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Understanding How Public Perceptions of Road Diets Are Formed

September 2012

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ABSTRACT

Many communities are exploring as well as implementing capacity reallocation projects, which generally take the form of reducing an existing multi-lane road (usually four-lanes) to two vehicle-lanes, and adding a center left hand turn lane and dedicated bike and pedestrian paths in both directions. Public opinion plays an important role in dictating how seriously these projects are considered and once implemented, whether or not they are thought to be a success or failure. Our understanding of how public opinion influences consideration and development of a capacity reduction project, and ultimately how that public opinion can be harnessed toward better project development practices is limited. In this analysis, we provide the findings gleaned from a survey of 1,040 households prior to implementation of a capacity reallocation project along a major arterial in Davis, CA (Fifth Street).

Our results show that project support and opposition are correlated with levels of perceived safety and travel comfort, the frequency of bicycle usage, and respondent expectations with respect to vehicle congestion on side streets. Project support was also correlated with age group, household proximity to the project, knowledge of technical studies and online materials, and attendance at project outreach meetings. By understanding the key factors that correlate to project opinion as well as the types of information valued by residents, this research can serve as a starting point for local jurisdictions planning outreach, monitoring, and/or evaluation activities related to capacity reallocation projects.

INTRODUCTION

Capacity reallocation projects have recently received attention as a key means for expanding opportunities for non-motorized travel modes like biking and walking within existing transportation networks. Advocates claim a broad range of project benefits including expanding access to non-motorized mobility options, generally maintaining existing vehicle capacity, and improving safety, especially for bicyclists and pedestrians, but also for vehicles [1, 2]. As with many projects that affect public space, perceptions of the project can significantly influence whether the project is approved, its final design, and the speed with which the project is implemented. Some communities have even reversed capacity reallocation projects due to concerns over anticipated or perceived changes in vehicle congestion and economic impacts [3, 4]. Even in a nationally recognized "Bicycle Friendly City", the e City of Davis, CA, concerned stakeholders were able to effectively lobby staff and the City Council to implement a capacity reallocation project on a trial basis, as opposed to the original proposal, which was a permanent installation.

The City of Davis is located in northern California and has a population of approximately 65,622 [5]. The capacity reallocation project is slated for September 2012 and will take place on Fifth Street, a primary city arterial providing connectivity between the west and east residential areas of Davis and the downtown Davis business district [6]. The project location is depicted in

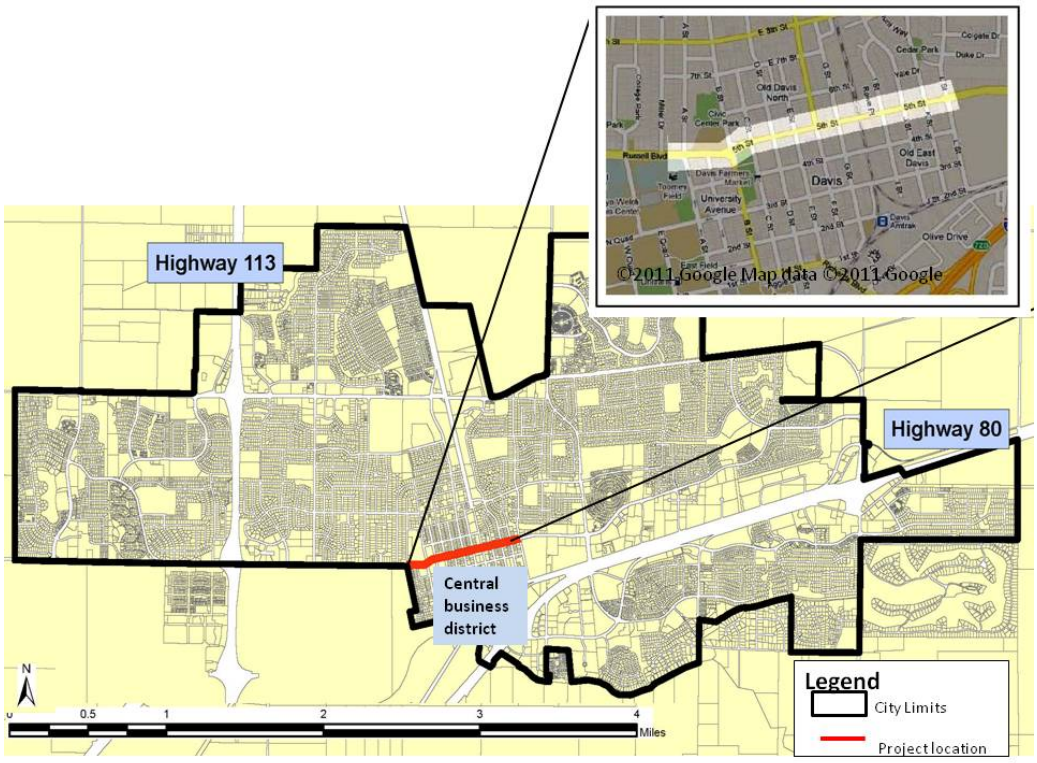

FIGURE 1 [7, 8]. The project area, a 3,900-foot segment of Fifth Street running along the downtown business district, currently consists of four vehicle travel lanes (curb to curb) with no accommodation for bicycle lanes. Bicycle lanes and bicycle paths exist at both ends of this segment of Fifth Street, which results in a lack of continuity in the existing bikeway network. Associated with this gap in the network are safety issues and barriers to pedestrian use [9]. The project entails reducing the number of vehicle lanes on Fifth Street from four to two with a middle left-hand turn lane and dedicated bike paths in both directions. According to city staff reports, several of the driving forces behind the project include residential concerns regarding the overall difficulty of using the street, levels of vehicle collisions, and

lack of bicycle access [10]. However, public concerns about perceptions that the project would increase vehicle congestion, decrease safety , and result in negative impacts to the business climate pushed the project toward a trial installation [10].

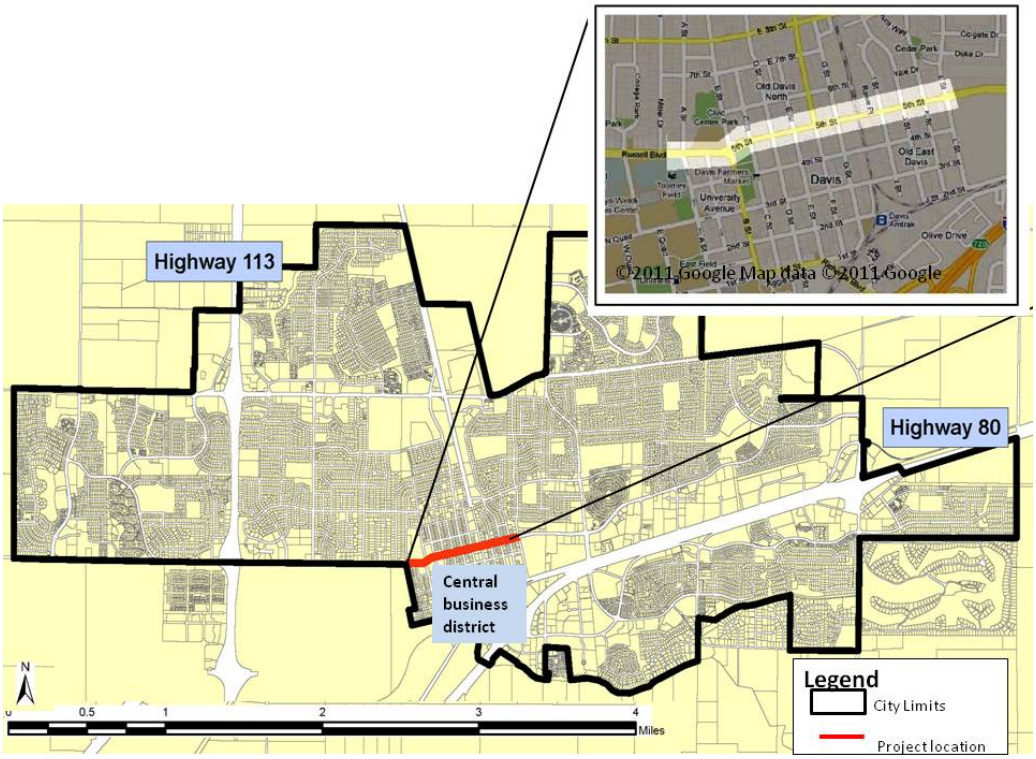

FIGURE 1 Project location map

As the next section will describe, the factors that shape public opinion regarding capacity reallocation projects are not well understood. To expand our knowledge about which factors influence public opinion on capacity reduction projects, we conducted a survey of 1,040 city residents prior to the Davis capacity reduction project implementation. In this paper, we present the main findings of the survey as they relate to the range of respondent characteristics and perceptions that are significantly correlated with project opinion. In addition, we examine respondent priorities for Fifth Street improvements and the types of information resources respondents used to educate themselves about the project. Our study results can assist local planners in better understanding the public concerns and issues surrounding capacity reallocation projects, which, in turn, can help refine monitoring and outreach programs around this new multi-modal transportation strategy.

LITERATURE REVIEW

Bicycle and pedestrian projects often face challenges related to lack of technical understanding about a proposed project and widespread use of misinformation [11]. We know that public opinion is important in the political process, as indicated by a variety of studies on the effect of public opinion on government policy [12, 13]. However, literature evaluating the factors that drive public opinions related to capacity reallocation projects is sparse.

There have been a few studies that have evaluated public opinion in relation to capacity reallocation projects. For example, Rosales (2009) administered public opinion surveys to residents in six

different jurisdictions with comparable four-lane undivided and three-lane streets to evaluate factors related to livability either before or after implementation of a capacity reallocation project. These surveys obtained information pertaining to household characteristics, perceptions on the street's traffic, safety, activities, and friendliness, respondent recommendations for roadway improvements, and if applicable, reactions to recently implemented projects (Rosales, 2009). While these surveys provided insight as to what streetscape improvements were desired in particular jurisdictions and what changes residents had noticed after a particular project was implemented, they did not focus specifically on the relationship between respondent characteristics, project perceptions, and project opinion.

DATA COLLECTION

During 2011, after the Fifth Street capacity reallocation project was approved by the City Council, we conducted a City-wide public opinion survey to assess those respondent characteristics and project perceptions that were more likely to be correlated with project opinion. For the purpose of this analysis, "respondent characteristics" refer to demographic characteristics, transportation mode choice, and household proximity to the project. "Project perceptions" refer to respondent comfort and safety using Fifth Street, perceived project effects on vehicle congestion, and sources of project information. "Project opinion" refers to respondent support, opposition, or undecided opinions on the Fifth Street project.

The survey consisted of three sections. The first section collected information about the respondent's perceptions of Fifth Street and contained Likert-type scale prompts that were intended to determine how comfortable respondents felt traveling along Fifth Street and also to identify those operational features of Fifth Street that respondents were interested in improving. The survey then introduced the respondent to the Fifth Street project, using content derived from City outreach material. This section was designed to determine whether or not respondents were familiar with the Fifth Street project. If they were familiar, they were presented with several prompts regarding the sources from which they gathered or were aware of related to project information. All respondents, regardless of previous project familiarity, were asked for their opinion on the project (supportive, unsupportive, or undecided). The third section contained prompts regarding respondent demographic characteristics. Survey questions were pre-tested and feedback was incorporated into the final version of the survey.

To ensure that we obtained an adequate response rate from those living in proximity to the project, our survey distribution strategy focused on soliciting responses from two primary groups: every resident within 1,500 feet of the project, and 5,129 randomly selected Davis households throughout the City. Residential addresses were purchased from a commercial provider. We hand delivered a cover letter, survey, and business reply envelope to each residence located within 1,500 feet of the proposed project site, which consisted of 435 households. Responses to the mail-back survey were manually digitized. Our general population survey was an online survey, developed through Survey Monkey and contained the same content as the mail back survey. The combined survey response rate was 18.6%.

Descriptive statistics on the demographic characteristics of respondents are presented in TABLE 1 [5]. The average age of the survey respondents was 52 years old, while the average age citywide is 25 years old [5]. Our survey introductory cover letter requested that only residents over the age of 18 participate, while the Census average includes all ages. Respondents with graduate degrees are over-represented in this survey; 51% stated that their highest level of education was a completed graduate degree as compared to 37% of the city population [5]. The survey sample is 53.4% male, as compared to 48% city-wide [5]. Reported household sizes, employment status, and income bracket appeared to be more representative of the citywide population. Since this survey was designed to help understand the relationships between public opinion and respondent characteristics directly impacted by the project, obtaining a representative sample of the city-wide population was less important to us than obtaining a wide variety of viewpoints.

TABLE 1 Descriptive Statistics

Variable	Units	Survey	Standard deviation	2010 Census
Age (n=910)	Years (mean)	52.17	16.553	25.4
Gender (n=947)	Male	53.4%		48.45%
	Female	46.6%		51.55%
Household Size (n=942)	Number of members (mean)	2.55	1.303	2.58
Income (n=848)	Less than $15,000=1; $15,000-$29,999=2; $30,000 to $49,999=3; $50,000-$74,999=4; $75,000-$124,999=5; $125,000 or more=6. (mean)	4.2548	1.00233	$81,863
Educational Background (n=934)	High school or less	2.4%		12.67%
	Some college or technical school	7.6%		13.50%
	Associate's degree	3.7%		5.45%
	Four year college/technical school degree	34.8%		30.75%
	Completed graduate degrees	51.5%		37.64%
Employment Status (n=945)	Employed (Full time, part time)	66.46%		56.90%
	Unemployed (Not currently working)	5.19%		7.80%
Do you ever ride a bike for transportation (for instance to run errands or get to work or school? (n=1038)	I never or almost never ride a bike for transportation	35.4%		N/A
	I sometimes ride a bike for transportation	46.2%		
	Most or all of my transportation is by bicycle	18.5%		

TABLE 2 presents the distribution of survey responses regarding travel along Fifth Street, desired improvement areas for Fifth Street, and Fifth Street project opinions. The median indicates the direction of the answer (safe or unsafe, agree or disagree, etc) and the quartiles demonstrate skewness in responses. Respondents generally reported feeling safe and comfortable while driving and walking on Fifth Street, but feeling unsafe and uncomfortable bicycling. The distribution of promoting active lifestyles and improving property values have more neutral median values as "neither important nor unimportant" priorities for improving Fifth Street. In terms of Fifth Street project opinion, 25.9% of respondents are opposed to the Fifth Street project, 39.4% are supportive, and 32.10% are undecided.

In the survey, subsequent to a brief Fifth Street project description, respondents were also shown a map of the project area with the goal learning more about how respondents felt the project would impact vehicle congestion in the areas surrounding the project. The map contained the streets and areas of interest, labeled by number, and included a parallel street to the north of Fifth Street ("1": Eighth Street), the downtown business district ("2"), and a road central to vehicle access to and from the central business district ("3": Richards Boulevard). FIGURE 2 is the map presented to survey participants [8]. Respondents tended to skew toward perceiving that congestion levels would remain about the same after the project was implemented. Summary statistics related to sources of project information are discussed in the Results section.

TABLE 2 Summary Statistics

	Number of cases	Median	First quartile (25%)	Third quartile (75%)
How safe do you feel from accidents while: (1=Very unsafe, 2= Unsafe, 3= Neither safe nor unsafe, 4= Safe, 5=Very safe)				
Driving on Fifth Street?	1001	4	3	4
Bicycling on Fifth Street?	797	2	1	3
Walking on Fifth Street?	805	4	3	4
I feel comfortable using Fifth Street when I am: (1= Strongly Disagree, 2= Disagree, 3= Neither agree nor disagree, 4=Agree, 5= Strongly agree)				
Driving by car	996	4	3	4
Riding a bicycle	802	2	1	3
Walking	816	4	1	3
How important is it to you to improve the following, on Fifth Street? (1=Very unimportant, 2=Unimportant, 3=Neither important nor unimportant, 4= Important, 5= Very important)				
Improving pedestrian safety	970	4	3	4
Increasing bicycle route connectivity	962	4	3	5
Promoting more active lifestyles	944	3	3	4
Increasing bicycle safety	964	4	4	5
Reducing vehicle congestion	966	4	4	4
Reducing motor vehicle speeds	967	4	3	5
Reducing vehicle accidents	965	4	4	5
Improving property values	957	3	2	4
Economic revitalization	954	4	3	4
Improving air quality	960	4	3	4
Reducing greenhouse gas emissions from vehicles	956	4	3	4
Do you support the Fifth Street project?				
1=No, 2=Yes, 3= Undecided	958	2	1	3
Do you think the Fifth Street project will make traffic congestion worse or better in the three areas listed below? (1=Worse, 2=Stay the same, 3= Better)				
Eighth Street	948	2	1	2
Central Business District	944	2	1	2
Richards Boulevard	948	2	2	2

1: Eighth Street
2: Central Business District
3: Richards Boulevard

FIGURE 2 Congestion impacts in the project area

RESULTS

Relationships between project opinion and respondent characteristics were examined using descriptive statistics and Chi-square tests to learn more about the factors that contribute to project opinion. Respondent characteristics and project perceptions that are correlated with project opinion are discussed below.

Respondent Characteristics

Gender, income, household size, educational background, and employment status are not associated with project opinion. However, respondent age, using a bicycle for transportation, and household proximity to the project are correlated.

Age

The largest segment of respondents was in the 50-59 year old range (25%). A Chi-square test indicated a significant correlation between age group and project opinion. Respondents in the under 29, 30-39, 40-49, 60-69, and 80-89 age categories tended to support the project; those in the 70-79 age category tended to be supportive or undecided. Respondents in the 90 and over age category tended to be unsupportive.

TABLE 3 Chi-square Table: Age and Project Opinion

	Do you support the Fifth Street road diet?				
	No	Yes	Undecided	n	p-value
18-29	22.0%	52.4%	25.6%	82	0.022
30-39	21.4%	47.6%	31.0%	145	
40-49	21.0%	46.3%	32.7%	162	
50-59	25.7%	37.2%	37.2%	226	
60-69	32.7%	28.3%	39.0%	159	
70-79	28.4%	35.8%	35.8%	81	
80-89	27.7%	34.0%	38.3%	47	
90+	50.0%	25.0%	25.0%	8	

Bicycle for transportation

Respondents were asked if they ever rode a bike for transportation and given the following response options: "I never ride or almost never ride a bike for transportation", "I sometimes ride a bike for transportation", and "most or all of my transportation is by bicycle". A majority (46%) of respondents reported that they "sometimes ride a bike for transportation;" 35% reported that they "never or almost never" ride a bicycle, and 18% responded that "most or all" of their transportation is by bicycle (n=942).The majority of respondents who reported that "most or all" of their transportation was by bicycle were overwhelmingly in support of the project. Those who reported that they "sometimes ride a bike for transportation" tended to report either being in favor of the project or undecided, while those who reported "never or almost never" riding a bike for transportation tended to report either being opposed or undecided on the project.

Household proximity to the project

Based on our survey distribution methods, we had an opportunity to evaluate how residential proximity to the project might impact project opinion. Respondents who live within 1,500 feet of the project tended to support it by much wider margins that those living further away.

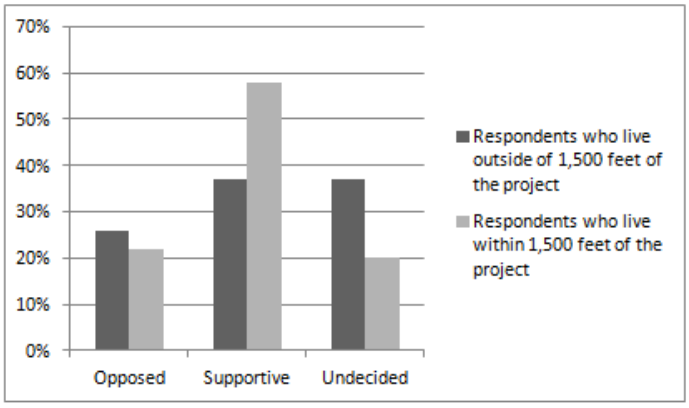

FIGURE 3 Levels of project support by household distance from the project

The mail-back surveys were printed with unique code, corresponding to approximate household location, to assist in further geo-spatial analysis. General population survey respondents were each given a unique code that also correspondent to household location Respondents with an opinion (pro or con) on the project, tended to be more highly concentrated near the project. Respondents who are undecided, tended to live further away from the project. Using SPSS 20.0, binary logistic regression analysis was

conducted to predict whether respondents were opinionated or undecided on the project, using household distance from the project as a predictor. Distance as a predictor was statistically significant (X^2=8.089, p<.01, df=1). The Exp (B) value indicates that as the household distance (in feet) from the project increases, the odds of the respondent reporting that they are undecided on the project, increases. In terms of model diagnostics, residuals were examined to determine model fit and examine influential outliers. There were no unusually high values of Cook's distance, which indicates that there are no influential cases. The standardized residuals all had values less than two, which indicates that there are no influential outliers.

		95% CI for Odds Ratio		
	B (SE)	Lower	Odds Ratio	Upper
Included				
Constant	-.906 (.124)			
Distance from the project	11.989 (4.243)	39.37	160934.203	657854208.5

This relationship is shown in FIGURE 4. Buffer rings from the Fifth Street project are drawn at 3,000-foot zones to visually demonstrate this relationship between distance and concentrations of opinionated respondents. Within each buffer ring, the ratio of opinionated to undecided respondents is shown; dark grey buffer rings indicates a higher frequency of respondents expressing an opinion versus those who are undecided.

FIGURE 4 Location of respondents with opinions versus undecided respondents

Project Perceptions

Respondents as a whole are fairly evenly split in terms of their opinion of the project: 26% opposed, 39% in support, and 35% undecided (n=958). Based on the response to the prompt on project opinion, respondents were also presented with a list of possible reasons for their stance and asked to select their top three. The top three most frequently cited reasons for opposing the project are: traffic/congestion during commute hours, traffic/congestion during non-commute periods, and potential impacts to the ease of driving along Fifth Street. The top three most frequently cited reasons for supporting the project were: bicycle safety at street crossings and bicycle use and bicycle safety along Fifth Street. Most undecided respondents (45%) noted that they "would need to learn more about the Fifth Street road diet before forming an opinion".

Comfort and Safety

Using a five-point Likert scale ranging from "very unsafe" to "very safe", respondents were asked how safe from accidents they felt when traveling along Fifth Street by different modes. Those modes include: driving, walking, and bicycling. Respondents who reported feeling "very safe" traveling Fifth Street by any mode tended to be opposed to the project[1]. Respondents who felt "very unsafe", "unsafe", "neither safe nor unsafe", or "safe" traveling by any mode along Fifth Street tended to support or be undecided on the project.

Respondents were also asked to if they felt comfortable traveling along Fifth Street by the same modes. Respondents generally reported feeling comfortable driving and walking along Fifth street; but

[1] p=.000; n driving= 934; n bicycling =739, n walking= 748

did not feel comfortable riding a bicycle along Fifth Street. A Chi-square test between travel comfort and project opinion shows a significant relationship,as follows:. those who strongly agreed that driving (n=932) and walking (n=761) along Fifth street was comfortable tended to oppose the project, those who strongly disagreed that riding a bicycle (n=748) and walking along Fifth Street was comfortable tended to support the project.

Respondent priorities for improving Fifth Street

On a five point Likert scale ranging from very unimportant to very important, respondents were asked to Identify those conditions they would like to see improved on Fifth Street. Conditions included: increasing pedestrian safety, increasing bicycle route connectivity, promoting more active lifestyles, improving bicycle safety, reducing vehicle congestion, reducing motor vehicle speeds, reducing vehicle accidents, improving air quality, and reducing greenhouse gas emissions from vehicles. Regardless of project support, respondents reported that the following Fifth Street improvements were "important": improving safety for pedestrians, bicyclists and vehicles, reducing vehicle congestion, improving air quality, and reducing greenhouse gas emissions (TABLE 4).

TABLE 4 Fifth Street Improvement Priorities and Project Opinion

Improving Fifth Street:	Support Project	Opposed to project	Undecided
Increasing pedestrian safety (n=939)	Important	Important	Important
Increasing bike route connectivity (n=930)	Very Important	Unimportant	Important
Promoting more active lifestyles (n=914)	Very important	Neither	Neither/Important
Increasing bicycle safety (n= 939)	Very important	Important	Important
Reducing vehicle congestion (n=935)	Important	Important	Important
Reducing motor vehicle speeds (n=936)	Important	Neither	Neither
Reducing vehicle accidents (n=934)	Very Important	Important	Important
Improving property values (n=926)	Neither	Neither	Neither
Economic revitalization (n= 923)	Important	Neither	Important
Improving air quality (n=929)	Important	Important	Important
Reducing greenhouse gas emissions (n=925)	Important	Important	Important

Perceived project impacts

Respondents were asked to give their opinion of how the project would affect vehicle congestion on nearby streets, specifically Eighth Street and Richards Boulevard, and in the central business district (see FIGURE 2). The majority of respondents (94%) felt that traffic congestion would get worse or stay the same on Eighth Street and in the central business district; 67% of respondents felt that congestion on Richards Boulevard would get worse. Responses to these prompts are significantly correlated with project opinion[2]. Those who felt conditions would worsen on Eight Street, on streets in the downtown business district, and on Richards Boulevard tend to oppose the project, while those who felt conditions would stay the same or get better tended to support the project.

[2] p=.000; Eighth Street(n= 948); downtown business district (n= 944); Richards Boulevard (n=948).

Information Sources

If respondents reported that they had heard of the Fifth Street project prior to this survey, they were directed to a list of potential project information sources and ask to select which ones they had used. Residents who were aware of the Fifth Street project prior to this survey utilized an average number of 1.53 sources and the top three sources of information were: the local paper, the Davis Enterprise (81.2%); neighbors and friends (33.1%); and online resources (13.7%).

Open-ended follow up survey prompts asked respondents to explain if, and why they felt their information sources were useful. Respondents who had used the local paper as a source of information noted that they found the project information presented there to be easy to access, clear, and unbiased. For example: "It presented unbiased information about the proposed changes to 5th St"; "most informative of both sides: most other sources have hidden agendas, or a point to make;" "It seemed mainly informational with brief reference to different points of view," "Easy to access. Gave general overview," "Simple statement of the plan and the reasons behind it," and "contained information about proposed changes and some articles by experts on how it could improve our neighborhood". Respondents who valued the input of neighbors and friends made comments concerning trust and their friend's strong community connections and level of information. Others noted that they would not have known about the project otherwise.

TABLE 5 Information Sources and Use By Respondents (n=505)

Information Source	Percentage of respondents who reported using this source
Enterprise	81.2%
Neighbors and Friends	33.1%
Online	13.7%
Technical studies	6.9%
Other	6.3%
CC meetings	5.5%
Outreach meetings	4.4%
TV	1.6%

Although fewer respondents used technical studies and attended outreach meetings, chi-square tests indicate a significant association between opinion of the Fifth Street project and use of technical studies (n=478, p=.006) and attendance at City outreach meetings on the Fifth Street project (n=456, p=.02). There was also a significant correlation between use of online project information sources and project opinion (n=412, p=.023). Respondents who used these resources tended to support the project. Since there is some evidence that people tend to seek out information that is congruent with their existing opinions and beliefs, further research is needed to explore the relationship between information source and project opinion [14, 15]. However, understanding where residents are obtaining information related to local transportation projects can help inform outreach strategies.

CONCLUSIONS

We found that project opinion is correlated with respondent characteristics and project perceptions. Significant respondent characteristics include age group, bicycle use, and household proximity to the project. Significant project perceptions include travel safety and comfort along Fifth Street, perceived project impacts to congestion levels on nearby streets, and knowledge of technical studies and online materials, and attendance at project outreach meetings. Regardless of project opinion, respondents tended to share certain priorities for Fifth street including: improving safety, congestion, and air quality, and reducing greenhouse gas emissions. Existing research on the effects of capacity reallocation projects primarily address safety improvements and demonstrate an overall reduction in the number of vehicle crashes on streets that have undergone this roadway treatment [16]. Very little peer-reviewed research has addressed other non-safety impacts of capacity reallocation projects. Documented monitoring efforts conducted by local jurisdictions that include criteria not related to safety are generally focused on the road or road segment that underwent the redesign and ignore other potential explanatory variables, including citywide trends [17].

This survey suggests that respondents would value monitoring and evaluation efforts pertaining to safety and other considerations such as congestion, air quality, and greenhouse gas emissions. Survey analysis demonstrates a correlation between project opinion and knowledge of project related technical studies, online resources and attendance at outreach meetings. Future research regarding respondent exposure to various information sources and the effect of those sources on addressing project concerns would be useful in terms of developing effective outreach strategies.

ACKNOWLEDGEMENTS

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Appendix A

This appendix summarizes opinions and information sources collected for residents in neighborhoods directly adjacent to the proposed project and from residents' representative of the City of as a whole. Sections are organized by survey prompt. Responses are generally analyzed in two ways: through a summary of survey responses by survey mode; and a statistical test, generally a chi-squared test, of the relationship between survey responses and project opinion, irrespective of survey mode. The survey modes referred to include: 1) a mailback survey of residents living within 1,500 feet of the project, and 2) an internet survey of residents living outside 1,500 feet of the project. Project opinion refers to whether a respondent was supportive, opposed, or undecided on the Fifth Street project. More specific details can be acquired by the authors.

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Downtown Travel

Use of Fifth Street, between A and L Street

Slightly more internet respondents (43%) than mailback respondents (36%) tended to report traveling 5th street by car or motorcycle at least 1-2 days per week. Mailback respondents tended to report higher frequencies of downtown travel (over one day per week) by bicycle and walking (21% and 33 % respectively); this compares to12% and 7% of internet respondents. Both groups reported very low frequencies of road use by means of public transportation (Table **1**).

Use of Fifth street and project perspective. A Chi-square test for independence indicated that traveling along Fifth Street at least once a week by any mode was significantly correlated with project opinion (N=907, p=.013). Respondents who rarely used Fifth or used Fifth at least once a week were both inclined to report supporting the project (Table **2**).

Table 1: Responses by Survey Mode- Please indicate how many days per week you typically travel the entire portion of Fifth Street (between A and L Street) by the following means of transportation:

By survey mode:	Please indicate how many days per week you typically travel the entire portion of Fifth Street (between A and L Street) by the following means of transportation:				N
	Rarely, if ever	1-2 days per week	3-4 days per week	5 or more days per week	
Car or motorcycle (N=1010)					
Mailback	42	38	19	17	116
Internet	258	386	170	80	894
Missing					28
Bicycle (N=781)					
Mailback	76	10	0	10	96
Internet	599	74	7	5	685
Missing					257
Walking (N=768)					
Mailback	65	22	4	6	97
Internet	623	45	1	2	671
Missing					270
Public Transportation (N=762)					
Mailback	88	3	1	0	92
Internet	638	23	5	4	670
Missing					276

Table 2: Chi-squared test- Project Opinion and Use of Fifth Street (N=907)

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
Use Fifth?	Don't Use (Rarely if ever)	40	97	74	0.013	907
	Use at least once (1-5 or more days per week)	198	260	238		

Perspectives on Safety

Participants responding to prompts regarding perceived safety (from accidents) tended to report feeling safe/very safe from accidents while driving and walking along Fifth Street and feeling unsafe/very unsafe while bicycling on Fifth Street (Table **3**).

Project Opinion and perceptions of safety. Chi-square tests for independence indicate significant association between reported feelings of safety from accidents while driving, bicycling, and walking along Fifth Street and project opinion (p=.000). Respondents who felt very safe traveling Fifth Street by any of these modes tended to be opposed to the project (

Table **4**).

Table 3: Responses by survey mode- How safe do you feel from accidents while:

By survey mode:	How safe do you feel from accidents while: Very Unsafe	Unsafe	Neither safe nor unsafe	Safe	Very Safe	N
Driving on Fifth Street (N=1001)						
Mailback	4	18	27	54	13	116
Internet	16	96	242	420	111	885
Missing						37
Bicycling on Fifth Street (N=797)						
Mailback	59	22	10	4	0	95
Internet	253	246	150	43	10	702
Missing						241
Walking on Fifth Street (N=805)						
Mailback	10	12	27	45	13	107
Internet	30	57	228	292	91	698
Missing						233
Using Public Transportation on Fifth Street (N=719)						
Mailback	3	1	34	29	17	84
Internet	6	3	264	237	125	635
Missing						319

Table 4: Chi-squared test- Public Opinion and Perceived Safety on Fifth Street

Do you support the Fifth Street road diet?	How safe do you feel from accidents while: Very Unsafe	Unsafe	Neither safe nor unsafe	Safe	Very Safe	P-value	N
Driving on Fifth Street							
No	5	28	42	126	43	0	934
Yes	8	55	100	173	30		
Undecided	5	24	110	147	38		
Bicycling on Fifth Street							
No	63	53	56	12	6	0	739
Yes	154	96	37	18	1		
Undecided	77	94	55	14	3		
Walking on Fifth Street							
No	7	10	58	76	38	0	748
Yes	21	41	91	130	33		
Undecided	8	12	87	110	26		
Using Public Transportation on Fifth Street							
No	3	1	77	62	37	0.465	739
Yes	4	2	99	108	56		
Undecided	1	0	101	76	39		

Comfort using Fifth Street

Respondents generally reported feeling comfortable driving and walking along Fifth street; but did not feel comfortable riding a bicycle along Fifth Street (

Table **5**). Mailback and internet respondents tended to respond to these prompts in similar ways.

Project Opinion and Comfort on Fifth Street. A Chi-square test for independence indicated a significant association ($\alpha<=.05, .01$) between reported comfort on Fifth Street by all modes and project opinion (p=.000) (Table **6**). Those who:

- strongly agreed that driving (N=932) and walking (N=761) along Fifth street was comfortable tended to not support the Fifth street road diet, and those who
- strongly disagreed that riding a bicycle (N=748) and walking along Fifth street was comfortable tended to support the Fifth Street road diet.

Table 5: Responses by survey mode- How strongly do you disagree or agree with the following statements?

By survey mode:	I feel comfortable using Fifth Street when I am: Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	N
Driving by car (N=996)						
Mailback	4	12	17	56	24	113
Internet	16	84	133	471	179	883
Missing						42
Riding a bicycle (N=802)						
Mailback	54	26	8	3	2	93
Internet	255	240	153	46	15	709
Missing						236
Walking (N=816)						
Mailback	7	18	20	47	13	105
Internet	31	74	252	272	82	711
Missing						222
Using Public Transportation (N=697)						
Mailback	2	1	37	23	16	79
Internet	8	5	269	218	118	618
Missing						341

Table 6: Chi-squared test- Project Opinion and Comfort on Fifth Street

I feel comfortable on Fifth Street when I am:		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
Driving by car	Strongly Disagree	4	9	5	0.00	932
	Disagree	18	47	25		
	Neither agree nor disagree	31	56	52		
	Agree	112	207	180		
	Strongly Agree	81	46	59		
Riding a bicycle	Strongly Disagree	68	153	77	0.00	748
	Disagree	54	100	87		
	Neither agree nor disagree	53	36	61		
	Agree	12	16	17		
	Strongly Agree	5	4	5		
Walking	Strongly Disagree	9	16	8	0.00	761
	Disagree	19	52	13		
	Neither agree nor disagree	64	91	102		
	Agree	72	132	96		
	Strongly Agree	35	23	29		
Using public transportation (e.g. Unitrans)	Strongly Disagree	3	5	0	0.00	649
	Disagree	1	5	0		
	Neither agree nor disagree	83	92	108		
	Agree	53	113	60		
	Strongly Agree	43	42	41		

Crossing Fifth Street

A large percentage of the mailback survey participants (92%) stated that they crossed Fifth Street at least once in an average week; this compared to 70% of internet survey participants (N=1022) (Table 7). Seven respondents, who were all internet survey participants, stated that they did cross Fifth Street in a given week, but did not select which intersection they generally cross. One internet respondent stated that they used all the intersections by all the modes, in an average week. A total of 736 participants gave a response to which intersections they use in an average week. The most highly utilized intersections reported by internet respondents are F, C, and B Streets (N=627). The most highly utilized intersections for mailback survey respondents are G and F Streets (N=109) (

Table **9**).

Project Opinion and Crossing Fifth Street. A Chi-square test for independence indicated that crossing or not crossing Fifth Street in an average week, was not significantly correlated with project opinion (N=952, p=.219) (Table **8**).

Table 7: Responses by survey mode- In an average week do you normally cross Fifth Street anywhere between A and L Street? (N=1022)

By survey mode:	In an average week do you normally cross Fifth Street anywhere between A and L Street?		N
	No	Yes	
Mailback	9	109	118
Internet	270	634	904
Missing			23

Table 8: Chi-squared test- Project Opinion and Crossing Fifth Street (N=952)

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
Do you cross Fifth Street in an average week?	No	69	90	98	.219	952
	Yes	178	285	232		

Table 9: Responses by survey mode- Please select each intersection and means of transportation that you use to cross that intersection at least once during an average week (N=736)

	Walking	Driving	Bicycling	Public Transportation
Mailback				
A Street	23	26	19	2
B Street	26	47	30	2
C Street	25	24	15	1
D Street	21	33	23	1
E Street	19	37	14	2
F Street	27	49	23	4
G Street	39	54	35	2
I Street	17	23	10	3
J Street	15	25	15	2
K Street	10	21	10	2
L Street	16	49	20	2
Internet				
A Street	36	208	60	5
B Street	59	370	95	8
C Street	60	193	51	7
D Street	29	207	45	7

E Street	28	239	38	7
F Street	60	477	89	13
G Street	56	387	89	5
I Street	15	158	30	6
J Street	15	180	35	6
K Street	13	153	31	6
L Street	23	374	93	10

Visiting and shopping in downtown Davis

Of those who responded to the prompt "when was your most recent trip downtown", a plurality of mailback and internet respondents hadvisited downtown Davis 0-2 days prior to taking the survey (N=1014) (Table 10).Respondents were also asked how difficult or easy they find getting to and moving around in downtown, by various modes (driving, walking, and biking). On a one to five point scale, with one representing "easy" access and five representing "difficult", mailback and internet respondents ranked driving to downtown as a "3", and walking and biking to downtown as "1" (Table **12**).

Project Opinion and Shopping in downtown Davis. Since the variables in this prompt were categorical (ie. 0-2 days ago, 3-6 days ago, 1-2 weeks ago, etc), a chi-square test for independence was applied. The test indicated no significant association between the timeframe the respondent had last visited downtown Davis, and project support (N=950, p=.432) (Table **11**).

Project Opinion and ease of access to downtown. Logistic regression was performed to assess the impact of accessibility factors on the likelihood that a respondent would be in favor or opposed to the project. The model contained seven continuous independent variables. Those were the ease of access to the shopping in downtown Davis under the following circumstances: driving, parking walking, biking IN downtown and driving, walking, and biking TO downtown on a scale from 1 (easy) to 5 (difficult). The model was not statistically significant (X^2=17.662, df=7, p=.014). The Wald test indicated that among these variables, only the ease of driving TO the downtown contributed significantly to the predictive ability of the model (Wald value=.003) and the positive B value indicated that an increase in perceived difficulty in accessing downtown would result in an increased probability of the respondent supporting the project (Table **13**).

Table 10: Responses by survey mode- When was your most recent trip to downtown Davis? (N=1014)

	When was your most recent trip to downtown Davis?								
By survey mode:	**0-2 days ago**	**3-6 days ago**	**1-2 WEEKS ago**	**304 weeks ago**	**1-2 MONTHS ago**	**3-6 months ago**	**7-12 months ago**	**More than a year ago**	**N**
Mailback	101	7	5	1	2	0	0	0	116
Internet	592	207	73	14	5	4	1	2	898
Missing									24

Table 11: Chi-squared test- Project Opinion and Most Recent Trip Downtown (N=950)

		When was your most recent visit to downtown Davis?								P-value	N
		0-2 days ago	3-6 days ago	1-2 WEEKS ago	3-4 weeks ago	1-2 MONTHS ago	3-6 months ago	7-12 months ago	More than a year ago		
Do you support the Fifth Street road diet?	No	161	64	17	4	0	0	0	0	0.432	950
	Yes	264	72	23	6	5	2	1	1		
	Undecided	224	68	30	5	2	1	0	0		

Table 12: Responses by survey mode- In general, how would you evaluate your ease of access to the shopping in downtown Davis under the following circumstances?

By survey mode:	How would you evaluate your ease of access to the shopping in downtown Davis under the following circumstances?					N
	1 (Easy)	2	3	4	5 (difficult)	
Driving IN downtown (N=993)						
Mailback	10	21	45	28	8	112
Internet	118	200	289	193	81	881
Missing						166
Parking IN downtown (N=993)						
Mailback	10	14	34	32	19	109
Internet	45	144	244	275	176	884
Missing						166
Walking IN downtown (N=979)						
Mailback	84	19	9	1	0	113
Internet	508	255	80	14	9	866
Missing						180
Biking IN downtown (N=814)						
Mailback	33	23	23	9	4	92
Internet	135	202	204	121	60	722
Missing						345

Driving TO downtown (N=977)						
Mailback	45	25	29	5	1	105
Internet	287	295	196	75	19	872
Missing						182
Walking TO downtown (N=867)						
Mailback	69	21	11	4	0	105
Internet	248	201	162	70	81	762
Missing						292
Biking TO downtown (N=815)						
Mailback	51	20	12	5	3	91
Internet	218	230	170	67	39	724
Missing						344

Table 13: Logistic Regression: Ease of access to downtown and project opinion

	B (S.E.)	Wald	Sig.	95% C.I.for EXP(B)		
				Lower	Odds Ratio	Upper
Driving IN downtown	.272 (.117)	5.379	0.02	1.043	1.313	1.652
Parking IN downtown	-.363 (.107)	11.561	0.001	0.564	0.696	0.858
Walking IN downtown	-.186 (.148)	1.586	0.208	0.621	0.83	1.109
Biking IN downtown	.037 (.111)	0.112	0.738	0.835	1.038	1.29
Driving TO downtown	.006 (.112)	0.003	0.958	0.807	1.006	1.254
Walking TO downtown	-.025 (.090)	0.075	0.784	0.818	0.976	1.163
Biking TO downtown	-.077 (.127)	0.368	0.544	0.721	0.926	1.188
Constant	1.350 (.367)	13.503	0		3.858	

Fifth Street as a barrier

Generally participants tended to report that they felt that Fifth Street was "only a slight barrier" or "not a barrier at all" to traveling downtown (N=1012) (

Table 14**). A plurality of mailback respondents reported that Fifth Street was "only a slight barrier"; while internet respondents reported that Fifth Street "was not a barrier at all". Those who did feel that Fifth Street represented a significant or slight barrier were asked to check which aspect of Fifth Street impacts them the most when traveling by various modes. Respondents who checked more than one option were coded as missing (**

Table **16**). Respondents most commonly cited the following:

- congestion and poorly timed traffic lights as features of Fifth Street that impact them the most when driving;
- unsafe bicycling conditions and no bicycle lane as the features of Fifth Street that impact them the most when riding a bicycle;
- fast vehicle speeds and long waits at pedestrian crossing signals as the features of Fifth Street that impact them the most when walking; and
- congestion as the feature that impacts them the most when using public transportation.

A plurality of mailback and internet survey respondents reported that poorly timed traffic lights when driving and no bicycle lane, when bicycling, impacted them the most when traveling along Fifth Street. Mailback respondents tended to report fast vehicle speeds impacting them the most when walking along Fifth Street, while internet respondents reported that this prompt was not applicable to them.

Project Opinion and Fifth Street as a Barrier. Categories were ranked ordinal responses and a Chi-square test for independence indicated significant association between responses and project opinion (N=951, p=.000). Those who felt that Fifth Street was not a barrier at all tended to be undecided; while those who felt that Fifth Street was a significant barrier tended to support the project (Table **15**).

Table 14: Responses by survey mode-When I am considering traveling downtown, Fifth Street between A and L Street represents (N=1012):

By survey mode:	When I am considering traveling downtown, Fifth Street between A and L Street represents				N
	A significant barrier	Only a slight barrier	Not a barrier at all	No opinion	

Mailback	17	60	35	3	115
Internet	99	363	382	53	897
Missing					28

Table 15: Chi-squared test- Project Opinion and Fifth Street as a Barrier (N=951)

		When I am considering traveling downtown, Fifth Street between A and L Street represents:				P-value	N
		A significant barrier to traveling downtown	Only a slight barrier	Not a barrier at all	No opinion		
Do you support the Fifth Street road diet?	No	34	77	127	8	0.00	951
	Yes	58	190	115	12		
	Undecided	18	133	150	29		

Table 16: Responses by survey mode-Which feature of Fifth Street impacts you the most?

when DRIVING (N=501)	By survey mode:	
	Mailback	Internet
Fast vehicle speeds	5	17
Congestion	9	106
Poorly timed traffic lights	13	111
Unsafe driving conditions	0	26
Difficulty turning from other streets ONTO Fifth Street	1	79
Difficulty turning FROM Fifth Street onto other streets	3	42
Difficulty crossing Fifth Street	12	55

Not applicable	9	13
Too many answers checked	18	6
Missing	25	13
When RIDING A BICYCLE (N=491)		
Fast vehicle speeds	3	19
Congestion	1	17
Poorly timed traffic lights	0	6
Unsafe bicycling conditions	9	126
No bicycle lane	24	126
Difficulty turning from other streets ONTO Fifth Street	0	3
Difficulty turning FROM Fifth Street onto other streets	0	3
Difficulty crossing Fifth Street	8	28
Not applicable	11	107
Too many answers checked	17	1
Missing	24	46
When WALKING (N=501)		
Fast vehicle speeds	19	61
Congestion	4	31
Long wait at pedestrian crossing signals	16	90
Long wait at pedestrian crosswalks	8	44
Unsafe sidewalks	4	21
Not applicable	12	191
Too many answers checked	10	1
Missing	26	24
When using PUBLIC TRANSPORTATION (N=497)		
Fast vehicle speeds	0	4
Congestion	2	26
Poorly timed traffic lights	1	9
Unsafe driving conditions	0	2
Long wait time to turn from other streets ONTO Fifth Street	1	7
Long wait time to turn FROM Fifth Street onto other streets	0	1
When using PUBLIC TRANSPORTATION, cont.		
Long wait time to cross Fifth Street	3	7
Not applicable	57	377
Too many answers checked	3	1
Missing	13	29

Perspectives on Fifth Street

Familiarity with potential changes to Fifth Street

Mailback and internet respondents were similarly divided on their knowledge of the project (N=1009); 54.8% of the mailback respondents were aware of the project as compared to 49.9% of the internet respondents, and mailback respondents supported the road diet project by a greater margin than those who completed the internet survey (Table **17**).

Project Opinion and Project Awareness. A chi-squared test for independence indicated significant association between respondents who had prior knowledge of the project before this survey and project opinion (N=953; p=.000). Respondents who had prior knowledge tended to support it, whereas those who had not heard of the project before tended to respond that they were undecided on their support of the project (Table **18**).

Table 17: Responses by survey mode-Have you heard of potential changes to Fifth Street (between A and L Street)? (N=1009)

By survey mode:	Have you heard of potential changes to Fifth Street (between A and L Street)?		N
	No	Yes	
Mailback	52	63	115
Internet	448	446	894
Missing			29

Table 18: Chi-squared test- Project Opinion and Project Awareness (N=953)

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
Have you heard about potential changes to Fifth Street (between A and L Street)?	No	117	164	194	0.00	953
	Yes	129	213	136		

Sources of Information

Respondent who reported that they were aware of the project, were asked to report where they had obtained project information. Fundamental to this effort is contributing to an understanding the relationship between information sources and project opinion. We were also interested in understanding how opinions and information sources vary between residents directly adjacent to the proposed project, and residents of the City as a whole. As a combined group, residents who were aware of the Fifth Street project prior to this survey utilized an average number of 1.53 sources (Table 19). Residents who participated in the mailback survey utilized approximately 2.16 sources and "Neighbors and Friends" was the most common source of information followed by the Davis Enterprise. Residents

who participated in the internet survey relied on a lesser number of sources (1.44) and the most popular source of their information was the Davis Enterprise followed by "Neighbors and Friends" (Table **20**).

Table 19: Responses by survey mode-Average number of sources (N=505)

	By survey mode		Combined Total
	Internet	Mailback	
Average number of sources	1.44	2.16	1.53
s.d.	0.778	1.472	0.924
N	446	63	505

Table 20: Chi-squared test- Information Sources used by Survey Mode (N=505)

Information Sources	By survey mode		N
	Internet	Mailback	
Technical studies	21	14	35
Outreach meetings	11	11	22
CC meetings	18	10	28
Online	50	19	69
Enterprise	377	33	410
Neighbors and Friends	128	39	167
TV	7	1	8
Other	23	9	32

The specific online sources utilized in this survey are shown in Table 21. Only one respondent skipped this sub-question (N=68). The City of Davis websites and "other online sources" represented the majority of internet sources utilized. Other websites mentioned in the "other source of information" and the "why did you find this source of information to be the most useful" open-ended prompts included the davis wiki (mentioned by five different respondents) and a local blog (mentioned by one respondent).

Table 21: Responses by survey mode-Online Sources (N=68)

Information Source	By survey mode		N
	Internet	Mailback	
City website	16	9	25
Old North Neighborhood Association	10	7	17

Davis Bicycles	4	7	11
Other online sources	31	8	39
Total frequency	61	31	92

Those who checked the response option "other" sources, were asked to manually write-in which source of information they utilized. Eight cited a display at Farmer's market, five cited local bicycle groups and related listserves, two noted participation in neighborhood association meetings, two had discussed the project with city staff, and one had discussed it with a city council member. Other sources include the book "Traffic" by Tom Vanderbilt, the UC Davis Aggie Newspaper, a Davis Toastmasters presentation, daviswiki.org, and others didn't recall.

Project Opinion and Information Sources. To determine if any particular information source is correlated with project opinion, we relied on chi-square tests of independence. Those respondents who had heard of the project were including in this analysis; those who had not heard of the project were excluded. These tests indicated significant associations ($\alpha<=.05$) between opinion of the Fifth Street project and use of technical studies (N=478, p=.006), outreach meetings (N=456, p=.02), and online resources (N=412, p=.023). At a significance level of $\alpha<=.01$, there is a significant relationship between opinions on the Fifth Street project and knowledge of technical studies.

Table 22: Chi-squared test- Project Opinion and Information Sources

Information Source	Support for Project			P-value	N
	No	Yes	Undecided		
Technical Studies					

No	123	189	132	0.006	478
Yes	6	24	4		
Outreach meeting					
No	125	197	134	0.02	456
Yes	4	16	2		
City Council meeting					
No	119	199	133	0.109	451
Yes	10	14	3		
Online					
No	113	174	125	0.023	412
Yes	16	39	11		
Davis Enterprise					
No	21	47	27	0.43	96
Yes	108	166	109		
Neighbors and Friends					
No	80	138	101	0.077	319
Yes	49	75	35		
TV					
No	125	210	135	0.299	470
Yes	4	3	1		

Usefulness of Information Sources

Respondents who stated that they were aware of potential changes to Fifth Street were asked to identify which one of those sources had been the most helpful. Of the 509 participants who would have been directed to respond to this prompt, twenty skipped the question (N=479) (Table 23). Of those, 164 respondents had utilized more than one source (

Table **24**). A plurality of mailback and internet respondents both tended to report the local paper and neighbors and friends as useful sources of project information.

Respondents who only had one source of information AND those who were aware of more than one source both cited Davis Enterprise local news stories as the most useful source of information. In response to the prompt "Why did you find this source of information to be the MOST useful", many respondents wrote about the ease of access to local news stories, clarity of the stories, and unbiased viewpoints. For example: "It presented unbiased information about the proposed changes to 5th St"; "most informative of both sides: most other sources have hidden agendas, or a point to make;" "It seemed mainly informational with brief reference to different points of view," "Easy to access. Gave general overview," "Simple statement of the plan and the reasons behind it," and "contained information about proposed changes and some articles by experts on how it could improve our neighborhood".

Neighbors and Friends were also cited as highly valued source of information. Respondents who valued the input of neighbors and friends made comments concerning trust and their friend's strong community connections and level of information. Others noted that they would not have otherwise

known about the project. Respondents who relied on a display at Farmers Market noted that it was "straightforward information", that the information was "easy to read and ask questions about", and that they "proposed changes and problems were clearly outlined and explained."

Those who checked that they didn't find any of the sources to be useful tended to write comments mailback on their lack of concern for the project. For example: " I didn't find the material very useful because I don't care what changes are made to 5th Street. It(')s just another street to cross when I go to town." And "I honest(ly) don't care all that much. My assumption is the government will do what is in the best interests of those who make the most noise which is generally the people with the most political clout." Others noted that they had heard of the project, but just "bits and pieces."

One respondent simply wrote: "this project should have been dismissed as NOT feasible years ago."

Table 23: Responses by survey mode- Most useful source of project information (N=479)

Information Source	Mailback	Internet	Total Frequency
Technical studies	5	15	20
Attendance at outreach meetings	4	5	9
Viewing or attending relevant Davis City Council meetings	3	3	6
Davis Chamber of Commerce communications	0	0	0
DDBA communications	0	0	0
City of Davis website	1	7	8
Davis Bicycles website!	0	8	8
Old North Davis Neighborhood Association website	2	0	2
Other websites	2	8	10
Letters to the editor: Davis Enterprise	2	11	13
Op-Eds: Davis Enterprise	0	13	13
Local news stories: Davis Enterprise	20	250	270
Columnists: Davis Enterprise	1	13	14
Neighbors/Friends	14	30	44
TV Coverage	1	1	2
Other sources of information	3	6	9
None of these sources were useful	7	44	51
Missing/Bad	16	14	30

Table 24: Responses by survey mode- Most useful source of information for respondents who listed 2+ sources (N=164)

Information Source	Mailback	Internet	Total Frequency
Technical Studies	5	8	13
Attendance at outreach meetings	4	5	9
Viewing or attending relevant City Council meetings	2	1	3

City of Davis website	1	3	4
DavisBicycles! Website	0	4	4
Old North Davis Neighborhood Association website	2	0	2
Other websites	1	6	7
Letters to the editor	0	3	3
Op-Eds	0	3	3
Local news stories	5	75	80
Columnists	1	4	5
Neighbors/friends	4	12	16
TV Coverage	1	0	1
Other sources	2	2	4
Did not find any sources to be useful	5	13	18
Missing/Bad	8	2	10

Road Diet Concepts

Familiarity with similar projects in other jurisdictions

All respondents were introduced to the concept of road diets, using a visual created by the Federal Highway Administration. They were then asked if they were familiar with road diet projects in other jurisdictions. Overall, internet respondents stated that they were familiar with other road diet projects in other jurisdictions more than those who responded to the mailback survey (26% versus 17%; N=1001) (

Table **25**).

Respondents who were aware of other road diet projects were asked to list a city that had implemented this type of project. Of the 252 respondents, only 213 responded to this prompt, 27 of those wrote that they didn't recall which city they were aware of that had implemented a road diet. As shown in Table **27**, 151 participants listed a California city, with Sacramento being the most listed city (N=55).

Respondents who listed an example of road diet projects in other jurisdictions were then asked how that project had impacted safety, traffic congestion, shopping activity, and used by bicyclists and pedestrians. As shown in Table 28, reported impacts to traffic congestion was mixed; the majority of mailback respondents felt that their project had resulted in decreases in traffic congestion, while internet survey respondents were divided between traffic congestion increasing and decreasing. The majority of mailback and internet survey respondents both felt that use by bicyclists had increased. The majority of mailback survey respondents felt that use by pedestrians and shopping activity in nearby commercial centers had increased. Internet survey respondents were more divided between use by pedestrians and shopping activity staying the same and increasing after implementation. A plurality of mailback survey respondents felt that overall safety had improved after the project was implemented.

Project Opinion and Familiarity with Other Road Diets. A Chi-square test for independence indicated a significant association ($\alpha<=.05$) between familiarity with other road diet projects and project opinion (N=953, p=.025). Respondents who were familiar with other projects tended to support the Fifth Street project, and those who were not familiar with other projects tended to support or be undecided on the project (Table **26**).

Project Opinion and Views on Other Road Diet Project. Chi-square tests for independence indicated a significant (α<=.05) association between project opinion and respondent views on other road diet impacts on traffic congestion, bicyclist and pedestrian use, and shopping activity and overall safety. These relationships are shown in

Table **30**. Respondents who felt that traffic congestion had decreased or stayed the same and use by bicyclists and pedestrians had increased, tended to support the project. Respondents who felt that traffic congestion had increased, shopping activity had decreased, and overall safety had not been improved, tended to oppose the Fifth Street project.

Table 25: Responses by survey mode- Are you familiar with other road diet projects in other jurisdictions? (N=1001)

	Are you familiar with other road diet projects in other jurisdictions?		**N**
By survey mode:	**No**	**Yes**	
Mailback	96	20	116
Internet	653	232	885
Missing			37

Table 26: Chi-squared test- Project Opinion and Familiarity with Other Projects (N=953)

		Are you familiar with other road diet projects in other jurisdictions?		**P-value**	**N**
		No	**Yes**		
Do you support the Fifth Street road diet?	No	185	62	.025	953
	Yes	265	111		
	Undecided	262	68		

Table 27: Summary- Please name ONE city you are aware of that implemented a road diet? (N=213)*

City	State	Total (N)
Sacramento	CA	55
Davis	CA	20
Berkeley	CA	9
San Francisco	CA	9
Portland	OR	7
Palo Alto	CA	6
Woodland	CA	4
Seattle	WA	3
Mill Valley	CA	2
New York	NY	3
Petaluma	CA	2
San Diego	CA	2
San Luis Obispo	CA	2
Santa Cruz	CA	2
South Lake Tahoe	CA	2
Vacaville	CA	2
Washington	D.C.	2
	Missing	39
	Don't recall	27
	Illegible	4

* California cities that were written once: Coronado, Cotati, Danville, Elk Grove, Folsom, Fresno, Fullerton, Kings Beach, La Jolla, Laguna Beach, Lake Tahoe, Livermore, Long Beach, Los Angeles, Mission Viejo, Modesto, Mountain View, Napa, Oakland, Oxnard, Rancho Cordova, Redding, Richmond, San Jose, San Rafael, Santa Monica, Santa Rosa, Stockton, Vallejo, Ventura, Walnut Creek, West Sacramento, Yolo County. Other cities: Ann Arbor, MI, Phoenix, AZ; Hartford, CN; Durango, CO; Urbana, FL; Venice, FL; Iowa City, IA; Champaign, IL,; Boston, MA; Dearborn, MI; Marquette, MI; Missoula, MT; Chapel Hill, NC; Delft, Netherlands; Reno, NV; and Oshkosh, WI.

Table 28: Responses by survey mode-In which direction did the project change the following parameters?

By survey mode:	In which direction did the project change the following parameters?			N
	Decreased	Stayed the same	Increased	
Traffic Congestion (N=135)				
Mailback	11	2	2	15
Internet	42	29	49	120
Missing				117
Use by bicyclists (N=118)				
Mailback	1	1	11	13
Internet	10	25	70	105
Missing				134
Use by pedestrians (N=105)				
Mailback	1	2	11	14
Internet	7	48	36	91
Missing				147
Shopping activity in nearby commercial centers (N=72)				
Mailback	0	1	5	6
Internet	14	27	25	66
Missing				180

Table 29: Responses by survey mode-Did overall safety improve? (N=229)

	Did overall safety improve?			N
	No	Yes	Don't know	
Mailback	0	11	8	19
Internet	28	49	133	210
Missing				23

Table 30: Chi-squared test- Project Opinion and Road Diet impacts

In which direction did (the other jurisdictions') project change the following parameters?	Do you support the Fifth Street road diet?			P-value	N
	No	Yes	Undecided		
Traffic Congestion					
Decreased	1	40	11	.00	132
Stayed the same	7	16	8		
Increased	28	11	10		
Use by bicyclists					
Decreased	4	4	2	0.017	116
Stayed the same	9	8	9		
Increased	10	50	20		
Use by pedestrians					
Decreased	3	2	2	0.001	103
Stayed the same	18	17	15		
Increased	2	33	11		
Shopping activity in nearby commercial centers					
Decreased	9	2	3	0.005	71
Stayed the same	8	13	6		
Increased	3	19	8		
Did overall safety improve?					
No	19	2	5	.000	222
Yes	2	44	13		
Don't know	36	56	45		

City of Davis Road Diet

Perspectives on the importance of improving Fifth Street

A plurality of respondents noted that they would be interested or very interested in alleviating the following issues on Fifth Street:

- Increasing pedestrian safety (610 of 970)
- Increasing bicycle route connectivity (666 of 962)
- Promoting more active lifestyles (471 of 944)
- Improving bicycle safety (763 of 964)
- Reducing vehicle congestion (752 of 966)

- Reducing motor vehicle speeds (516 of 967)
- Reducing vehicle accidents (777 of 965)
- Economic revitalization (489 of 954)
- Improving air quality and (620 of 960)
- Reducing greenhouse gas emissions from vehicles (600 of 956)

Mailback and internet respondents tended to report similar priorities for improving Fifth Street with the following exceptions. A plurality of mailback respondents reported that reducing greenhouse gas emissions, improving air quality, and increasing bicycle route connectivity was "very important"; while internet respondents tended to report that improving these attributes was "important". Respondent priorities, by survey mode, are shown in

Table **31**.

Project Opinion and Improvements to Fifth Street. Chi-square tests of independence indicated a significant association between the importance of various Fifth Street issues and project opinion (Table **32**).

Table 31: Responses by survey mode- How important is it to you to improve the following on Fifth Street?

By survey mode:	How important is it to you to improve the following on Fifth Street?					N
	Very Unimportant	Unimportant	Neither important nor unimportant	Important	Very Important	
Increasing pedestrian safety (N=970)						
Mailback	12	7	16	43	38	116
Internet	64	76	185	351	178	854
Missing						68
Increasing bicycle route connectivity (N=962)						
Mailback	12	5	14	33	50	114
Internet	70	82	113	324	259	848
Missing						76
Promoting more active lifestyles (N=944)						
Mailback	14	9	22	34	34	113
Internet	96	91	241	269	134	831
Missing						94
Increasing bicycle safety (N=964)						
Mailback	8	3	8	36	61	116
Internet	57	47	78	314	352	848
Missing						74
Reducing vehicle congestion (N=966)						
Mailback	10	8	15	53	30	116
Internet	35	41	105	417	252	850
Missing						72
Reducing motor vehicle speeds (N=967)						

By survey mode:	How important is it to you to improve the following on Fifth Street?					N
	Very Unimportant	Unimportant	Neither important nor unimportant	Important	Very Important	
Mailback	13	12	23	41	28	117
Internet	63	104	236	306	141	850
Missing						71
Reducing vehicle accidents (N=965)						
Mailback	6	5	14	48	43	116
Internet	34	27	102	386	300	849
Missing						73
Improving property values (N=957)						
Mailback	7	18	44	30	14	113
Internet	127	161	332	169	55	844
Missing						81
Economic revitalization (N=954)						
Mailback	5	9	32	48	20	114
Internet	71	83	265	318	103	840
Missing						84
Improving air quality (N=960)						
Mailback	6	6	16	42	46	116
Internet	73	57	182	345	187	844
Missing						78
Reducing greenhouse gas emissions from vehicles (N=956)						
Mailback	8	5	18	39	45	115
Internet	89	53	183	335	181	841
Missing						82

Table 32: Chi-squared test- Project Opinion and Desired Improvements to Fifth Street

Do you support the Fifth Street road diet?	How important is it to you to improve the following on Fifth Street?					P-value	N
	Very Unimportant	Unimportant	Neither important nor unimportant	Important	Very Important		
Increasing pedestrian safety							
No	43	52	61	70	17	0.00	939
Yes	18	9	49	165	132		
Undecided	13	18	87	143	62		
Increasing bicycle route connectivity							
No	57	60	55	52	17	0.00	930
Yes	16	8	15	126	207		
Undecided	8	14	55	162	78		
Promoting more active lifestyles							
No	64	53	73	43	7	0.00	914
Yes	24	20	69	69	117		
Undecided	20	24	112	112	40		
Increasing bicycle safety							
No	36	38	44	90	31	0.00	933
Yes	19	2	10	94	249		
Undecided	10	8	30	149	123		
Reducing vehicle congestion							
No	17	26	29	92	79	0.00	935
Yes	18	12	44	188	110		
Undecided	9	9	45	172	85		
Reducing motor vehicle speeds							
No	50	48	68	58	19	0.00	936
Yes	17	30	66	159	101		
Undecided	8	35	118	114	45		
Reducing vehicle accidents							
No	13	20	49	116	44	0.00	934
Yes	16	5	22	149	178		
Undecided	10	6	44	150	112		
Improving property values							
No	58	55	81	35	11	0.00	926
Yes	44	65	145	79	36		
Undecided	29	55	138	75	20		
Economic revitalization							

Do you support the Fifth Street road diet?	How important is it to you to improve the following on Fifth Street?					P-value	N
	Very Unimportant	Unimportant	Neither important nor unimportant	Important	Very Important		
No	41	32	77	71	19	0.00	923
Yes	21	30	108	147	62		
Undecided	14	26	102	134	39		
Improving air quality							
No	40	33	64	77	28	0.00	929
Yes	22	15	57	151	123		
Undecided	17	11	72	144	75		
Reducing greenhouse gas emissions from vehicles							
No	47	32	60	75	26	0.00	925
Yes	26	13	60	144	123		
Undecided	23	9	76	139	72		

Perspectives on the potential effects of the Fifth Street road diet

Respondents were also asked which goals they felt could be met by the Fifth Street road diet. The top three listed responses for both mailback and internet respondents were: increasing bicycle safety, increasing bicycle route connectivity, and increasing pedestrian safety (Table **33**). The survey then asked respondents whether the Fifth Street project would get worse of stay the same on a parallel street to the north of Fifth Street (Eighth Street), streets in the downtown core, and through the Richards Boulevard undercrossing, located to the south of the downtown core. The majority of respondents (94%) felt that traffic congestion would get worse or stay the same on Eight Street. Participants also tended to respond that traffic congestion in the downtown core and in the Richards Boulevard undercrossing would remain the same (Table **34**).

Project Opinion and Perceived Effects of the Fifth Street Project. Chi-squared tests for independence indicated that responses to these three prompts were correlated with project opinion (Table **35**). Those who felt conditions would worsen on Eight Street, Streets in the downtown core, and through the Richards Boulevard undercrossing tended to not support the project, while those who felt conditions would stay the same tended to support the project. Undecided respondents were generally split between conditions worsening and staying the same.

Table 33: Responses by survey mode- Do you believe that any of these goals can be met by the Fifth Street road diet? Please check ALL that apply (N=954)

	Mailback	Internet	N
Increasing bicycle safety	89	616	705
Increasing bicycle route connectivity	85	579	664
Increasing pedestrian safety	70	426	496
Reducing vehicle accidents	55	288	343
Reducing motor vehicle speeds	54	356	410
Promoting more active lifestyles	41	201	242
Improving air quality	40	145	185
Reducing vehicle congestion	32	193	225
Reducing greenhouse gas emissions from vehicles	31	129	160
Economic revitalization	25	91	116
Improving property values	22	72	94
I do not believe any of these goals can be met by the Fifth Street road diet	10	135	145
Missing	12	72	84

Table 34: Responses by survey mode- Do you think the Fifth Street road diet will make traffic congestion worse or better in the three areas listed below?

By survey mode:	Do you think the Fifth Street road diet will make traffic congestion worse or better in the three areas listed below?			N
	Worse	Stay the same	Better	
Eighth Street (N=948)				
Mailback	44	58	6	108
Internet	411	375	54	840
Missing				90
Streets in the downtown core (N=944)				
Mailback	38	50	21	109
Internet	340	363	132	835
Missing				104
Richard Boulevard undercrossing (N=948)				
Mailback	26	75	7	108
Internet	205	576	59	840
Missing				90

Table 35: Chi-square test- Project Opinion and Road Diet impacts

Do you support the Fifth Street road diet?	Project Impact			P-value	N
	Worse	Stay the same	Better		
Eighth Street					
No	185	56	3	0	948
Yes	108	219	41		
Undecided	148	148	15		
Streets in the downtown core					
No	181	54	5	0	944
Yes	54	204	110		
Undecided	131	144	36		
Richard Boulevard undercrossing					
No	121	118	3	0	948
Yes	34	296	40		
Undecided	66	223	22		

Perspectives on Project Impacts

Generally, respondents reported that the Fifth Street project would the following impacts:

Negative or Very Negative impact	Neither negative nor positive impact	Positive or Very Positive
- Ease of use by emergency vehicles traveling along Fifth Street (396 of 917) - Ease of use by delivery trucks traveling along Fifth Street (426 of 908) - Ease of driving along Fifth Street (426 of 923) - Traffic/congestion during the commute hours of 7am-9am and 4pm-6pm (579 of 917)	- The number of pedestrians shopping downtown (702 of 902) - The number of bicyclists shopping downtown (542 of 916) - Traffic/congestion during non-commute hours (374 of 919) - Businesses in downtown Davis (564 of 919) - The number of residents shopping locally (628 of 924) - The number of out-of-town customers shopping in downtown Davis (750 of 912) - Residential property values along and neat Fifth Street (609 of 916) - Commercial property values along and near Fifth Street (590 of 911)	- Pedestrian safety at street crossings (553 of 924) - Bicycle safety at street crossings (645 of 922) - Bicycle safety along Fifth Street (762 of 928) - Vehicle safety along Fifth Street (411 of 922), and - Fifth Street overall (435 of 902).

Project Opinion and Project Impacts. Chi-square tests for independence indicated significant associations between perceived project impacts and project opinions. Generally, respondents who felt that the project would have positive or very positive impacts on the variables listed tended to support the project. Those who felt the project would have very negative impacts on the variables listed above tended to not support the project (Table **36**).

Table 36: Chi-square test- Project Opinion and Project Impacts

Do you support the Fifth Street road diet?	**Please indicate your opinion of how the new Fifth Street road diet will impact the following factors on a scale from *Very Negatively* to *Very Positively*:**					**P-value**	**N**
	Very Negatively	**Negatively**	**Neither Negatively nor Positively**	**Positively**	**Very Positively**		
Pedestrian safety at street crossings							
No	11	18	135	67	7	.00	924
Yes	0	0	64	224	84		
Undecided	0	6	137	151	20		
Bicycle safety at street crossings							
No	18	23	109	74	15	.00	922
Yes	0	5	28	202	137		
Undecided	0	10	84	186	31		
Bicycle safety along Fifth Street							
No	20	19	61	115	25	.00	928
Yes	0	3	11	144	216		
Undecided	0	9	43	191	71		
Bicycle use along Fifth Street							
No	19	11	78	113	17	.00	919
Yes	0	0	18	177	175		
Undecided	1	2	71	176	61		
The number of pedestrians shopping downtown							
No	23	36	173	5	1	.00	920
Yes	0	2	258	94	14		
Undecided	0	12	271	29	2		
The number of bicyclists shopping downtown							
No	12	10	176	36	5	.00	916
Yes	0	0	161	168	38		
Undecided	0	7	205	89	9		
Traffic/congestion during the commute hours of 7am-9am and 4pm-6pm							

Do you support the Fifth Street road diet?	Please indicate your opinion of how the new Fifth Street road diet will impact the following factors on a scale from *Very Negatively* to *Very Positively*:					P-value	N
	Very Negatively	**Negatively**	**Neither Negatively nor Positively**	**Positively**	**Very Positively**		
No	164	53	19	4	2	.00	917
Yes	20	134	69	119	25		
Undecided	44	164	58	37	5		
Traffic/congestion during non-commute hours							
No	82	113	41	6	0	.00	919
Yes	4	40	185	121	18		
Undecided	12	108	148	40	1		
Vehicle safety along Fifth Street							
No	38	57	118	24	2	.00	922
Yes	0	6	87	222	59		
Undecided	2	28	175	102	2		
Ease of driving along Fifth Street							
No	123	87	26	3	3	.00	923
Yes	3	56	110	158	42		
Undecided	22	135	100	53	2		
Ease of use by delivery trucks traveling along Fifth Street							
No	127	67	38	6	0	.00	908
Yes	10	74	159	102	20		
Undecided	34	114	122	35	0		
Ease of use by emergency vehicles traveling along Fifth Street							
No	97	85	42	17	0	.00	917
Yes	4	76	123	132	34		
Undecided	19	115	106	62	5		
Businesses in downtown Davis							
No	42	65	129	6	1	.00	919
Yes	0	4	200	150	14		
Undecided	3	22	235	45	3		
The number of residents shopping locally							
No	38	49	151	4	1	.00	924
Yes	0	2	225	128	16		
Undecided	1	16	252	40	1		
The number of out-of-town customers shopping in downtown Davis							

Do you support the Fifth Street road diet?	Please indicate your opinion of how the new Fifth Street road diet will impact the following factors on a scale from *Very Negatively* to *Very Positively*:					P-value	N
	Very Negatively	Negatively	Neither Negatively nor Positively	Positively	Very Positively		
No	27	44	164	4	0	.00	912
Yes	0	4	311	44	7		
Undecided	4	13	275	13	2		
Residential property values along and near Fifth Street							
No	12	14	187	28	0	.00	916
Yes	0	3	185	170	11		
Undecided	1	10	237	55	3		
Commercial property values along and near Fifth Street							
No	17	44	163	17	0	.00	911
Yes	0	4	183	161	16		
Undecided	1	8	244	50	3		
Fifth Street overall							
No	61	123	49	6	1	.00	902
Yes	0	2	38	249	76		
Undecided	1	30	163	100	3		

Support of the Fifth Street Road Diet

Respondents as a whole were fairly split on project opinion: 26% opposed, 39% in support, and 35% undecided (N=958) (Table 37). Mailback respondents tended to support the project, while internet respondents were split between being supportive and undecided. Respondents who were opposed to the project listed traffic/congestion during commute hours, traffic/congestion during non-commute hours, and impacts on the ease of driving along Fifth Street as the top three most frequently cited reasons for opposing the project (N=239) (Table 38). Respondents who were in support of the project listed bicycle safety at street crossings and bicycle use and bicycle safety along Fifth Street as the top three most frequently cited reasons for supporting the project (N=363) (Table 39). A plurality (45%) of undecided respondents noted that they "would need to learn more about the Fifth Street road diet before forming an opinion" (N=312) (Table 40).

Table 37: Responses by survey mode- Do you support the Fifth Street road diet? (N=958)

By survey mode:	Do you support the Fifth Street road diet?			N
	No	**Yes**	**Undecided**	
Mailback	27	69	24	120
Internet	221	308	309	838
Missing				80

Table 38: Responses by survey mode-What are your top three reasons for not supporting the Fifth Street road diet? (N=239)

	By survey mode:		N
	Mailback	**Internet**	
Pedestrian safety at street crossings	1	1	2
Bicycle safety at street crossings	1	5	6
Bicycle safety along Fifth Street	4	11	15
Bicycle use along Fifth Street	1	12	13
The number of pedestrians shopping downtown	0	2	2
The number of bicyclists shopping downtown	0	0	0
Traffic/congestion on Fifth Street during the commute hours of 7am-9am and 4pm-6pm	19	153	172
Traffic/congestion on Fifth Street during non-commute hours	12	119	131
Vehicle safety along Fifth Street	2	27	29
Ease of driving along Fifth Street	11	104	115
Ease of use by delivery trucks traveling along Fifth Street	3	6	9
Ease of use by emergency vehicles traveling along Fifth Street	5	29	34
Businesses in downtown Davis	2	12	14
The number of residents shopping locally	1	8	9
The number of out-of-town customers shopping in downtown Davis	0	2	2
Residential property values along and near Fifth Street	0	1	1
Commercial property values along and near Fifth Street	0	3	3
The costs don't justify the benefits	8	78	86
Fifth Street overall	0	16	16
Other	0	26	26
Too many checked	4	3	7
Missing	4	5	9

Table 39: Responses by survey mode- What are your top three reasons for supporting the Fifth Street road diet? (N=363)

	By survey mode:		N
	Mailback	Internet	
Pedestrian safety at street crossings	29	50	79
Bicycle safety at street crossings	28	121	149
Bicycle safety along Fifth Street	48	242	290
Bicycle use along Fifth Street	26	162	188
The number of pedestrians shopping downtown	1	0	1
The number of bicyclists shopping downtown	2	11	13
Traffic/congestion on Fifth Street during the commute hours of 7am-9am and 4pm-6pm	3	43	46
Traffic/congestion on Fifth Street during non-commute hours	2	18	20
Vehicle safety along Fifth Street	14	79	93
Ease of driving along Fifth Street	5	57	62
Ease of use by delivery trucks traveling along Fifth Street	0	3	3
Ease of use by emergency vehicles traveling along Fifth Street	1	4	5
Businesses in downtown Davis	1	6	7
The number of residents shopping locally	1	1	2
The number of out-of-town customers shopping in downtown Davis	0	0	0
Residential property values along and near Fifth Street	3	4	7
Commercial property values along and near Fifth Street	2	0	2
Fifth Street overall	13	57	70
Other	0	14	14
Too many checked	6	5	11
Missing	7	7	14

Table 40: Responses by survey mode- Undecided Respondents- Which of the following most closely mirrors your perspective? (N=312)

	By survey mode:		N
	Mailback	Internet	
I would need to learn more about the Fifth Street road diet before forming an opinion	6	133	139
The possible benefits of the project are equal to the possible drawbacks of the project	5	55	60
It is impossible to know whether this project will be successful at this point in the planning process	1	40	41
I will not be personally affected by this project	1	44	45
Other	1	26	27
Missing	10	11	21

Perceptions about the Environment and Local Action

Importance of global warming

Mailback and internet respondents tended to report that global warming was "very important" to them (N=945) (Table **41**).

Project Opinion and Importance of Global Warming. A chi-square test for independence indicated a significant relationship (α<=.05, .01) between importance of global warming and project opinion (N=945, p=.000). Those who reported that global warming was not at all important tended to not support the Fifth Street project. Those who reported that global warming was not very or somewhat important to them, tended to report that they were undecided about the Fifth Street road diet, and those who reported that global warming was very or extremely important, tended to support the project (Table **42**).

Table 41: Responses by survey mode- How important is the issue of global warming to you, personally? (N=945)

How important is the issue of global warming to you, personally?	By survey mode:		N
	Mailback	Internet	
Not at all important	3	41	44
Not very important	4	65	69
Somewhat important	25	231	255
Very important	50	334	384
Extremely important	34	158	192
Missing	5	88	93

Table 42: Chi-squared test- Project Opinion and the Importance of Global Warming (N=945)

How important is the issue of global warming to you, personally?	Do you support the Fifth Street road diet?			P-value	N
	No	Yes	Undecided		
Not at all important	22	10	12	.000	945
Not very important	26	13	30		
Somewhat important	67	91	98		
Very important	93	167	124		
Extremely important	37	93	62		

Global warming viewpoints

The survey asked participants which of a series of statements was most closely aligned with their view of global warming. Mailback and internet respondents tended to report that they believed the statement "Humans could reduce global warming, but it's unclear at this point whether we will do what's needed" (N=936) (
Table **43**).

Project Opinion and Global Warming Viewpoints. A Chi-square test for independence indicated a significant relationship (α<=.05, .01) between the statements given in this prompt and project opinion. Participants who responded that "humans could reduce global warming, and I am optimistic that we will be able to respond" or that "Humans could reduce global warming, but it's unclear at this point whether we will do what's needed " came closest to their view, tended to support the Fifth Street road diet (Table 44).

Table 43: Responses by survey mode- Which of the following statements comes closest to your view? (N=936)

Which of the following statements comes closest to your view?	By survey mode:		N
	Mailback	Internet	
Global warming isn't happening	1	22	23
Humans can't reduce global warming, even if it is happening	7	76	83
Humans could reduce global warming, but people aren't willing to change their behavior	29	156	185
Humans could reduce global warming, but it's unclear at this point whether we will do what's needed	57	451	508
Humans could reduce global warming, and I am optimistic that we will be able to respond	20	117	137
Missing	7	95	102

Table 44: Chi-squared test- Project Opinion and Global Warming Viewpoint (N=936)

Which of the following statements comes closest to your view?	Do you support the Fifth Street road diet?			P-value	N
	No	Yes	Undecided		
Global warming isn't happening	9	5	9	0.00	936
Humans can't reduce global warming, even if it is happening	40	19	24		
Humans could reduce global warming, but people aren't willing to change their behavior	48	69	68		
Humans could reduce global warming, but it's unclear at this point whether we will do what's needed	117	210	181		
Humans could reduce global warming, and I am optimistic that we will be able to respond	26	69	42		

Addressing global warming

Respondents were asked whether citizens should be doing more or less to address global warming; 51% of the survey respondents reported that they believed citizens should be doing more to address global

warming (N=928) (Table **45**). A plurality of internet respondents responded that citizens should be doing "more"; while mailback respondents were more split between doing "more" and "much more".

Project Opinion and Addressing Global Warming. A Chi-square test for independence indicated a significant relationship (α<=.05, .01) between this prompt and project support (p=.000; N=928). Respondents who reported that they believed citizens should be doing more or much more, tended to support the Fifth Street project, while those who responded that citizens should be doing less or are currently doing the right amount, tended to not support the Fifth Street project. Those who responded "much less" tended to be against the project, or undecided (Table **46**).

Table 45: Responses by survey mode- Do you think citizens themselves should be doing more or less to address global warming? (N=928)

		By survey mode:		N
		Mailback	Internet	
Do you think citizens themselves should be doing more or less to address global warming?	Much less	2	23	25
	Less	1	25	26
	Doing the right amount	11	129	140
	More	50	422	472
	Much more	49	216	265
	Missing	8	122	130

Table 46: Chi-squared test- Project Opinion and Citizen Response to Global Warming (N=928)

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
Do you think citizens themselves should be doing more or less to address global warming?	Much less	11	3	11	0.00	928
	Less	12	9	5		
	Doing the right amount	57	34	49		
	More	112	182	178		
	Much more	48	140	77		

Demographics

Chi-square tests for independence indicated a significant association between a number of demographic variables and project opinion including: length of time living in Davis (N=950, p=.008), riding a bike for transportation (N=942, p=.00), weekly bicycle use (N=927, p=.00), access to a car (N=940, p=.003), primary mode of transportation (N=944, p=.00)), student status (N=940, p=.002), and age category (N=910, p=.02). These are discussed further in the sections below.

Length of residence in Davis

A majority (82%) of the participants who responded to this prompt, reported living in Davis five years or more, while six percent reported having lived in Davis for less than six months (N=950) (Table **47**).

Project Opinion and Length of Residence in Davis. Respondents tended to support the project overall, however, those who reported living in Davis for less than one year tended to support the project by wider margins (62%-66%) than those who had lived in Davis for more than two years (36%-47%). Those who had lived in Davis for more than two years tended to be more split between support for the project and feeling undecided (Table **48**).

Table 47: Responses by survey mode-How long have you lived in Davis? (N=950)

		By survey mode:		N
		Mailback	Internet	
How long have you lived in Davis?	Less than 6 months	3	3	6
	6 months to less than 1 year	3	13	16
	1 to less than 2 years	8	31	39
	2 to less than 3 years	7	39	46
	3 to less than 5 years	11	52	63
	5 years or more	85	695	780
	Missing	4	84	88

Table 48: Chi-squared test- Project Opinion and Length of Time in Davis (N=950)

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
How long have you lived in Davis?	Less than 6 months	1	4	1	.008	950
	6 months to less than 1 year	1	10	5		
	1 to less than 2 years	7	25	7		
	2 to less than 3 years	10	20	16		
	3 to less than 5 years	10	30	23		
	5 years or more	218	285	277		

Bicycle as a transportation mode

Of the participants who responded to this prompt, 46% reported that they "sometimes ride a bike for transportation;" 35% reported that they "never or almost never" ride a bicycle, and 18% responded that "most or all" transportation is by bicycle (N=942)(Table **49**). A plurality of mailback respondents reported that they "sometimes" ride a bicycle for transportation; while internet respondents were split between the given options.

Project Opinion and Bicycle as a Transportation Mode. The majority of respondents who reported that "most or all" of their transportation was by bicycle were in support of the project (116 of 174). Those who reported that they "sometimes ride a bike for transportation" tended to report either being in favor of the project or undecided, while those who reported "never or almost never" riding a bike for transportation tended to report either being opposed or undecided on the project (Table 50).

Table 49: Responses by survey mode-Do you ever ride a bike for transportation? (N=942)

		By survey mode:		N
		Mailback	Internet	
Do you ever ride a bike for transportation?	I never or almost never ride a bike for transportation	36	297	333
	I sometimes ride a bike for transportation	37	398	435
	Most or all of my transportation is by bicycle	43	131	174
	Missing	5	91	96

Table 50: Chi-squared test- Project Opinion and Riding a Bicycle for Transportation (N=942)

	Do you support the Fifth Street road diet?			P-value	N
Do you ever ride a bike for transportation?	**No**	**Yes**	**Undecided**		
I never or almost never ride a bike for transportation	110	94	129	0.00	942
I sometimes ride a bike for transportation	115	163	157		
Most or all of my transportation is by bicycle	20	116	38		

Bike use frequency

A plurality of participants reported that they had not ridden a bicycle in the last seven days (43%), and 21% reporting having ridden their bicycles once or twice over the last week (N=927) (Table **51**). A plurality (45%)of internet respondents had not ridden their bicycle in the last seven days; whereas only 33% of mailback respondents had not ridden their bicycle in the last seven days and 22% had ridden a bicycle every day that week.

Project Opinion and Bike Use Frequency. A Chi-square test for independence indicated a significant association between bicycling days and project opinion (N=927, p=.000). Those who reported that they had not ridden a bicycle in the last seven days, tended to report that they were undecided on the project. Those who reported that they had ridden a bicycle on one or more days in during the last seven days tended to report that they were in support of the project (Table **52**).

Table 51: Responses by survey mode-During the last seven days, on how many days did you ride a bicycle? (N=927)

		By survey mode:		N
		Mailback	Internet	
During the last seven days, on how many days did you ride a bicycle?	0	36	368	404
	1	5	87	92
	2	10	91	101
	3	6	63	69
	4	6	52	58
	5	13	61	74
	6	8	40	48
	7	24	57	81
	Missing	13	98	111

Table 52: Chi-squared test- Project Opinion and Bicycle Days (N=927)

		During the last seven days, on how many days did you ride a bicycle?		P-value	N
		0 Days	1-7 Days		
Do you support the Fifth Street road diet?	No	123	117	0.00	927
	Yes	121	247		
	Undecided	160	159		

Access to a vehicle

The majority of mailback and internet respondents reported having unlimited access to a vehicle (89%, N=940).

Project Opinion and Access to a Vehicle. An independent-samples t-test was conducted to compare car access among those with a project opinion (support and opposed). There was a significant difference in car access among those who did not support (N=244, M=5.87, s.d. =6.22) and those who did support the project (N=373, Mean=5.56, s.d.=1.13), p=.000 (two-tailed). A Kruskal-Wallis test also revealed a statistically significant difference in car access across the three different project opinions (Group 1, n=244, no support; Group 2, n=373, support; Group 3, n=323, undecided), X2 (2, n=940)=22.356, p=.000. Median values for all the groups were the same (6: “Whenever I want”).

Table 53: Responses by survey mode- How much of the time do you have access to a car, either as a driver or passenger, whether you actually choose to use it or not? (N=940)

		By survey mode:		N
		Mailback	Internet	
How much of the time do you have access to a car?	Never	1	5	6
	20% of the time	10	20	30
	40% of the time	3	13	16
	60% of the time	0	8	8
	80% of the time	6	30	36
	Whenever I want	98	746	844
	Missing	3	95	98

Primary mode of transportation

A majority (71%) of respondents reported a car/motorcycle as their primary mode of transportation, 22% reported a bicycle (N=944) (Table **54**). Internet respondents overwhelmingly selected a car/motorcycle as their primary mode of transportation, whereas mailback respondents were split between car/motorcycle and bicycle.

Project Opinion and Primary Mode of Transportation. A Chi–square test for independence indicated a significant association between reported primary mode and project opinion (p=.000, N=944). Those who reported a car/motorcycle or public transportation as their primary mode tended to report that they were undecided on the project; those who reported a bicycle or walking as their primary mode tended to report that they were supportive of the project (

Table **55**).

Table 54: Responses by survey mode-When traveling to destinations within Davis, what is your primary mode of transportation? (N=944)

		By survey mode:		N
		Mailback	Internet	
When traveling to destinations within Davis, what is your primary mode of transportation?	Car/motorcycle	45	630	675
	Bicycle	49	161	210
	Public Transportation	2	15	17
	Walking	21	21	42
	Missing	4	90	94

Table 55: Chi-squared test- Primary Opinion and Primary Mode (N=944)

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
When traveling to destinations within Davis, what is your primary mode of transportation?	Car/motorcycle	205	210	260	0.00	944
	Bicycle	29	132	49		
	Public Transportation	5	5	7		
	Walking	7	26	9		

Student Respondents

A majority of respondents reported that they were not students in a degree program (92%); while 7% responded that they were full time students (N=940).

Project Opinion and Student Status. Although all respondents tended to support the project, those who reported full time student status, tended to support the project by a wider margin (62.5% support, N=64) than those who are not students (37% support, N=861)and those who are part-time students (47% support, N=15).

Table 56: Responses by survey mode- Are you a student in a degree program? (N=940)

		By survey mode:		N
		Mailback	Internet	
Are you a student in a degree program?	No	95	766	861
	Yes, full time	18	46	64
	Yes, part time	1	14	15
	Missing	7	91	98

Table 57: Chi-squared test- Project Opinion and Student Status (N=940)

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
Are you a student in a degree program?	No	236	322	303	0.002	940
	Yes, full time	7	40	17		
	Yes, part time	4	7	4		

Age

A plurality of the respondents were in the 50-59 year old range (

Table **58**). Internet respondents tended to be in the 50-59 age group, and mailback respondents tended to be in the under 29 and 30-39 age groups.

Project Opinion and Age Group. Age group and project opinion are correlated; younger respondents in the under 29, 30-39, and 40-49 age categories tended to support the project; those in older categories reported that they were undecided or supportive of the project (N=910, p=.022).

Table 58: Responses by survey mode- What is your age (in years)? (N=910)

		By survey mode:		N
		Mailback	Internet	
What is your age?	<=29	23	59	82
	30-39	28	117	145
	40-49	11	151	162
	50-59	14	212	226
	60-69	11	148	159
	70-79	8	73	81
	80-89	7	40	47
	90+	4	4	8
	Missing	15	113	128

Table 59: Chi-squared test- Project Opinion and Age

		Do you support the Fifth Street road diet?			P-value	N
		No	Yes	Undecided		
What is your age?	<=29	18	43	21	0.022	910
	30-39	31	69	45		
	40-49	34	75	53		
	50-59	58	84	84		
	60-69	52	45	62		
	70-79	23	29	29		
	80-89	13	16	18		
	90+	4	2	2		

Non-significant demographic characteristics

More males (N=506) than females (N=441) are represented in this survey; male respondents tended to support the project, while female respondents were closely split between support (17.4%) and being undecided (17.5%) (N=947) (Table **60** and Table **61**).

Most respondents did not cite a professional affiliation with the Davis Chamber of Commerce or Downtown Davis Business Improvement District. Only 18 (N=950) respondents reported operating a business/commercial building in the Downtown Davis Business Improvement District; 20 respondents

(N=946) reported that their employer was a member of the DDBA, and 30 respondents (N=946) reported an affiliation with the Davis Chamber of Commerce.

On average respondents reported 1.28 full-time workers per household (s.d.=.738, N=596) and .81 part-time members per household (s.d.=.695, N=336). Higher annual income households of $125,000 or more, was the most represented income category (30%, N=848); respondents at all income levels tended to support the project, although the average income was slightly higher among those who did not support the project. Average family sizes tended to be larger among those who supported the project (see Table 68).

The majority of the respondents reporting having "completed graduate degrees" and 25% reported their highest level of educational background obtained as "four year college/technical school" (N=933). Those who had completed high school tended to report that they were not in support of the project or were undecided; higher levels of completed educational backgrounds tended to support or be split between supporting and feeling undecided on the project (N=934).

50% of respondents reported that they were employed Full-time, which 24% reported that they were retired (N=945). Those who responded to the employment status and project opinion prompts tended to support the project; which the exception of the "homemaker" category where respondents tended to report that they were undecided on the project (N=945).

Table 60: Responses by survey mode- What is your gender? (N=947)

		By survey mode:		N
		Mailback	Internet	
Gender	Male	57	449	506
	Female	61	380	441
	Missing	3	108	111

Table 61: Chi-squared test- Project Opinion and Gender (N=947)

		Do you support the Fifth Street road diet?			
		No	Yes	Undecided	N
Gender	Male	137	209	160	947
	Female	110	165	166	

Table 62: Responses by survey mode- Do you currently operate a business or own a commercial building within the Downtown Davis Business Improvement District? (N=950)

		By survey mode:		N
		Mailback	Internet	
Do you currently operate a business or own a commercial building within the Downtown Davis Business	No	107	815	922
	Yes	8	0	8
	Don't know	0	20	20
	Missing	6	102	108

Improvement District?				

Table 63: Responses by survey mode- Are you or your employer, a member of the DDBA? (N=946)

		By survey mode:		N
		Mailback	Internet	
Are you or your employer, a member of the DDBA?	No	100	791	891
	Yes	3	17	20
	Don't know	8	27	35
	Missing	10	82	92

Table 64: Responses by survey mode- Are you or your employer, a member of the Davis Chamber of Commerce? (N=946)

		By survey mode:		N
		Mailback	Internet	
Are you or your employer, a member of the Davis Chamber of Commerce?	No	97	771	868
	Yes	5	25	30
	Don’t know	9	39	48
	Missing	10	82	92

Table 65: Responses by survey mode- If you live with others with whom you share an income, how many full-time and part-time workers are there in your household (including yourself)?

		By survey mode:		N
		Mailback	Internet	
How many full-time and part-time workers are there in your household?	Full Time (N=596)			
	0	6	81	87
	1	17	250	267
	2	26	205	231
	3	1	8	9
	4	0	2	2
	Missing	12	76	88
	Part Time (N=336)			
	0	15	95	110
	1	14	174	188
	2	2	29	31
	3	0	6	6
	4	0	1	1
	Missing	31	317	348

Table 66: Responses by survey mode- Annual Household income (N=848)

		By survey mode:		N
		Mailback	**Internet**	
Annual household income	Less than $15,000	11	36	47
	$15,000 to $29,999	9	52	61
	$30,000 to $49,999	16	76	92
	$50,000 to $74,999	14	124	138
	$75,000 to $124,999	21	231	252
	$125,000 or more	16	242	258
	Missing	34	156	190

Table 67: Cross tabulation- Project Opinion and Household income (N=848)

		Do you support the Fifth Street road diet?			N
		No	**Yes**	**Undecided**	
Annual Household income	Less than $15,000	9	23	15	848
	$15,000 to $29,999	16	24	21	
	$30,000 to $49,999	20	43	29	
	$50,000 to $74,999	34	54	50	
	$75,000 to $124,999	66	105	81	
	$125,000 or more	71	96	91	

Table 68: Responses by survey mode- Income and Average Family Size

Support by survey type	Income*		Average Family Size		
	Mode	N	Mean	s.d.	N
Support					
Combined	5	345	2.6	1.28	372
Internet	5	287	2.66	1.29	303
Mailback	5	58	2.35	1.22	69
Do not support					
Combined	6	216	2.47	1.29	245
Internet	6	200	2.53	1.29	220
Mailback	6	10	1.92	1.15	25
Undecided					
Combined	6	287	2.55	1.34	325
Internet	6	274	2.57	1.33	304
Mailback	4	13	2.29	1.42	21

**Income categories: (1) Less than $15,000 (2) $15,000-$29,999 (3) $30,000-$49,999 (4) $50,000-$74,999 (5) $75,000-$129,999 (6) $125,000+.*

Table 69: Responses by survey mode- Please indicate your educational background (N=933)

		By survey mode:		N
		Mailback	Internet	
Educational Background	High School or less	4	18	22
	Some college or technical school	11	60	78
	Two-year college associate's degree	4	31	35
	Four-year college/technical school degree	34	201	235
	Some graduate school	7	82	89
	Completed graduate degrees	56	425	481
	Missing	5	100	105

Table 70: Cross tabulation- Project Opinion and Educational Background (N=934)

		Do you support the Fifth Street road diet?			N
		No	Yes	Undecided	
Educational background	High School or less	8	6	8	934
	Some college or technical school	16	28	27	
	Two-year college associate's degree	8	15	12	
	Four-year college/technical school degree	69	81	86	
	Some graduate school	18	37	34	
	Completed graduate degrees	127	204	150	

Table 71: Responses by survey mode- What is your current employment status? (N=945)

		By survey mode:		N
		Mailback	Internet	
Educational background	Full-Time	60	413	473
	Part-time	22	133	155
	Homemaker	3	38	41
	Not currently working	9	40	49
	Retired	24	203	227
	Missing	3	90	93

Table 72: Cross tabulation- Project Opinion and Employment Status (N=945)

		Do you support the Fifth Street road diet?			N
		No	Yes	Undecided	
Employment Status	Full-Time	126	195	152	945
	Part-time	37	62	56	
	Homemaker	10	10	21	
	Not currently working	8	26	15	
	Retired	66	80	81	

Table 73: Responses by survey mode- Are you a member of any of the following Davis-based volunteer or social organizations? (N=343)

		By survey mode:		N
		Mailback	Internet	
Organization Membership	Davis Neighborhood Association	19	53	72
	Davis Parent Teacher Association	3	101	104
	Anderson Community Taskforce	0	0	0
	Davis Bicycles!	2	24	26
	Bike Forth	1	7	8
	A local service organization	5	22	27
	A City Commission	3	7	10
	A County Commission	1	8	9
	A local non-profit	16	101	117
	Other	9	94	103
	No given membership	77	618	695