

# Tracker Measure 3g

Assessing MoDOT's Efforts to Provide the Right Transportation Solution **Prepared By:** 



HEARTLAND MARKET RESEARCH LLC Helping You Better Understand Your Stakeholders<sup>SM</sup>

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### **Final Report**

Project Number: TR201522

## Assessing MoDOT's Efforts to Provide the Right Transportation Solution

Tracker Measure 3g

Prepared for the Missouri Department of Transportation

December 21, 2015

by



Helping You Better Understand Your Stakeholders<sup>SM</sup>

The opinions, findings, and conclusions expressed in this publication are those of the principal investigator. They are not necessarily those of the Missouri Department of Transportation, the U.S. Department of Transportation or the Federal Highway Administration. This report does not constitute a standard or regulation.

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selected by a regional manager for	or the project for a t	total of 21 projects	s. The sample ind	cluded 600
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## TABLE OF CONTENTS

Table of Tables	ii
Table of Figures	iii
Executive Summary	1
Background and Methodology	4
Project Descriptions and Locations	6
Respondents	
Project Assessment	12
Safer	14
Improving Traffic Flow in the Area	16
More Convenient	16
Less Congested	
Driving Environment	20
Easier to Travel	21
Better Marked	23
Accommodation for Bicyclists and Pedestrians	25
Projects with Accommodations for Bicyclists and Pedestrians	25
Projects with No Bicyclist/Pedestrian Component	29
Familiarity with Roadway	35
The Right Transportation Solution	
Respondent Property Loss	42
The Right Priority	45
Awareness and Satisfaction	
Project Awareness	
Overall Satisfaction	51
Summary	54
Appendix A. Survey Instrument	55
Appendix B: Right Transportation Solution by Project	59



## TABLE OF TABLES

Table 1: Summary of Key Indicators by Project and District    2
Table 2: Project Descriptions    6
Table 3: Gross Response Rate by Project and District
Table 4: Safety Feedback by Project and District    15
Table 5: Convenience Feedback by Project and District
Table 6: Congestion Feedback by Project and District         19
Table 7: Easier to Travel Feedback by Project and District    22
Table 8: Better Marked Feedback by Project and District    24
Table 9: Bike/Pedestrian Accommodation – Meets Your Needs by Project and District 25
Table 10: Bike/Pedestrian Accommodation – Is Safe by Project and District
Table 11: Bike/Pedestrian Accommodation – Is Easy to Use by Project and District
Table 12: No Bicyclist/Pedestrian Component – Right Decision by Project and District 29
Table 13: No Bicyclist/Pedestrian Component – Pedestrian Usage by Project and District 31
Table 14: No Bicyclist/Pedestrian Component – Bicyclist Usage by Project and District
Table 15: Familiarity with Roadway by Project and District    36
Table 16: Frequency of Roadway Use by Project and District    38
Table 17: Right Transportation Solution by Project and District         40
Table 18: Right Transportation Solution by Project Size    41
Table 19: Frequency of Respondents Who Lost Property to Project by Project and District 43
Table 20: Cross Reference of Right Transportation Solution and Property Loss
Table 21: Cross Reference of Priority by Right Transportation Solution         47
Table 22: Project Awareness by Project and District    49
Table 23: Cross Reference of Project Awareness and Right Transportation Solution
Table 24: Satisfaction by Project and District
Table 25: Cross Reference of Satisfaction and Right Transportation Solution
Table 26: Project Margin of Error for RTS Measure    60



## TABLE OF FIGURES

Figure 1: Safer – Historical Comparison	
Figure 2: Convenience – Historical Comparison	
Figure 3: Congestion – Historical Comparison	
Figure 4: Easier to Travel – Historical Comparison	
Figure 5: Better Marked – Historical Comparison	
Figure 6: Bike/Pedestrian Accommodation – Meets Your Needs	
Figure 7: Bike/Pedestrian Accommodation – Is Safe	
Figure 8: Bike/Pedestrian Accommodation – Is Easy to Use	
Figure 9: No Bicyclist/Pedestrian Component – Right Decision	
Figure 10: No Bicyclist/Pedestrian Component – Pedestrian Usage	
Figure 11: No Bicyclist/Pedestrian Component – Bicyclist Usage	
Figure 12: Road Familiarity – Historical Comparison	
Figure 13: Frequency of Use – Historical Comparison	
Figure 14: Right Transportation Solution – Historical Comparison	
Figure 15: Property Loss – Historical Comparison	
Figure 16: Priority – Historical Comparison	
Figure 17: Priority Feedback by Project and District	
Figure 18: Project Awareness	
Figure 19: Satisfaction	
Figure 20: Northwest District	61
Figure 21: Northeast District	
Figure 22: Kansas City District	
Figure 23: Central District	
Figure 24: St. Louis District	
Figure 25: Southwest District	
Figure 26: Southeast District	



### **EXECUTIVE SUMMARY**

The Missouri Department of Transportation (MoDOT) has developed the Tracker system to assess performance with tangible results to help MoDOT "provide a world-class transportation system that delights our customers." The Tracker system includes the concept of "Provide outstanding customer service," and an important aspect of this measure is whether Missourians view MoDOT projects as the right transportation solution. To assess customer satisfaction with MoDOT projects, a mail survey was conducted in late 2015 by Heartland Market Research LLC. 3,360 respondents returned a survey questionnaire for a response rate of 26.7%. Since some respondents did not answer every question – and multiple respondents simply returned a blank survey – the general margin of error varies from question to question. The typical margin of error for most questions is plus or minus 2%. If all 3,360 respondents answered a question, the margin of error for it would be 1.73%.

The basic research design for the project was to sample opinions on a variety of projects spread across the state as was done in the previous fiscal year. A small, medium, and large project from each of the seven MoDOT districts was selected by a regional manager for the project for a total of 21 projects. Then Heartland drew a sample of residents from one or more ZIP code areas as appropriate for each project which was reviewed by the appropriate MoDOT district. The sample included 600 addresses per project area for a total of 12,600 Missouri addresses being mailed a copy of the survey. Despite this effort to keep the number of addresses even across the districts and projects, the response rate varied by project area.

Each survey was focused on one of 21 individual projects, which was briefly described on the survey, and the majority of survey questions related to the recently completed project, such as determining if the completion of the project increased safety, convenience, and made it easier to drive. In addition, questions were asked about the overall value of the particular project and the respondents were given the opportunity to provide comments regarding the project.



		Familiar		-		Easier		Right
		with		More	Less	to	Better	Transportation
District	Project	Roadway	Safer	Convenient	Congested	Travel	Marked	Solution
	NW-L	78.9%	95.7%	93.3%	87.4%	95.2%	95.4%	96.3%
Northwost	NW-M	85.4%	96.9%	88.3%	62.4%	94.4%	90.3%	91.9%
Northwest	NW-S	<mark>91.6%</mark>	91.4%	76.7%	73.3%	<mark>83.6%</mark>	81.0%	92.5%
	Total	85.4%	94.6%	86.5%	75.5%	91.2%	89.0%	93.6%
	NE-L	95.2%	86.2%	64.3%	12.7%	78.7%	84.8%	81.5%
Northeast	NE-M	81.7%	70.7%	15.7%	54.1%	29.5%	58.7%	56.5%
Nonneast	NE-S	71.5%	97.7%	90.9%	85.7%	95.1%	93.6%	95.4%
	Total	83.0%	84.8%	55.0%	49.4%	68.2%	78.8%	77.5%
	KC-L	71.3%	76.6%	75.8%	82.7%	69.2%	74.8%	77.0%
Kansas	KC-M	82.4%	91.5%	80.7%	57.3%	88.4%	88.3%	83.5%
City	KC-S	93.1%	93.6%	93.3%	90.0%	92.2%	93.2%	95.0%
	Total	82.5%	87.2%	84.0%	80.3%	83.2%	85.4%	85.7%
	CD-L	98.3%	97.5%	96.2%	92.7%	98.1%	93.4%	95.2%
Control	CD-M	75.3%	94.5%	92.6%	84.9%	91.1%	97.4%	94.2%
Central	CD-S	88.9%	91.7%	86.9%	39. <mark>8</mark> %	91.7%	93.0%	91.3%
	Total	87.6%	94.8%	92.5%	76.8%	93.8%	94.4%	93.7%
	SL-L	86.5%	94.3%	97.2%	91.9%	97.1%	89.8%	99.4%
St. Louis	SL-M	73.8%	89.9%	78.8%	59.4%	80.3%	83.1%	88.4%
St. Louis	SL-S	52.9%	84.2%	58.3%	37.8%	67.9%	66.7%	79.7%
	Total	74.2%	91.2%	86.6%	75.9%	87.8%	84.1%	92.9%
	SW-L	83.2%	99.2%	94.5%	91.9%	96.9%	90.1%	99.2%
Southwoot	SW-M	87.5%	97.6%	94.6%	87.2%	95.8%	97.3%	94.8%
Southwest	SW-S	91.7%	87.8%	94.4%	87.6%	92.4%	84.6%	90.6%
	Total	88.5%	93.3%	94.5%	88.7%	94.4%	89.4%	93.7%
	SE-L	87.7%	<b>8</b> 5.5%	77.3%	50.0%	87.6%	87.5%	87.6%
Southoost	SE-M	91.8%	93.3%	87.6%	51.1%	<mark>89.6%</mark>	87.0%	91.9%
Soumeast	SE-S	89.0%	86.9%	81.7%	59.5%	81.1%	84.7%	84.1%
	Total	89.4%	88.6%	82.3%	54.3%	85.8%	86.3%	87.8%
All Project	s:	84.7%	90.7%	83.7%	72.7%	86.7%	87.1%	89.3%

#### Table 1: Summary of Key Indicators by Project and District

As part of the questionnaire, each respondent had the opportunity to provide comments about why their local project was – or was not – the right transportation solution. Each and every comment that was provided has been transcribed so MoDOT stakeholders can review them. These comments are available in seven supplemental reports, one for each district.



Respondents were asked questions pertaining to bicyclists and pedestrian usage of the improvement. Similar to previous years, the results of this research show that a sizeable percentage of respondents believe pedestrians and bicyclists will use roads that may not have been intended for this traffic. If this belief reflects reality, then MoDOT may wish to consider either educating the public on the dangers of these roadways for pedestrian/bicyclists traffic or incorporating pedestrian/bicyclist accommodations into more of their projects.

Six of the projects were also intended for bicyclists and pedestrians. The majority of respondents for these projects thought that the results were now safer and easier for pedestrians and bicyclists to use.

For the sixth year in a row, the belief that another project should have taken priority over the local project appears to have made a significant impact on the overall results. Only 52.8% of the respondents who thought another project should have been given priority thought their local project was the right transportation solution compared to 96.9% of those who did not believe another project should have been given priority. This is a very strong statistical difference and supports MoDOT's hypothesis that a respondent's belief that another project should have been commissioned first is a significant factor in their evaluation. However, it is important to note that this study cannot test casualty. There is clearly a strong link between these two factors. However, it is possible that the respondent's disagreement that a project was the right transportation solution is influencing their opinion on whether or not another project should have had a higher priority.

The overall results show that the majority of Missourians are very satisfied with their local project and generally believe that MoDOT provides the right transportation solution. With the exception of the less congested measure, results were similar to last year's scores. The less congested measure declined by 9.2% in comparison to the previous year's results. The majority of respondents thought that the project made the roadway safer (90.7%), more convenient (83.7%), less congested (72.7%), easier to travel (86.7%), better marked (87.1%), and was the right transportation solution (89.3%).



### BACKGROUND AND METHODOLOGY

MoDOT's mission is to "provide a world-class transportation system that delights our customers." The public's perception of MoDOT's performance is crucial to the long-term success of the agency, and an important aspect of the Tracker measure is whether Missouri citizens view MoDOT projects as the right transportation solution. The Tracker system assesses tangible results related to MoDOT's mission, and one of the tangible results is the concept of "Provide outstanding customer service." An element of this measure is an assessment of customer satisfaction with these projects.

In the fall of 2006, MoDOT commissioned the Institute of Public Policy at the University of Missouri Columbia to design and implement a new survey to measure and capture this measure. This was done and a report was provided to MoDOT in January 2007. The introduction to this section is from that report. In the fall of 2007, MoDOT commissioned Heartland Market Research LLC to implement the same survey with a new set of projects. The intention was to model the FY08's survey and methodology on the previous experience, and also make incremental improvements where feasible.

In FY09, the survey was significantly revised based on the experience from the previous year. The key questions were kept, but many of the auxiliary questions (such as Approximately how many miles do you drive per year?) were dropped as they had not proved to be key factors in respondent satisfaction. This survey space was reclaimed for three new survey questions, including a request of respondents to comment directly. The new questionnaire worked well, so the same questions were used in FY10. In FY11, some additional questions were added to the questionnaire.

Respondent comments are available in seven supplemental reports, one for each district. FY12 was the first year that the RTS measure was conducted using the seven new districts resulting from MoDOT's reorganization. To keep the statewide margin of error similar to that of previous years, 500 surveys were mailed to each of the 21 projects for a total of 10,500 surveys. This was a per project increase of 100,



but the total number of surveys mailed slightly decreased (in previous years, 400 surveys were mailed to each of the 30 projects over the 10 traditional districts for a total of 12,000 surveys). The increase in the number of surveys mailed per project slightly decreased the margins of error for each project and district. A similar methodology was employed for FY13.

In FY13, two additional questions were added to the survey. A question was added to investigate when people first learned about the project. Another question was added to measure citizens' overall satisfaction with the project. Previous studies used the right transportation solution question (Question 8 on this year's survey) as a proxy for satisfaction. The addition of a satisfaction question (Question 9 on this year's survey) provided the means for testing this assumption.

In FY14, the survey questions remained the same as those employed in FY13. 1,000 surveys per project were mailed. This increase in the number of surveys decreased the overall margin of error and helped ensure a larger sample for each project. The zip codes surveyed for the projects were initially selected by Heartland Market Research based upon geographical assumptions about which people would be likely to be most familiar with the project. The zip code recommendations were then reviewed and approved and/or revised by MoDOT.

In FY15, 500 surveys per project were mailed and survey questions related to gender, ethnicity, and income were dropped. These questions had previously been the sources of complaints from citizens who did not believe MoDOT should track or look for difference between constituents. While one year's result was not sufficient for drawing conclusions, dropping these questions was correlated with an extremely high response rate for a survey of the general public.

In FY16, 600 surveys per project were mailed with the same survey instrument utilized in FY15. Response rates (26.7%) were the highest ever recorded for the RTS project, slightly above those from FY15. While other factors may have also been involved, the results suggested that the elimination of the gender, ethnicity, and income questions were at least partially responsible for an improved response rate.



### **PROJECT DESCRIPTIONS AND LOCATIONS**

The descriptions listed in the table below were printed on the appropriate surveys for each project. These descriptions were initially provided by MoDOT, sometimes adjusted by the PI if it was thought that the respondents might have questions, and then the descriptions were reviewed, and sometimes adjusted, before final approval was given by MoDOT. The surveys were sent to one or more zip codes as was thought appropriate for each project.

A large, medium, and small project was selected by MoDOT for each district. In general, large projects were defined as either having a major route listed and/or being funded through major project dollars. Medium projects were defined as having district-wide importance while small projects where defined as being of only local significance. Several of the projects – identified in the table – included bicycle/pedestrian accommodations and those surveyed regarding these projects received a variant of the survey with specific questions relating to this accommodation.

District	Large	Medium	Small			
	Project NW-L: Replaced Route 59 bridge over BNSF Railroad 4.5 miles south of St. Joseph.	Project NW-M: Resurfaced Route 136 and paved 2 foot shoulders from Bethany to Mercer County.	Project NW-S: Replaced Route 136 bridge deck over Shoal Creek about 300 feet west of Route 149.			
NW	Bike/Pedestrian Accommodation: No	Bike/Pedestrian Accommodation: No	Bike/Pedestrian Accommodation: No			
	Zip code(s) for surveying: 64484, 64504, supplemented by 64501, and then adjacent if needed	Zip code(s): 64424, 64481	Zip code(s): 63565, 63551			

Table 2:	Pro	iect D	escri	ntions
Table 2.	110		CSUII	puons



NE	Project NE-L: Resurfaced I-70 and improved median barrier wall on the westbound lanes from the St. Charles County line to 1 mile east of Rte. F near High Hill in Montgomery County.	Project NE-M: Improved Route 63 intersection with J-turns at Route M near Atlanta.	Project NE-S: Replaced Route 168 bridge over Clear Creek 1.7 miles north of Route 61 (just north of County Road 404) near Hannibal.		
	Bike/Pedestrian Accommodation: No Zip code(s) for surveying: 63350, 63351, 63383, 63390	Bike/Pedestrian Accommodation: No Zip code(s): 63530 supplemented by 63552,	Bike/Pedestrian Accommodation: No Zip code(s): 63461, 63401		
KC	Project KC-L: Converted an existing I-29 interchange at Tiffany Springs Parkway into a diverging diamond interchange plus a 10' wide multipurpose path for biking, walking, and other uses.	Project KC-M: Resurfaced Route 50 and constructed bicycle/pedestrian improvements from Route 65 to the Railroad Overpass Bridge.	Project KC-S: Improved Route 40 and Lee's Summit Road intersections by constructing turn lanes to north and southbound Lee's Summit Road, improving access management on all legs of the intersections, and providing pedestrian accommodations.		
	Bike/Pedestrian Accommodation: Yes Zip code(s) for surveying: 64154, 64153	Bike/Pedestrian Accommodation: Yes Zip code(s): 65301,65350	Bike/Pedestrian Accommodation: Yes Zip code(s): 64136, 64055		



District	Large	Medium	Small
CD	Project CD-L: Constructed center turn lane and shoulders on Route 19 from Krausetown Road to Route 28 north junction in Owensville.	Project CD-M: Replaced Route 41 bridge over Lamine River south of Lamine.	Project CD-S: Resurfaced Route Y and paved 2 foot shoulders from Route 54 to end of Route Y and Route 54 outer road.
	Bike/Pedestrian Accommodation: No	Bike/Pedestrian Accommodation: No	Bike/Pedestrian Accommodation: No
	Zip code(s) for surveying: 65066	Zip code(s): 65322, 65233, 65320, supplemented by 65347	Zip code(s): 65052
SL	Project SL-L: Constructed four lane freeway (Route 364) from Mid Rivers Mall Drive to I-64.	Project SL-M: Rehabilitated I-270 bridge at the Route N and Route AC interchanges.	Project SL-S: Improved shoulders and curves on Route 94 from Route H/Route 94 intersection to Route H/Route J intersection.
	Bike/Pedestrian Accommodation: Yes	Bike/Pedestrian Accommodation: No	Bike/Pedestrian Accommodation: No
	Zip code(s) for surveying: 63368, 63367, 63385, 63304	Zip code(s): 63031, 63033, 63135, 63136	Zip code(s): 63373, 63301



District	Large	Medium	Small
SW	Project SW-L: Widened Business Route 65 (Glenstone Avenue) from Battlefield Road to Route 60 (James River Freeway) in Springfield and improved intersections at Erie Street, Primrose Street, Peele Street, Independence/Luster and Republic Court. This project also included some pedestrian improvements at Primrose Street and Independence/Luster.	Project SW-M: Added signals and turn lanes on Route CC at Cheyenne Road in Fremont Hills and improved curves on Route CC to the west of Cheyenne Road.	Project SW-S: Constructed 1st Street overpass over I-49 to improve access to west Lamar. Location is just north of Route 160 and I- 49 interchange.
	Bike/Pedestrian Accommodation: Yes Zip code(s) for surveying:	Bike/Pedestrian Accommodation: No Zip code(s): 65714	Bike/Pedestrian Accommodation: No Zip code(s): 64759
	65714, 65804, 65807, 65809, 65810, 65721		
SE	Project SE-L: Resurfaced I-55 and improved guardrails on both lanes of I-55 from Route M in Ste. Genevieve County to Route 51 in Perry County.	Project SE-M: Resurfaced Route 21 and paved 2 foot shoulders on it from Route 60 in Carter County to Route 160 in Ripley County.	Project SE-S: Resurfaced Route W (Columbia Street) and improved sidewalks on it from Westmount Drive to Route 32 in the City of Farmington.
	Bike/Pedestrian Accommodation: No	Bike/Pedestrian Accommodation: No	Bike/Pedestrian Accommodation: Yes
	Zip code(s) for surveying: 63775, 63673, 63670	Zip code(s): 63937, 63943, 63935	Zip code(s): 63640



### Respondents

600 individuals were mailed a survey for each one of twenty-one unique projects for a total of 12,600 mailed surveys. 3,360 surveys were returned via US mail, for a gross response rate of 26.7%. These rates are higher than the previous five years (23.3%, 15.3%, 14.6%, 16.2%, and 18.6%).

		i i oject unu i		Gross Response
District	Project	Mailed	Responses	Rate
	NW-L	600	. 154	25.7%
Northwest	NW-M	600	151	25.2%
	NW-S	600	155	25.8%
	Total	1,800	460	25.6%
	NE-L	600	166	27.7%
Northeast	NE-M	600	169	28.2%
Nonneast	NE-S	600	161	26.8%
	Total	1,800	496	27.6%
	KC-L	600	182	30.3%
Kansas	KC-M	600	121	20.2%
City	KC-S	600	189	31.5%
	Total	1,800	492	27.3%
Central	CD-L	600	174	29.0%
	CD-M	600	169	28.2%
	CD-S	600	155	25.8%
	Total	1,800	498	27.7%
	SL-L	600	187	31.2%
St. Louio	SL-M	600	110	18.3%
St. Louis	SL-S	600	107	17.8%
	Total	1,800	404	22.4%
	SW-L	600	139	23.2%
Southwoot	SW-M	600	129	21.5%
Sournwest	SW-S	600	268	44.7%
	Total	1,800	536	29.8%
	SE-L	600	158	26.3%
Southoost	SE-M	600	152	25.3%
Soumeast	SE-S	600	164	27.3%
	Total	1,800	474	26.3%
Grand Tota	l:	12,600	3,360	26.7%

Table 3: Gross Response Rate by Project and District



Five projects had gross response rates outside of the norm (the standard deviation was +/- 4.9%). Projects KC-M, SL-M, SL-S, and SW-M had gross response rates at least one standard deviation below the norm of 23.3%. Project SW-S had a gross response rate more than three standard deviations above the norm. All in all, the district response rates were very consistent with the lowest number of responses coming from the St. Louis District's three projects (representing 12.0% of all mailed responses) and the highest number coming from the Southwest District (representing 16.0% of all mailed responses), close to the ideal of 14.3% coming from each district.



### **PROJECT ASSESSMENT**

The survey was designed to obtain detailed information about various aspects of a project so that MoDOT could evaluate whether or not Missourians were pleased with all aspects of a project such as safety, convenience, congestion reduction, drivability, and markings. Obviously MoDOT desires to score highly on all of these aspects, but variance among these dimensions can provide constructive input on areas of potential improvement. In addition, two questions were asked to measure Missourians' assessment of the overall appropriateness of the local project.

One of the most important factors, if not the single most important factor, in making the survey meaningful, is in ensuring that the respondents may provide knowledgeable input. Since most Missourians are likely to be familiar with only a small portion of the roads maintained by MoDOT, it is vital to ask respondents about a local project that is probably familiar to the respondent. The majority of the respondents were both familiar with the roadway and regular users of the affected roadway (details under the discussion of questions three and four).

Providing the concrete example of a particular project for citizen assessment offers a number of benefits. First, we know which project the citizen is considering as they make an assessment, allowing MoDOT to better understand and apply the feedback obtained by the survey. If a particular project was not named, different citizens could be considering different local projects. Second, the specific example makes it less likely that a single frustration in the distant past with another project will influence the citizen's assessment of current performance, ensuring we do not capture the respondents' general attitude toward MoDOT instead of their evaluation of a particular project. Third, it makes it less likely that the survey respondent will confuse a MoDOT project with a city or county project in the area.

In other words, based upon the survey design and the respondents' familiarity and frequency of use of the affected roadways, we can have confidence in the information provided in this research by the citizens of Missouri.



In order to facilitate better comparisons of changes from year to year, the statistics used in the project assessment usually do not include the "not sure" percentages. This eliminates a major source of random variability and allows a more accurate observation of change over time. In addition, this methodology is consistent with how MoDOT calculates similar Tracker measures. The fiscal year 2007 data discussed in this report was recalculated in the fiscal year 2008 report with this methodology to enable readers to see changes from year to another. Thus, no recalculations were required this fiscal year, all historical data was taken directly from last year's report.

Figure 1: Safer – Historical Comparison



### SAFER

One of MoDOT's primary goals is to make Missouri's roads safer. The overwhelming majority of Missourians agree that the local project achieved this goal. Results were similar to previous years with a total of 90.7% of respondents agreeing that the project made the road safer.



Thinking of this same project after MoDOT completed work on it... Is the road now safer?



		Stro	ongly					Strongly		
District	Project	Ag	ree	Ag	ree	Dis	agree	[	Disagree	Total
	NW-L	94	67.6%	39	28.1%	5	3.6%	1	0.7%	139
Northwest	NW-M	69	52.7%	58	44.3%	4	3.1%	0	0.0%	131
	NW-S	65	46.8%	62	44.6%	10	7.2%	2	1.4%	139
	Total	228	55.7%	159	38.9%	19	4.6%	3	0.7%	409
	NE-L	33	22.8%	92	63.4%	15	10.3%	5	3.4%	145
Northooot	NE-M	37	27.8%	57	42.9%	20	15.0%	19	14.3%	133
nonneast	NE-S	86	66.7%	40	31.0%	2	1.6%	1	0.8%	129
	Total	156	38.3%	189	46.4%	37	9.1%	25	6.1%	407
	KC-L	48	33.1%	63	43.4%	24	16.6%	10	6.9%	145
Kansas	KC-M	41	38.7%	56	52.8%	6	5.7%	3	2.8%	106
City	KC-S	84	49.1%	76	44.4%	9	5.3%	2	1.2%	171
	Total	173	41.0%	195	46.2%	39	9.2%	15	3.6%	422
	CD-L	108	66.7%	50	30.9%	3	1.9%	1	0.6%	162
Control	CD-M	81	55.5%	57	39.0%	8	5.5%	0	0.0%	146
Central	CD-S	73	55.3%	48	36.4%	10	7.6%	1	0.8%	132
	Total	262	59.5%	155	35.2%	21	4.8%	2	0.5%	440
	SL-L	98	61.6%	52	32.7%	7	4.4%	2	1.3%	159
	SL-M	23	33.3%	39	56.5%	6	8.7%	1	1.4%	69
St. Louis	SL-S	19	33.3%	29	50.9%	5	8.8%	4	7.0%	57
	Total	140	49.1%	120	42.1%	18	6.3%	7	2.5%	285
	SW-L	62	50.8%	59	48.4%	0	0.0%	1	0.8%	122
Southwoot	SW-M	70	56.9%	50	40.7%	3	2.4%	0	0.0%	123
Southwest	SW-S	94	42.5%	100	45.2%	22	10.0%	5	2.3%	221
	Total	226	48.5%	209	44.8%	25	5.4%	6	1.3%	466
	SE-L	37	28.2%	75	57.3%	12	9.2%	7	5.3%	131
Couthoost	SE-M	82	60.7%	44	32.6%	4	3.0%	5	3.7%	135
Sourneast	SE-S	62	42.8%	64	44.1%	13	9.0%	6	4.1%	145
	Total	181	44.0%	183	44.5%	29	7.1%	18	4.4%	411
Grand Tota	l:	1,366	48.1%	1,210	42.6%	188	6.6%	76	2.7%	2,840

### Table 4: Safety Feedback by Project and District



### IMPROVING TRAFFIC FLOW IN THE AREA

Another goal of MoDOT is to improve traffic flow. Two questions were asked to help capture this information. Respondents were asked if the project resulted in the road being "more convenient" and "less congested".

### More Convenient

83.7% of Missourians agreed that the project resulted in a more convenient roadway. This is slightly lower than last year and similar to the results from the previous three years. Before that (FY07 to FY11) findings were above 90%. This year there was also a major shift from the strength of the agreement with this question with an increased number of respondents stating they somewhat agreed with the statement vs. strongly agreeing with it.

#### Figure 2: Convenience – Historical Comparison



Thinking of this same project after MoDOT completed work on it... Is the road now more convenient?



		Stro	ongly					St	rongly	
District	Project	ag	ree	Ag	ree	Dis	agree	dis	sagree	Total
	NW-L	63	52.5%	49	40.8%	6	5.0%	2	1.7%	120
Northwoot	NW-M	41	39.8%	50	48.5%	10	9.7%	2	1.9%	103
Nonnwest	NW-S	35	34.0%	44	42.7%	20	19.4%	4	3.9%	103
	Total	139	42.6%	143	43.9%	36	11.0%	8	2.5%	326
	NE-L	16	14.3%	56	50.0%	31	27.7%	9	8.0%	112
Northoast	NE-M	4	3.1%	16	12.6%	53	41.7%	54	42.5%	127
nonneasi	NE-S	45	40.9%	55	50.0%	9	8.2%	1	0.9%	110
	Total	65	18.6%	127	36.4%	93	26.6%	64	18.3%	349
	KC-L	48	31.4%	68	44.4%	26	17.0%	11	7.2%	153
Kansas	KC-M	23	27.7%	44	53.0%	12	14.5%	4	4.8%	83
City	KC-S	86	52.4%	67	40.9%	9	5.5%	2	1.2%	164
	Total	157	39.3%	179	44.8%	47	11.8%	17	4.3%	400
Control	CD-L	94	59.5%	58	36.7%	6	3.8%	0	0.0%	158
	CD-M	51	41.8%	62	50.8%	9	7.4%	0	0.0%	122
Central	CD-S	46	43.0%	47	43.9%	13	12.1%	1	0.9%	107
	Total	191	49.4%	167	43.2%	28	7.2%	1	0.3%	387
	SL-L	138	78.4%	33	18.8%	5	2.8%	0	0.0%	176
St. Louio	SL-M	20	30.3%	32	48.5%	11	16.7%	3	4.5%	66
St. Louis	SL-S	7	14.6%	21	43.8%	17	35.4%	3	6.3%	48
	Total	165	56.9%	86	29.7%	33	11.4%	6	2.1%	290
	SW-L	76	59.8%	44	34.6%	3	2.4%	4	3.1%	127
Southwoot	SW-M	54	48.2%	52	46.4%	5	4.5%	1	0.9%	112
Southwest	SW-S	154	61.1%	84	33.3%	10	4.0%	4	1.6%	252
	Total	284	57.8%	180	36.7%	18	3.7%	9	1.8%	491
	SE-L	19	19.6%	56	57.7%	16	16.5%	6	6.2%	97
Couthoost	SE-M	39	37.1%	53	50.5%	10	9.5%	3	2.9%	105
Soumeast	SE-S	43	32.8%	64	48.9%	19	14.5%	5	3.8%	131
-	Total	101	30.3%	173	52.0%	45	13.5%	14	4.2%	333
Grand Tota	l:	1,102	42.8%	1,055	41.0%	300	11.6%	119	4.6%	2,576



### LESS CONGESTED

Congestion is one aspect where MoDOT has much less control over the end result compared with other aspects such as safety. In many cases projects are undertaken in areas experiencing population growth – with populations that continue to grow while the project is under construction, so congestion may not be perceived to be improved even if the roadway is now handling more traffic than it did previously. In addition, many of the projects focused on safety improvements – such as correcting a curve or maintaining a bridge – that may not affect congestion. 72.7% of Missourians agreed that the project resulted in a less congested roadway. This is a decrease compared to last year and similar to the findings from FY14.









		Sti	Strongly					St	rongly	
District	Project	a	gree	A	gree	Dis	agree	di	sagree	Total
	NW-L	50	45.0%	47	42.3%	11	9.9%	3	2.7%	111
Northwoot	NW-M	12	14.1%	41	48.2%	27	31.8%	5	5.9%	85
NOTITWEST	NW-S	31	34.4%	35	38.9%	20	22.2%	4	4.4%	90
	Total	93	32.5%	123	43.0%	58	20.3%	12	4.2%	286
	NE-L	5	4.2%	10	8.5%	65	55.1%	38	32.2%	118
Northcost	NE-M	6	5.4%	54	48.6%	28	25.2%	23	20.7%	111
nonneast	NE-S	42	40.0%	48	45.7%	12	11.4%	3	2.9%	105
	Total	53	15.9%	112	33.5%	105	31.4%	64	19.2%	334
	KC-L	53	38.1%	62	44.6%	19	13.7%	5	3.6%	139
Kansas	KC-M	11	13.4%	36	43.9%	29	35.4%	6	7.3%	82
City	KC-S	76	47.5%	68	42.5%	13	8.1%	3	1.9%	160
	Total	140	36.7%	166	43.6%	61	16.0%	14	3.7%	381
	CD-L	83	55.0%	57	37.7%	10	6.6%	1	0.7%	151
	CD-M	41	38.7%	49	46.2%	16	15.1%	0	0.0%	106
Central	CD-S	9	10.2%	26	29.5%	50	56.8%	3	3.4%	88
	Total	133	38.6%	132	38.3%	76	22.0%	4	1.2%	345
	SL-L	112	64.7%	47	27.2%	11	6.4%	3	1.7%	173
	SL-M	11	17.2%	27	42.2%	21	32.8%	5	7.8%	64
St. Louis	SL-S	6	13.3%	11	24.4%	21	46.7%	7	15.6%	45
	Total	129	45.7%	85	30.1%	53	18.8%	15	5.3%	282
	SW-L	56	45.5%	57	46.3%	8	6.5%	2	1.6%	123
Onuthernal	SW-M	33	35.1%	49	52.1%	10	10.6%	2	2.1%	94
Southwest	SW-S	111	49.3%	86	38.2%	25	11.1%	3	1.3%	225
	Total	200	45.2%	192	43.4%	43	9.7%	7	1.6%	442
_	SE-L	7	8.8%	33	41.3%	34	42.5%	6	7.5%	80
	SE-M	24	26.7%	22	24.4%	40	44.4%	4	4.4%	90
Southeast	SE-S	27	22.3%	45	37.2%	39	32.2%	10	8.3%	121
	Total	58	19.9%	100	34.4%	113	38.8%	20	6.9%	291
Grand Total:		806	34.1%	910	38.5%	509	21.6%	136	5.8%	2,361

Table 6: Congestion Feedback by Project and District



### **DRIVING ENVIRONMENT**

Another goal of the MoDOT improvement projects was to improve the driving environment of the roadways by making them easier to navigate and easier to understand. Two questions were asked to help capture this information. Respondents were asked if the project resulted in the road being "easier to travel" and "better marked". At the request of MoDOT, the phrasing of these questions was slightly adjusted in FY08 and again in FY11 to help respondents better understand the survey. While this had the potential for making it more difficult to make comparisons from year to year, fine-tuning the Tracker measure was given a higher priority to ensure that this and future surveys capture the most accurate information possible. In practice, even with the improved wording, the results thereafter were quite comparable to that of previous years.



### EASIER TO TRAVEL

86.7% of Missourians agreed that the project resulted in a roadway that was easier to travel. This is comparable to the respondents in the previous four years. As was the case with the previous three questions, this year there was also a major shift from the strength of the agreement with this question with an increased number of respondents stating they somewhat agreed with the statement vs. strongly agreeing with it.

#### 70% 60% 50% 40% 30% 20% 10% 0% Strongly Disagree Strongly Agree Somewhat Agree Somewhat Disagree FY07 43.0% 51.5% 4.0% 1.6% 52.4% 4.7% 2.4% FY08 40.5% 57.1% 4.3% 1.5% FY09 37.0% 2.7% 2.1% ■FY10 59.7% 35.4% 5.5% 2.9% FY11 54.8% 36.8% 4.4% FY12 45.6% 40.5% 9.6% FY13 41.2% 43.8% 8.6% 6.4% FY14 57.1% 29.6% 6.9% 6.4% FY15 4.3% 59.8% 28.8% 7.1% ■FY16 44.5% 42.1% 8.9% 4.4%

#### Figure 4: Easier to Travel - Historical Comparison





		Stro	ongly					St	rongly	
District	Project	ag	ree	Ag	ree	Dis	agree	di	sagree	Total
	NW-L	82	65.6%	37	29.6%	4	3.2%	2	1.6%	125
Northwort	NW-M	62	49.2%	57	45.2%	6	4.8%	1	0.8%	126
Nontriwest	NW-S	47	38.5%	55	45.1%	17	13.9%	3	2.5%	122
	Total	191	51.2%	149	39.9%	27	7.2%	6	1.6%	373
	NE-L	27	19.9%	80	58.8%	23	16.9%	6	4.4%	136
Northoost	NE-M	4	3.3%	32	26.2%	37	30.3%	49	40.2%	122
Nonneast	NE-S	65	52.8%	52	42.3%	5	4.1%	1	0.8%	123
	Total	96	25.2%	164	43.0%	65	17.1%	56	14.7%	381
	KC-L	39	27.3%	60	42.0%	27	18.9%	17	11.9%	143
Kansas	KC-M	21	22.1%	63	66.3%	7	7.4%	4	4.2%	95
City	KC-S	92	55.4%	61	36.7%	9	5.4%	4	2.4%	166
	Total	152	37.6%	184	45.5%	43	10.6%	25	6.2%	404
Control	CD-L	92	59.7%	59	38.3%	2	1.3%	1	0.6%	154
	CD-M	69	51.1%	54	40.0%	11	8.1%	1	0.7%	135
Central	CD-S	67	50.4%	55	41.4%	9	6.8%	2	1.5%	133
	Total	228	54.0%	168	39.8%	22	5.2%	4	0.9%	422
	SL-L	127	73.0%	42	24.1%	5	2.9%	0	0.0%	174
St. Louio	SL-M	20	30.3%	33	50.0%	9	13.6%	4	6.1%	66
St. Louis	SL-S	12	21.4%	26	46.4%	12	21.4%	6	10.7%	56
	Total	159	53.7%	101	34.1%	26	8.8%	10	3.4%	296
	SW-L	69	53.5%	56	43.4%	3	2.3%	1	0.8%	129
Couthurson	SW-M	59	49.6%	55	46.2%	5	4.2%	0	0.0%	119
Southwest	SW-S	125	52.5%	95	39.9%	14	5.9%	4	1.7%	238
	Total	253	52.1%	206	42.4%	22	4.5%	5	1.0%	486
	SE-L	31	27.4%	68	60.2%	9	8.0%	5	4.4%	113
	SE-M	59	47.2%	53	42.4%	10	8.0%	3	2.4%	125
Southeast	SE-S	53	37.1%	63	44.1%	20	14.0%	7	4.9%	143
-	Total	143	37.5%	184	48.3%	39	10.2%	15	3.9%	381
Grand Total		1.222	44.5%	1.156	42.1%	244	8.9%	121	4.4%	2,743

Table 7: Easier to Travel Feedback by Project and District



### Better Marked

87.1% of Missourians agreed that the project resulted in a roadway that was better marked. This is similar to, but higher than, the results from the last four annual surveys. As with the previous measure, the results from this year showed a shift from strong agreement to somewhat agree.



#### Figure 5: Better Marked - Historical Comparison



Table 8:	<b>Better Marked</b>	Feedback by	Project and	District
Table 0.	Detter marked	I CCUDACK Dy	1 I Ujece anu	District

District	Project	St	Strongly agree		Agree		agree	Strongly disagree		Total
District	NW-L	52	48.1%	51	47.2%	4	3.7%	1	0.9%	108
	NW-M	52	46.0%	50	44.2%	11	9.7%	0	0.0%	113
Northwest	NW-S	36	34.3%	49	46.7%	17	16.2%	3	2.9%	105
	Total	140	42.9%	150	46.0%	32	9.8%	4	1.2%	326
	NE-L	26	19.7%	86	65.2%	18	13.6%	2	1.5%	132
Northeast	NE-M	9	8.3%	55	50.5%	27	24.8%	18	16.5%	109
nonneast	NE-S	42	44.7%	46	48.9%	4	4.3%	2	2.1%	94
	Total	77	23.0%	187	55.8%	49	14.6%	22	6.6%	335
	KC-L	33	22.4%	77	52.4%	22	15.0%	15	10.2%	147
Kansas	KC-M	24	25.5%	59	62.8%	7	7.4%	4	4.3%	94
City	KC-S	87	53.7%	64	39.5%	6	3.7%	5	3.1%	162
	Total	144	35.7%	200	49.6%	35	8.7%	24	6.0%	403
Control	CD-L	78	51.7%	63	41.7%	7	4.6%	3	2.0%	151
	CD-M	49	42.6%	63	54.8%	3	2.6%	0	0.0%	115
Central	CD-S	80	62.0%	40	31.0%	5	3.9%	4	3.1%	129
	Total	207	52.4%	166	42.0%	15	3.8%	7	1.8%	395
	SL-L	86	54.8%	55	35.0%	13	8.3%	3	1.9%	157
	SL-M	18	27.7%	36	55.4%	7	10.8%	4	6.2%	65
St. Louis	SL-S	9	18.8%	23	47.9%	10	20.8%	6	12.5%	48
	Total	113	41.9%	114	42.2%	30	11.1%	13	4.8%	270
	SW-L	48	39.7%	61	50.4%	9	7.4%	3	2.5%	121
Southwoot	SW-M	57	51.4%	51	45.9%	3	2.7%	0	0.0%	111
Southwest	SW-S	72	35.8%	98	48.8%	21	10.4%	10	5.0%	201
	Total	177	40.9%	210	48.5%	33	7.6%	13	3.0%	433
	SE-L	24	21.4%	74	66.1%	12	10.7%	2	1.8%	112
Southoost	SE-M	52	45.2%	48	41.7%	11	9.6%	4	3.5%	115
Soumeasi	SE-S	53	38.7%	63	46.0%	16	11.7%	5	3.6%	137
-	Total	129	35.4%	185	50.8%	39	10.7%	11	3.0%	364
Grand Tota	l:	987	39.1%	1,212	48.0%	233	9.2%	94	3.7%	2,526



### ACCOMMODATION FOR BICYCLISTS AND PEDESTRIANS

Six of the twenty-one projects selected by MoDOT were different in that special accommodation for bicyclists and pedestrians were designed into the project. The other projects were standard and did not have a bicyclist/pedestrian component. Question two (with three parts) differed for these projects. The respondents who were asked about the projects that specifically accommodated bicyclists and pedestrians were asked about the accommodation. The respondents from the other projects were asked questions about the expected pedestrian and bicyclists usage of the road.

### PROJECTS WITH ACCOMMODATIONS FOR BICYCLISTS AND PEDESTRIANS

80.9% of the respondents believed that the accommodation for bicyclists and pedestrians would meet their needs. This is similar to the results from the previous four years and is the highest level of agreement yet recorded for this measure.

There was some variation between the projects with a gap of 23.4% between the minimum and maximum total agreement.

		Str	Strongly					Strongly		
District	Project	A	gree	Agree		Dis	agree	Dis	agree	Total
Kansas City	KC-L	28	31.5%	45	50.6%	6	6.7%	10	11.2%	89
Kansas City	KC-M	24	35.3%	29	42.6%	8	11.8%	7	10.3%	68
Kansas City	KC-S	24	25.3%	58	61.1%	12	12.6%	1	1.1%	95
St. Louis	SL-L	10	18.5%	24	44.4%	8	14.8%	12	22.2%	54
Southwest	SW-L	14	31.8%	24	54.5%	3	6.8%	3	6.8%	44
Southeast	SE-S	33	28.2%	65	55.6%	12	10.3%	7	6.0%	117
Grand Total:		133	28.5%	245	52.5%	49	10.5%	40	8.6%	467

Table 9: Bike/Pedestrian Accommodation	- Meets Your Needs by	Project and District
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Figure 6: Bike/Pedestrian Accommodation - Meets Your Needs

Since the survey does not ask if the respondents would walk or ride on the improvement, it is unknown if those who did not agree with question still had unmet needs or simply had no need for a pedestrian or bicycling accommodation.



80.4% of the respondents thought the bicyclists and pedestrian accommodation was safe. This is an improvement over the last three years. Given the small number of projects with accommodations for bicyclists and pedestrians, strong reactions to one or two projects can make a big difference. The following table summarizes the responses and percentages by the individual projects.

Tuble Ioi Dine	modution	10 04		eet an		•				
		Stro	Strongly					Stro	ongly	
District	Project	Ag	ree	Ag	gree	Dis	agree	Disa	agree	Total
Kansas City	KC-L	24	27.3%	45	51.1%	11	12.5%	8	9.1%	88
Kansas City	KC-M	25	33.8%	35	47.3%	5	6.8%	9	12.2%	74
Kansas City	KC-S	26	26.0%	57	57.0%	14	14.0%	3	3.0%	100
St. Louis	SL-L	9	18.0%	22	44.0%	7	14.0%	12	24.0%	50
Southwest	SW-L	14	35.9%	18	46.2%	4	10.3%	3	7.7%	39
Southeast	SE-S	39	33.1%	63	53.4%	6	5.1%	10	8.5%	118
Grand Total:		137	29.2%	240	51.2%	47	10.0%	45	9.6%	469

#### Table 10: Bike/Pedestrian Accommodation - Is Safe by Project and District



Figure 7: Bike/Pedestrian Accommodation – Is Safe



80.9% of the respondents thought the bicyclists and pedestrian accommodation was easy to use. This is also higher than the results from the previous three years. The following table summarizes the responses and percentages by the individual projects.

		Stro	Strongly					Str	ongly	
District	Project	Ag	gree	A	gree	Dis	agree	Dis	agree	Total
Kansas City	KC-L	22	27.2%	42	51.9%	8	9.9%	9	11.1%	81
Kansas City	KC-M	23	33.8%	32	47.1%	4	5.9%	9	13.2%	68
Kansas City	KC-S	26	29.2%	53	59.6%	9	10.1%	1	1.1%	89
St. Louis	SL-L	10	20.4%	19	38.8%	9	18.4%	11	22.4%	49
Southwest	SW-L	13	35.1%	18	48.6%	3	8.1%	3	8.1%	37
Southeast	SE-S	34	30.9%	59	53.6%	10	9.1%	7	6.4%	110
Grand Total:		128	29.5%	223	51.4%	43	9.9%	40	9.2%	434

Table 11: Bik	e/Pedestrian A	ccommodation -	- Is Easy to	Use by Pro	oject and District
					· · · · · · · · · · · · · · · · · · ·

#### Figure 8: Bike/Pedestrian Accommodation – Is Easy to Use





### PROJECTS WITH NO BICYCLIST/PEDESTRIAN COMPONENT

82.3% of the respondents agreed that the projects with no bicyclist/pedestrian component should not have had one. These results are similar to the agreement recorded the last three years. The following table summarizes the responses and percentages by both individual projects and districts.

		St	Strongly					St	rongly	
District	Project	A	gree	A	gree	Dis	agree	Di	sagree	Total
	NW-L	55	45.5%	38	31.4%	20	16.5%	8	6.6%	121
Northwort	NW-M	69	50.7%	54	39.7%	8	5.9%	5	3.7%	136
Nonnwest	NW-S	69	48.9%	57	40.4%	12	8.5%	3	2.1%	141
	Total	193	48.5%	149	37.4%	40	10.1%	16	4.0%	398
	NE-L	109	68.6%	47	29.6%	1	0.6%	2	1.3%	159
Northoast	NE-M	55	43.0%	57	44.5%	10	7.8%	6	4.7%	128
Nonneasi	NE-S	52	42.6%	56	45.9%	9	7.4%	5	4.1%	122
	Total	216	52.8%	160	39.1%	20	4.9%	13	3.2%	409
	CD-L	40	28.8%	52	37.4%	36	25.9%	11	7.9%	139
Control	CD-M	50	38.5%	57	43.8%	11	8.5%	12	9.2%	130
Central	CD-S	29	24.6%	47	39.8%	24	20.3%	18	15.3%	118
	Total	119	30.7%	156	40.3%	71	18.3%	41	10.6%	387
	SL-M	40	51.3%	24	30.8%	7	9.0%	7	9.0%	78
St. Louis	SL-S	31	48.4%	21	32.8%	6	9.4%	6	9.4%	64
	Total	71	50.0%	45	31.7%	13	9.2%	13	9.2%	142
	SW-M	43	42.6%	32	31.7%	20	19.8%	6	5.9%	101
Southwest	SW-S	56	28.3%	80	40.4%	44	22.2%	18	9.1%	198
	Total	99	33.1%	112	37.5%	64	21.4%	24	8.0%	299
	SE-L	93	67.4%	39	28.3%	4	2.9%	2	1.4%	138
Southeast	SE-M	51	44.3%	50	43.5%	5	4.3%	9	7.8%	115
	Total	144	56.9%	89	35.2%	9	3.6%	11	4.3%	253
Grand Total:		842	44.6%	711	37.7%	217	11.5%	118	6.3%	1,888

 Table 12: No Bicyclist/Pedestrian Component - Right Decision by Project and District





Figure 9: No Bicyclist/Pedestrian Component - Right Decision



Respondents for projects that did not have a bicyclist/pedestrian component were then asked if they thought pedestrians and bicyclists would use the improvement. Disagreement with the next two questions indicated that the respondents thought pedestrians and bicyclists would not use the improvement.

35.4% of the respondents thought pedestrians would use the improvement, higher than the scores recorded the previous three years. The following table summarizes the responses and percentages by both individual projects and districts.

		St	rongly					Str	ongly	
District	Project	A	gree	A	gree	Dis	agree	Dis	agree	Total
	NW-L	9	9.3%	22	22.7%	42	43.3%	24	24.7%	97
Northwoot	NW-M	5	4.8%	22	21.0%	52	49.5%	26	24.8%	105
Nonnwest	NW-S	9	9.0%	25	25.0%	35	35.0%	31	31.0%	100
	Total	23	7.6%	69	22.8%	129	42.7%	81	26.8%	302
	NE-L	2	1.6%	8	6.3%	51	40.2%	66	52.0%	127
Northoast	NE-M	5	4.9%	25	24.5%	32	31.4%	40	39.2%	102
nonneasi	NE-S	6	6.3%	20	21.1%	46	48.4%	23	24.2%	95
	Total	13	4.0%	53	16.4%	129	39.8%	129	39.8%	324
	CD-L	21	16.5%	58	45.7%	35	27.6%	13	10.2%	127
Control	CD-M	15	14.3%	30	28.6%	45	42.9%	15	14.3%	105
Central	CD-S	13	11.6%	40	35.7%	40	35.7%	19	17.0%	112
	Total	49	14.2%	128	37.2%	120	34.9%	47	13.7%	344
	SL-M	16	25.0%	20	31.3%	15	23.4%	13	20.3%	64
St. Louis	SL-S	7	11.9%	8	13.6%	24	40.7%	20	33.9%	59
	Total	23	18.7%	28	22.8%	39	31.7%	33	26.8%	123
	SW-M	6	7.1%	11	13.1%	44	52.4%	23	27.4%	84
Southwest	SW-S	30	15.5%	66	34.0%	81	41.8%	17	8.8%	194
	Total	36	12.9%	77	27.7%	125	45.0%	40	14.4%	278
	SE-L	6	5.4%	13	11.6%	38	33.9%	55	49.1%	112
Southeast	SE-M	7	7.4%	34	36.2%	39	41.5%	14	14.9%	94
	Total	13	6.3%	47	22.8%	77	37.4%	69	33.5%	206
Grand Tota	l:	157	10.0%	402	25.5%	619	39.3%	399	25.3%	1,577

#### Table 13: No Bicyclist/Pedestrian Component - Pedestrian Usage by Project and District





Figure 10: No Bicyclist/Pedestrian Component - Pedestrian Usage



53.6% of the respondents thought bicyclists would use the improvement, higher than the responses from the last three years. The following table summarizes the responses and percentages by both individual projects and districts.

		Stro	ongly		-			Str	ongly	
District	Project	Ag	ree	Ag	gree	Dis	agree	Dis	agree	Total
	NW-L	20	18.3%	51	46.8%	23	21.1%	15	13.8%	109
Northwoot	NW-M	7	6.6%	48	45.3%	34	32.1%	17	16.0%	1 <b>0</b> 6
Nontinwest	NW-S	11	10. <mark>8</mark> %	46	45.1%	30	29.4%	15	14.7%	102
	Total	38	12.0%	145	45.7%	87	27.4%	47	14.8%	317
	NE-L	2	1.6%	9	7.1%	50	39.7%	<mark>6</mark> 5	51.6%	126
Northoast	NE-M	6	<b>6.0%</b>	39	39.0%	30	30.0%	25	<b>25.0%</b>	100
Nonneast	NE-S	20	18.9%	55	51.9%	20	18.9%	11	10.4%	106
	Total	28	8.4%	103	31.0%	100	30.1%	101	30.4%	332
	CD-L	23	17.4%	71	<b>53.8%</b>	27	20.5%	11	8.3%	132
Control	CD-M	28	26.4%	58	54.7%	18	17.0%	2	1. <mark>9%</mark>	1 <b>0</b> 6
Central	CD-S	12	11.1%	41	38.0%	42	38.9%	13	12.0%	108
	Total	63	18.2%	170	49.1%	87	25.1%	26	7.5%	346
	SL-M	18	30.0%	14	23.3%	14	23.3%	14	23.3%	60
St. Louis	SL-S	18	31.0%	25	43.1%	9	15.5%	6	10.3%	58
	Total	36	30.5%	39	33.1%	23	19.5%	20	16.9%	118
	SW-M	10	12.0%	27	32.5%	32	38.6%	14	16.9%	83
Southwest	SW-S	39	20.2%	99	51.3%	46	23.8%	9	4.7%	193
	Total	49	17.8%	126	45.7%	78	28.3%	23	8.3%	276
	SE-L	3	2.8%	10	9.3%	39	36.1%	56	51.9%	108
Southeast	SE-M	7	7.8%	33	36.7%	35	38.9%	15	16.7%	90
	Total	10	5.1%	43	21.7%	74	37.4%	71	35.9%	198
Grand Total	:	224	14.1%	626	39.4%	449	28.3%	288	18.1%	1,587

 Table 14: No Bicyclist/Pedestrian Component - Bicyclist Usage by Project and District





Figure 11: No Bicyclist/Pedestrian Component – Bicyclist Usage

The results of this research show that a sizeable percentage of respondents believe pedestrians and bicyclists will use roads that may not have been intended for this traffic. If this belief reflects reality, then MoDOT may wish to consider either educating the public on the dangers of these roadways for pedestrian/bicyclists traffic or incorporating pedestrian/bicyclist accommodations into more of their projects.



### FAMILIARITY WITH ROADWAY

These two questions help measure the respondent's familiarity with the affected roadway. The majority (84.7%) of the respondents were very or fairly well familiar with the local project used in the study, similar to, but slightly lower than, last year's measure. 61.9% of the respondents said they were very familiar with the affected roadway while most of the others said they were somewhat or fairly familiar with the roadway. Only 3.3% stated that they were not familiar with the affected roadway.





How familiar are you with this roadway?

The following table summarizes the responses and percentages by both individual projects and districts.



District	Project	No	t at all	Son	newhat	Faiı	ly well	Very	/ well	Total
	NW-L	5	3.3%	27	17.8%	25	16.4%	95	62.5%	152
Northwest	NW-M	3	2.0%	19	12.6%	37	24.5%	92	60.9%	151
Northwest	NW-S	0	0.0%	13	8.4%	36	23.2%	106	68.4%	155
	Total	8	1.7%	59	12.9%	98	21.4%	293	64.0%	458
	NE-L	1	0.6%	7	4.2%	45	27.1%	113	68.1%	166
Northoast	NE-M	5	3.0%	26	15.4%	39	23.1%	99	58.6%	169
nonneast	NE-S	15	9.5%	30	19.0%	39	24.7%	74	46.8%	158
	Total	21	4.3%	63	12.8%	123	24.9%	286	58.0%	493
	KC-L	9	5.1%	42	23.6%	54	30.3%	73	41.0%	178
Kansas	KC-M	4	3.4%	17	14.3%	26	21.8%	72	60.5%	119
City	KC-S	2	1.1%	11	5.9%	39	20.7%	136	72.3%	188
	Total	15	3.1%	70	14.4%	119	24.5%	281	57.9%	485
	CD-L	0	0.0%	3	1.7%	9	5.2%	160	93.0%	172
Control	CD-M	13	7.8%	28	16.9%	43	25.9%	82	49.4%	166
Central	CD-S	3	2.0%	14	9.2%	18	11.8%	118	77.1%	153
	Total	16	3.3%	45	9.2%	70	14.3%	360	73.3%	491
	SL-L	1	0.5%	24	13.0%	50	27.0%	110	59.5%	185
St. Louis	SL-M	12	11.2%	16	15.0%	20	18.7%	59	55.1%	107
St. Louis	SL-S	26	25.0%	23	22.1%	15	14.4%	40	38.5%	104
	Total	39	9.8%	63	15.9%	85	21.5%	209	52.8%	396
	SW-L	3	2.2%	20	14.6%	31	22.6%	83	60.6%	137
Southwoot	SW-M	1	0.8%	15	11.7%	32	25.0%	80	62.5%	128
Southwest	SW-S	0	0.0%	22	8.3%	70	26.5%	172	65.2%	264
	Total	4	0.8%	57	10.8%	133	25.1%	335	63.3%	529
	SE-L	3	1.9%	16	10.4%	45	29.2%	90	58.4%	154
Southoast	SE-M	2	1.4%	10	6.8%	43	29.3%	92	62.6%	147
Soumeast	SE-S	0	0.0%	18	11.0%	39	23.9%	106	65.0%	163
	Total	5	1.1%	44	9.5%	127	27.4%	288	62.1%	464
Grand Total:		108	3.3%	401	12.1%	755	22.8%	2,052	61.9%	3,316

#### Table 15: Familiarity with Roadway by Project and District

The respondents of projects NE-S, KC-L, SL-M, and SL-S were statistically less familiar with their project roadway than the other respondents. The respondents of projects NE-L and CD-L were more familiar with their project roadway than the other respondents.



Respondents were also asked to indicate how often they had used the specified section of the road in the past month (see Figure 13). 37.7% of the respondents were very frequent users of the affected road (defined as those who used the affected section of the road almost every day or most weekdays). 66.9% of the respondents were regular users of the affected roadway. 7.0% of the respondents indicated that they had not used the affected section of the roadway in the last month.



Figure 13: Frequency of Use – Historical Comparison

The following table summarizes the responses and percentages by both individual projects and districts. There was a wide variety of average frequency of use among the twenty-one projects. The respondents of projects NE-S and KC-L were statistically less frequent users of their project roadway than the other respondents. The respondents of projects KC-S, CD-L, and CD-S were statistically more frequent users of their project roadway than the other respondents.



						Or	nce a	Ти	vice a	Ν	lost	Al	most	
District	Project	N	ever	A fev	v times	W	/eek	N	/eek	wee	kdays	eve	ry day	Total
	NW-L	25	16.4%	38	25.0%	24	15.8%	32	21.1%	15	9.9%	18	11.8%	152
Northwest	NW-M	8	5.3%	56	37.1%	14	9.3%	22	14.6%	14	9.3%	37	24.5%	151
Nontinwest	NW-S	2	1.3%	54	34.8%	34	21.9%	28	18.1%	13	8.4%	24	15.5%	155
	Total	35	7.6%	148	32.3%	72	15.7%	82	17.9%	42	9.2%	79	17.2%	458
	NE-L	1	0.6%	22	13.3%	17	10.2%	37	22.3%	32	19.3%	57	34.3%	166
Northoast	NE-M	15	8.9%	60	35.7%	19	11.3%	27	16.1%	17	10.1%	30	17.9%	168
Northeast	NE-S	43	26.9%	67	41.9%	18	11.3%	14	8.8%	11	6.9%	7	4.4%	160
	Total	<b>59</b>	11.9%	149	30.2%	54	10.9%	78	15.8%	60	12.1%	94	19.0%	494
	KC-L	12	6.6%	84	46.4%	18	9.9%	31	17.1%	16	8.8%	20	11.0%	181
Kansas	KC-M	5	4.2%	22	18.5%	7	5.9%	25	21.0%	16	13.4%	44	37.0%	119
City	KC-S	1	0.5%	24	12.7%	17	9.0%	43	22.8%	28	14.8%	76	40.2%	189
	Total	18	3.7%	130	26.6%	42	<mark>8.6</mark> %	99	20.2%	60	12.3%	140	28.6%	489
	CD-L	0	0.0%	8	4.7%	3	1.8%	26	15.3%	23	13.5%	110	64.7%	170
Control	CD-M	32	19.3%	65	39.2%	14	8.4%	21	12.7%	8	4.8%	26	15.7%	166
Central	CD-S	11	7.1%	15	9.7%	8	5.2%	6	3.9%	7	4.5%	107	69.5%	154
	Total	43	8.8%	88	18.0%	25	5.1%	53	10.8%	38	7.8%	243	49.6%	490
	SL-L	3	1.6%	44	23.9%	26	14.1%	50	27.2%	30	16.3%	31	16.8%	184
St. Louio	SL-M	10	9.7%	22	21.4%	10	9.7%	16	15.5%	12	11.7%	33	32.0%	103
St. Louis	SL-S	37	35.2%	19	18.1%	6	5.7%	7	6.7%	2	1.9%	34	32.4%	105
	Total	50	12.8%	85	21.7%	42	10.7%	73	18.6%	44	11.2%	98	25.0%	392
	SW-L	3	2.2%	27	19.6%	19	13.8%	40	29.0%	24	17.4%	25	18.1%	138
Southwost	SW-M	3	2.3%	32	24.8%	21	16.3%	36	27.9%	15	11.6%	22	17.1%	129
Southwest	SW-S	8	3.0%	77	29.1%	36	13.6%	56	21.1%	40	15.1%	48	18.1%	265
	Total	14	2.6%	136	25.6%	76	14.3%	132	24.8%	79	14.8%	95	17.9%	532
	SE-L	7	4.6%	48	31.4%	23	15.0%	34	22.2%	16	10.5%	25	16.3%	153
Southoast	SE-M	6	4.0%	53	35.6%	13	8.7%	19	12.8%	17	11.4%	41	27.5%	149
Southeast	SE-S	2	1.2%	28	17.2%	16	9.8%	36	22.1%	33	20.2%	48	29.4%	163
	Total	15	3.2%	129	27.7%	52	11.2%	89	19.1%	66	14.2%	114	24.5%	465
Grand Tota	l:	234	7.0%	865	26.1%	363	10.9%	606	18.3%	389	11.7%	863	26.0%	3,320

### Table 16: Frequency of Roadway Use by Project and District



### THE RIGHT TRANSPORTATION SOLUTION

Overall, Missourians had a positive perception of the projects in this survey with 89.3% of the respondents stating that their local project was the right transportation solution. This is similar to the findings of the last four years. Unlike the previous questions in this year's study, there was not a shift from those who strongly agreed (answered "very much") to those who somewhat agreed (answered "somewhat"). The reason for the difference cannot be definitely answered by this study, but these difference may indicate the Missourians are aware of the financial challenges pertaining to maintaining and improving roadways (and thus are less likely to strongly agree with positive ratings as they may feel with more money the project could have been even better), but feel MoDOT is doing what it can with limited resources (thus, there no drop in the strong agreement with this measure or the overall satisfaction measure).

#### Figure 14: Right Transportation Solution – Historical Comparison

Overall, do you think this project was the right transportation solution?





The standard deviation was 9.7% with just two projects falling more than one standard deviation below the norm. The respondents for projects NE-M and KC-L were significantly less likely to think their project was the right transportation solution than the respondents for the other projects. Projects SL-L and SW-L were more than one standard deviation above the norm.

District	Project	Not	at all	Not	really	Som	newhat	Very	much	Total
	NW-L	4	2.9%	1	0.7%	16	11.8%	115	84.6%	136
Northwest	NW-M	6	4.4%	5	3.7%	33	24.4%	91	67.4%	135
Northwest	NW-S	1	0.8%	9	6.8%	32	24.1%	91	68.4%	133
	Total	11	2.7%	15	3.7%	81	20.0%	297	73.5%	404
	NE-L	9	6.2%	18	12.3%	64	43.8%	55	37.7%	146
Northoast	NE-M	29	21.0%	31	22.5%	41	29.7%	37	26.8%	138
Nonneast	NE-S	4	3.1%	2	1.5%	29	22.3%	95	73.1%	130
	Total	42	10.1%	51	12.3%	134	32.4%	187	45.2%	414
	KC-L	14	9.5%	20	13.5%	39	26.4%	75	50.7%	148
Kansas	KC-M	7	7.2%	9	9.3%	39	40.2%	42	43.3%	97
City	KC-S	2	1.2%	6	3.7%	45	28.0%	108	67.1%	161
	Total	23	5.7%	35	8.6%	123	30.3%	225	55.4%	406
	CD-L	5	3.0%	3	1.8%	37	22.4%	120	72.7%	165
Control	CD-M	0	0.0%	8	5.8%	26	18.7%	105	75.5%	139
Central	CD-S	6	4.3%	6	4.3%	35	25.4%	91	65.9%	138
	Total	11	2.5%	17	3.8%	98	22.2%	316	71.5%	442
	SL-L	0	0.0%	1	0.6%	26	14.9%	148	84.6%	175
	SL-M	3	4.3%	5	7.2%	19	27.5%	42	60.9%	69
St. Louis	SL-S	5	7.8%	8	12.5%	35	54.7%	16	25.0%	64
	Total	8	2.6%	14	4.5%	80	26.0%	206	66.9%	308
	SW-L	1	0.8%	0	0.0%	26	21.1%	96	78.0%	123
Coutburget	SW-M	0	0.0%	6	5.2%	32	27.8%	77	67.0%	115
Southwest	SW-S	11	4.3%	13	5.1%	70	27.3%	162	63.3%	256
	Total	12	2.4%	19	3.8%	128	25.9%	335	67.8%	494
	SE-L	4	3.1%	12	9.3%	44	34.1%	69	53.5%	129
0	SE-M	4	2.9%	7	5.1%	43	31.6%	82	60.3%	136
Southeast	SE-S	7	5.1%	15	10.9%	46	33.3%	70	50.7%	138
	Total	15	3.7%	34	8.4%	133	33.0%	221	54.8%	403
Grand Total	-	122	4.2%	185	6.4%	777	27.1%	1,787	62.2%	2,871

 Table 17: Right Transportation Solution by Project and District



In fiscal year 2011, the larger the project, the more likely respondents were to agree that the project was the right transportation solution. In fiscal year 2012, there was no correlation between project size and the RTS measure. In fiscal year 2013, medium-sized projects were statistically less likely to be judged the right transportation solution than small or large projects. In fiscal years 2014 and 2015, the results were similar to FY11 where the larger the project, the greater the agreement that the project was the right transportation solution. In FY16, medium-sized projects were statistically less likely to be judged the right transportation solution solution than small or large projects. Given the various results, it appears that there is a small correlation between project size and the RTS measure that can be easily overshadowed by stronger factors specific to individual projects.

Overal	Overall, do you think this project was the right transportation									
			solutior	ו?						
		Not	Not		Very	Total				
		at all	really	Somewhat	much	Total				
	Lorgo	37	55	252	678	1,022				
	Large	3.6%	5.4%	24.7%	66.3%	100%				
	Medium	49	71	233	476	829				
Project		5.9%	8.6%	28.1%	57.4%	100%				
Size	Small	36	59	292	633	1,020				
	Small	3.5%	5.8%	28.6%	62.1%	100%				
	Total	122	185	777	1,787	2,871				
	TULAI	4.2%	6.4%	27.1%	62.2%	100%				

 Table 18: Right Transportation Solution by Project Size



### **Respondent Property Loss**

In Fiscal Year 2009, MoDOT requested that a new question be added to the survey. MoDOT wanted to investigate the possibility that people who lost property to construction projects were significantly negatively impacting the survey results. Since the same methodology was employed for each survey, these results may be generalized to previous years as well.



Figure 15: Property Loss – Historical Comparison

Less than two percent of the respondents had lost property to build the project in their area. This year 0.6% of the respondents stated they lost property to one of these projects, virtually identical to the results of the last three years. Even these small numbers were not evenly distributed. Some projects, such as bridge repair, are not likely to require any additional property. Therefore, it is not surprising that some districts had zero respondents who lost property to the projects under review. The following table provides the actual numbers and percentages for each project.



District	Project		Yes		No	Total
	NW-L	0	0.0%	138	100.0%	138
Northwoot	NW-M	2	1.4%	144	98.6%	146
nonnwest	NW-S	1	0.7%	147	99.3%	148
	Total	3	0.7%	429	99.3%	432
	NE-L	2	1.3%	151	98.7%	153
Northoost	NE-M	0	0.0%	161	100.0%	161
Nonneast	NE-S	2	1.3%	149	98.7%	151
	Total	4	0.9%	461	99.1%	465
	KC-L	1	0.6%	169	99.4%	170
Kansas	KC-M	0	0.0%	111	100.0%	111
City	KC-S	1	0.6%	180	99.4%	181
	Total	2	0.4%	460	99.6%	462
	CD-L	2	1.2%	165	98.8%	167
Control	CD-M	1	0.6%	155	99.4%	156
Central	CD-S	0	0.0%	146	100.0%	146
	Total	3	0.6%	466	99.4%	469
	SL-L	0	0.0%	177	100.0%	177
	SL-M	0	0.0%	99	100.0%	99
St. Louis	SL-S	3	3.2%	92	96.8%	95
	Total	3	0.8%	368	99.2%	371
	SW-L	0	0.0%	134	100.0%	134
Southwoot	SW-M	0	0.0%	124	100.0%	124
Sournwest	SW-S	4	1.6%	243	98.4%	247
	Total	4	0.8%	501	99.2%	505
	SE-L	0	0.0%	142	100.0%	142
Southoost	SE-M	1	0.7%	137	99.3%	138
Soumeast	SE-S	0	0.0%	159	100.0%	159
	Total	1	0.2%	438	99.8%	439
Grand Tota	l:	20	0.6%	3,123	99.4%	3,143

### Table 19: Frequency of Respondents Who Lost Property to Project by Project and District



The previous figures show that such a small percentage of people lost property to their local project that they could not have significantly affected the survey results if losing property was a factor in their evaluation. In four of the last five years' surveys found statistically significant differences between the two groups. This was also the case in FY16, with those losing property being less likely to strongly agree that the project was the right transportation solution (although the total agreement between the groups were virtually identical).

Overall, do you think this project was the right transportation									
solution?									
Not Not Very									
		at all	really	Somewhat	much	Total			
	Voc	1	1	9	8	19			
Did you loso	162	5.3%	5.3%	47.4%	42.1%	100.0%			
Did you lose	No	116	175	737	1,666	2,694			
property to build the	INU	4.3%	6.5%	27.4%	61.8%	100.0%			
project?	Total	117	176	746	1,674	2,713			
	Total	4.3%	6.5%	27.5%	61.7%	100.0%			

#### Table 20: Cross Reference of Right Transportation Solution and Property Loss



### THE RIGHT PRIORITY

At MoDOT's request, a new question was added to the survey in Fiscal Year 2009 to help investigate a potential reason why some respondents did not believe their project to be the right transportation solution. This year, 18.9% of the respondents felt another project should have been commissioned before their particular project. This score was similar to, but slightly higher than, the results from the previous two years.

#### Figure 16: Priority – Historical Comparison



These responses were not evenly distributed across the state. The respondents from several projects were statistically more likely to fall at least one standard deviation (9.4%) from the normal range. People from NE-M, KC-L, KC-M, and SL-S were much more likely to think another project should have been given priority over their local project. For example, 44.0% of the NE-M respondents thought another project should have been given priority.



At the other extreme, people responding to projects SL-L and SW-L were statistically less likely than the norm to say another project should have been given

priority.

District	Project	Yes No				Total
	NW-L	12	9.8%	110	90.2%	122
Northwoot	NW-M	21	15.8%	112	84.2%	133
Nonnwest	NW-S	20	15.9%	106	84.1%	126
	Total	53	13.9%	328	86.1%	381
	NE-L	36	26.3%	101	73.7%	137
Northeast	NE-M	59	44.0%	75	56.0%	134
Nonneast	NE-S	14	11.5%	108	88.5%	122
	Total	109	27.7%	284	72.3%	393
	KC-L	49	34.5%	93	65.5%	142
Kansas	KC-M	35	35.0%	65	65.0%	100
City	KC-S	23	15.4%	126	84.6%	149
	Total	107	27.4%	284	72.6%	391
	CD-L	29	19.0%	124	81.0%	153
Control	CD-M	15	10.9%	122	89.1%	137
Central	CD-S	18	15.1%	101	84.9%	119
	Total	62	15.2%	347	84.8%	409
	SL-L	3	1.9%	155	98.1%	158
	SL-M	22	27.8%	57	72.2%	79
St. Louis	SL-S	22	34.4%	42	65.6%	64
	Total	47	15.6%	254	84.4%	301
	SW-L	8	7.0%	107	93.0%	115
Southwoot	SW-M	15	14.7%	87	85.3%	102
Souriwesi	SW-S	34	16.7%	170	83.3%	204
	Total	57	13.5%	364	86.5%	421
	SE-L	32	26.9%	87	73.1%	119
Southoost	SE-M	10	8.1%	113	91.9%	123
Soumeast	SE-S	26	20.2%	103	79.8%	129
	Total	68	18.3%	303	81.7%	371
Grand Tota	l:	503	18.9%	2,164	81.1%	2,667

Figure 17: Priority Feedback by Project and District



For the sixth year in a row, the belief that another project should have taken priority over the local project appears to have made a significant impact on the overall results. The following table provides the actual numbers and percentages for both groups.

		Overall, do you	Overall, do you think this project was					
		the right transportation solution?						
		Not at all/	Somewhat/					
		Not really	Very Much	Total				
Should	Voc	205	229	434				
another	165	47.2%	52.8%	100.0%				
project	No	62	1,924	1,986				
have had	INO	3.1%	96.9%	100.0%				
higher	Total	267	2,153	2,420				
priority?	Τυται	11.0%	89.0%	100.0%				

Fable 21, Croce Dafe	orongo of Drigrity h	v Dight Tranc	nortation Colution
1 abie 21: Ci uss Rei		y Right Hans	portation solution

Only 52.8% of the respondents who thought another project should have been given priority thought their local project was the right transportation solution compared to 96.9% of those who did not believe another project should have been given priority. This is a very strong statistical difference and supports MoDOT's hypothesis that a respondent's belief that another project should have been commissioned first is a significant factor in their evaluation. However, it is important to note that this study cannot test casualty. There is clearly a strong link between these two factors. However, it is possible that the respondent's disagreement that a project was the right transportation solution is influencing their opinion on whether or not another project should have had a higher priority.

It can be very difficult to determine causality, and if this is important to MoDOT, they should commission a research study focused on this subject. However, no matter which factor is the dependent factor, MoDOT can help address this issue by publicizing the reasons why the projects that are selected are a priority.



### AWARENESS AND SATISFACTION

Two questions were added to the survey in FY13. A question was added to investigate when people first learned about the project. Another question was added to measure citizens' overall satisfaction with the project.

### **PROJECT AWARENESS**

Respondents were asked when they first learned about their local transportation project. More than half (51.6%) were aware of the project before construction started and 92.6% knew about the project before it was completed.



#### Figure 18: Project Awareness



### Table 22: Project Awareness by Project and District

		At le	ast a							
		mo	onth	W	hen					
		bet	fore	const	ruction	Aft	er the	W	hen I	
		consti	ruction	signs	s went	proje	ect was	rec	eived	
District	Project	sta	rted	ι	q	com	pleted	this	survey	Total
	NW-L	91	65.0%	40	28.6%	1	0.7%	8	5.7%	140
Northwost	NW-M	61	42.7%	77	53.8%	2	1.4%	3	2.1%	143
Nonthwest	NW-S	108	72.5%	37	24.8%	2	1.3%	2	1.3%	149
	Total	260	60.2%	154	35.6%	5	1.2%	13	3.0%	432
	NE-L	39	27.7%	90	63.8%	3	2.1%	9	6.4%	141
Northeast	NE-M	98	60.9%	44	27.3%	7	4.3%	12	7.5%	161
Northeast	NE-S	105	74.5%	25	17.7%	2	1.4%	9	6.4%	141
	Total	242	54.6%	159	35.9%	12	2.7%	30	6.8%	443
	KC-L	42	25.8%	97	59.5%	15	9.2%	9	5.5%	163
Kansas	KC-M	29	26.9%	<mark>68</mark>	63.0%	2	1.9%	9	8.3%	108
City	KC-S	50	28.2%	122	68.9%	1	0.6%	4	2.3%	177
	Total	121	27.0%	287	64.1%	18	4.0%	22	4.9%	448
	CD-L	118	73.8%	39	24.4%	1	0.6%	2	1.3%	160
Central	CD-M	129	83.8%	18	11.7%	3	1.9%	4	2.6%	154
Central	CD-S	42	28.6%	93	63.3%	5	3.4%	7	4.8%	147
	Total	289	62.7%	150	32.5%	9	2.0%	13	2.8%	461
	SL-L	131	77.5%	30	17.8%	5	3.0%	3	1.8%	169
St. Louis	SL-M	49	51.0%	39	40.6%	1	1.0%	7	7.3%	96
	SL-S	20	21.1%	36	37.9%	4	4.2%	35	36.8%	95
	Total	200	55.6%	105	29.2%	10	2.8%	45	12.5%	360
	SW-L	65	54.2%	52	43.3%	1	0.8%	2	1.7%	120
Southwest	SW-M	73	59.3%	44	35.8%	2	1.6%	4	3.3%	123
Coulimost	SW-S	196	80.3%	46	18.9%	1	0.4%	1	0.4%	244
	Total	334	68.6%	142	29.2%	4	0.8%	7	1.4%	487
	SE-L	30	21.1%	93	65.5%	3	2.1%	16	11.3%	142
Southeast	SE-M	42	30.9%	82	60.3%	6	4.4%	6	4.4%	136
Councast	SE-S	62	40.3%	84	54.5%	5	3.2%	3	1.9%	154
	Total	134	31.0%	259	60.0%	14	3.2%	25	5.8%	432
Grand Total:		1,580	51.6%	1,256	41.0%	72	2.4%	155	5.1%	3,063



Table 23: Cross Reference of Project Awareness and Right Transportation Solution							
Overall, do you think this proje							
the right transportation solu							
		Not at all /	Somewhat /				
		Not really	Very much	Total			
	At least a month before	111	1356	1,467			
When did	construction started	7.6%	92.4%	100.0%			
	When construction signs went up	146	968	1,114			
		13.1%	86.9%	100.0%			
about this	After the project was	10	42	52			
	completed	19.2%	80.8%	100.0%			
transport	When I received this	18	30	48			
ation	survey	37.5%	62.5%	100.0%			
project?	Total	285	2,396	2,681			
	TOLAI	10.6%	89.4%	100.0%			

Table 23	Cross Reference o	of Project Awareness an	d Right Transportation	Solution
Table 45.		n i i ujece awai eness an	a Right Hansportation	Jointion

Consistent with the results from previous years, there were no statistically significant differences found using linear analysis between when a respondent first learned about the project and their RTS measure. However, based on the data collected to date, it is likely that people are more likely to think that a project is the right transportation solution if they either are aware of the project well in advance or are pleasantly surprised by it (surprised by finding it improved, not by reading about it on a survey) after the project is completed whereas being unpleasantly surprised by it by unexpectedly coming across construction could make people less likely to believe the project was the right transportation solution. If this is a factor – which cannot be certain due to the many other factors involved – it is a relative minor factor accounting for a few percentages of agreement on the right transportation score.



### **OVERALL SATISFACTION**

83.5% of the respondents were satisfied with the results of their project, similar to the results from the last three years.



### Figure 19: Satisfaction



		V	′ery	Somewhat		Somewhat		Very		
District	Project	Dissa	atisfied	Dissatisfied		Satisfied		Satisfied		Total
Northursof	NW-L	12	8.7%	6	4.3%	26	18.8%	94	68.1%	138
	NW-M	14	9.9%	7	5.0%	21	14.9%	99	70.2%	141
NOITIWEST	NW-S	15	10.3%	13	8.9%	28	19.2%	90	61.6%	146
	Total	41	9.6%	26	6.1%	75	17.6%	283	66.6%	425
	NE-L	10	6.3%	12	7.5%	57	35.8%	80	50.3%	159
Northeast	NE-M	34	23.9%	28	19.7%	53	37.3%	27	19.0%	142
Nonneast	NE-S	18	14.5%	1	0.8%	21	16.9%	84	67.7%	124
	Total	62	14.6%	41	9.6%	131	30.8%	191	44.9%	425
	KC-L	25	15.6%	12	7.5%	52	32.5%	71	44.4%	160
Kansas	KC-M	10	9.7%	10	9.7%	28	27.2%	55	53.4%	103
City	KC-S	14	8.2%	8	4.7%	32	18.7%	117	68.4%	171
	Total	49	11.3%	30	6.9%	112	25.8%	243	56.0%	434
	CD-L	17	10.4%	3	1.8%	28	17.1%	116	70.7%	164
Control	CD-M	10	6.9%	6	4.2%	28	19.4%	100	69.4%	144
Central	CD-S	16	11.4%	5	3.6%	25	17.9%	94	67.1%	140
	Total	43	9.6%	14	3.1%	81	18.1%	310	69.2%	448
	SL-L	10	5.6%	7	3.9%	20	11.2%	142	79.3%	179
St. Louis	SL-M	11	13.4%	6	7.3%	20	24.4%	45	54.9%	82
St. Louis	SL-S	6	10.9%	7	12.7%	26	47.3%	16	29.1%	55
	Total	27	8.5%	20	6.3%	66	20.9%	203	64.2%	316
	SW-L	16	12.3%	1	0.8%	26	20.0%	87	66.9%	130
Southwost	SW-M	9	7.3%	6	4.8%	34	27.4%	75	60.5%	124
Southwest	SW-S	20	7.7%	22	8.4%	61	23.4%	158	60.5%	261
	Total	45	8.7%	29	5.6%	121	23.5%	320	62.1%	515
	SE-L	12	9.2%	7	5.3%	37	28.2%	75	57.3%	131
Southoost	SE-M	8	5.8%	8	5.8%	40	28.8%	83	59.7%	139
Soumeast	SE-S	16	11.0%	12	8.3%	41	28.3%	76	52.4%	145
	Total	36	8.7%	27	6.5%	118	28.4%	234	56.4%	415
Grand Total:		303	10.2%	187	6.3%	704	23.6%	1,784	59.9%	2,978

#### Table 24: Satisfaction by Project and District

This year only one project was more than one standard deviation outside the mean. Project NE-M had satisfaction scores more than three standard deviations below the mean.



		<u> </u>				
		Overall, do	you think thi	is project		
		was the	was the right transportation			
			solution?			
		Not at all /	Somewhat /			
		Not really	Very Much	Total		
Overall how	Dissatisfied Satisfied	192	275	467		
satisfied are you with the results of this project?		41.1%	58.9%	100.0%		
		83	2,240	2,323		
		3.6%	96.4%	100.0%		
	Total	275	2,515	2,790		
	TULAI	9.9%	90.1%	100.0%		

Table 25	Cross Reference	of Satisfaction	and Right Tran	sportation Solution
Table 23.	CIUSS MEIEI EIICE	UI Satislaction	and Right Hai	isportation solution

For the fourth year in a row, the two measures are strongly correlated and thus MoDOT's practice of using the RTS measure as a proxy for satisfaction has been empirically shown to be an effective practice. While 58.9% of those who were dissatisfied with the result of the project thought the project was the right transportation solution, 96.4% of those satisfied with the project thought the project was the right transportation solution.

While closely related, these measures are not the same thing. People may be dissatisfied with a project outcome even if they believe the project was the right transportation solution. However, they are much less likely to be satisfied if they think the project was the wrong transportation solution. This difference explains why the RTS measure is slightly higher than the overall satisfaction measure.



### SUMMARY

The overall results show that the majority of Missourians are very satisfied with their local project and generally believe that MoDOT provides the right transportation solution. With the exception of the less congested measure, results were similar to last year's scores. The less congested measure declined by 9.2% in comparison to the previous year's results. The majority of respondents thought that the project made the roadway safer (90.7%), more convenient (83.7%), less congested (72.7%), easier to travel (86.7%), better marked (87.1%), and was the right transportation solution (89.3%).



### APPENDIX A. SURVEY INSTRUMENT

The next three pages show the front and back side of the survey instrument. Two questionnaires were developed, one for projects with accommodations for bicyclists and pedestrians and one for projects without such accommodations. Two examples are provided on the following pages, one of each type of questionnaire.

On the front page of each survey, a unique project description was printed for each of the twenty-one projects. All of the actual descriptions are available under Project Descriptions and Locations starting on page 6. The back page of each survey was identical for each questionnaire and provided respondents with an opportunity to express their opinions.



Thinking of this project after MoDOT completed work on it, how would you rate each of the following?

ionio in mgi		Strongly			Strongly	Not	
1. The road is now		Agree	Agree	Disagree	Disagree	Sure	
	safer	0	<u>Q</u>	Q	<u>Q</u>	Q	
	more convenient	0	<u>Q</u>	Q	<u>Q</u>	Q	
	less congested	0	<u>Q</u>	Q	<mark>0</mark>	Q	
	easier to travel	0	<u>Q</u>	Q	<u>Q</u>	Q	
	better marked	0	<mark>0</mark>	Q	Q,	<u>Q</u>	

2. This project did not have a bike/pedestrian component. I believe...

	Strongly			Strongly	Not
	Agree	Agree	Disagree	Disagree	Sure
this was the right decision	О	<u>Q</u>	<u>0</u>	õ	<u>0</u>
pedestrians will use this road	0	Q	Q	Q	<u>Q</u>
bicyclists will use this road	0	<u>Q</u>	Q	Q	<u>Q</u>

3. How familiar are you4. How often have you used this section of the road in the month?

Not at all O Never

Somewhat O A few times

O Fairly well

6. Did you lose property

to build the project?

O Very well

0

0

Ο

0

No

O Once a week

O Twice a week

O Most weekdays

O Almost every day

7. Should another project have had higher priority?

Yes O

O No

Yes

5. When did you first learn about this transportation project?

O At least a month before construction started

O When construction signs went up

O After the project was completed

O When I received this survey

O Don't know / not sure

Additional questions on other side





Commissioned By: The Missouri Department of Transportation

December 2015

Page | 57



### 2015 MoDOT Project Survey

After completing the other side, please finish this side and return this survey

8. Overall, do you think this project was the right transportation solution?

- O Not at all
- O Not really
- O Somewhat
- O Very much
- O Don't know / not sure

9. Overall, how satisfied are you with the results of this project?

- O Very dissatisfied
- O Somewhat dissatisfied
- O Somewhat satisfied
- O Very satisfied
- O Don't know / not sure

**10**. Please provide any comments you may have about why you feel this project was, or was not, the right transportation solution. **Keep all comments within the thick red lines**.



### APPENDIX B: RIGHT TRANSPORTATION SOLUTION BY PROJECT

The results from the right transportation solution question have been graphically provided for each project. Statistically, it is very safe to compare overall results from one fiscal year to other fiscal years. The margin of error for all years has been less than 2.5%. Since the margin of error can go either way (e.g., low in one year and high in another), the margins of error are cumulative. Therefore, we can be 95% confident that differences between years are truly real changes if the overall difference is at least 5%. Since the margin of error increases as the sample size decreases, readers should use caution when using the information provided to compare projects as the margins of error are much higher given the limited number of responses per project. However, despite these statistical concerns, these graphs do provide some useful information. For example, many projects were overwhelmingly the right transportation solution in the eyes of the respondents. The question that can be raised by these graphs is why do a few projects have much different levels of support than other projects?



		RTS	Margin of	
District	Project	Responses	Error	Brief Description
	NW-L	136	8.4%	Route 59 bridge
Northwest	NW-M	135	8.4%	Route 136 resurfacing
	NW-S	133	8.5%	Route 136 bridge deck
	NE-L	146	8.1%	I-70
Northeast	NE-M	138	8.3%	Route 63/Route M intersection
	NE-S	130	8.6%	Route 168 bridge
Kanaga	KC-L	148	8.1%	Tiffany Springs diverging diamond
City	KC-M	97	10.0%	Route 50
City	KC-S	161	7.7%	Route 40/Lee's Summit Rd
	CD-L	165	7.6%	Route 19
Central	CD-M	139	8.3%	Route 41 Lamine River Bridge
	CD-S	138	8.3%	Route Y & Route 54
	SL-L	175	7.4%	Route 364 (four lane freeway)
St. Louis	SL-M	69	11.8%	I-270 bridge rehabilitation
	SL-S	64	12.3%	Route 94
	SW-L	123	8.8%	Widened Route 65 (Glenstone)
Southwest	SW-M	115	9.1%	Route CC
	SW-S	256	6.1%	1st St overpass
	SE-L	129	8.6%	I-55
Southeast	SE-M	136	8.4%	Route 21
	SE-S	138	8.3%	Route W (Columbia St)

### Table 26: Project Margin of Error for RTS Measure







Overall, do you think this project was the right transportation solution?

\*total n excludes respondents answering "Don't know / not sure" to this question





# Overall, do you think this project was the right transportation solution?







\*total n excludes respondents answering "Don't know / not sure" to this question





# Overall, do you think this project was the right transportation solution?







Overall, do you think this project was the right transportation solution?

\*total n excludes respondents answering "Don't know / not sure" to this question





# Overall, do you think this project was the right transportation solution?



### Figure 26: Southeast District

