

# CITY OF TEMPE TRAFFIC CONGESTION SURVEY

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Prepared for  
City of Tempe  
Transportation Division

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## TABLE OF CONTENTS

	Page
INTRODUCTION	1
SUMMARY OF THE FINDINGS	3
KEY STUDY FINDINGS	3
TRAFFIC CONGESTION IN TEMPE	4
EXPERIENCE WITH BUS DELAYS	11
EXPERIENCE WITH CONSTRUCTION-CAUSED DELAYS	15
ATTITUDE ABOUT ADDING BIKE LANES ON MAJOR ROADS	18
MAJOR TEMPE ROADS TRAVELED MOST OFTEN	20
APPENDIX	21
SURVEY QUESTIONNAIRE	22

## LIST OF TABLES

TABLE 1: EVALUATION OF TEMPE TRAFFIC CONGESTION	5
TABLE 2: WORST TIMES FOR TRAFFIC CONGESTION IN TEMPE	6
TABLE 3: WORST DAYS FOR TRAFFIC CONGESTION IN TEMPE	8
TABLE 4: WORST INTERSECTIONS FOR TRAFFIC CONGESTION IN TEMPE	10
TABLE 5: EXPERIENCE WITH BUS-CAUSED TRAFFIC DELAYS	11
TABLE 6: INTERSECTIONS WHERE BUS DELAYS EXPERIENCED	13
TABLE 7: PERCEIVED IMPACT OF BUS PULLOUTS ON TRAFFIC CONGESTION	14
TABLE 8: EXPERIENCE WITH CONSTRUCTION-CAUSED TRAFFIC DELAYS	15
TABLE 9: PREFERENCE FOR OVERNIGHT CONSTRUCTION CLOSURES	17
TABLE 10: ATTITUDE ABOUT ADDING BIKE LANES TO MAJOR TEMPE ROADS	19
TABLE 11: MAJOR TEMPE ROADS TRAVELED MOST OFTEN	20

## INTRODUCTION

This study was commissioned by the City of Tempe Transportation Division to determine residents' attitudes about traffic congestion within the City. More specifically, this study addresses the following issues:

- Residents' attitudes about how big of a problem traffic congestion is in Tempe in general and on major roads adjacent to their neighborhood.
- Residents' experiences with traffic delays at Tempe intersections due to stopped buses.
- Residents' experiences with traffic delays on major Tempe roads due to construction.
- Residents' attitudes about adding bicycle lanes to major roads in Tempe.

The information contained in this report is based on 425 telephone interviews conducted with a representative cross-section of Tempe residents 18 years of age or older. For the purpose of this research, a minimum of 100 interviews were conducted in each of four geographic analyses zones:

Northwest – north of US 60, west of Rural Road  
Northeast – north of US 60, east of Rural Road  
Southwest – south of US 60, west of Rural Road  
Southeast – south of US 60, east of Rural Road

Respondent selection for this project was accomplished via a computer-generated pure unweighted (EPSEM) random digit dial (RDD) telephone sample which selects households on the basis of telephone prefix. This method was used because it ensures a randomly-selected sample of area households proportionately allocated throughout the sample universe. This method also ensures that all unlisted and newly listed telephone households are included in the sample. A pre-identification screening process was also utilized on this project. This computer procedure screens the sample to remove known business and commercial phone prefixes in addition to disconnects, faxes and computers. Both landlines and cell telephones were included in this research.

All of the interviewing on this project was conducted between September 28 and October 9, 2016, at the Center's central location telephone facility where each interviewer worked under the direct supervision of BRC supervisory personnel. All of the interviewers who worked on this project were professional interviewers of the Center. Each received a thorough briefing on the particulars of this study. During the briefing, the interviewers were trained on (a) the purpose of the study, (b) sampling procedures, (c) administration of the questionnaire and (d) other project-related factors. In addition, each interviewer completed a set of practice interviews to ensure that all procedures were understood and followed.

Interviewing on this study was conducted during a cross-section of late afternoon, evening, weekday and weekend hours. During the interviewing segment of this study, up to five separate attempts, on different days and during different times of day, were made to contact each selected household. Only after five unsuccessful attempts was a household substituted in

the sample. Using this methodology, the full sample was completed and partially completed interviews were not accepted nor counted toward fulfillment of the total quotas.

As the data collection segment of this study was being undertaken, completed and validated interviews were turned over to BRC's Coding Department. The Coding Department edited, validated and coded the interviews. Upon completion of coding, a series of validity and logic checks were run to ensure the data were "clean." Following this procedure, the study data were "weighted" by the actual volume of residents in each geographic zone to make the final study sample representative of the study universe.

All surveys are subject to sampling error. Sampling error, stated simply, is the difference between the results obtained from a sample and those which would be obtained by surveying the entire population under consideration. The size of sampling error varies, to some extent, with the number of interviews completed and with the division of opinion on a particular question. An estimate of the sampling error range for this study is provided in the following table. The sampling error presented in the table has been calculated at the confidence level most frequently used by social scientists, the 95 percent level. The sampling error figures shown in the table are average figures that represent the maximum error for the sample bases shown (i.e., for the survey findings where the division of opinion is approximately 50%/50%). Survey findings that show a more one-sided distribution of opinion, such as 70%/30% or 90%/10%, are usually subject to slightly lower sampling tolerances than those shown in the table.

As may be seen in the table, the oversampling error for this study is +/-4.8 percent when the sample is studied in total. However, when subsets of the total sample are studied, the amount of sampling error increases based on the sample size within the subset.

Sampling Size	Approximate Sampling Error at a 95% Confidence Level (Plus/Minus Percentage of Sampling Tolerance)
425	4.8%
300	5.8
200	7.1
100	10.0

## SUMMARY OF THE FINDINGS

### KEY STUDY FINDINGS

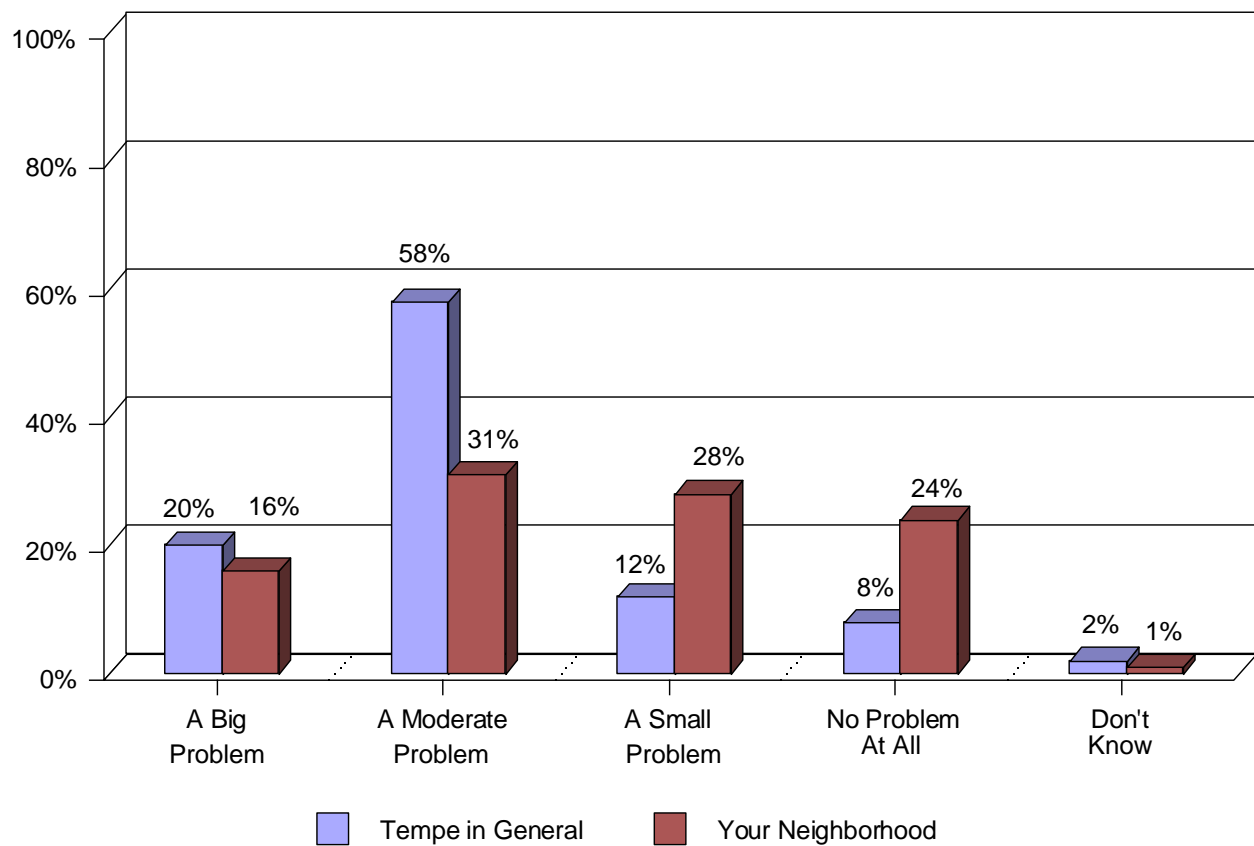
- Seventy-eight percent of Tempe residents believe that traffic congestion in Tempe in general is either a big problem (20%) or a moderate problem (58%), while less than a majority of residents (47%) believe that traffic congestion on the major roads adjacent to their neighborhood is a big (16%) or moderate (31%) problem.
- Residents believe that afternoon drive time is by far the worst time for congestion with a reading of 84 percent. Morning drive time is mentioned by 35 percent of residents as the worst time.
- With a reading of 61 percent, Friday is viewed as the worst day for congestion in Tempe. Receiving slightly lower readings of approximately 50 percent are the remaining four weekdays.
- Seven Tempe intersections receive readings over ten percent when residents are asked to indicate those intersections with the worst congestion problems: University & Rural (18%); Broadway & Rural (16%); University & Mill (16%); Southern & Rural (15%); Southern & Mill (13%); Broadway & Mill (12%); Apache & Rural (12%).
- Sixty-one percent of residents indicate that in the past month they have been delayed at an intersection in Tempe because of a stopped bus, with a median reading of 2.0 times over the period.
- Fifty-nine percent of residents who had experienced a bus-caused delay in the past month believe that the installation of bus pullouts would help “a lot” to improve Tempe traffic congestion.
- Seventy-eight percent of residents indicate that in the past three months they have been delayed in traffic while traveling on a major road in Tempe because of a lane restriction related to construction, with a median reading of 4.0 times over the period.
- Sixty-six percent of residents who experienced construction delays in the past three months would prefer that lane restrictions or closures related to construction occur overnight, even if it might produce noise on a major road adjacent to their neighborhood.
- A majority of Tempe residents (51%) oppose adding bike lanes to major roads in Tempe if it means removing a lane of traffic.

**TRAFFIC CONGESTION IN TEMPE**

Nearly eight out of ten residents (78%) believe that traffic congestion in Tempe in general is either a big problem (20%) or a moderate problem (58%), with northern Tempe residents offering somewhat higher problem readings than southern Tempe residents.

In comparison, less than a majority of residents (47%) believe that traffic congestion on the major roads adjacent to their neighborhood is a big (16%) or moderate (31%) problem. Only among northwestern Tempe residents does the problem reading reach majority status (55%).

**TEMPE TRAFFIC CONGESTION**



C1

**TABLE 1: EVALUATION OF  
TEMPE TRAFFIC CONGESTION**

“How big of a problem would you say the amount of traffic congestion in **Tempe is in general?**”

	REGION				
	TOTAL	North- west	North- east	South- west	South- east
A big problem	20%	18%	23%	17%	20%
A moderate problem	58	64	58	57	53
A small problem	12	10	10	14	15
No problem at all	8	7	6	10	12
Don't know	<u>2</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>0</u>
	100%	100%	100%	100%	100%
<b>BIG/MODERATE SUMMARY</b>	<b>78%</b>	<b>82%</b>	<b>81%</b>	<b>74%</b>	<b>73%</b>

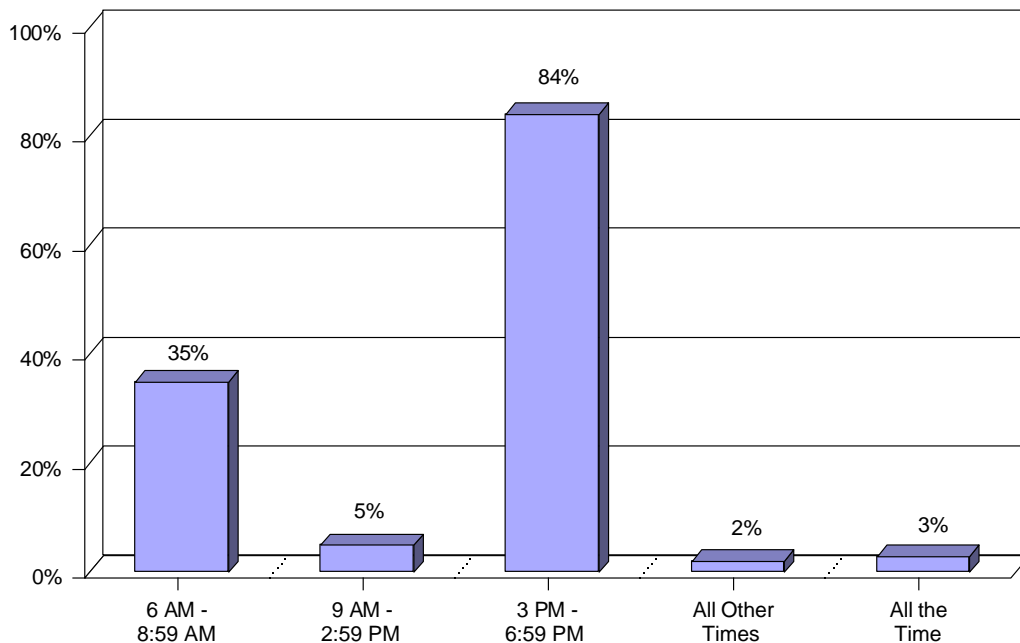
“How big of a problem would you say traffic congestion is on the major streets adjacent to **your neighborhood?**”

A big problem	16%	20%	16%	11%	17%
A moderate problem	31	35	24	36	29
A small problem	28	13	38	29	28
No problem at all	24	31	19	22	25
Don't know	<u>1</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>1</u>
	100%	100%	100%	100%	100%
<b>BIG/MODERATE SUMMARY</b>	<b>47%</b>	<b>55%</b>	<b>40%</b>	<b>47%</b>	<b>46%</b>

When residents who believe congestion is a big or moderate problem in Tempe are asked to reveal the worst times for congestion, the afternoon drive time receives by far the highest reading of 84 percent. This high reading is consistent across all regions. Morning drive time is mentioned by 35 percent of residents, with residents in southern Tempe offering particularly high readings.

### WORST TIMES FOR TRAFFIC CONGESTION IN TEMPE

(Among Those Who Feel Congestion is a Big or Moderate Problem in Tempe)



C2

**TABLE 2: WORST TIMES FOR TRAFFIC CONGESTION IN TEMPE**

(AMONG THOSE WHO FEEL A CONGESTION IS A BIG OR MODERATE PROBLEM IN TEMPE)

“Is there a certain time of day that you feel congestion is worse in Tempe?”

	TOTAL	REGION			
		North-west	North-east	South-west	South-east
6 a.m. to 8:59 a.m.	35%	25%	31%	50%	41%
9 a.m. to 2:59 p.m.	5	16	1	2	2
3 p.m. to 6:59 p.m.	84	76	90	86	80
All other times	2	2	1	2	5
All the time	3	1	6	1	2

Totals do not equal 100% due to multiple responses



Continuing with this line of questioning, we find that Friday, with a reading of 61 percent, is viewed as the worst day for congestion in Tempe. Receiving slightly lower readings of approximately 50 percent are the remaining four weekdays. The data also reveals that northeast residents offer particularly high weekday readings, while southwest residents offer particularly low weekday readings.

### WORST DAYS FOR TRAFFIC CONGESTION IN TEMPE

(Among Those Who Feel Congestion is a Big or Moderate Problem in Tempe)

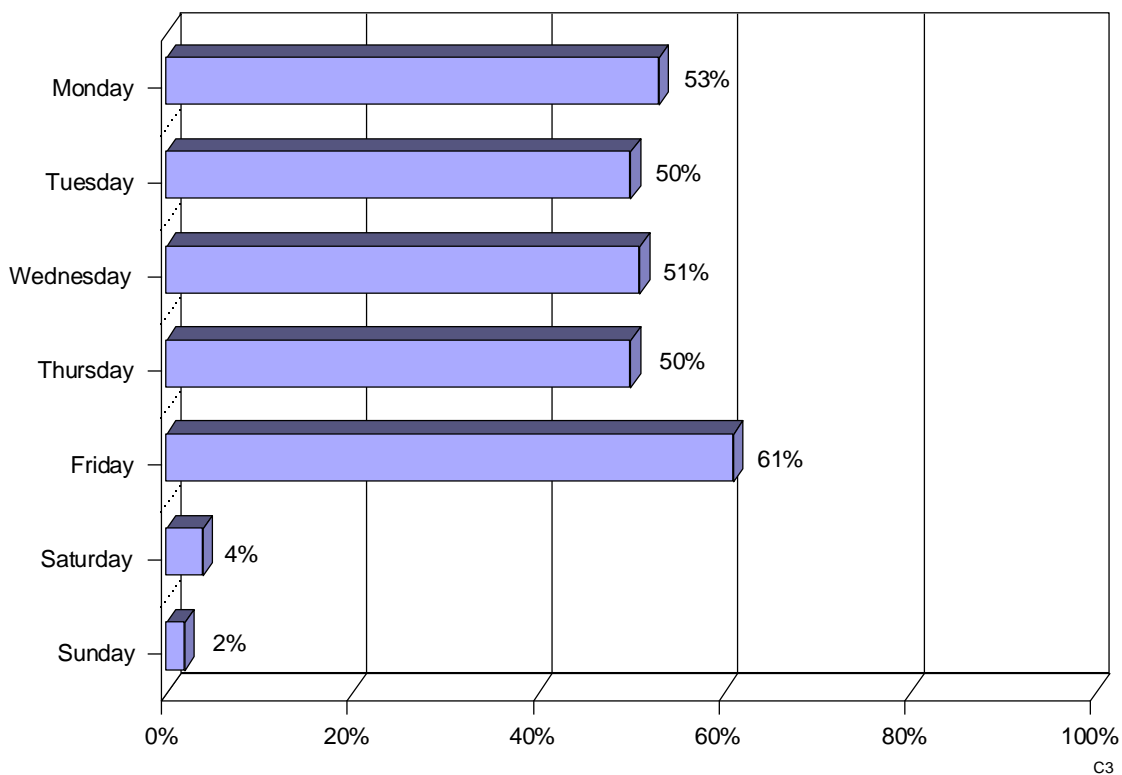


TABLE 3: WORST DAYS FOR TRAFFIC  
CONGESTION IN TEMPE

(AMONG THOSE WHO FEEL CONGESTION IS A  
BIG OR MODERATE PROBLEM IN TEMPE)

“Is there a certain day of the week that you feel congestion is  
worse in Tempe?”

	REGION				
	TOTAL	North- west	North- east	South- west	South- east
Monday	53%	49%	67%	39%	51%
Tuesday	50	48	61	39	49
Wednesday	51	53	63	39	43
Thursday	50	48	60	40	49
Friday	61	56	78	51	52
Saturday	4	2	7	2	2
Sunday	2	2	2	2	1
Every day	15	21	5	20	14

Totals exceed 100% due to multiple responses

Finally, in this section we find that seven Tempe intersections receive readings over ten percent when residents are asked to indicate those intersections with the worst congestion problems. As might be expected, response to this question varies sharply by city region.

## WORST INTERSECTION FOR TRAFFIC CONGESTION IN TEMPE

(Among Those Who Feel Congestion is a Big or Moderate Problem in Tempe)

### TOP 7 MENTIONS

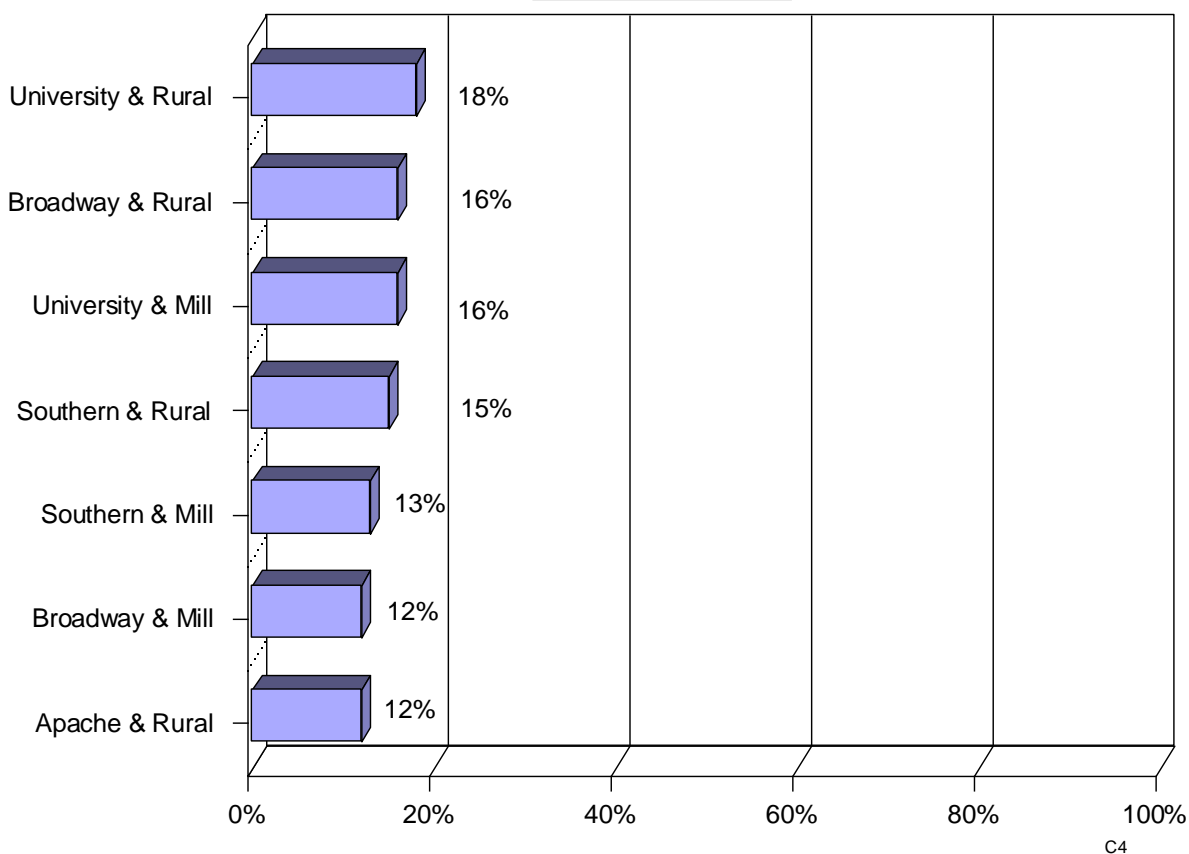


TABLE 4: WORST INTERSECTIONS FOR  
TRAFFIC CONGESTION IN TEMPE

(AMONG THOSE WHO FEEL CONGESTION IS A  
BIG OR MODERATE PROBLEM IN TEMPE)

“Which intersections in Tempe do you feel have the worst congestion problems?”

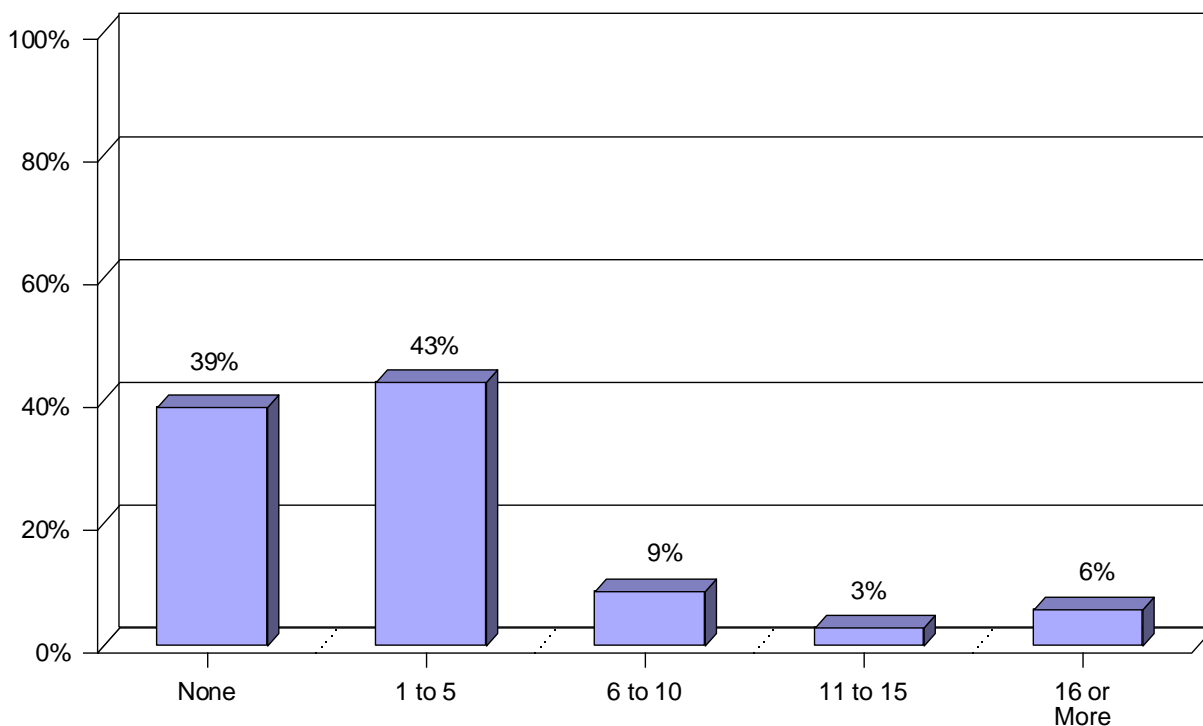
	REGION				
	TOTAL	North- west	North- east	South- west	South- east
University & Rural	18%	11%	19%	30%	13%
Broadway & Rural	16	15	27	8	9
University & Mill	16	25	17	10	7
Southern & Rural	15	19	16	14	10
Southern & Mill	13	19	12	9	11
Broadway & Mill	12	5	26	6	5
Apache & Rural	12	9	13	8	19
Southern & McClintock	9	3	8	9	21
Baseline & Mill	9	7	5	23	2
University & McClintock	9	14	6	8	9
Baseline & McClintock	9	2	5	16	16
Baseline & Rural	8	4	4	13	16
Apache & McClintock	7	4	8	3	13
Broadway & McClintock	6	3	2	6	15
Baseline & Priest	5	2	2	16	4
Guadalupe & McClintock	5	1	1	6	20
Southern & Priest	5	7	6	4	1
Broadway & Priest	4	8	3	4	1
Guadalupe & Rural	3	2	*	5	7
All others	17	10	19	26	12

\* Indicates % less than .5

**EXPERIENCE WITH BUS DELAYS**

Sixty-one percent of residents indicate that in the past month they have been delayed at an intersection in Tempe because of a stopped bus, with a median reading of 2.0 times over the period. Southeast residents report the lowest bus-caused delay reading.

**EXPERIENCE WITH BUS-CAUSED TRAFFIC DELAYS**



**TABLE 5: EXPERIENCE WITH BUS - CAUSED TRAFFIC DELAYS**

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“Next, in the past month, how many times, if any, have you been delayed at an intersection in Tempe because of a stopped bus?”

	REGION				
	TOTAL	North-west	North-east	South-west	South-east
None	39%	33%	39%	33%	56%
1 to 5	43	50	39	45	36
6 to 10	9	4	16	10	1
11 to 15	3	1	2	7	*
16 or more	6	12	4	5	7
	100%	100%	100%	100%	100%
<b>MEDIAN TIMES</b>	2.0	2.4	2.1	2.5	<1.0

\*Indicates % less than .5

Eight Tempe intersections record readings of ten percent or over when residents are asked to reveal those intersections where they have experienced bus-caused delays.

### INTERSECTIONS WHERE BUS DELAYS EXPERIENCED

(Among Those Who Have Experienced  
Bus Delays in the Past Month)

#### TOP 8 MENTIONS

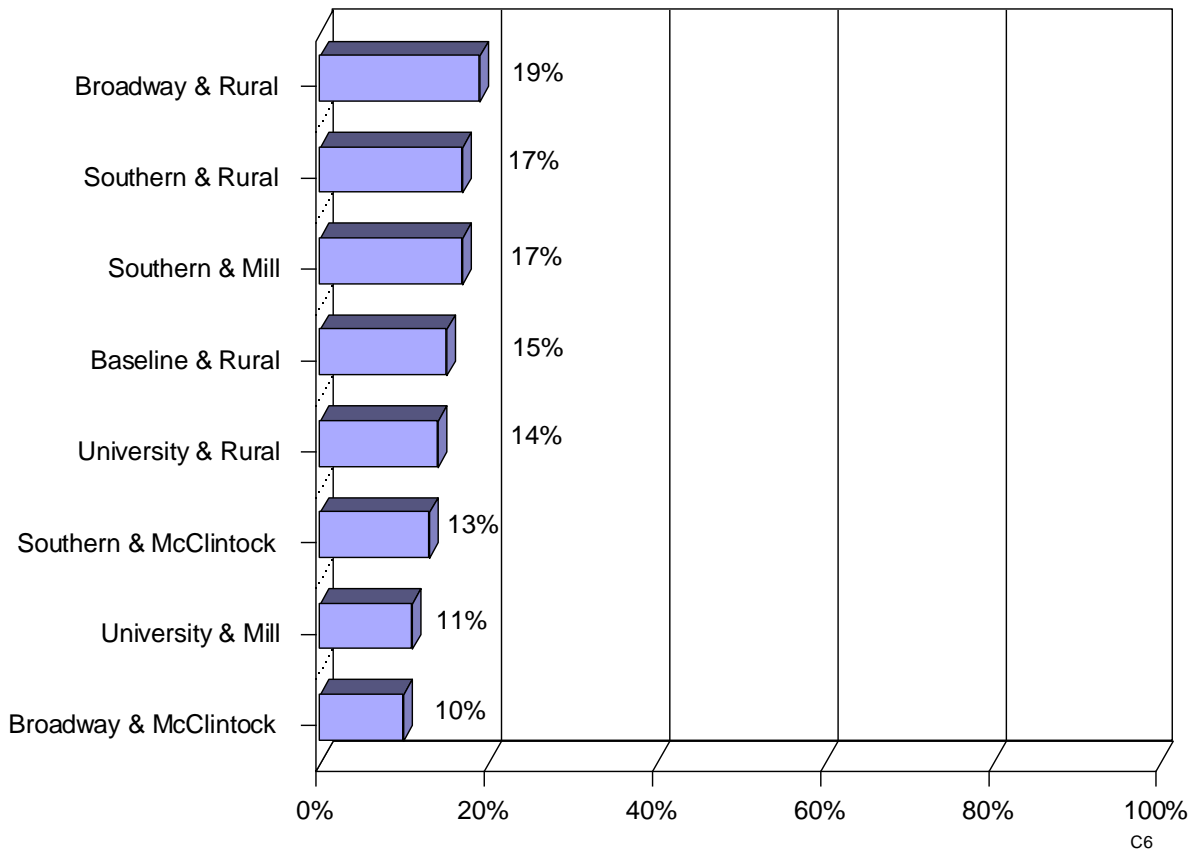


TABLE 6: INTERSECTIONS WHERE  
BUS DELAYS EXPERIENCED

(AMONG THOSE WHO HAVE EXPERIENCED  
BUS DELAYS IN THE PAST MONTH)

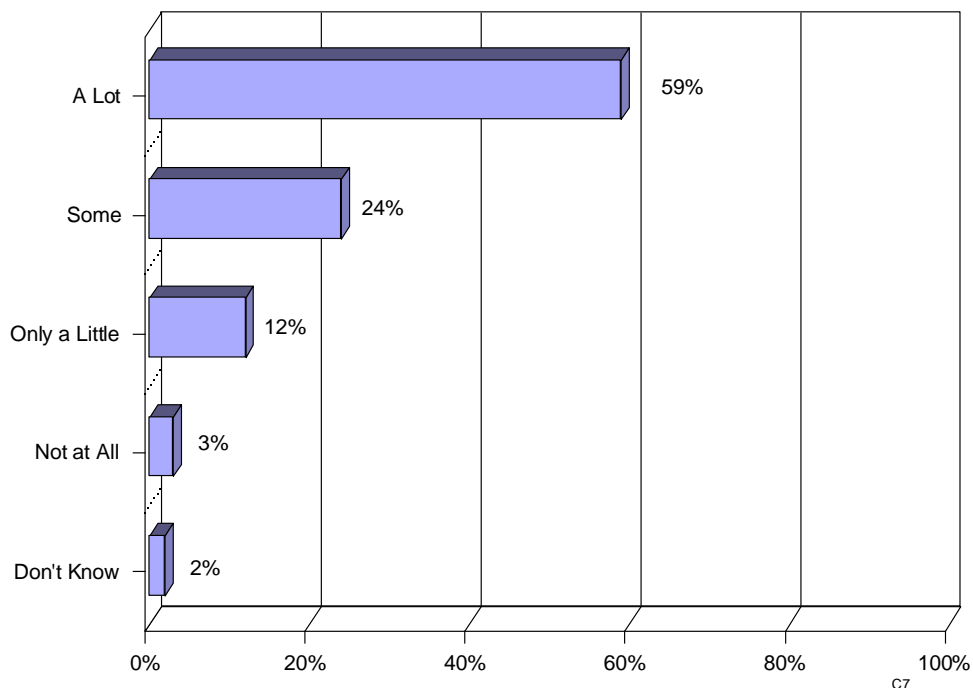
“At which intersection have you experienced delays? Please give me the cross streets that form each intersection.”

	REGION				
	TOTAL	North- west	North- east	South- west	South- east
Broadway & Rural	19%	37%	19%	5%	10%
Southern & Rural	17	19	25	8	10
Southern & Mill	17	28	14	9	16
Baseline & Rural	15	27	8	15	8
University & Rural	14	25	10	10	6
Southern & McClintock	13	24	11	4	10
University & Mill	11	18	9	12	1
Broadway & McClintock	10	16	3	7	17
Apache & Rural	9	15	7	9	1
Baseline & Mill	9	16	1	13	2
Baseline & McClintock	9	17	4	9	7
Baseline & Priest	9	15	1	17	1
Broadway & Priest	9	23	6	1	1
Guadalupe & Rural	9	14	1	12	12
University & McClintock	8	15	6	4	2
University & Priest	8	15	11	1	0
Broadway & Mill	7	15	9	0	0
Apache & McClintock	7	15	2	6	2
Guadalupe & McClintock	6	14	2	0	10
Southern & Priest	5	15	0	1	6
McClintock & Elliot	2	0	0	8	1
McClintock & Warner	1	0	0	0	8
All others	10	11	3	13	16

In a related question, 59 percent of residents who had experienced a bus-caused delay in the past month believe that the installation of bus pullouts would help “a lot” to improve Tempe traffic congestion. Only among southeast residents does the “a lot” reading dip below 50 percent.

### PERCEIVED IMPACT OF BUS PULLOUTS ON TRAFFIC CONGESTION

(Among Those Who Have Experienced Bus Delays in the Past Month)



**TABLE 7: PERCEIVED IMPACT OF BUS PULLOUTS ON TRAFFIC CONGESTION**

(AMONG THOSE WHO HAVE EXPERIENCED BUS DELAYS IN THE PAST MONTH)

“Do you feel that installing bus pullouts, which is when a bus pulls out of the traffic lane to pick up passengers, would help a lot, some, only a little or not at all to improve traffic congestion in Tempe?”

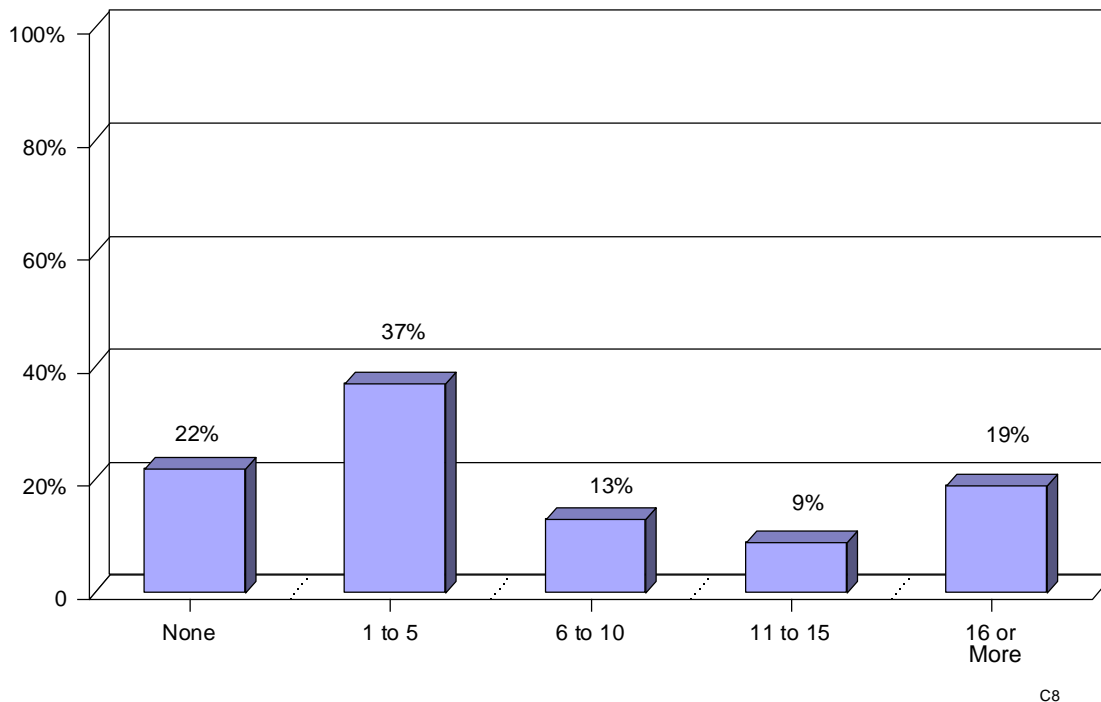
	TOTAL	REGION			
		North-west	North-east	South-west	South-east
A lot	59%	51%	67%	66%	46%
Some	24	30	18	20	29
Only a little	12	16	11	5	17
Not at all	3	2	3	4	4
Don't know	<u>2</u>	<u>1</u>	<u>1</u>	<u>5</u>	<u>4</u>
	100%	100%	100%	100%	100%



**EXPERIENCE WITH CONSTRUCTION-CAUSED DELAYS**

Seventy-eight of residents indicate that in the past three months they have been delayed in traffic while traveling on a major road in Tempe because of a lane restriction related to construction with a median reading of 4.0 times over the period. Once again, southeast residents report the lowest construction caused delay reading.

**EXPERIENCE WITH CONSTRUCTION -  
CAUSED TRAFFIC DELAYS**



**TABLE 8: EXPERIENCE WITH CONSTRUCTION-  
CAUSED TRAFFIC DELAYS**

“In the past three months, how many times, if any, have you been delayed in traffic while traveling on a major road in Tempe because of a lane restriction or closure related to construction?”

	REGION				
	TOTAL	North-west	North-east	South-west	South-east
None	22%	19%	19%	24%	25%
1 to 5	37	35	34	36	49
6 to 10	13	17	15	7	13
11 to 15	9	10	6	16	5
16 or more	<u>19</u>	<u>19</u>	<u>26</u>	<u>17</u>	<u>8</u>
	100%	100%	100%	100%	100%
<b>MEDIAN TIMES</b>	4.0	4.5	4.7	3.8	3.1

When residents who have experienced construction delays in the past three months are asked if they would prefer that lane restrictions or closures related to construction occur overnight, 66 percent say yes, even if it might produce noise on a major road adjacent to their neighborhood. This attitude is universal across each City region.

## PREFERENCE FOR OVERNIGHT CONSTRUCTION CLOSURES

(Among Those Who Have Experienced Construction Delays in the Past 3 Months)

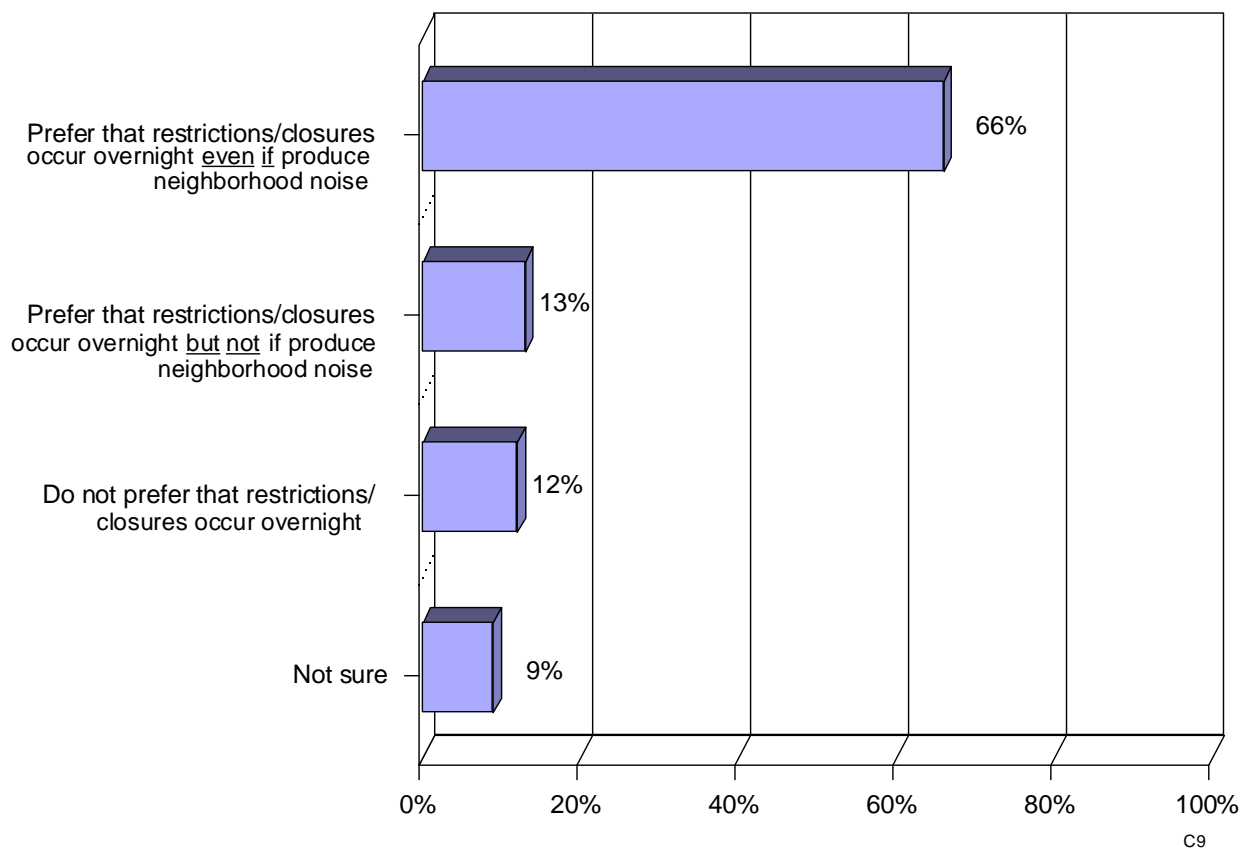


TABLE 9: PREFERENCE FOR OVERNIGHT  
CONSTRUCTION CLOSURES

(AMONG THOSE WHO HAVE EXPERIENCED  
CONSTRUCTION DELAYS IN THE PAST 3 MONTHS)

“Would you prefer that lane restrictions or closures related to  
construction occurred overnight in Tempe?”

	REGION				
	TOTAL	North- west	North- east	South- west	South- east
Yes	83%	87%	86%	81%	75%
No	12	13	12	11	13
Don't know	<u>5</u>	<u>*</u>	<u>2</u>	<u>8</u>	<u>12</u>
	100%	100%	100%	100%	100%

(AMONG THOSE PREFERRING OVERNIGHT CLOSURES)

“And would you still prefer that lane restrictions and closures  
related to construction occurred overnight in Tempe even if it was  
on a major road adjacent to your neighborhood which may  
produce noise?”

Yes	80%	88%	71%	84%	77%
No	15	9	22	13	14
Don't know	<u>5</u>	<u>3</u>	<u>7</u>	<u>3</u>	<u>9</u>
	100%	100%	100%	100%	100%

\*Indicates % less than .5

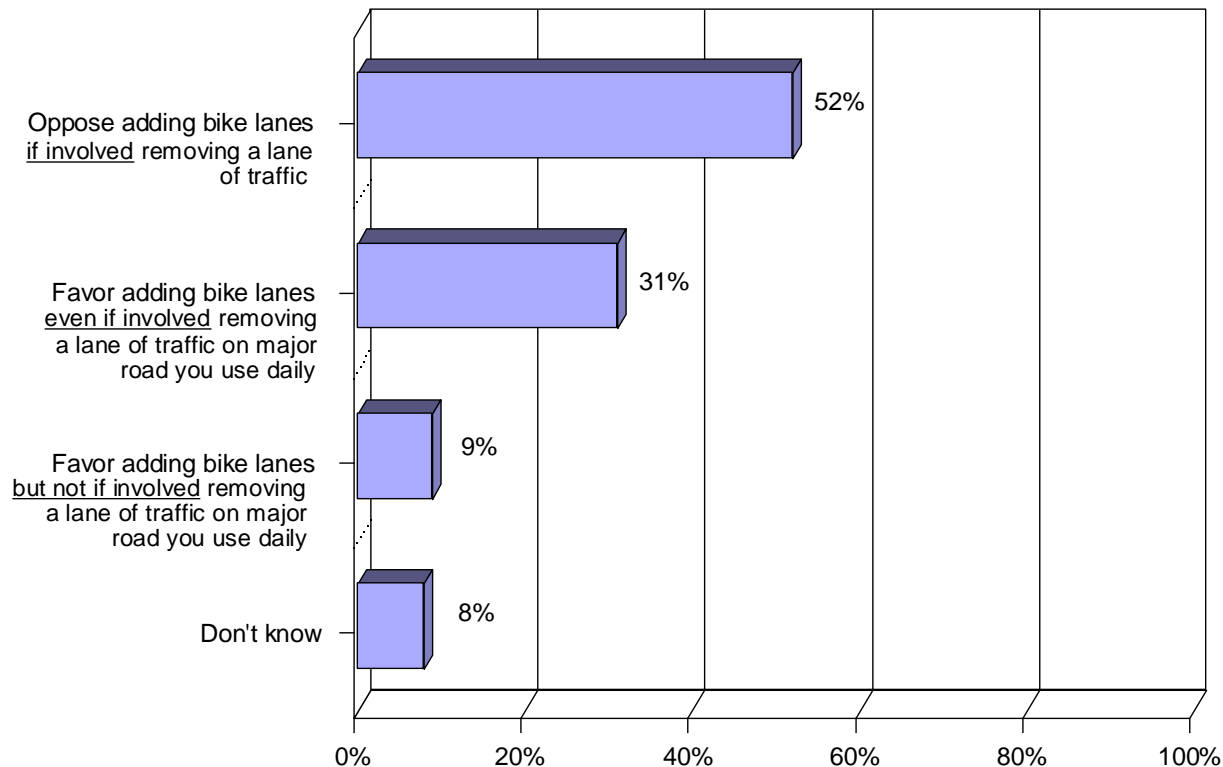
SUMMARY

Prefer restrictions/closures occur overnight <u>even if</u> produce neighborhood noise	66%	77%	61%	69%	58%
Prefer restrictions/closures occur overnight <u>but not if</u> produce neighborhood noise	13	8	19	10	11
Do not prefer restrictions/ closures occur overnight	12	13	12	12	12
Don't know	<u>9</u>	<u>2</u>	<u>8</u>	<u>9</u>	<u>19</u>
	100%	100%	100%	100%	100%

**ATTITUDE ABOUT ADDING BIKE LANES ON MAJOR ROADS**

A majority of Tempe residents (52%) oppose adding bike lanes to major roads in Tempe if it means removing a lane of traffic. Only in the northwest region of the City does opposition drop below majority with a reading of only 34 percent. In this region, 50 percent of residents favor adding bike lanes even if it involves removing a lane of traffic on a major road they use daily.

**ATTITUDE ABOUT ADDING BIKE LANES TO MAJOR TEMPE ROADS**



C10

TABLE 10: ATTITUDE ABOUT ADDING  
BIKE LANES TO MAJOR TEMPE ROADS

“Do you favor or oppose adding bicycle lanes to major roads in Tempe if it means removing a lane of traffic?”

	REGION				
	TOTAL	North-west	North-east	South-west	South-east
Favor	43%	54%	41%	38%	36%
Oppose	51	34	56	61	56
Don't know	<u>6</u>	<u>12</u>	<u>3</u>	<u>1</u>	<u>8</u>
	100%	100%	100%	100%	100%

(AMONG THOSE FAVORING BIKE LANES)

“And would you still favor adding bicycle lanes to major roads in Tempe if it involved removing a lane of traffic along a major road that you use daily?”

Favor	74%	92%	79%	38%	74%
Oppose	21	7	20	42	26
Don't know	<u>5</u>	<u>1</u>	<u>1</u>	<u>20</u>	<u>*</u>
	100%	100%	100%	100%	100%

\*Indicates % less than .5

SUMMARY

Oppose adding bike lanes <u>if involved</u> removing a lane of traffic	52%	34%	56%	61%	56%
Favor adding bike lanes <u>even if involved</u> removing a lane of traffic on major road you use daily	31	50	32	15	26
Favor adding bike lanes <u>but not if involved</u> removing a lane of traffic on major road you use daily	9	4	8	15	9
Don't know	<u>8</u>	<u>12</u>	<u>4</u>	<u>9</u>	<u>9</u>
	100%	100%	100%	100%	100%

## MAJOR TEMPE ROADS TRAVELED MOST OFTEN

The three most travelled major streets in Tempe are Rural (45%), McClintock (43%) and Southern (38%).

TABLE 11: MAJOR TEMPE ROADS  
TRAVELED MOST OFTEN

“What major street in Tempe do you travel the most?”

	TOTAL	REGION			
		North-west	North-east	South-west	South-east
Rural	45%	48%	40%	51%	44%
McClintock	43	17	64	28	62
Southern	38	57	46	24	16
Broadway	23	26	37	13	6
Baseline	19	6	13	37	26
Mill	17	30	16	10	8
University	17	19	26	9	6
Priest	11	19	6	15	3
Apache	10	2	21	5	6
Elliot	9	1	1	19	23
Guadalupe	7	1	1	13	20
Warner	3	0	*	8	7
All others	8	5	4	11	11

\*Indicates % less than .5

**APPENDIX**

Survey Questionnaire

Hello, my name is \_\_\_\_\_ and I'm with the Behavior Research Center of Arizona. We're conducting a survey for the City of Tempe Transportation Division on important transportation issues affecting the City and I'd like to speak with you for a few minutes.

A. Before we get started however, are you 18 years of age or older and a resident of Tempe?

IF YES: CONTINUE

IF NO: ASK TO SPEAK WITH OTHER HOUSEHOLD MEMBER 18+ AND RESIDENT. REINTRODUCE YOURSELF AND CONTINUE. IF NONE AVAILABLE, ARRANGE CALLBACK. IF NONE, TERMINATE.

**(CELLPHONE SAMPLE ONLY)**

B. Are you currently driving a vehicle or doing any activity that requires your full attention?

(ARRANGE CALLBACK) Yes...1  
(CONTINUE) No...2

1. To begin, do you live north or south of US 60?

North...1  
South...2

2. And do you live east or west of Rural Road?

East...1  
West...2

3. How big of a problem would you say the amount of traffic congestion is in Tempe in general?  
(READ EACH EXCEPT DK)

A big problem...1  
A moderate problem...2  
A small problem...3  
Or no problem at all...4  
Don't know/NA...5

4. And how big of a problem would you say traffic congestion is on the major streets adjacent to your neighborhood? (READ EACH EXCEPT DK)

A big problem...1  
A moderate problem...2  
A small problem...3  
Or no problem at all...4  
Don't know/NA...5

**(IF Q3 OR Q4 = 1 OR 2, GO TO Q5; OTHERWISE GO TO Q8)**

5. Is there a certain time of day that you feel traffic congestion is worse in Tempe? (DO NOT READ)

6 a.m. to 9 a.m....1  
9 a.m. to 3 p.m....2  
3 p.m. to 7 p.m....3  
All the time...4  
Don't know/NA...5



6. Is there a certain day of the week that you feel traffic congestion is worse in Tempe? (DO NOT READ – MARK ALL MENTIONED).

- Sunday...1
- Monday...2
- Tuesday...3
- Wednesday...4
- Thursday...5
- Friday...6
- Saturday...7
- Every day...8
- Don't know/NA...9

7. Which intersections in Tempe do you feel have the worst congestion problem? Please give me the two cross streets that form each intersection. (MARK ALL MENTIONED).

- Apache and Rural...1
- Apache and McClintock...2
- Baseline and Priest...3
- Baseline and McClintock...4
- Baseline and Mill...5
- Baseline and Rural...6
- Broadway and Rural...7
- Broadway and McClintock...8
- Broadway at Mill...9
- Broadway at Priest...10
- Guadalupe and Rural...11
- Guadalupe and McClintock...12
- Southern and McClintock...13
- Southern and Priest...14
- Southern and Mill...15
- Southern and Rural...16
- University and McClintock...17
- University and Priest...18
- University and Mill...19
- University and Rural...20
- \_\_\_\_\_ Other (SPECIFY)

8. What are the major roads in Tempe that you travel the most? (MARK ALL MENTIONED)

- Apache...1
- Baseline...2
- Broadway...3
- Elliot...4
- Guadalupe...5
- McClintock...6
- Mill...7
- Priest...8
- Rio Salado...9
- Rural...10
- Southern...11
- University...12
- \_\_\_\_\_ Other (SPECIFY)

9. Next, in the past month, how many times, if any, have you been delayed at an intersection in Tempe because of a stopped bus?

- (GO TO Q11) None...1
- 1 to 5...2
- (GO TO Q10) 6 to 10...3
- 11 to 15...4
- 16 or more...5

10. At which intersections have you experienced delays? Please give me the two cross streets that form each intersection. (MARK ALL MENTIONED).

- Apache and Rural...1
- Apache and McClintock...2
- Baseline and Priest...3
- Baseline and McClintock...4
- Baseline and Mill...5
- Baseline and Rural...6
- Broadway and Rural...7
- Broadway and McClintock...8
- Broadway at Mill...9
- Broadway at Priest...10
- Guadalupe and Rural...11
- Guadalupe and McClintock...12
- Southern and McClintock...13
- Southern and Priest...14
- Southern and Mill...15
- Southern and Rural...16
- University and McClintock...17
- University and Priest...18
- University and Mill...19
- University and Rural...20
- \_\_\_\_\_ Other (SPECIFY)

11. Do you feel that installing bus pullouts, which is when a bus pulls out of the traffic lane to pick up passengers, would help a lot, some, only a little or not at all to improve traffic congestion in Tempe?

- A lot...1
- Some...2
- Only a little...3
- Not at all...4
- Don't know...5

12. In the past three months, how many times if any, have you been delayed in traffic while traveling on a major road in Tempe because of a lane restriction or closure related to construction?

- (GO TO Q15) None...1
- 1 to 5...2
- (GO TO Q13) 6 to 10...3
- 11 to 15...4
- 16 or more...5

13. Would you prefer that lane restrictions or closures related to construction occurred overnight in Tempe?

- (GO TO Q14) Yes...1
- No...2
- (GO TO Q15) Don't know...3

14. And would you still prefer that lane restrictions and closures related to construction occurred overnight in Tempe even if it was on a major road adjacent to your neighborhood which may produce noise?
- Yes...1  
No...2  
Don't know...3
15. Do you favor or oppose adding bicycle lanes to major roads in Tempe if it means removing a lane of traffic?
- (GO TO Q16) Favor...1  
Oppose...2  
(GO TO Q17) Don't know...3
16. And would you favor or oppose adding bicycle lanes to major roads in Tempe if it involved removing a lane of traffic along a major road that you use daily?
- Favor...1  
Oppose...2  
Don't know...3
17. Now, before I finish, I need two pieces of information about yourself for classification purposes only. First, which one of the following categories best describes your age? (READ EACH EXCEPT REFUSED)
- Under 25...1  
25 to 34...2  
35 to 44...3  
45 to 54...4  
55 to 64...5  
65 or over...6  
Refused...7
18. And finally, what mode of transportation do you use most often to travel in Tempe? (DO NOT READ)
- Car/truck...1  
Bus...2  
Bike...3  
Walk...4  
\_\_\_\_\_ Other (SPECIFY)

Thank you very much, that completes this interview. We very much appreciate your help on this project. My supervisor may want to call you to verify that I conducted this interview so may I have your first name so that they may do so?  
(VERIFY PHONE NUMBER)

NAME: \_\_\_\_\_ PHONE #: \_\_\_\_\_