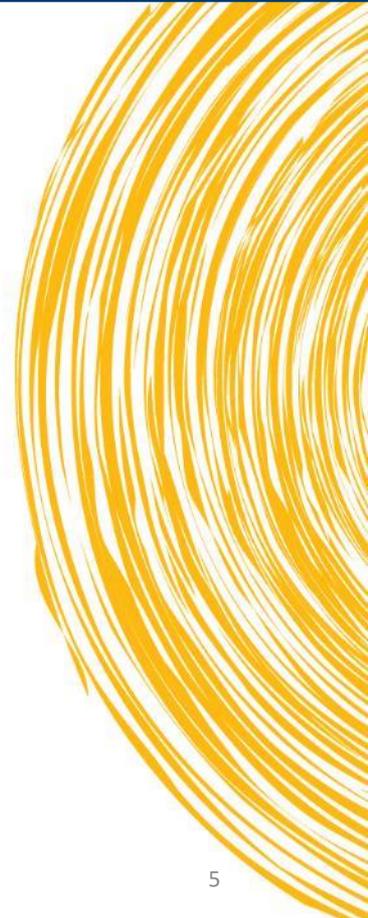


- The design maintained a minimum of 10-foot wide lanes and 5.5' bike lanes





- There were two construction phases:
 - Northern section: Apache to Broadway
 - Southern section: Broadway to Del Rio





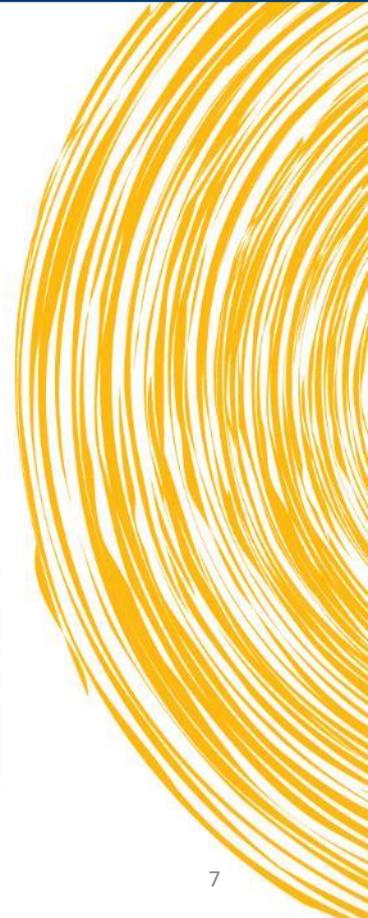
● Construction began in March 2021





Project was completed in September 2022.

- However, three signals still need equipment for final communications and detection



Questions?

MEMORANDUM

TO: Tempe Transportation Commission
FROM: Shelly Seyler, Deputy Engineering & Transportation Director
DATE: December 13, 2022
SUBJECT: Future Agenda Items
ITEM #: 7



PURPOSE:

The Chair will request future agenda items from the Commission members.

RECOMMENDATION OR DIRECTION REQUESTED:

This item is for information only.

- January 10
 1. Commission Business
 2. Smith Road Improvements
 3. Tempe Curb Management Study
- February 14
 1. General Plan 2050 – Circulation Element
 2. Grand Canal Connection Project
- March 14
 1. Smith Road Improvements
 2. Crime Prevention Through Environmental Design
 3. Personal Delivery Devices
- April 11
 1. ADA Transition Plan and recently completed ADA facilities
 2. Speed reduction, compliance, and tickets issued near “35 mph only when lights flashing” devices
 3. Streetcar Fare implementation
- May 9
 1. North/South Bike/Ped Project
- June 13
- July 11
- August 14
- September 12
- October 10
 1. Annual Report
- November 14
 1. Annual Report
- December 12
 1. Commission Business
- TBD: Bike Bait (once program resumes)