

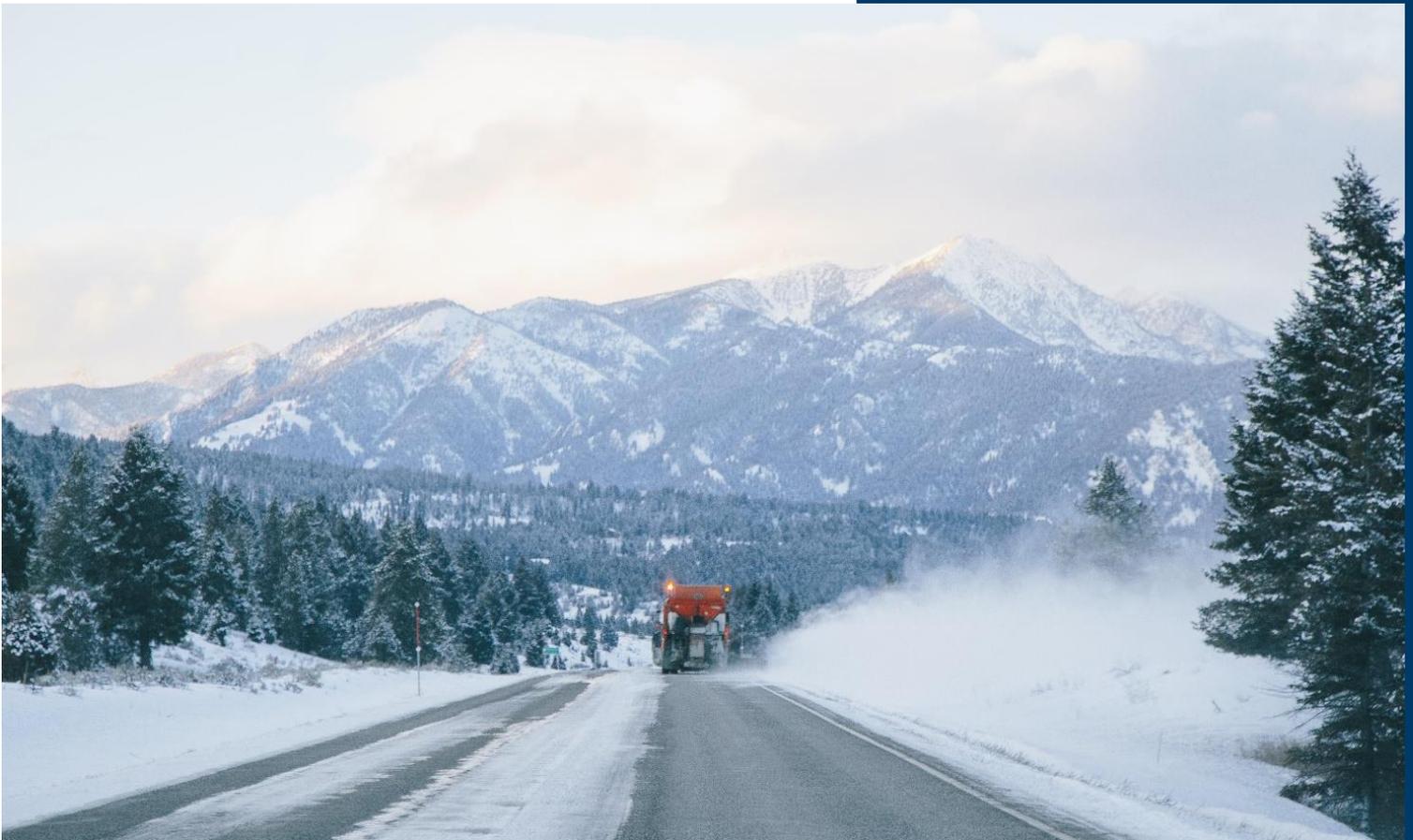


VISION ZERO

zero deaths · zero serious injuries

**MONTANA DEPARTMENT
OF TRANSPORTATION**

TranPlanMT: Public Involvement Survey



VOLUME I
FINAL REPORT (Revised March 2018)

State of Montana
Department of Transportation

Bureau of Business and Economic Research
University of Montana

Volume I

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The purpose of the 2017 TranPlanMT Public Involvement Survey is to examine Montanans':

- perceptions of the current condition of the transportation system;
- views about possible actions that could improve the transportation system in Montana; and
- opinions about the quality of service Montana Department of Transportation (MDT) provides to its customers.

The Bureau of Business and Economic Research at The University of Montana-Missoula received 1,456 responses from household questionnaires sent from April 1, 2017, through June 6, 2017.

2017 Snapshot

In 2017 Montanans are:

- generally satisfied with the state's transportation system;
- satisfied with the physical condition of system components;
- somewhat satisfied with the availability of most transportation services (except passenger rail service and intercity buses).

Montanans want more facilities, equipment, or services for:

- passenger rail service

Montanans viewed nearly all problems studied as small problems. Only one problem was viewed as moderately severe: road pavement condition.

Montanans place the highest priority for possible actions to improve the transportation system on:

- maintaining road pavement condition;
- Improving the interstates and major highways
- including wildlife crossings and barriers; and
- keeping the public informed

The most useful communication tools are:

- variable message highway signs;
- radio and television; and
- websites, social media, apps for mobile devices

Almost 70% of Montanans feel they receive more than or about \$182-\$260 per year in value from the transportation system. In the event of decreased funding, the public rates the following as the least impactful areas for possible funding cuts:

- local transit buses;
- pedestrian walkways; and
- bicycle pathways.

MDT's overall customer service and performance grades are in the B- to C+ range.

Methods Summary

The purpose of the 2017 TranPlanMT Public Involvement Survey is to examine Montanans':

- perceptions of the current condition of the transportation system;
- views about possible actions that could improve the transportation system in Montana; and
- opinions about the quality of service MDT provides to its customers.

The survey is designed to help MDT policy-makers and planners examine the efficiency, capacity, and flexibility of Montana's transportation system to meet current needs and future demands.

The mail-administered survey, one of several MDT public involvement processes, provides MDT policy-makers and planners a representative sample of Montanans by which to gauge current public opinion. The survey has been conducted biennially since 1997 and has maintained consistency over time allowing for exploration of trends in public sentiment regarding the Montana transportation system.

Survey Improvements

The 2017 Public Involvement Survey was administered by mail, while all previous rounds of the survey were administered by telephone. This change in mode of survey administration yielded a significantly improved response rate (2017 – 40.3%, 2015 – 26.7%) and enabled sample selection from the best possible list, especially when compared to the eroding quality of currently available sample lists of telephone numbers. In addition, the format of the first nine questions, which are 0 thru 10 satisfaction ratings, was improved to make the answer scale balanced. In all previous rounds of the survey the first nine questions were unbalanced, 1 thru 10 satisfaction

ratings. These three improvements add significantly to the confidence that readers may have in the survey estimates presented in 2017.

However, the change in survey administration also had a cost, which is a reduced ability to compare 2017 survey estimates with those produced by earlier rounds of the survey. The 2017 mailed survey method is self-administered while the earlier telephone surveys were interviewer administered. The most prominent difference in answers to survey questions when asked in self-administered versus interviewer-administered formats is found in positive-negative scale questions. The MDT Public Involvement Survey questionnaire contains many of these questions, including:

- 0-10 satisfaction scales
- Problem severity scales
- Priority of action scales
- Usefulness scales
- A-F grading scales.

When processing questions aurally (interviewer-administered) respondents tend to provide more positive answers to scale questions than when respondents' process questions visually (mail/internet). (Dillman, Smyth, & Christian, 2014) UM BBER believes that the change from interviewer-administration of the MDT Public Involvement Survey to self-administration caused average positive-negative scale scores to decline across all items due simply to the change in survey administration mode. Readers must keep this effect in mind when evaluating survey trends.

In addition, the format of questions 1-9, which are 0 thru 10 satisfaction ratings, were changed in this year's survey. Previous versions of these questions were 1 thru 10 satisfaction ratings. The addition of a possible negative satisfaction choice (0) undoubtedly lowered average satisfaction ratings. Readers should also be mindful of this change.

Survey Administration

The survey was administered from April 1, 2017, through June 6, 2017. Of the 3,612 eligible respondents contacted, 1,456 (40.3 percent) participated in the survey. This response rate is typical for rigorously conducted, address-sampled, mail administered surveys. (Dillman, Smyth, & Christian, 2014)

The Respondents

The table below describes the respondents.

Table 1.1: Respondents by Gender and Race

2017 TranPlanMT Public Involvement Survey Respondent Demographic Characteristics			
Characteristic		Frequency	Percent
Sex	Male	719	49.4%
	Female	737	50.6%
Age	18-34	418	28.7%
	35-49	331	22.7%
	50-64	412	28.3%
	65+	296	20.3%
Region	Missoula	467	32.1%
	Butte	271	18.6%
	Great Falls	298	20.5%
	Glendive	121	8.3%
	Billings	298	20.5%
Race	White	1,325	91.0%
	American Indian	79	5.4%
	Other	52	3.6%
2016 Household Income	< 50,000	770	52.9%
	50k - 99,999	450	30.9%
	100k+	236	16.2%
Education Attainment	HS or less	562	38.6%
	Some college or AA degree	507	34.8%
	Bachelors+	387	26.6%

2. Attitudes About Montana's Transportation System

“How would you rate your satisfaction with the overall transportation system in Montana?”

Montana's overall transportation system was ranked on a scale of zero to ten, where zero is “very unsatisfied” and ten is “very satisfied.” The mean response was 5.67, reflecting moderate satisfaction with the overall transportation system. The psychological midpoint of the zero to ten scales is five. The distance above five is a measure of the intensity of satisfaction.

“How satisfied are you with the physical condition of the following items?”

Each component of Montana's transportation system was rated using the same zero to ten scale. These ratings are reported in Table 2.1 and Figure 2.1. Figure 2.1 shows the mean for each component with an upper and lower bound. Differences in satisfaction are statistically significant when the confidence intervals do not overlap.

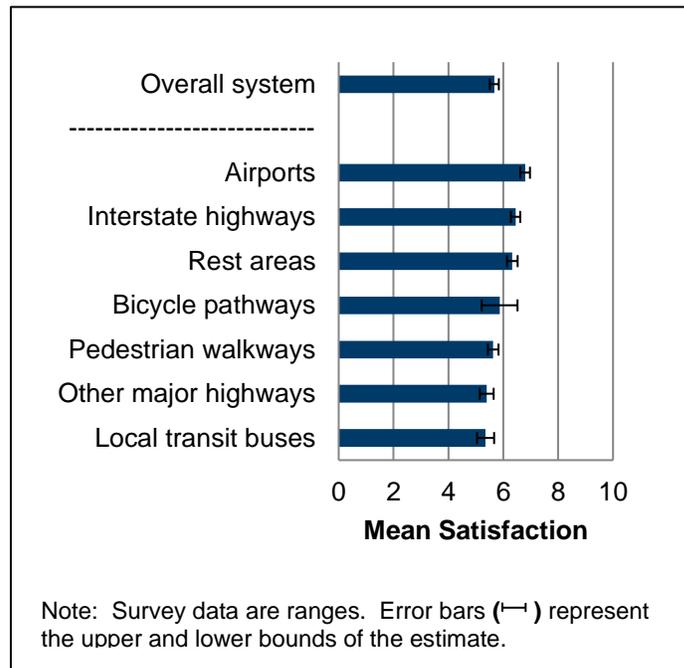
Table 2.1: Satisfaction with Physical Condition of System Components

	95% Confidence			N
	Mean	Lower limit	Upper limit	
Overall system	5.67	5.51	5.84	1,440
Airports	6.80	6.62	6.97	1,420
Interstate highways	6.45	6.28	6.62	1,440
Rest areas	6.33	6.13	6.52	1,438
Bicycle pathways	5.87	5.67	6.07	1,404
Pedestrian walkways	5.63	5.44	5.83	1,425
Other major highways	5.40	5.21	5.58	1,442
Local transit buses	5.35	5.14	5.56	1,049

- Airports (6.80) ranked highest in terms of satisfaction.
- Respondents also express relatively strong satisfaction with interstate highways (6.45).
- Montanans are moderately satisfied with the physical condition of rest areas (6.33).
- Local transit buses (5.35), other major highways (5.40), and pedestrian walkways (5.63) rank lowest in terms of respondent satisfaction.

All results rank above the psychological midpoint of five indicating Montanans are satisfied with the physical condition of system components.

Figure 2.1: Satisfaction with Condition of System Components

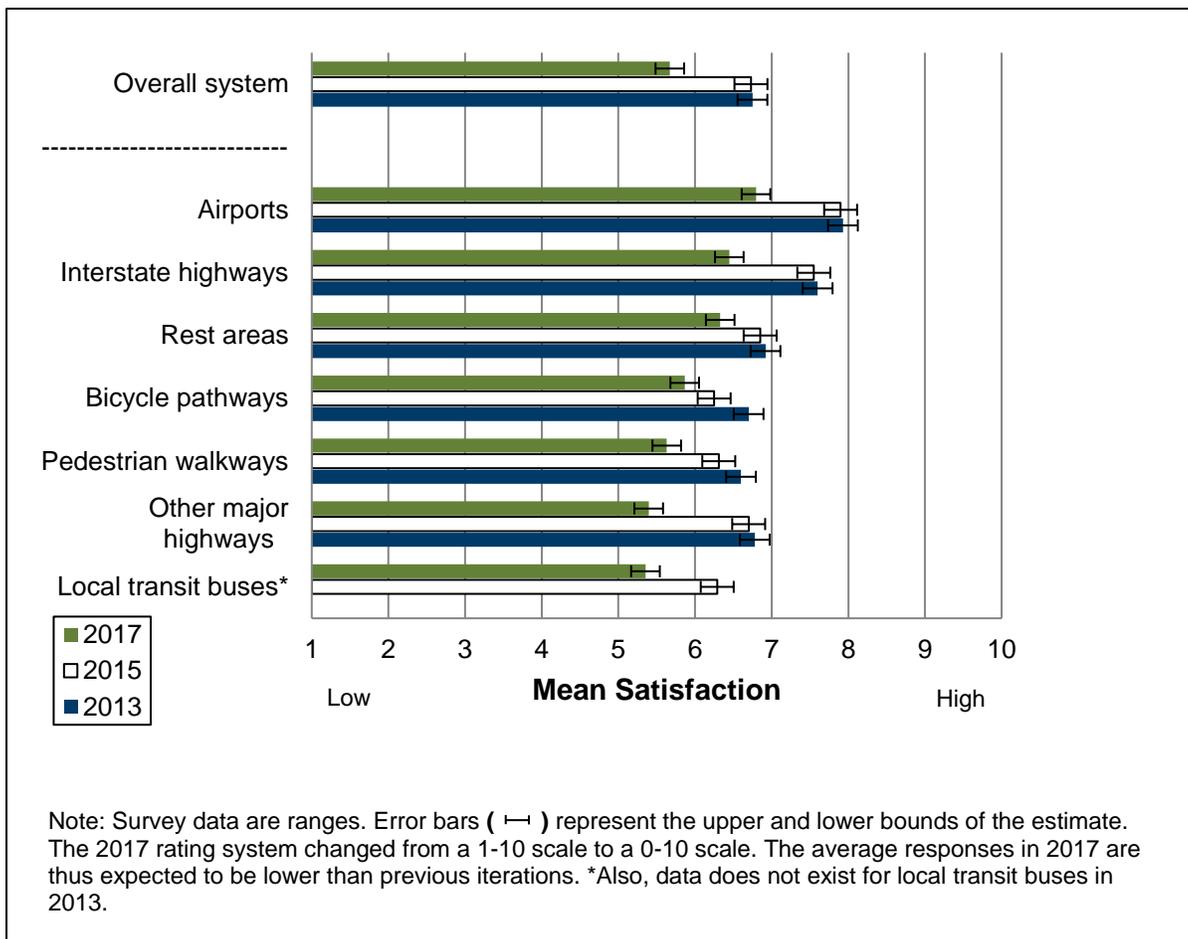


Trends

In each of the replications of this study, respondents were asked identical questions rating their satisfaction with the physical condition of various system components. While the questions remained the same, the rating system changed in 2017 from a 1-10 scale to a 0-10 scale.

This creates more balance and accuracy at the psychological mean. Hence, when comparing the 2017 results to previous rounds of the survey, it is expected that the average responses will be lower. The 2017 survey is compared to 2013 and 2015 in Figure 2.2.

Figure 2.2: Comparison of Physical Condition of Montana's Transportation System, 2013-2017



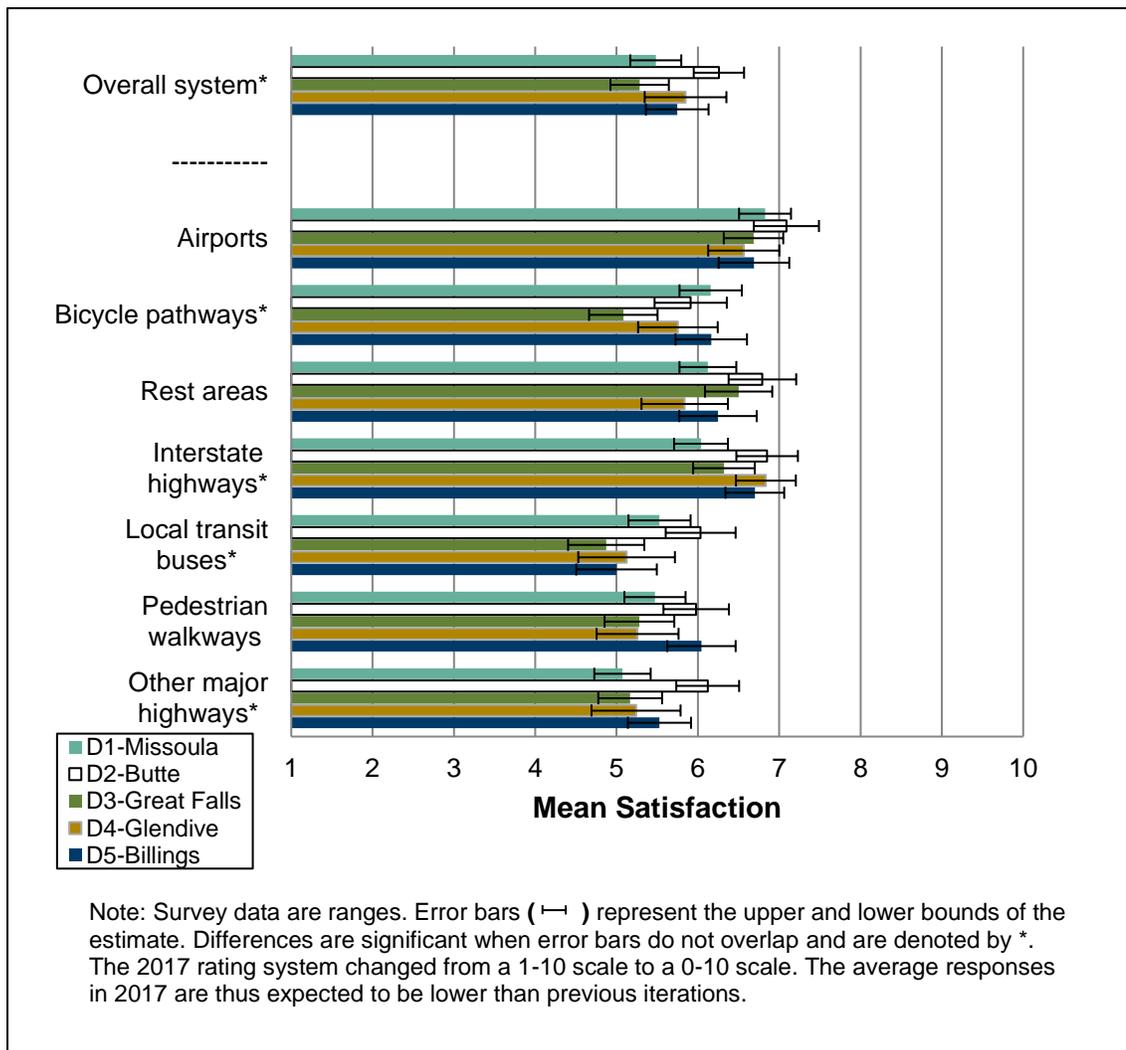
Districts

Figure 2.3 presents mean satisfaction scores for each of the five MDT Districts. Error bars assess the statistical significance of differences between the means presented. Overall, there is general agreement between respondents.

- Montanans in all districts are satisfied with the overall transportation system.
- District 1-Missoula is less satisfied with both interstate highways and other major highways than the other Districts.

- District 1-Missoula and District 5-Billings are the most satisfied with bicycle pathways; this difference is significantly larger than District 3-Great Falls.
- With the exception of Districts 5-Missoula and 2-Butte, the physical condition of local transit buses ranks lowest in terms of satisfaction.

Figure 2.3: Mean Satisfaction with Condition of System Components by MDT District



“How would you rate your satisfaction with the availability of service?”

Respondents were asked to rank service availability on a scale of zero to ten, where zero is “very unsatisfied” and ten is “very satisfied.”

- Respondents stated they were moderately satisfied with the availability of air transportation to destinations outside Montana (5.64) and freight rail service (5.33).
- Montanans rank local van or bus service (5.24), transit for the elderly or disabled (5.14), air transport within Montana (4.86) lower in service availability.
- Montanans are least satisfied about the availability of intercity bus service (4.26) and passenger rail service (4.15).

Table 2.2: Mean Satisfaction with Service Availability

	Mean	95% Confidence		N
		Lower limit	Upper limit	
Air transportation outside Montana	5.64	5.41	5.86	1,298
Freight rail service	5.33	5.06	5.60	768
Local bus or van service	5.24	4.99	5.50	932
Transit for the elderly or disabled	5.14	4.88	5.41	892
Air transportation within Montana	4.86	4.62	5.10	1,125
Intercity buses	4.26	4.01	4.51	886
Passenger rail service	4.15	3.86	4.43	958

Trends

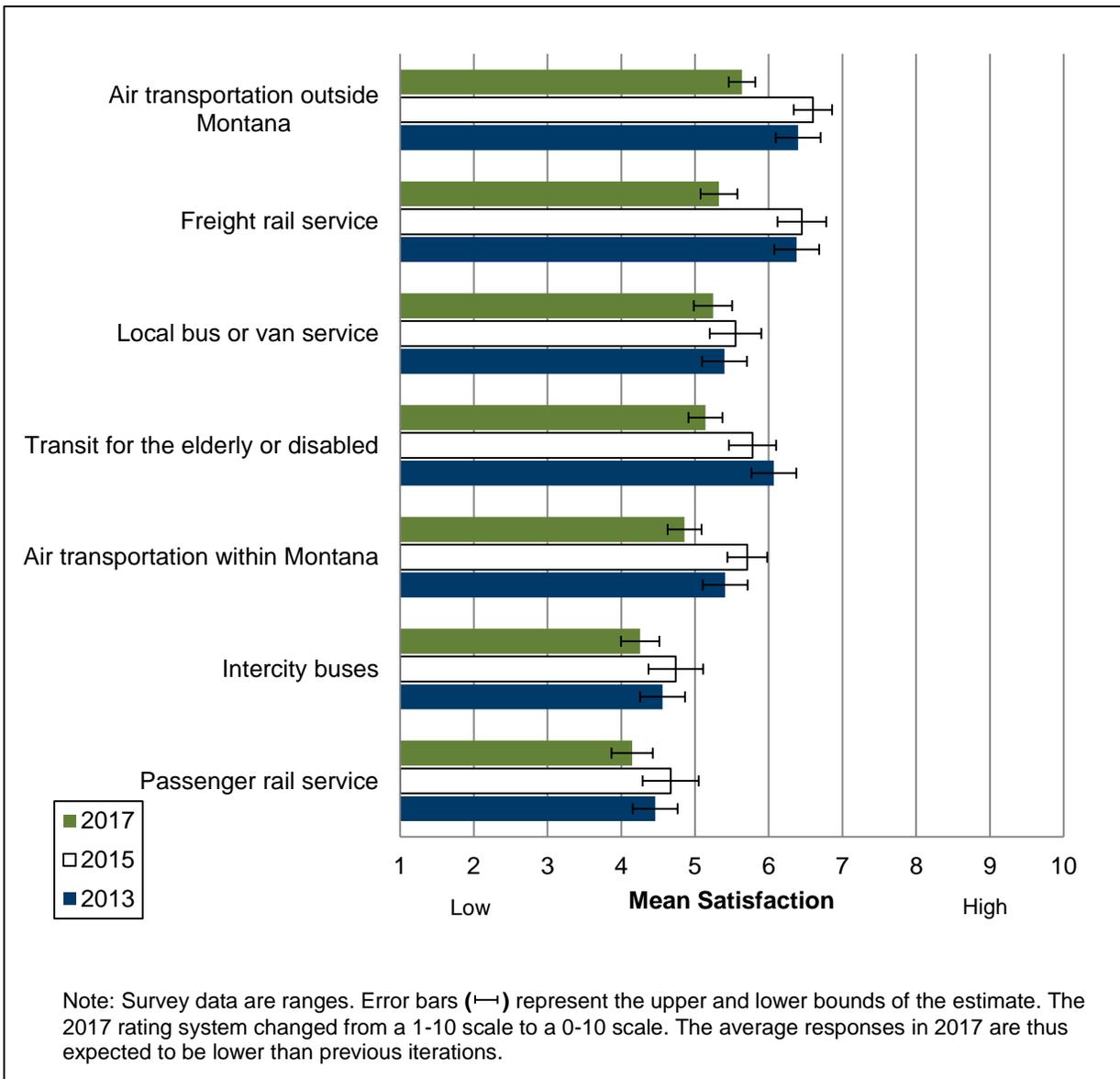
Figure 2.4 compares survey respondents' levels of satisfaction with the availability of various transportation services in Montana's transportation system across time.

- Satisfaction of availability for freight rail service and air transportation outside of

Montana have fallen relative to the results from 2015 by more than the other services.

- Passenger rail service and intercity buses remain the lowest ranked transportation service.

Figure 2.4: Comparison of Availability of Service in Montana's Transportation System, 2013-2017

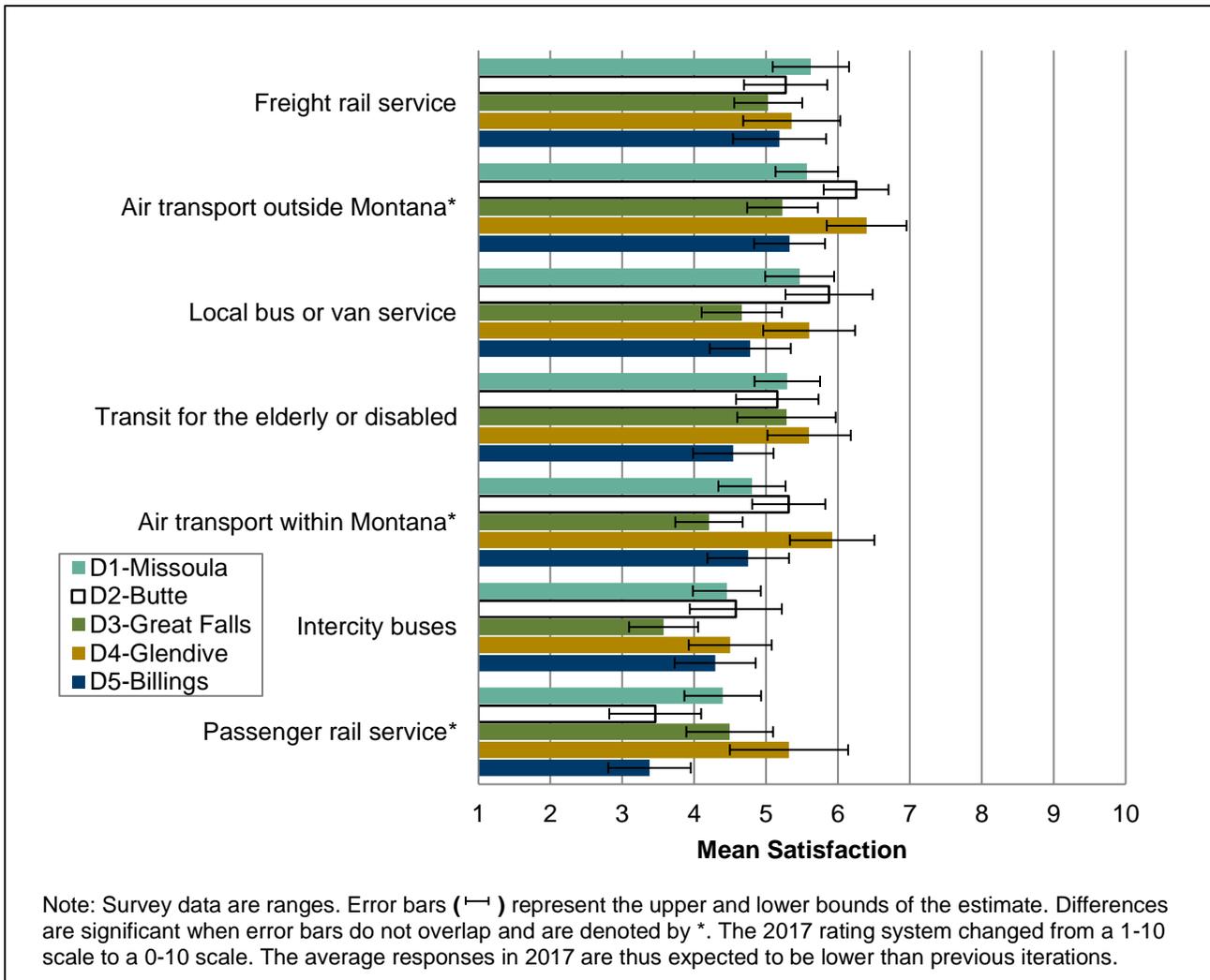


Districts

Figure 2.5 shows the mean levels of satisfaction of the same seven transportation services by MDT District.

- District 3-Great Falls is slightly less satisfied with air transportation than the other districts.
- The availability of passenger rail service showed differences with Districts 2-Butte and 5-Billings being significantly less satisfied.
- District 4-Glendive was generally more satisfied with air transportation and passenger rail service.

Figure 2.5: Mean Satisfaction with Service Availability by MDT District



2. Attitudes About Montana's Transportation System

“How much of a problem in Montana, if at all, is each of the following.”

Montanans rated possible problems (Table 2.3) on a scale from one to four, where one is “not a problem” and four is a “serious problem.”

- Montanans classified only one of the fifteen problems studied, road pavement, as meriting moderate concern, with a mean score of 2.82.
- Over 25% of Montanans view road pavement condition as a serious problem. No other potential problem reached this level of awareness, reinforcing the positive overall level of satisfaction with the transportation system expressed by Montanans.
- The majority of Montanans do not view adequate road signs as a problem.
- Many respondents did not know if freight and economic vitality or the ability to manage specific emergency situations posed problems.

Table 2.3: Possible System Problems with Montana Transportation System

	Serious problem	Moderate problem	Small problem	Not a problem	Don't know	Mean	N
Road pavement condition	25.7%	38.1%	25.8%	8.7%	1.8%	2.82	1,441
Traffic congestion	10.0%	36.5%	30.1%	21.0%	2.5%	2.36	1,439
Vehicle damage from highway construction and maintenance	11.7%	24.3%	36.8%	20.0%	7.3%	2.30	1,437
Timely resolution to safety issues	9.9%	25.2%	24.2%	21.1%	19.6%	2.30	1,430
Debris on roadways	9.1%	23.2%	42.3%	21.9%	3.4%	2.20	1,432
Number and condition of rest areas	9.7%	19.2%	26.9%	34.6%	9.6%	2.04	1,438
Lack of alternative routes for major roads	7.2%	17.7%	36.2%	32.1%	6.8%	2.00	1,432
Impacts on the environment from the transportation system	7.3%	17.7%	23.0%	34.2%	17.9%	1.98	1,439
Air quality impacts from highway maintenance	4.8%	21.7%	32.4%	35.2%	6.0%	1.96	1,432
Freight and economic vitality	4.0%	11.8%	15.7%	24.9%	43.7%	1.91	1,434
The ability to manage specific emergency situations	4.2%	13.9%	19.4%	31.3%	31.2%	1.87	1,437
Too many access points (including driveways) onto major roads	3.9%	16.3%	30.4%	42.4%	7.1%	1.80	1,433
Adequate road signs	3.7%	9.0%	26.0%	58.6%	2.7%	1.57	1,435

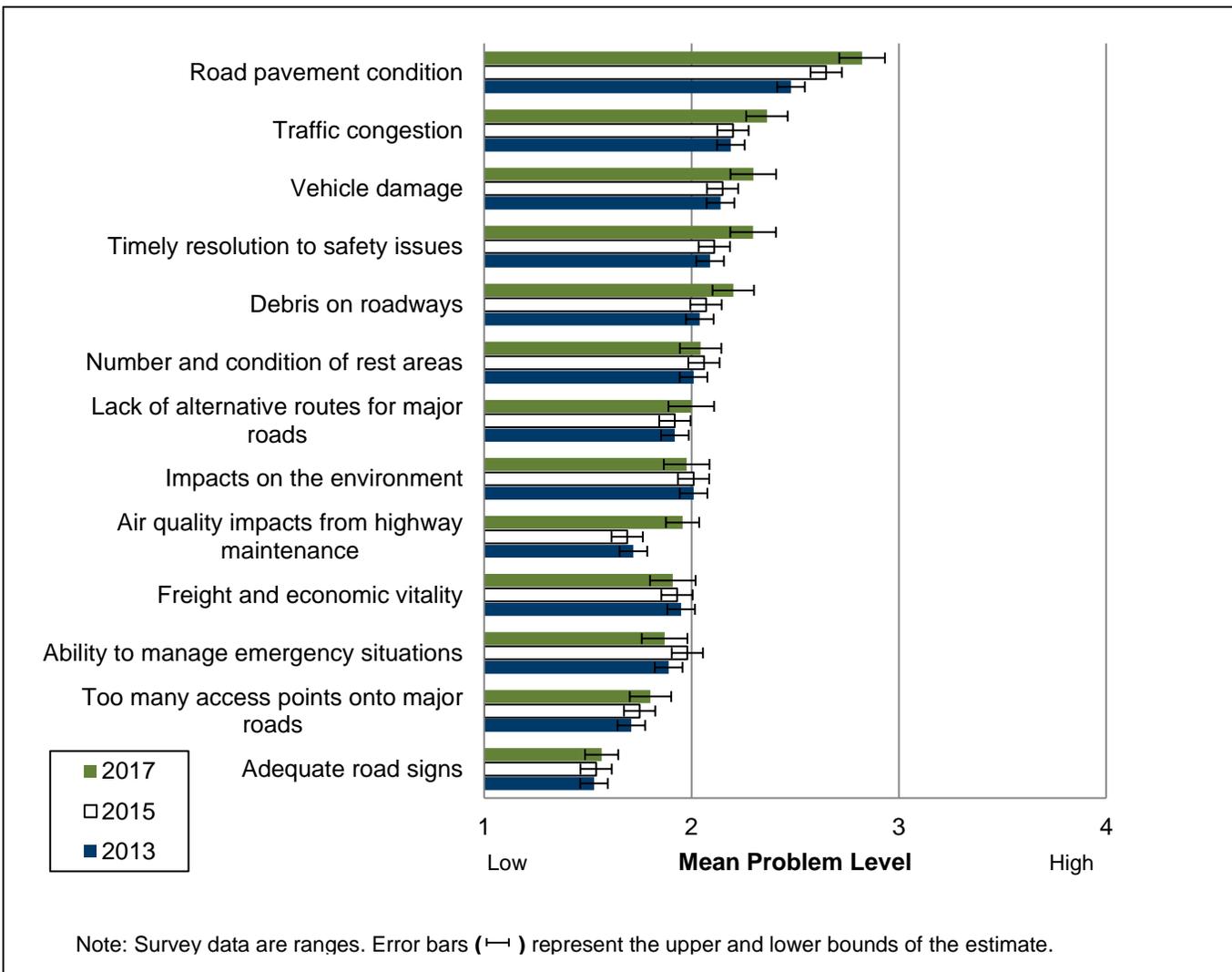
Trends

Figure 2.6 shows Montana residents' views over time regarding possible problems with the transportation system.

- Respondents in 2017 were statistically more likely to perceive air quality impacts from highway maintenance, as well as timely resolution to safety issues, as problems relative to 2015.

- Road pavement conditions remain the highest ranked problem with the transportation system.

Figure 2.6: Possible Problems with Montana's Transportation System, 2013-2017



District

While only one significant problem emerges when examining statewide data, the conclusions are different at the district level. Figures 2.7a and 2.7b explore the percentage of respondents in each district that say an item is a moderate or serious problem.

- Road pavement condition and traffic congestion are perceived as a higher problem in District 1-Missoula.
- Traffic congestion is less of a problem for District 4-Glendive.

Figure 2.7a: Perceived Moderate or Serious Problems with Montana Transportation System by MDT District

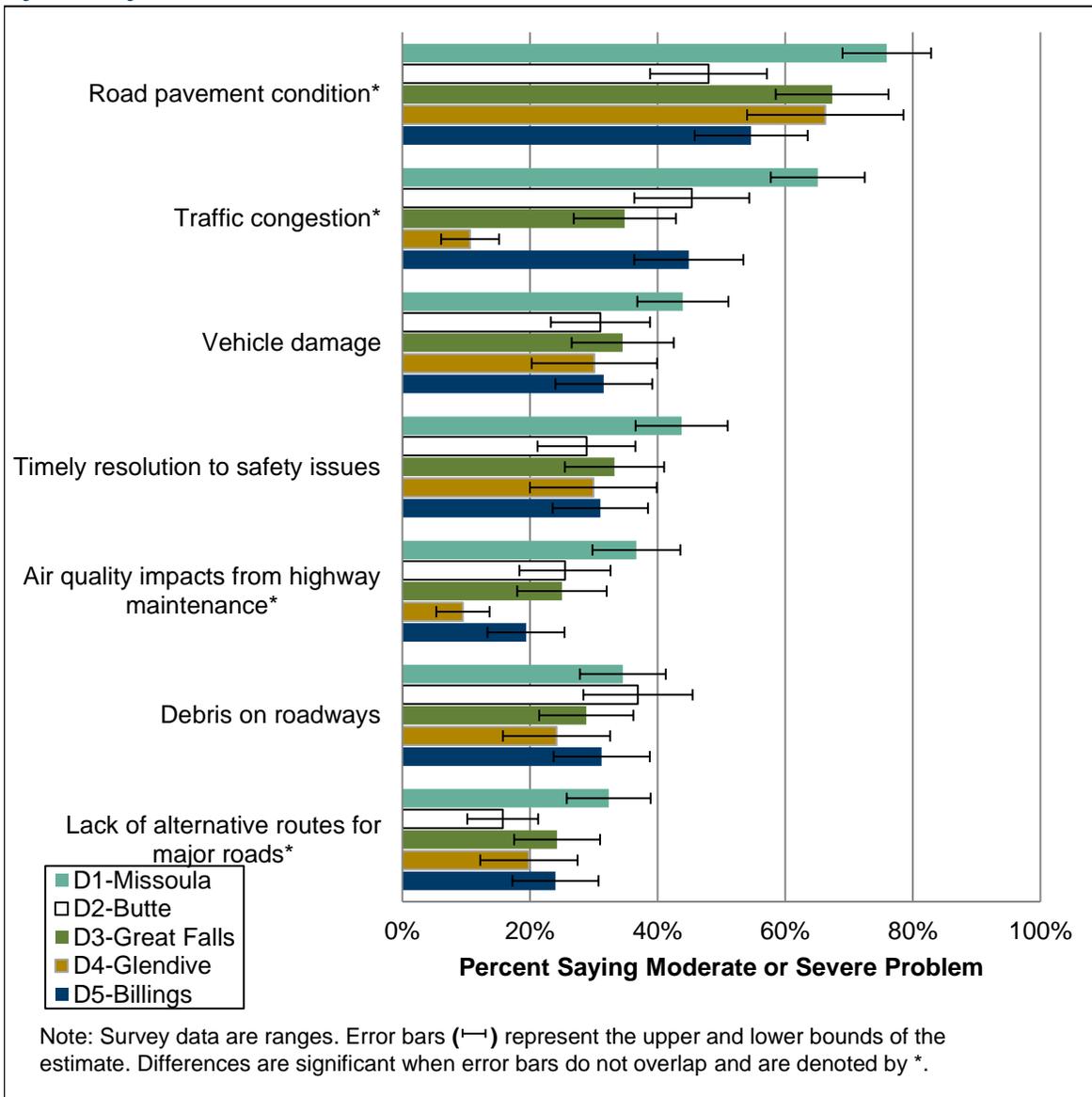
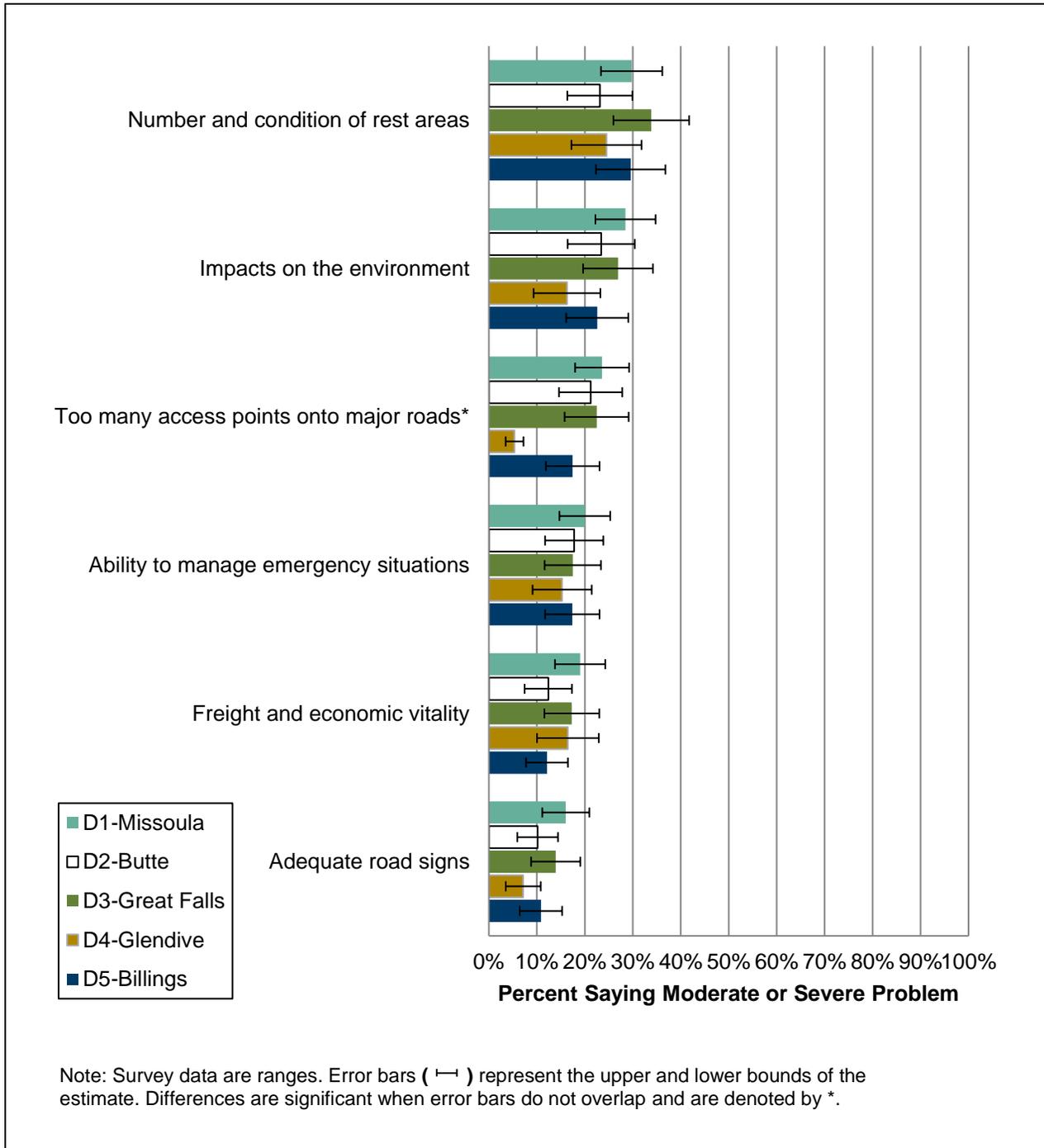


Figure 2.7b: Perceived Moderate or Serious Problems with Montana Transportation System by MDT District



2. Attitudes About Montana's Transportation System

“Please tell me what priority MDT should assign actions that could be taken to improve the transportation system.”

Respondents were asked to prioritize 15 possible actions to improve Montana's transportation system on a scale of one to five (Table 2.5). A value of one was assigned to the very low category, two to somewhat low priority, and so forth. Most felt qualified to prioritize the options presented. While Montanans view most transportation system problems as small, they believe solving those problems should take on a medium or somewhat high priority.

Montanans classified, on average, 14 of the 15 possible action items as medium or somewhat high priorities.

- Two actions received somewhat high priority scores with mean scores of 3.5 or higher: maintain road pavement condition and improve the interstates and major highways.
- Twelve actions ranked as medium priority, ranging from wildlife crossings and barriers to ensuring adequate bicycle facilities.
- Only one action ranked below medium priority: regulating highway approaches. Montanans prioritize this action as the lowest in terms of improving the transportation system.

Table 2.4: Priority of Possible Actions to Improve Transportation System

	Very high priority	Somewhat high priority	Medium priority	Somewhat low priority	Very low priority	Mean	N
Road pavement condition	31.0%	41.4%	23.3%	3.2%	1.0%	3.98	1,428
Interstates and major highways	18.1%	36.9%	30.4%	11.7%	2.9%	3.56	1,423
Wildlife crossings and barriers	22.5%	28.7%	26.0%	16.4%	6.4%	3.44	1,428
Keep the public informed	19.3%	25.5%	32.8%	16.9%	5.5%	3.36	1,415
Transportation safety	18.5%	26.0%	30.7%	18.6%	6.2%	3.32	1,425
Roadside vegetation	17.6%	22.4%	34.4%	17.0%	8.5%	3.24	1,430
Scheduled airline service	13.5%	20.8%	33.6%	19.6%	12.5%	3.03	1,414
Semi-truck parking and facilities	11.4%	20.0%	36.6%	22.8%	9.2%	3.02	1,427
Existing passenger rail service	17.0%	18.5%	27.0%	22.8%	14.6%	3.00	1,422
Adequate pedestrian facilities	13.3%	20.3%	31.0%	21.7%	13.6%	2.98	1,423
Promote local transit systems	11.7%	21.8%	32.3%	20.9%	13.3%	2.98	1,423
Traffic congestion	8.8%	20.6%	32.9%	26.2%	11.5%	2.89	1,413
Improve rest areas	8.4%	19.1%	30.7%	28.7%	13.1%	2.81	1,426
Ensure adequate bicycle facilities	10.8%	14.3%	24.5%	25.4%	25.0%	2.60	1,425
Regulate highway approaches	3.9%	10.9%	33.8%	31.8%	19.7%	2.48	1,416

Trends

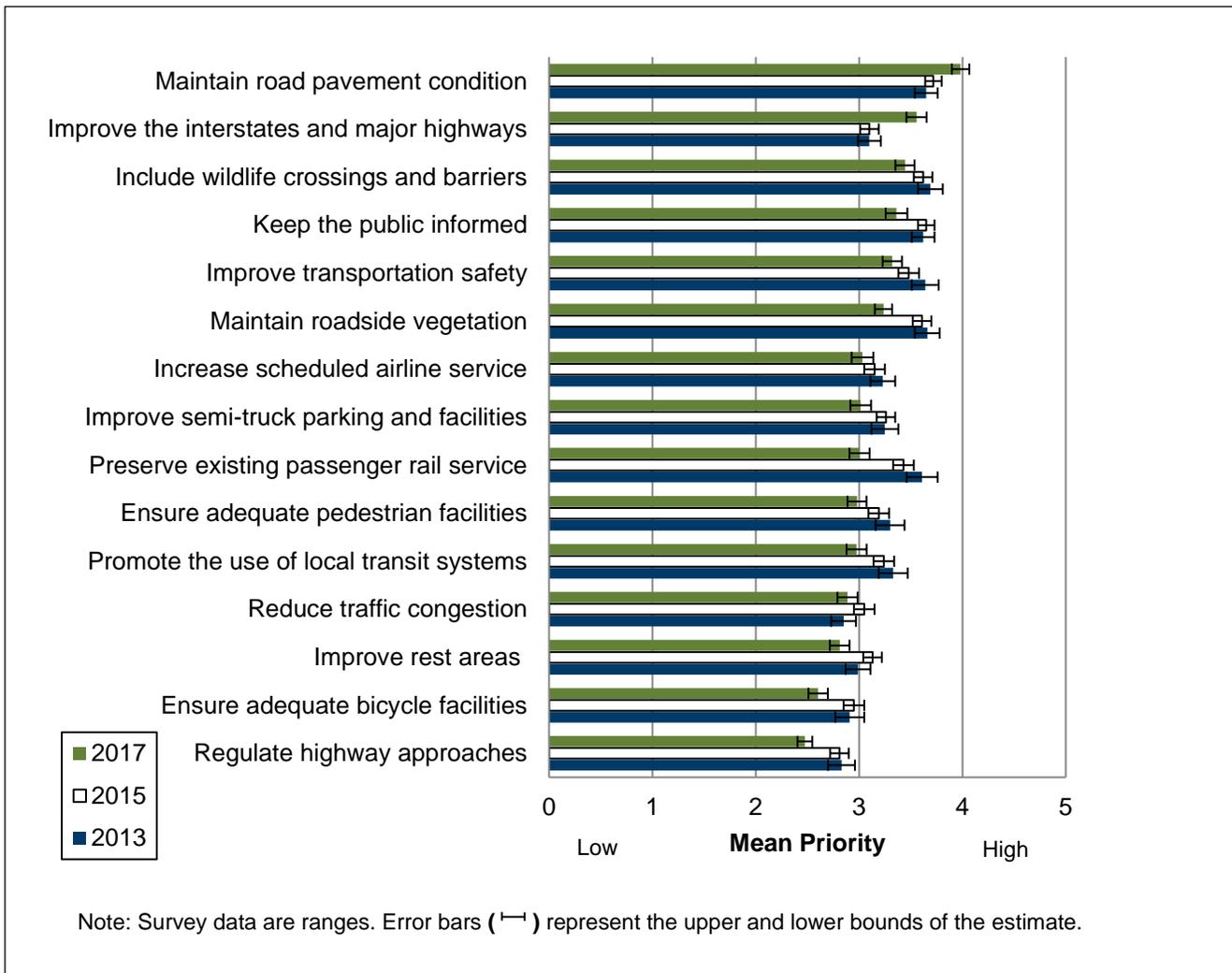
Figure 2.8 shows the priority for various actions to improve Montana's transportation system over time.

- Maintaining road pavement conditions and improving the interstates and major highways are priorities over the long term.
- Keeping the public informed, maintaining roadside vegetation, improving semi-truck parking facilities, preserving existing rail service, promoting local transit systems,

improving rest areas, ensuring adequate bicycle facilities, and regulating highway approaches decreased in priority over 2015-2017.

- Improving the interstates and major highways saw the greatest increase in priority since 2015.

Figure 2.8: Possible Improvements in the Transportation System and Roadways, 2013-2017



District

Priorities for possible actions to improve the transportation system were also examined across each of the five MDT districts. The percentage of respondents in each district who said an action was a somewhat or very high priority is presented in figures 2.9a and 2.9b.

- On average, respondents classified almost all of the studied actions as medium priorities.
- Maintaining road pavement is a higher priority in District 1-Missoula relative to District 2-Butte.
- Reducing traffic congestion in District 1-Missoula is statistically more of a priority among respondents than District 2-Butte, District 3-Great Falls, and District 4-Glendive.

Figure 2.9a: Possible Actions to Improve Transportation System a Somewhat or Very High Priority by MDT District

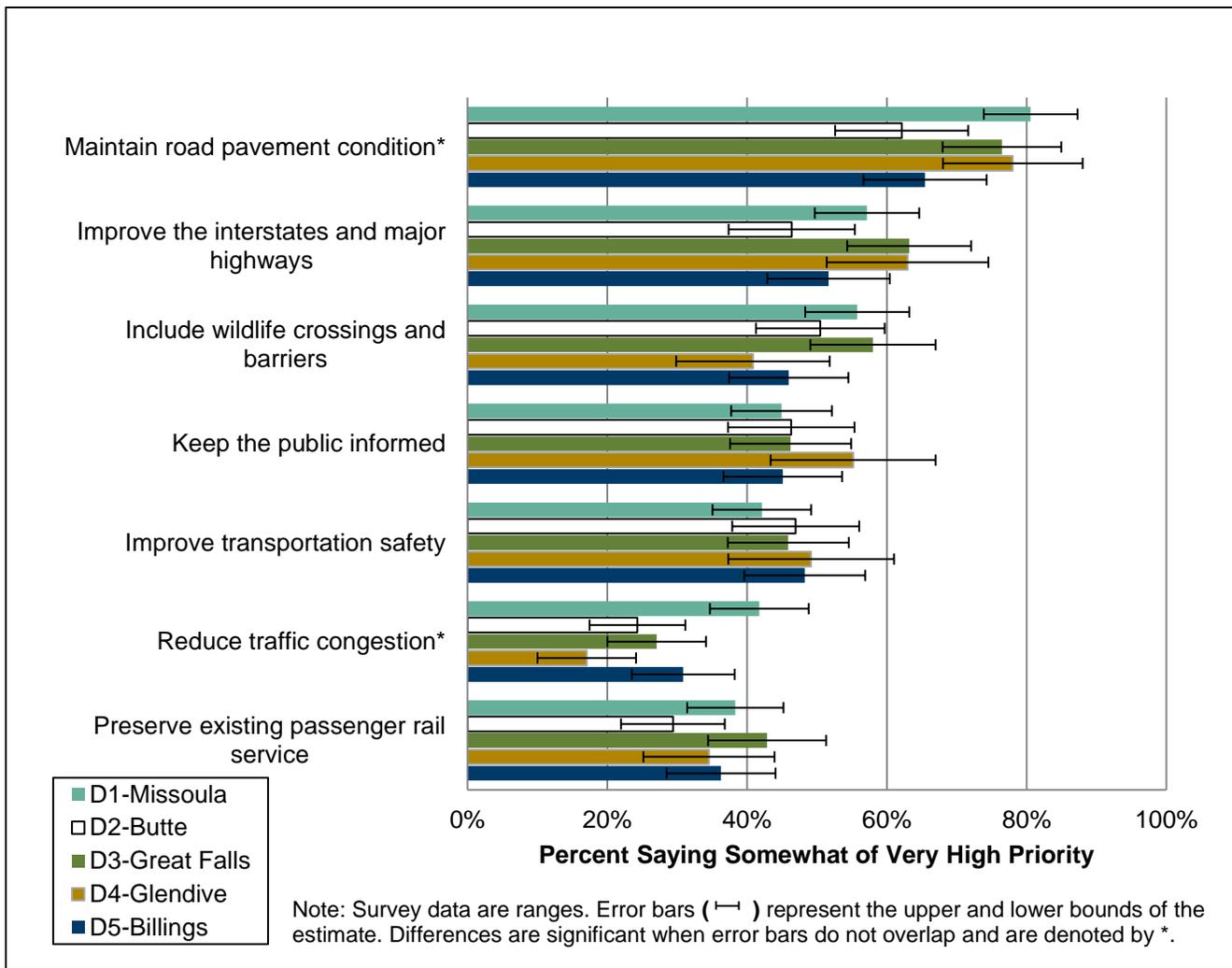
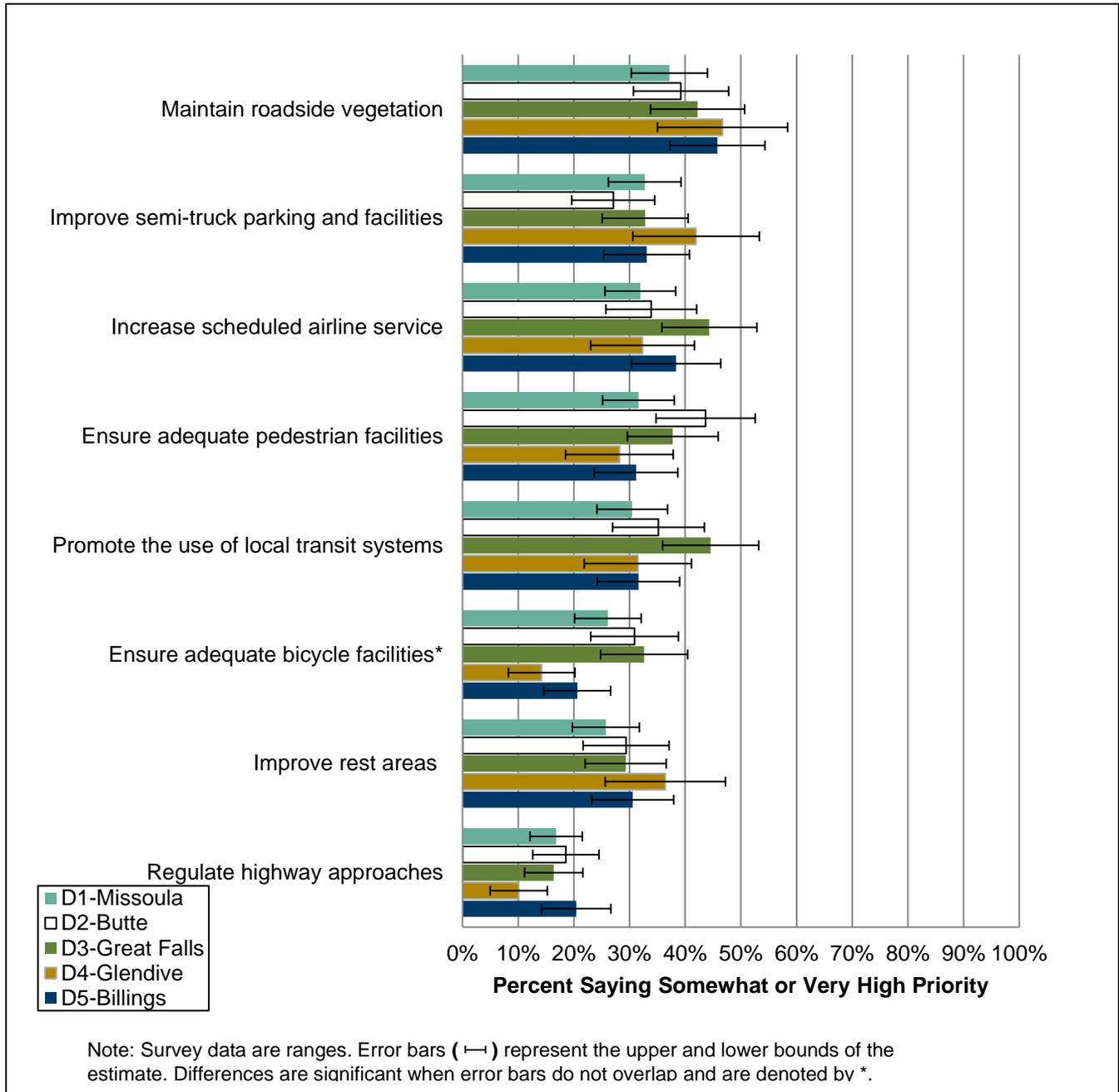


Figure 2.9b: Possible Actions to Improve Transportation System a Somewhat or Very High Priority by MDT District



“Do you think you are getting more or less value than \$182-\$260 per year?”

The average Montanan pays between \$182-\$260 per year in state and federal fuel taxes to support transportation infrastructure. Respondents were asked if they felt that they received more or less than \$182-\$260 per year in value from the transportation system.

- Two-thirds of respondents felt they received either about \$182-\$260 per year or more (Table 3.1). For District 2-Butte that number is over 80%.
- Compared to other districts, District 1-Missoula perceives they are receiving less value from the transportation system.

Table 3.1: Montanans Perceived Value from the Transportation System

	More value	About \$182-\$260	Less value	N
Whole sample	17.3%	52.0%	30.7%	1,392
By district				
District 1	14.3%	45.8%	39.9%	320
District 2	23.1%	58.4%	18.5%	272
District 3	16.6%	54.9%	28.5%	262
District 4	28.0%	38.6%	33.5%	249
District 5	13.4%	57.9%	28.6%	289

“Which of the following should be funded at a lower level?”

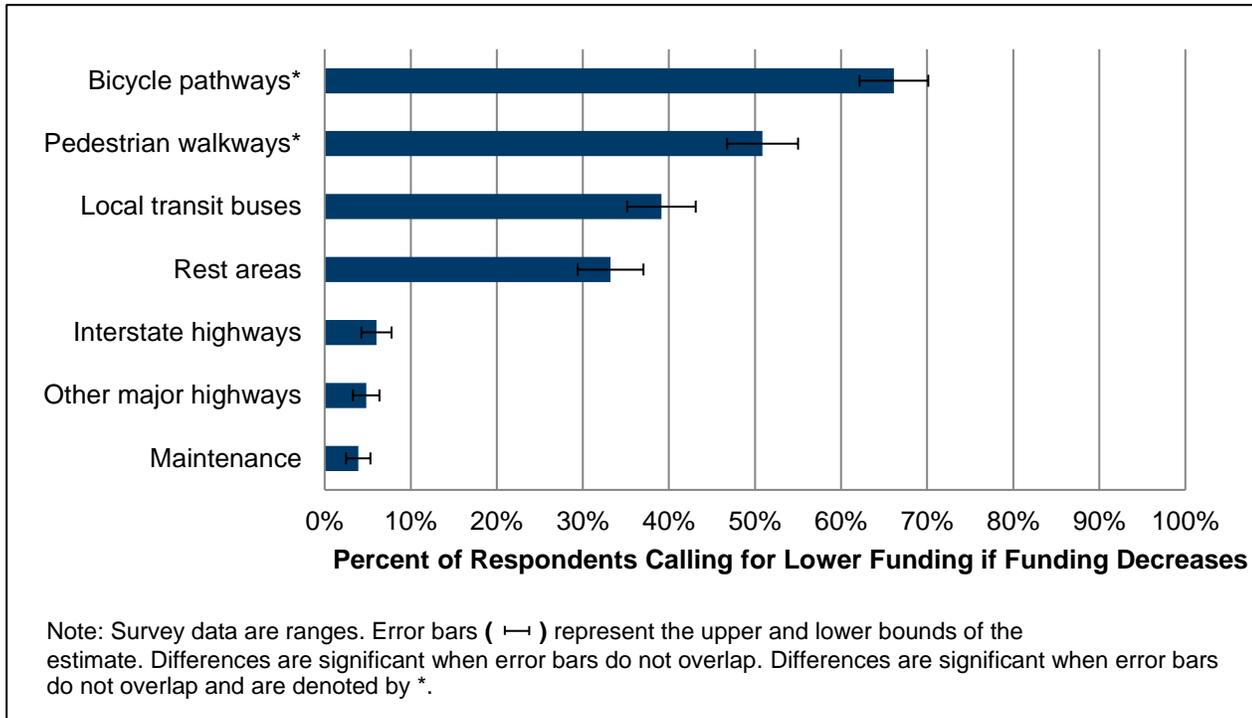
Respondents were also asked to evaluate which potential aspects of the transportation system should receive decreased funding if MDT’s overall funding decreased. Table 3.2 and Figure 3.1 present results.

- Bicycle pathways, pedestrian walkways, and local transit buses rank as the most preferable areas to decrease funding.
- Maintenance, other major highways, and interstate highways rank as the least preferable for decreased funding.

Table 3.2: Possible Areas to Decrease Funding

	Fund at a lower level	Fund at the same level	Fund at a higher level	N
Bicycle pathways	66.1%	22.6%	11.3%	1,388
Pedestrian walkways	50.9%	37.8%	11.3%	1,390
Local transit buses	39.1%	49.2%	11.7%	1,378
Rest areas	33.2%	55.7%	11.1%	1,374
Interstate highways	6.0%	67.8%	26.2%	1,368
Other major highways	4.8%	62.4%	32.7%	1,355
Maintenance	3.9%	55.9%	40.2%	1,374

Figure 3.1: Possible Areas to Decrease Funding



“Other areas (be specific)”

Respondents could specify an alternative source for lower funding. Table 3.3 documents the general category of responses.

- The majority of respondents signaled either the government in general or specifically transportation administration to receive funding cuts.
- Other common responses were to cut funding for signage, rumble strips, and wildlife crossings.

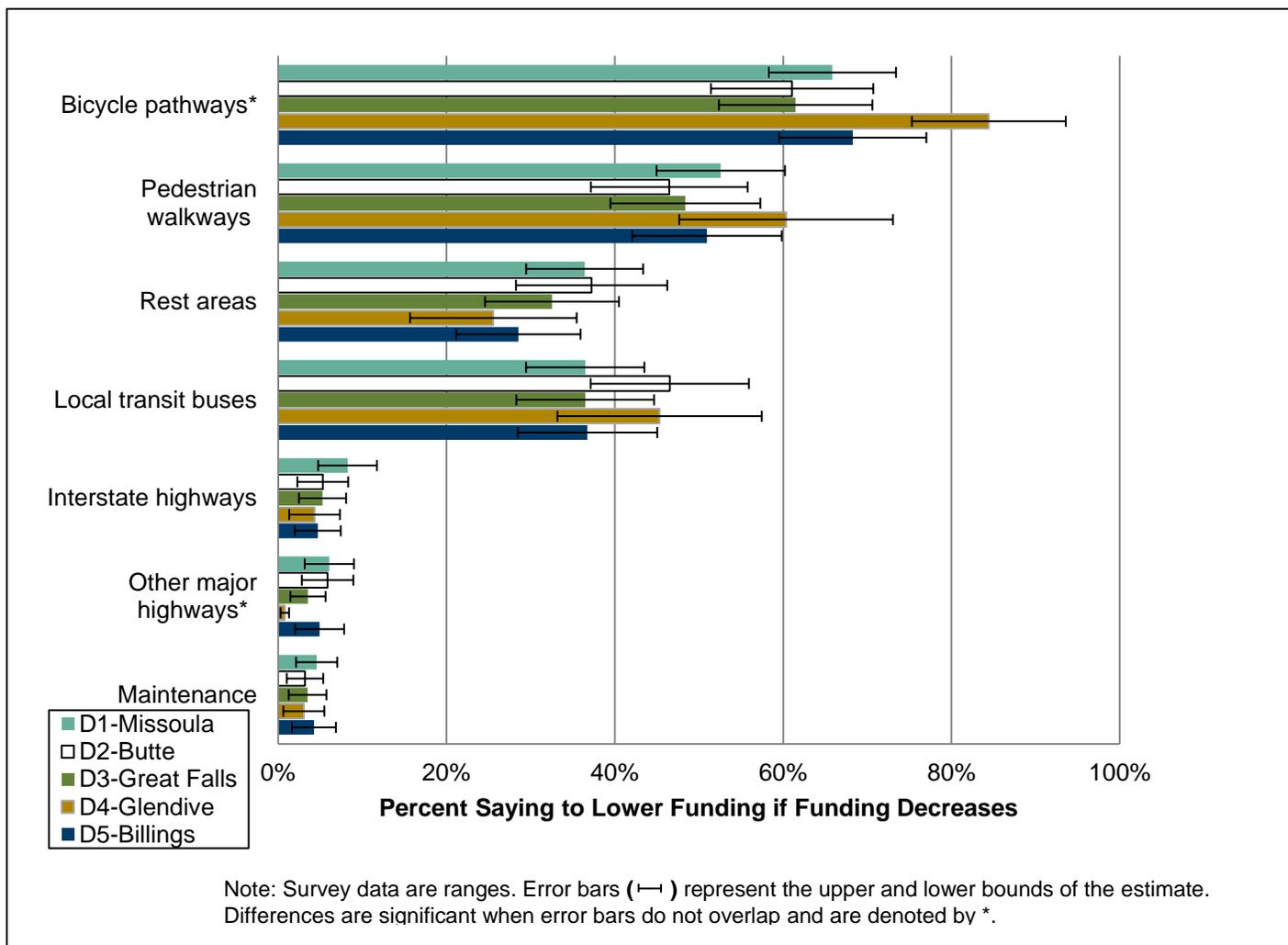
Table 3.3: Other Possible Areas to Decrease Funding

	Responses
Administration (wages, salaries, staff, studies, surveys)	6
Signage	3
Rumble Strips	2
Wildlife Crossings	2
City Transit	1
Environmental Impact	1
Everything	1
Highway Patrol	1
Highway	1
Round-abouts	1
Weed/Animal Control	1

District

Figure 3.2 displays results by MDT transportation district. The relative ranking of system areas remains more or less consistent by district and, besides bicycle pathways in District 4-Glendive, responses do not differ at the 95% confidence level.

Figure 3.2: Possible Areas to Decrease Funding by MDT District



“One possible Montana law would allow a law enforcement officer to stop a vehicle if the occupants are not wearing seat belts. Some people think this law would save lives. Other people think this law would not save lives. Do you think this law would save lives, or not?”

- Respondents were asked for their thoughts on whether or not a possible new law allowing law enforcement to forcefully stop a vehicle if the occupants appear to not be wearing seat belts would save lives. The results are found in Table 3.4.
- Overall, 66.9% of respondents think that the possible law would save lives. This percentage is largest in District 3-Great Falls where over 72% of respondents think the law would save lives. The confidence felt by respondents in the life-saving nature of this law was lowest in District 5-Billings, where slightly less than 60% of respondents replied in the affirmative

Table 3.4: Do you think this law would save lives

	The law will save lives	The law would not save lives	Number of respondents
Whole sample	66.9%	33.1%	1,400
By district			
District 1	67.1%	32.9%	319
District 2	69.8%	30.2%	272
District 3	72.8%	27.2%	264
District 4	61.9%	38.1%	253
District 5	59.9%	40.1%	292

“How useful, if at all, are each of the following tools to help you learn about MDT business in your community?”

Montana residents were asked to rate the usefulness of selected public communication tools used by MDT. Residents rated each tool on a scale from one to five where one equaled not at all useful and five equaled extremely useful.

- Of the ten tools examined, respondents rated five – variable message highway signs, radio/ television, websites, social media, and apps for mobile devices, maps, and pictures or graphics – as somewhat to very useful.
- The rest of the tools were found to be moderately useful, while none were perceived as slightly useful or not at all useful.

Table 4.1: Usefulness of General MDT Communication Tools

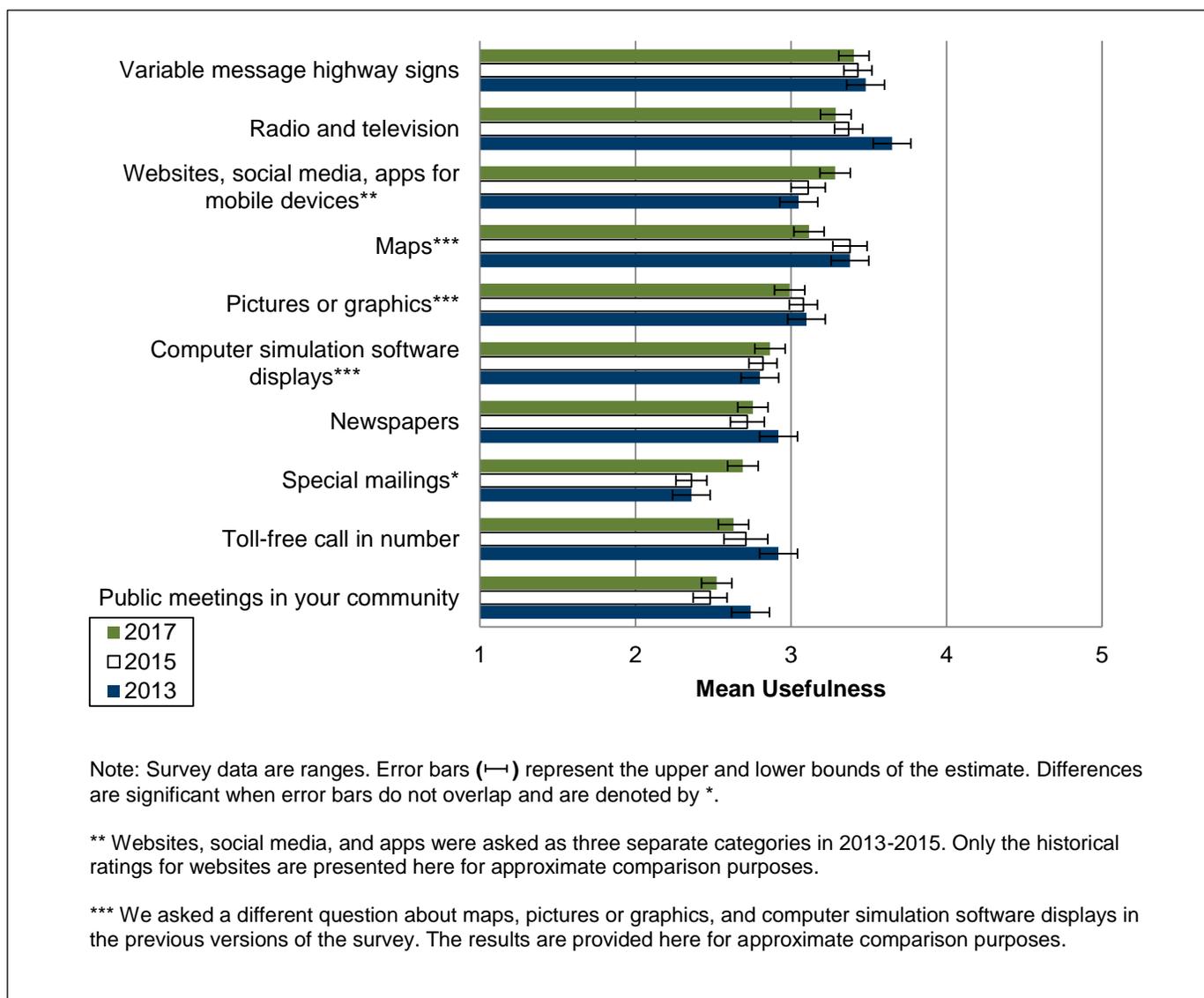
	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful	Mean	N
Variable message highway signs	16.0%	32.5%	32.4%	14.1%	5.0%	3.40	1,407
Radio and television	13.9%	30.9%	31.8%	17.2%	6.3%	3.29	1,408
Websites, social media, apps for mobile devices	17.9%	31.1%	25.1%	13.2%	12.6%	3.28	1,402
Maps	11.7%	26.5%	31.8%	21.7%	8.3%	3.12	1,410
Pictures or graphics	8.3%	23.1%	36.3%	24.3%	8.1%	2.99	1,397
Computer simulation software displays	9.5%	20.9%	32.0%	21.9%	15.8%	2.86	1,391
Newspapers	6.4%	17.3%	35.2%	27.6%	13.5%	2.76	1,409
Special mailings	6.0%	19.4%	29.2%	28.7%	16.8%	2.69	1,403
Toll-free call in number	6.2%	17.8%	28.3%	28.3%	19.4%	2.63	1,403
Public meetings in your community	5.2%	13.2%	28.8%	34.3%	18.5%	2.52	1,394

Trends

The public involvement survey has asked respondents to rate the usefulness of the following communication tools in some form since 2013.

- Variable message signs have replaced radio and television as the most useful tool, although the public still finds radio/television relatively useful.
- Websites, social media, and apps for mobile devices continued to increase in usefulness in 2017.
- Special mailing showed significant increase from 2015-2017.
- Public meetings rank last.

Figure 4.1: Usefulness of General MDT Communication Tools, 2013-2017

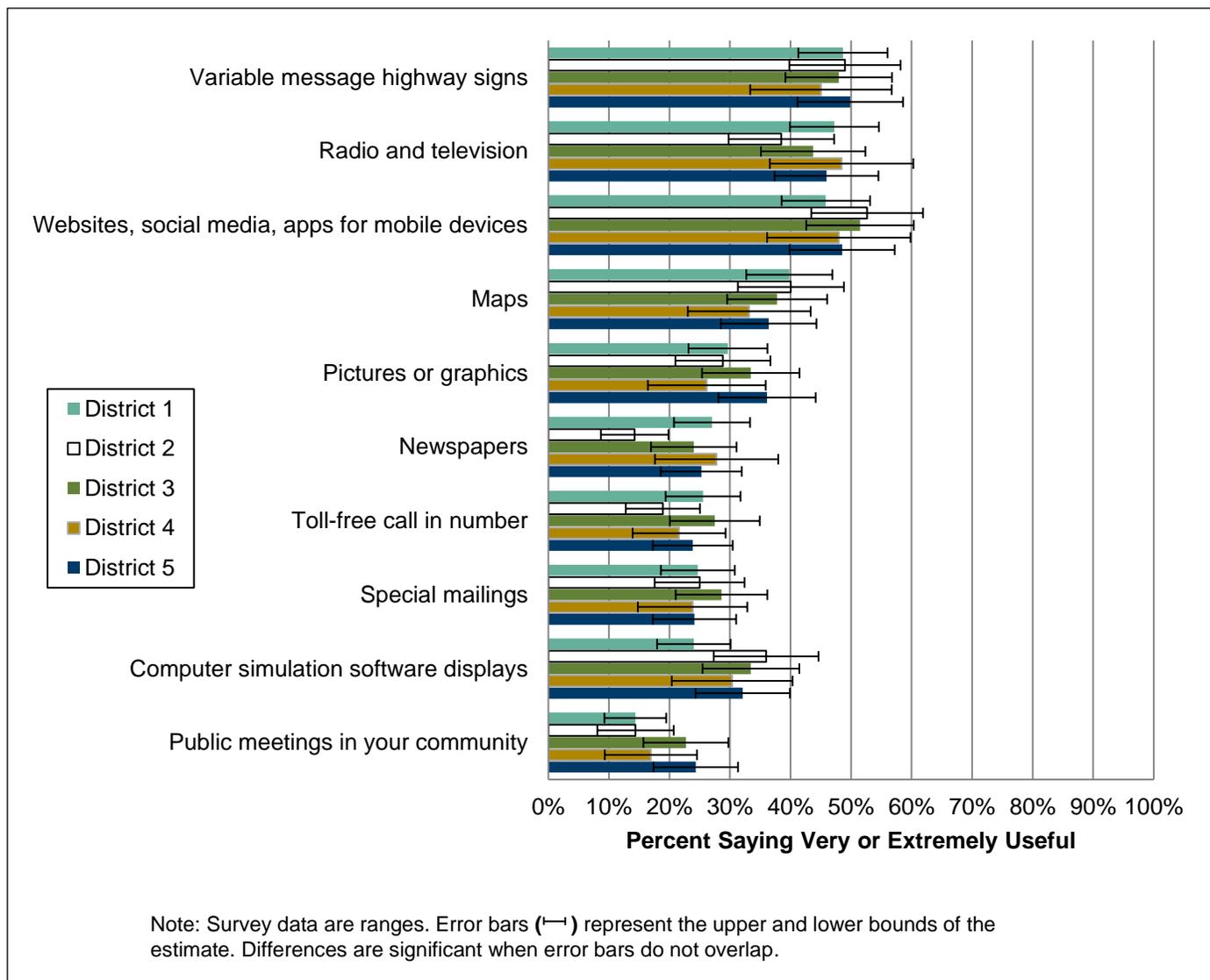


District

When examined at the MDT District level, residents from different locations within the state generally agreed on their usefulness ratings for each communication tool (Figure 4.2).

- District 2-Butte finds the newspapers less useful than other respondents.

Figure 4.2: Usefulness of MDT Communication Tools by MDT District, Percentage Rated Extremely or Very Useful



“The next few questions ask you to grade MDT on its performance.”

The 2017 TranPlanMT Public Involvement Survey asks a number of questions that examine public opinion regarding overall MDT performance and responsiveness to the public. Respondents were asked to grade MDT on a scale of F (0) to A (4). The responses to those questions are summarized in this section.

- In general, Montanans give MDT an average or above average (C+ to B-) grade for customer service and performance.
- Montanans gave the highest grades to MDT’s sensitivity to the environment (2.66, B-).
- Public notification about construction projects in the area, as well as highway maintenance and repair rank lower with a C+ grading.
- The lowest grade was given to MDT’s responsiveness to customer ideas and concerns (2.07, C).

Table 5.1: MDT Overall Performance and Customer Service Grades

	A	B	C	D	F	Don't know	Mean	N
MDT sensitivity to the environment	16.7%	41.5%	34.8%	5.2%	1.8%	0.0%	2.66	1,403
MDT quality of service it provides	12.0%	50.5%	30.4%	5.1%	2.0%	0.0%	2.65	1,411
Convenience of travel through work zones	12.0%	44.2%	33.8%	7.9%	2.1%	0.0%	2.56	1,412
Public notification about construction projects in your area	12.9%	35.7%	31.0%	15.7%	4.7%	0.0%	2.37	1,408
Highway maintenance and repair	8.7%	41.3%	32.6%	11.9%	5.5%	0.0%	2.36	1,414
Responsiveness to customer ideas and concerns	4.0%	13.6%	22.9%	9.3%	4.2%	45.9%	2.07	1,419

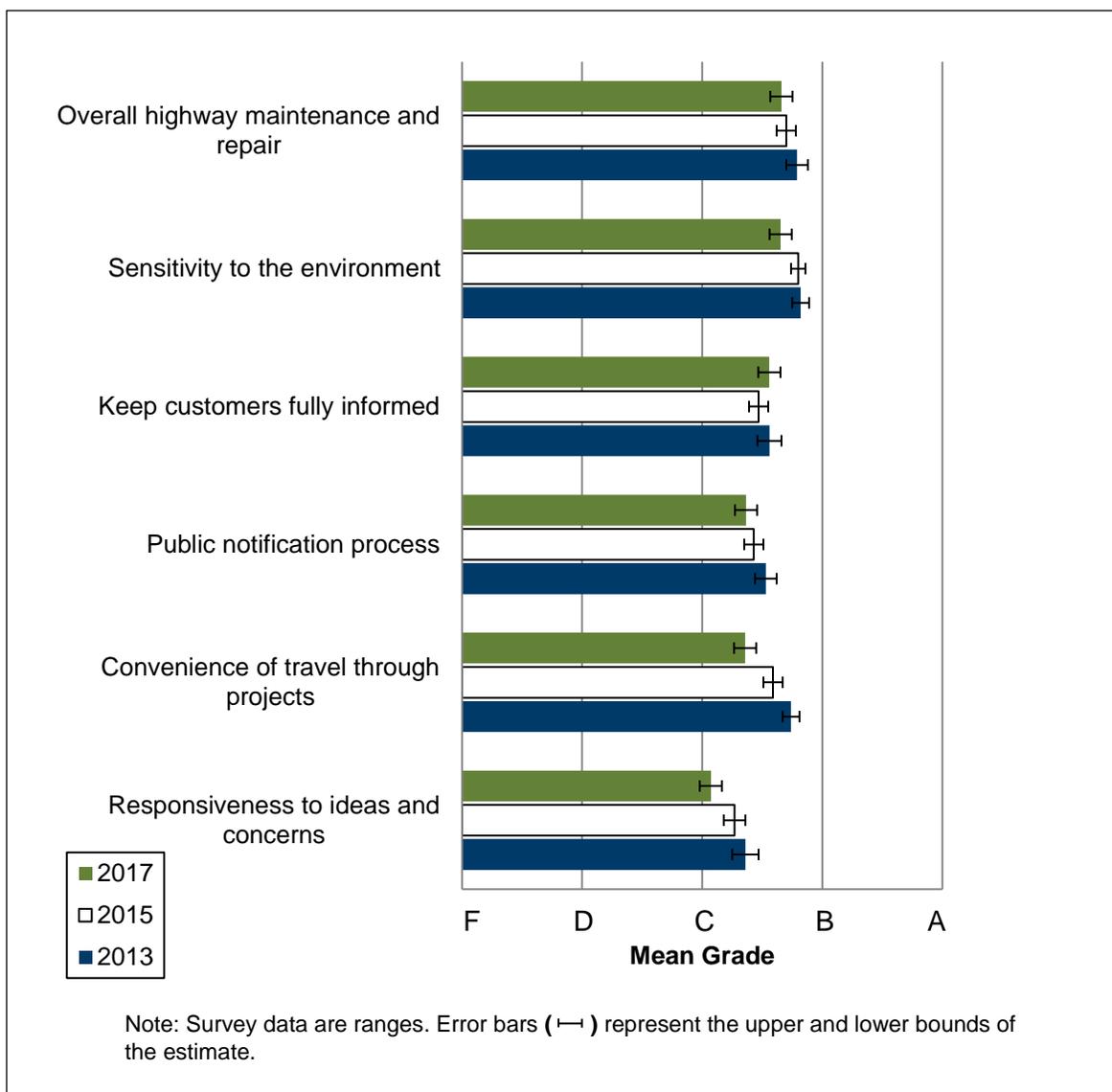
Trends

Grades are available for all statements over time and are displayed in Figure 5.1.

- Grades have remained between C and B over all iterations and display a slight downward trend in 2017.

- Responsiveness to ideas and concerns consistently receives the lowest grade.

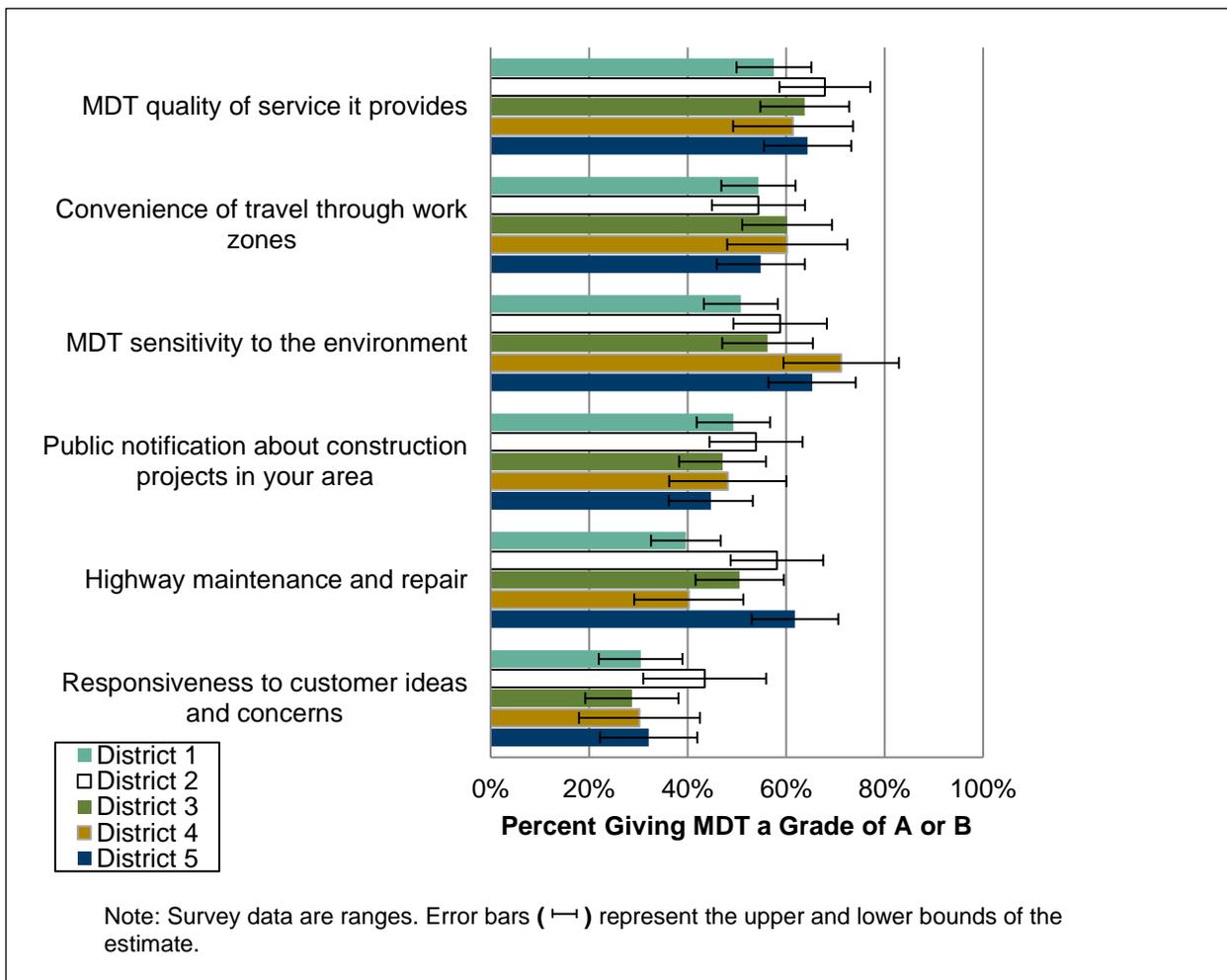
Figure 5.1: MDT Overall Performance and Customer Service Grades, 2013-2017



District

- MDT districts are generally consistent on overall performance and customer service grades.
- The majority of respondents graded the MDT with an A or B on quality of service.
- More District 2-Butte and District 5-Billings respondents gave a higher grade for overall highway maintenance and repair when compared to other districts.
- District 1-Missoula and District 4-Glendive gave a lower grade for highway maintenance and repair.
- District 4-Glendive gave a higher grade for MDT sensitivity to the environment than other districts.
- District 2-Butte gave a higher grade for responsiveness to customers' ideas and concerns.

Figure 5.2: MDT Overall Performance and Customer Service Grades, % A or B by MDT District

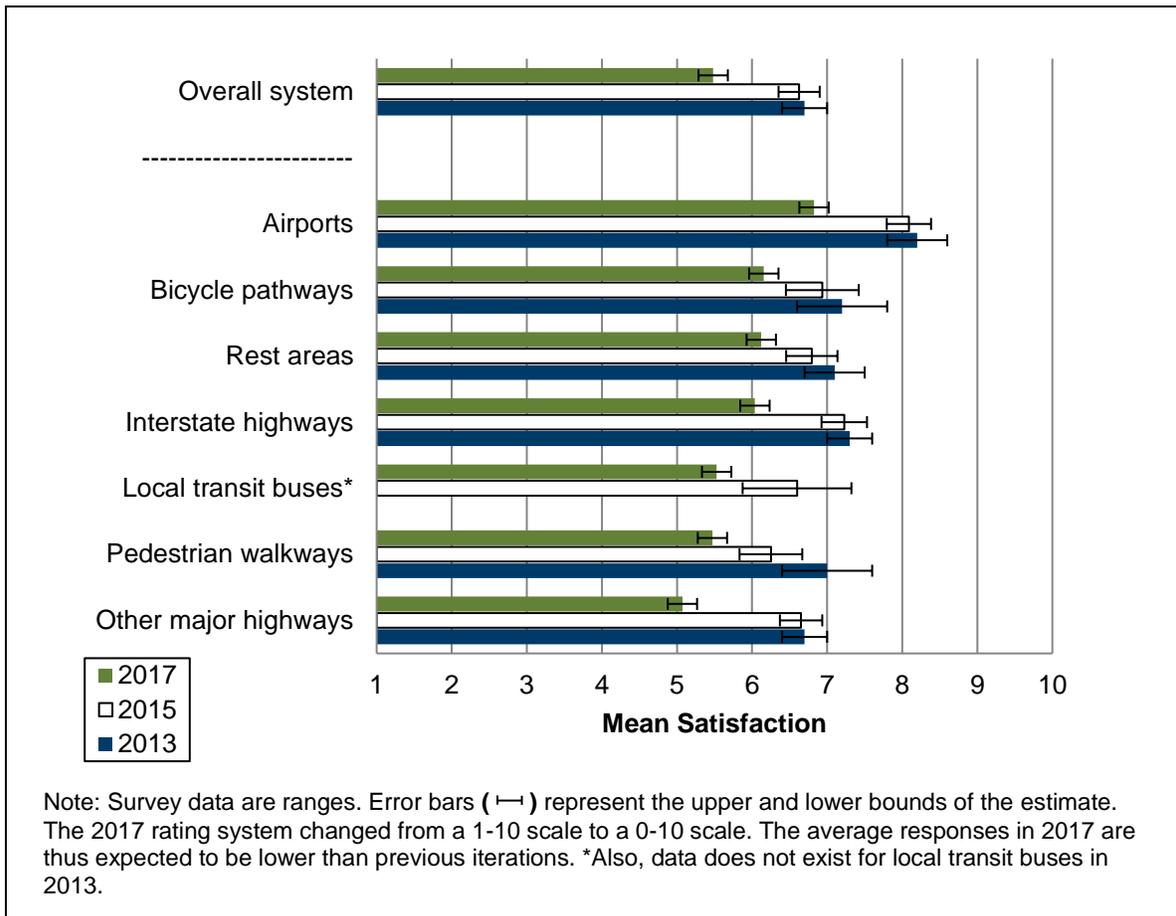


District 1 – Missoula

Residents of District 1-Missoula indicated they were satisfied with the overall transportation system (Figure 6.1).

- Respondents were most satisfied with airports, bicycle pathways, and rest areas.
- They were least satisfied with other major highways.
- A statistically significant difference existed between 2017 and 2015.

Figure 6.1: District 1-Missoula Satisfaction with the Condition of System Components

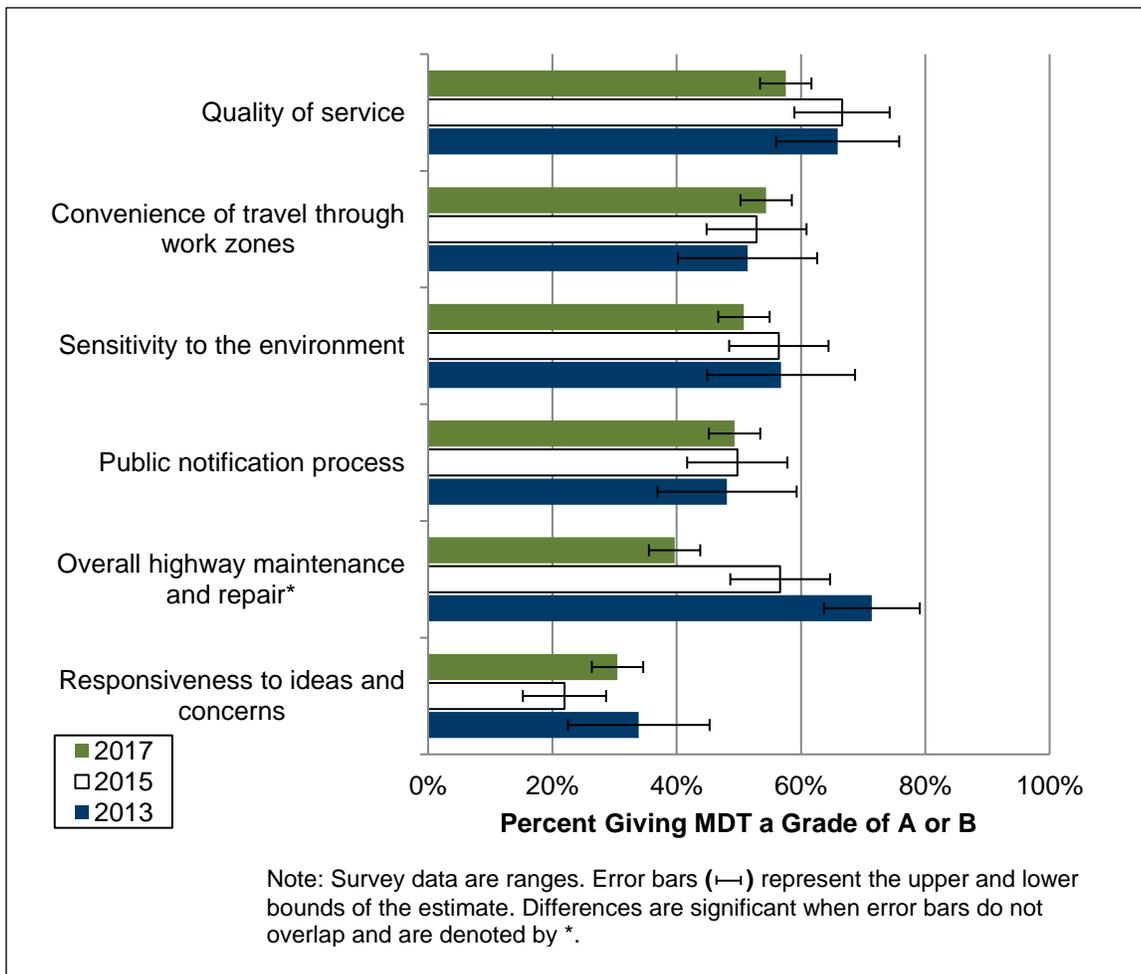


Quality of Service and Performance

District 1-Missoula respondents graded MDT’s performance and quality of service (Fig. 6.2).

- Roughly 60% of District 1-Missoula respondents gave MDT a grade of A or B for quality of service during the past year.
- About 25% of respondents gave MDT a grade of A or B for responsiveness to ideas and concerns.
- Grades for overall highway maintenance and repair dropped from 2015. All other grades remained fairly consistent with 2015 levels.

Figure 6.2: District 1-Missoula Quality of Service and Performance Grades % of A or B

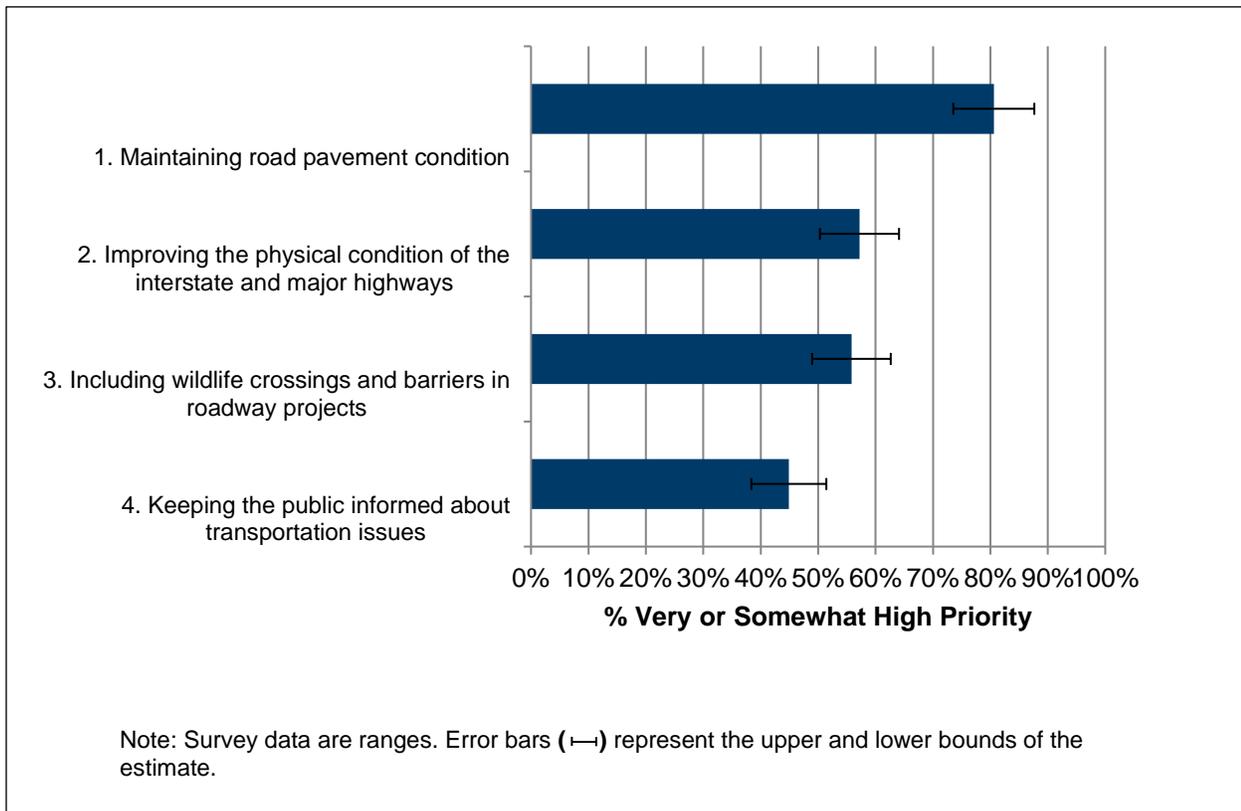


Potential Actions

Figure 6.3 presents District 1-Missoula’s top ranked potential actions that MDT could take to improve the transportation system. Two different items were ranked as a very or somewhat high priority by a majority of District 1-Missoula residents.

- Maintaining road pavement condition ranked highest in priority for potential improvements.
- Including wildlife crossings and barriers was also ranked as a very or somewhat high priority by a majority of District 1-Missoula residents.

Figure 6.3: District 1-Missoula Potential Actions to Improve the Transportation System Rated to be a Very or Somewhat High Priority

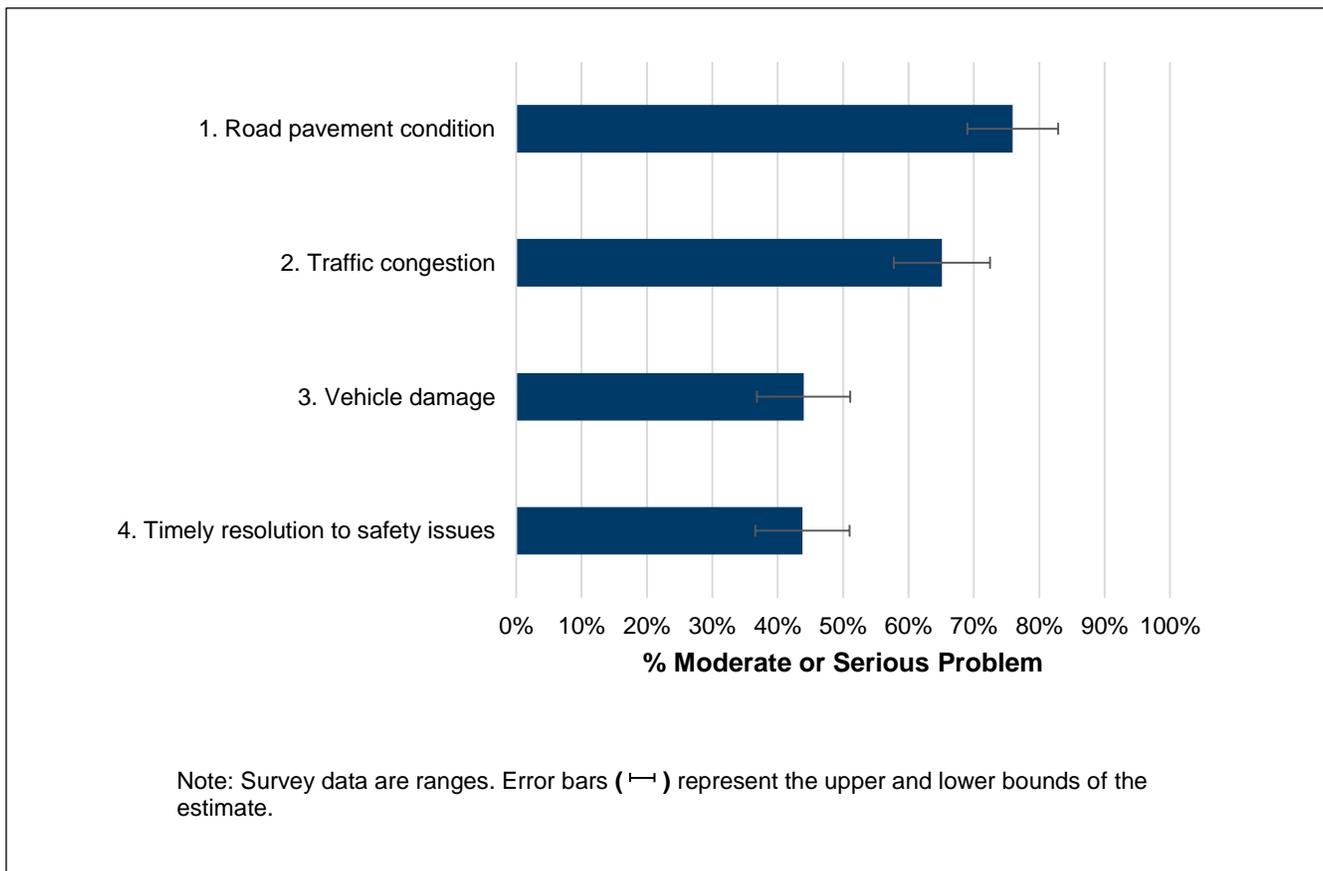


Perceived Problems

District 1-Missoula respondents also ranked possible problems with the transportation system.

- Road pavement condition and traffic congestion ranked as the highest priority problems.
- Vehicle damage from highway construction and timely resolution to safety issues ranked as medium problems.
- Adequate road signs ranked as least problematic.

Figure 6.3b: District 1-Missoula Issues Rated to be Moderate or Serious Problems

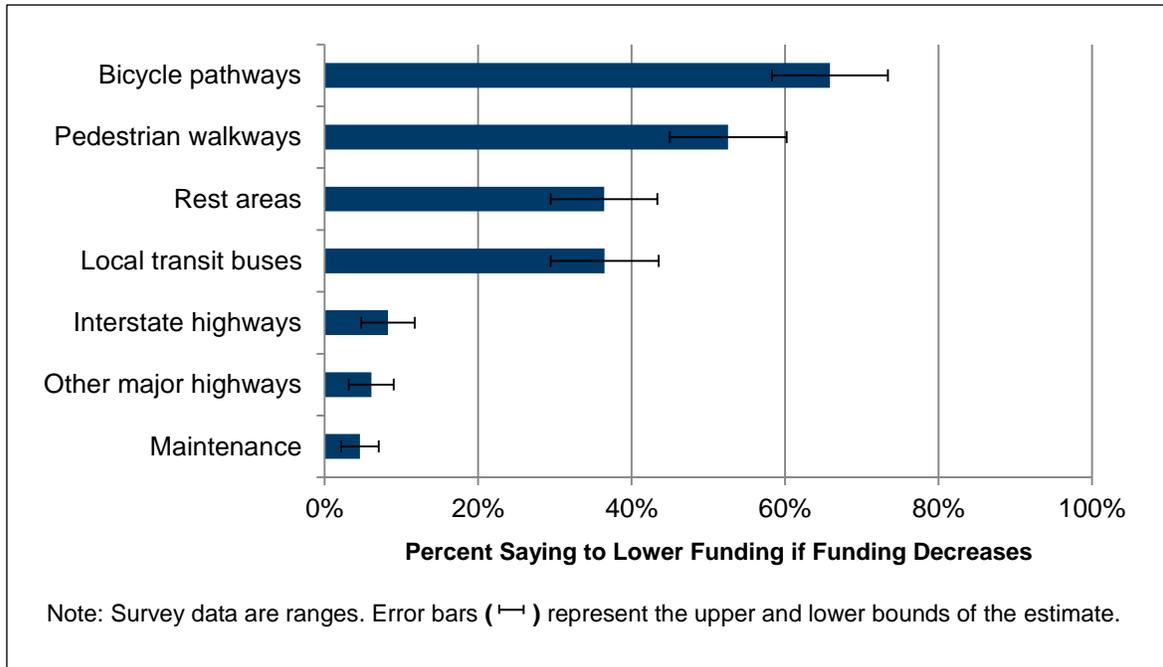


Possible Areas to Decrease Funding

Figure 6.4 illustrates District 1-Missoula residents' preferences for areas within the transportation system to cut if future budgets decline.

- Bicycle pathways and pedestrian walkways were most often cited as possible areas for cuts if budgets decline.
- Maintenance and other major highways were least often cited as areas for possible cuts if budgets decline.

Figure 6.4: District 1-Missoula Potential Areas for Cuts if Future Budgets Decline, % Yes Responses



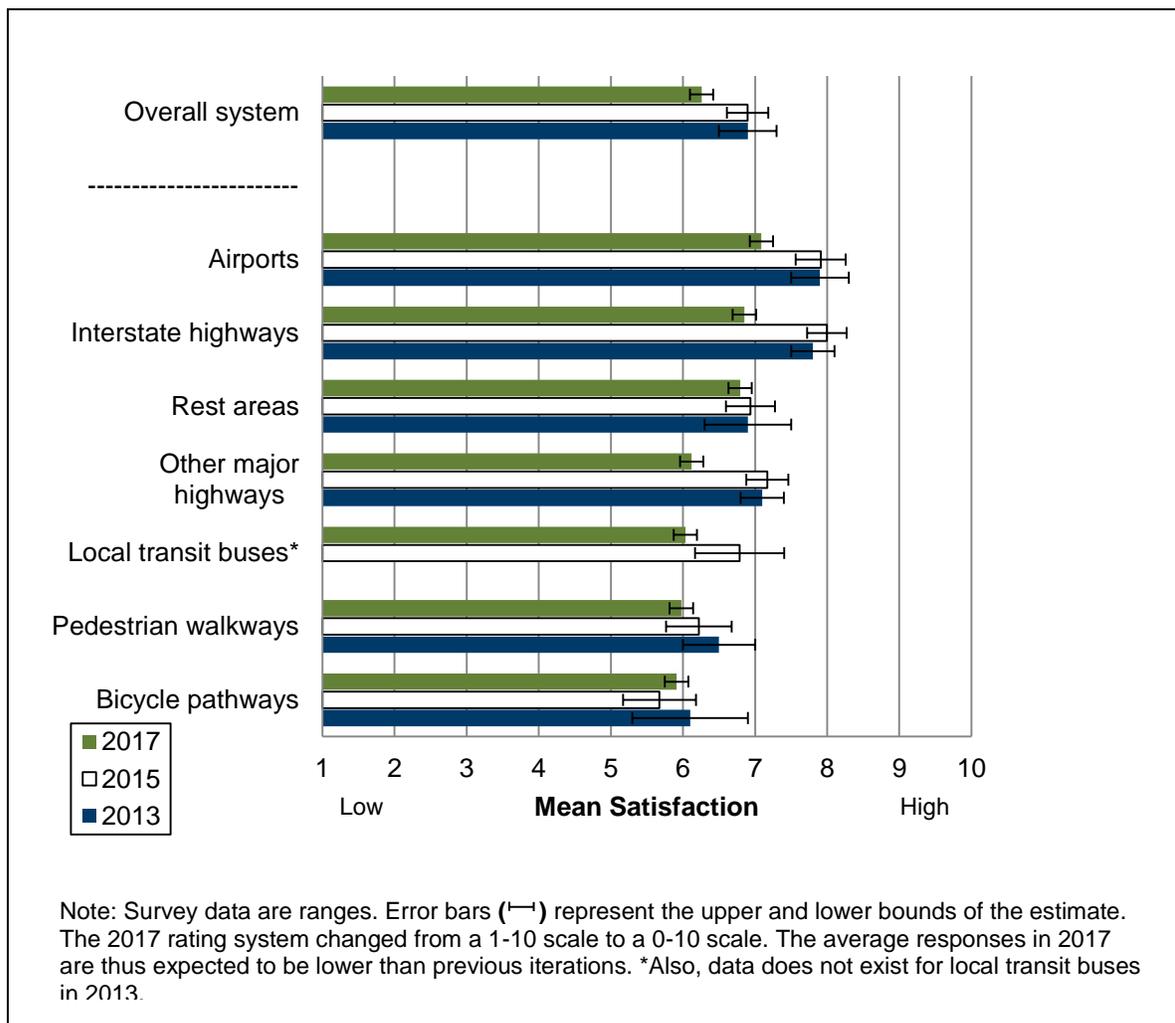
District 2 – Butte

Residents of District 2-Butte indicated they were satisfied with the overall transportation system (Figure 6.5).

- Respondents were most satisfied with airports, interstate highways, and rest areas.
- They were least satisfied with bicycle pathways.

- A statistically significant difference existed between 2017 and 2015 indicating satisfaction reduced. But the 2017 rating system changed from a 1-10 scale to a 0-10 scale. The average responses in 2017 are thus expected to be lower than previous iterations.

Figure 6.5: District 2-Butte Satisfaction with the Condition of System Components



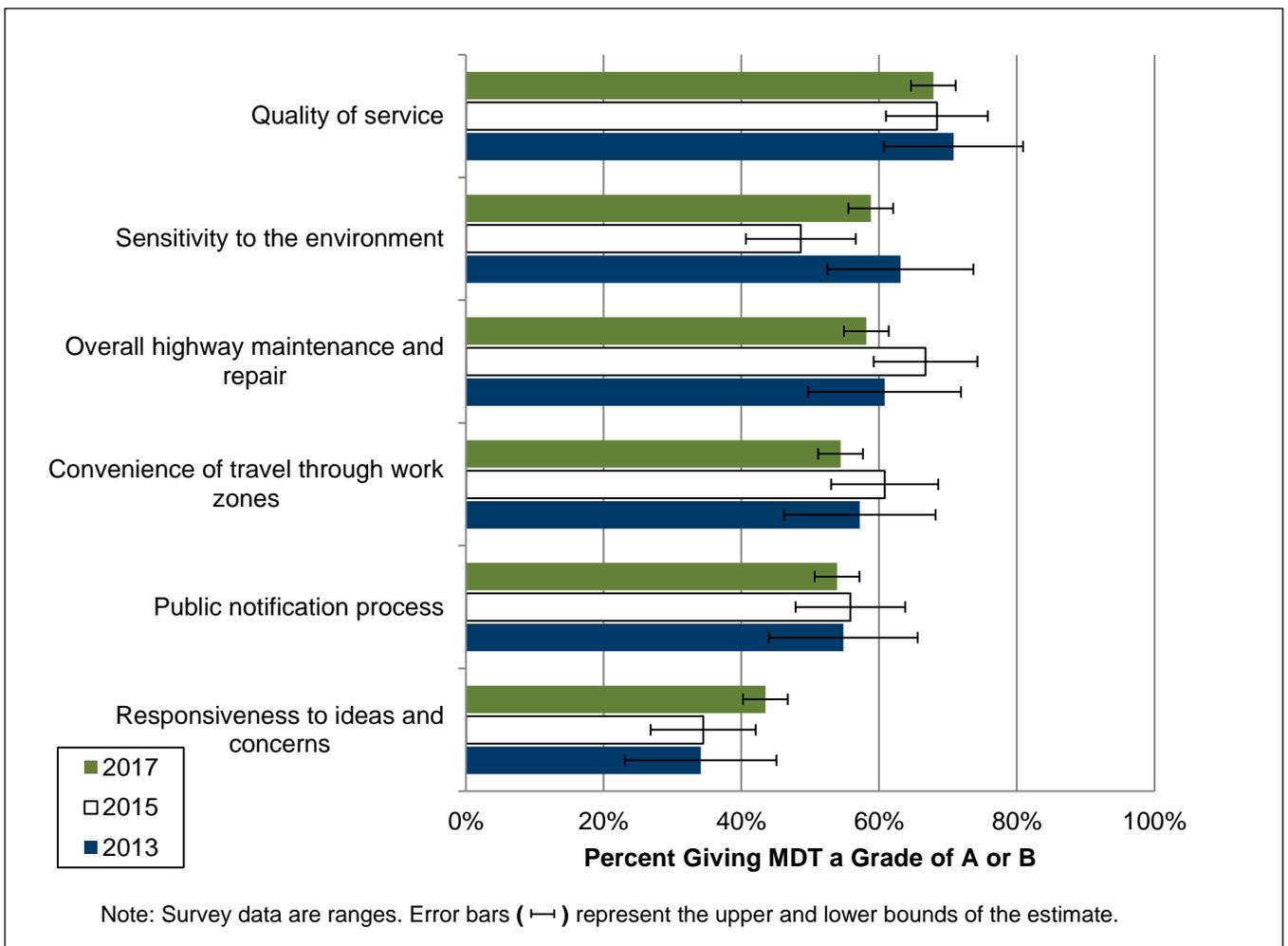
Quality of Service and Performance

District 2-Butte respondents graded MDT’s performance and quality of service.

- Roughly 70% of District 2-Butte respondents gave MDT a grade of A or B for quality of service.
- 60% of respondents gave a grade of A or B for overall highway maintenance.

- Over 40% of respondents gave MDT a grade of A or B for responsiveness to ideas and concerns.
- Grades for sensitivity to the environment increased from 2015. All other grades remained similar.

Figure 6.6: District 2-Butte Quality of Service and Performance Grades % of A or B

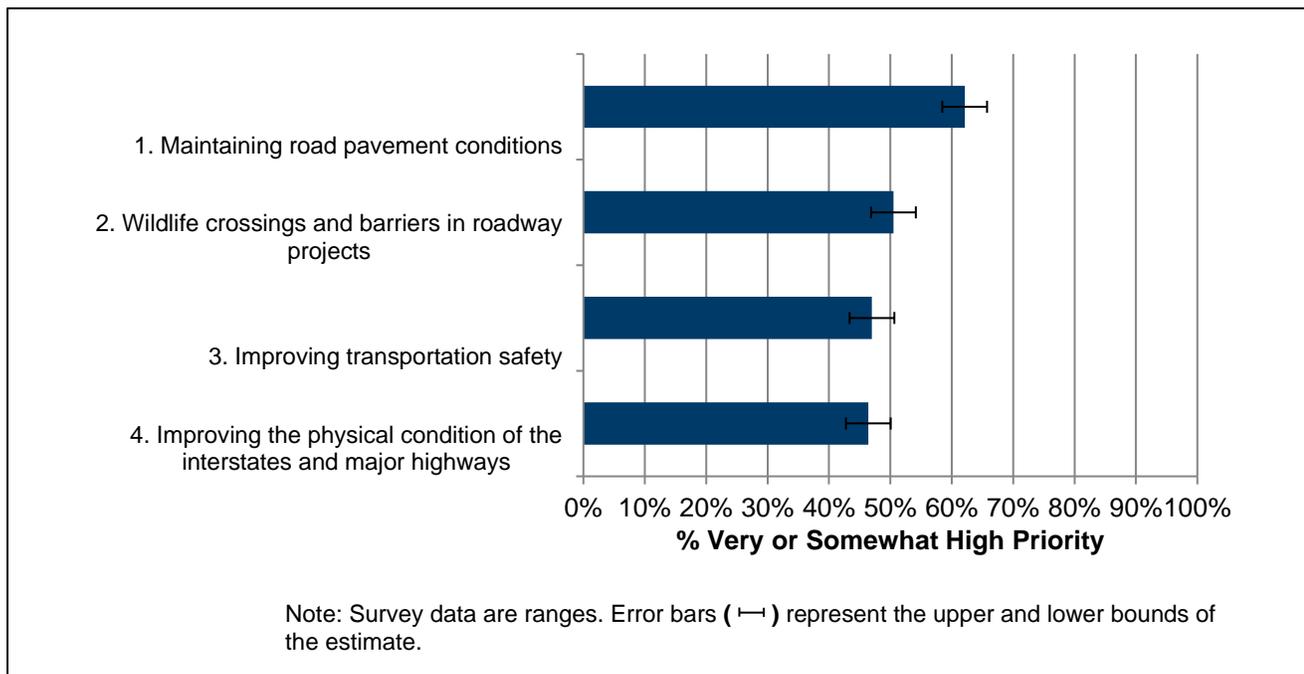


Potential Actions

Figure 6.7 presents District 2-Butte’s top ranked potential actions that MDT could take to improve the transportation system. Four items were frequently ranked as a very or somewhat high priority by District 2-Butte residents.

- Maintaining road pavement conditions ranked highest in priority for potential improvements.
- Including wildlife crossings and barriers in roadway projects was ranked as a moderately high priority.

Figure 6.7: District 2-Butte Potential Actions to Improve the Transportation System Rated to be a Very or Somewhat High Priority

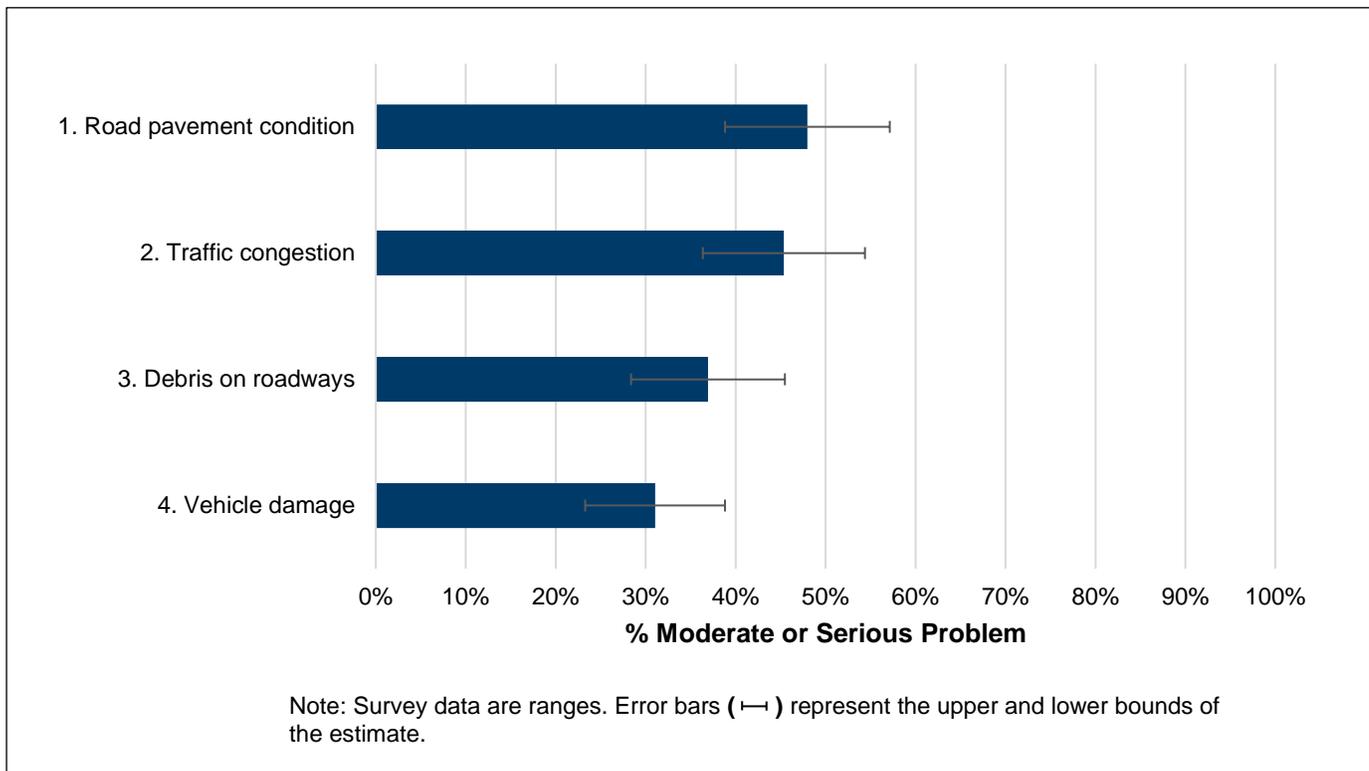


Perceived Problems

District 2-Butte respondents also ranked possible problems with the transportation system.

- Road pavement condition and traffic congestion ranked as the highest priority problems.
- Adequate road signs ranked lowest in priority.

Figure 6.7b: District 2-Butte Issues Rated to be Moderate or Serious Problems

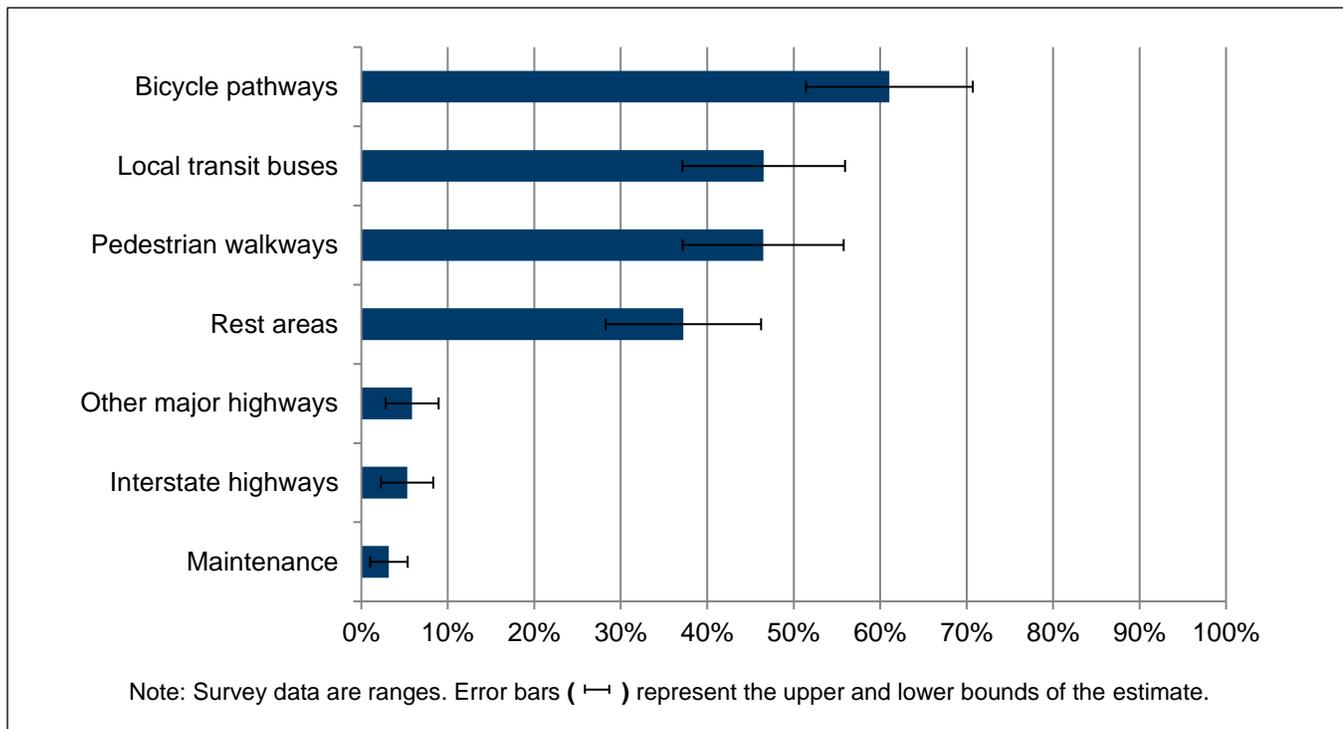


Possible Areas to Decrease Funding

Figure 6.8 illustrates District 2-Butte residents' preferences for areas within the transportation system to cut if future budgets decline. A majority of residents favored cutting bicycle pathway funding if budgets decline in the future.

- Bicycle pathways, pedestrian walkways, and local transit buses were most often cited as possible areas for cuts if budgets decline.
- Maintenance was least often cited as areas for possible cuts if budgets decline.

Figure 6.8: District 2-Butte Potential Areas for Cuts if Future Budgets Decline, % Yes Responses

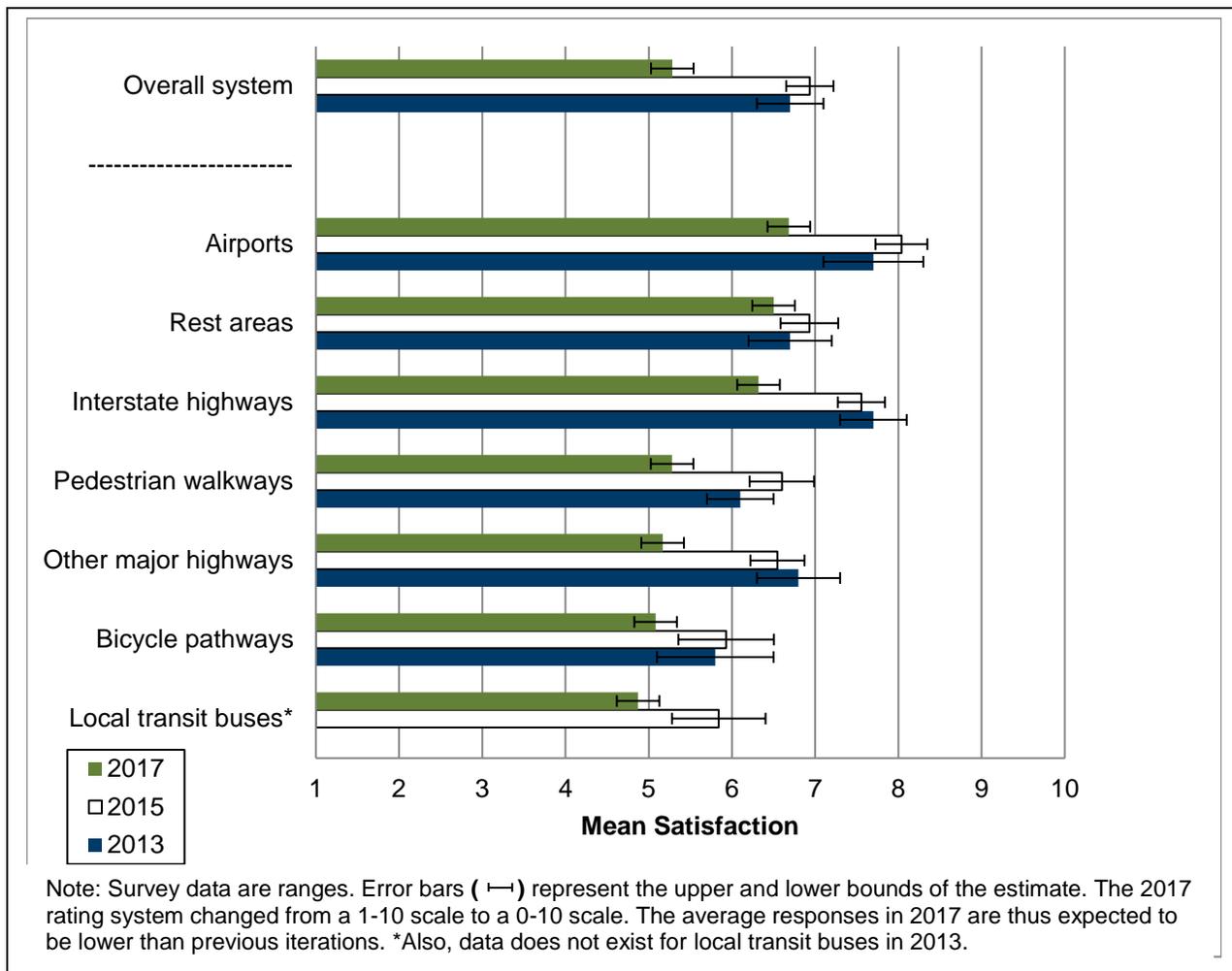


District 3 – Great Falls

Residents of District 3-Great Falls indicated they were satisfied with the overall transportation system (Figure 6.9).

- Respondents were most satisfied with airports, rest areas, and interstate highways.
- They were least satisfied with pedestrian walkways, other major highways, bicycle pathways, and local transit buses.
- Overall system satisfaction appears to have fallen. But the 2017 rating system changed from a 1-10 scale to a 0-10 scale. The average responses in 2017 are thus expected to be lower than previous iterations.

Figure 6.9: District 3-Great Falls Satisfaction with the Condition of System Components



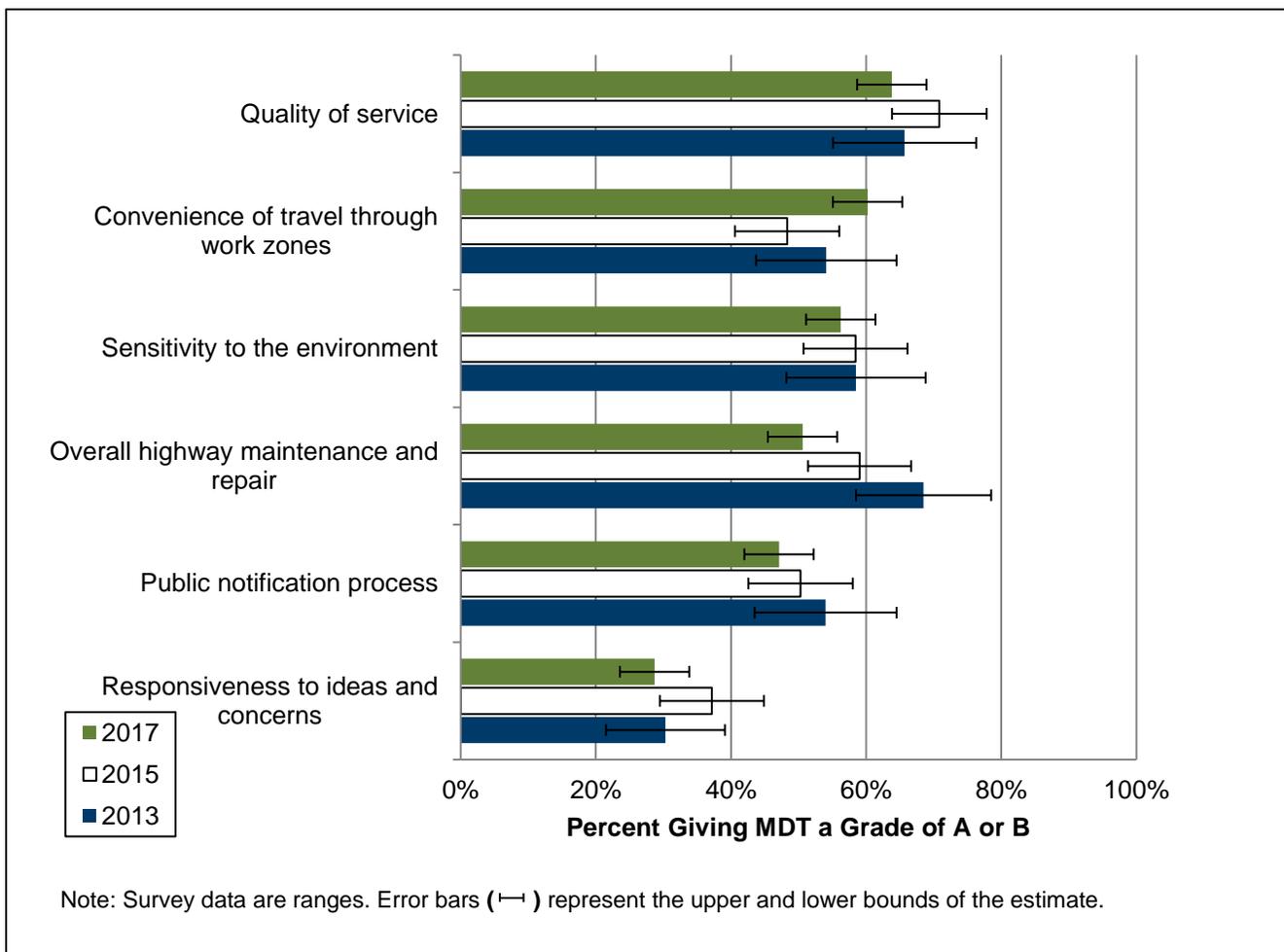
Quality of Service and Performance

District 3-Great Falls respondents graded MDT's performance and quality of service.

- Roughly 65% of District 3-Great Falls respondents gave MDT a grade of A or B for quality of service.
- Less than 30% of respondents graded MDT an A or B on responsiveness to ideas and concerns. This is down slightly from 2015.

- Convenience of travel through work zones showed a slight increase in customer grade from 2015.

Figure 6.10: District 3-Great Falls Quality of Service and Performance Grades % of A or B

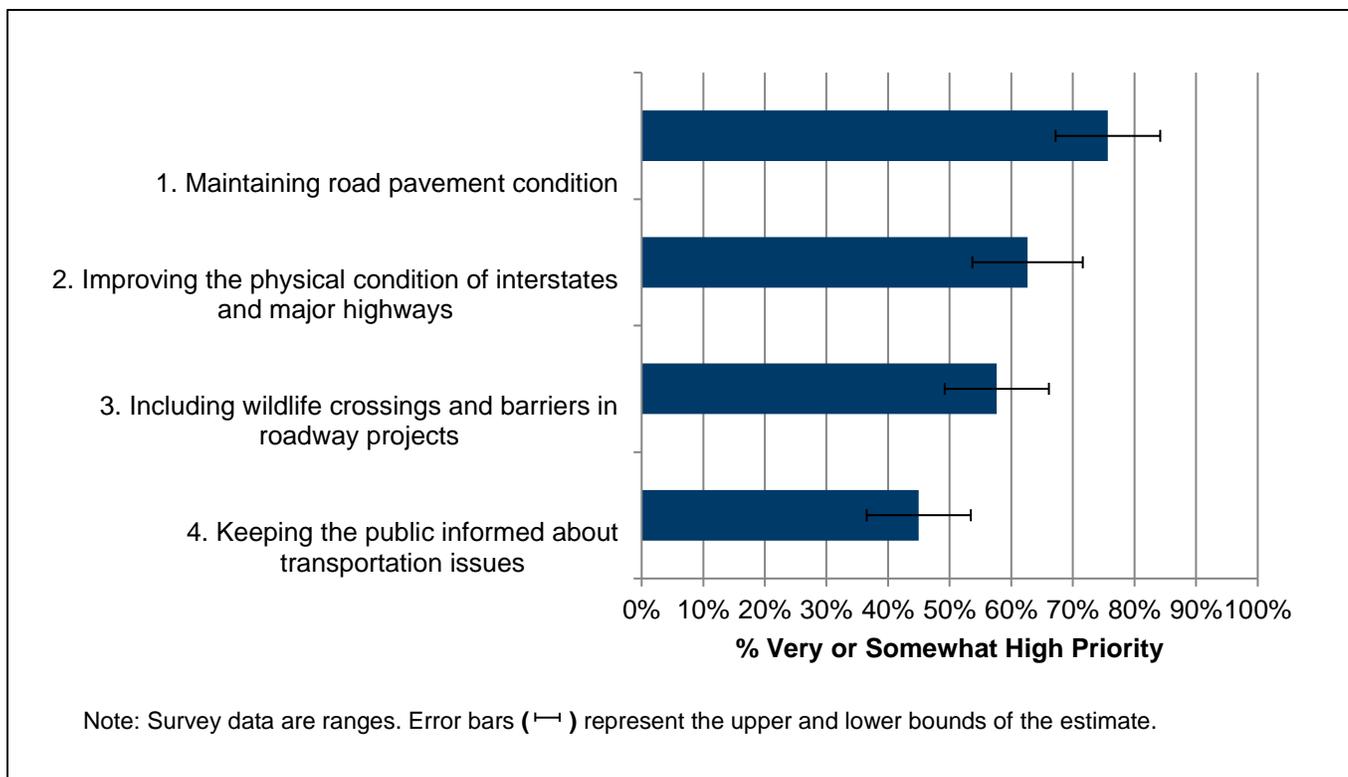


Potential Actions

Figure 6.11 presents District 3-Great Falls' top ranked potential actions that MDT could take to improve the transportation system. Four different items were ranked as a very or somewhat high priority by a majority of District 3-Great Falls residents.

- Maintaining road pavement condition ranked highest in priority for potential improvements.
- Improving the physical condition of interstates and major highways and including wildlife crossings and barriers in roadway projects ranked as moderately high priority.

Figure 6.11: District 3-Great Falls Potential Actions to Improve the Transportation System Rated to be a Very or Somewhat High Priority

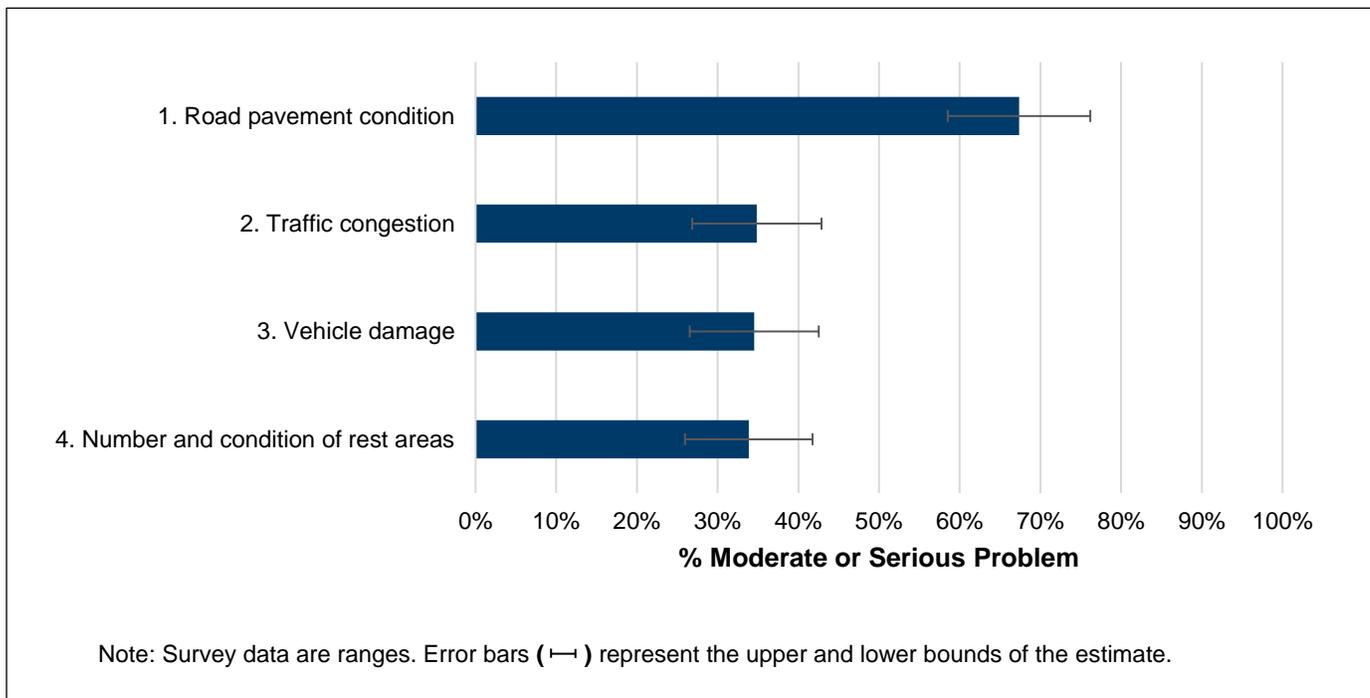


Perceived Problems

District 3-Great Falls respondents also ranked possible problems with the transportation system.

- Road pavement condition ranked as the highest priority problem.
- Traffic congestion, vehicle damage from highway construction, and the number and condition of rest areas ranked as medium priority problems.
- Adequate road signs and freight and economic vitality ranked lowest in priority.

Figure 6.11b: District 3-Great Falls Issues Rated to be Moderate or Serious Problems

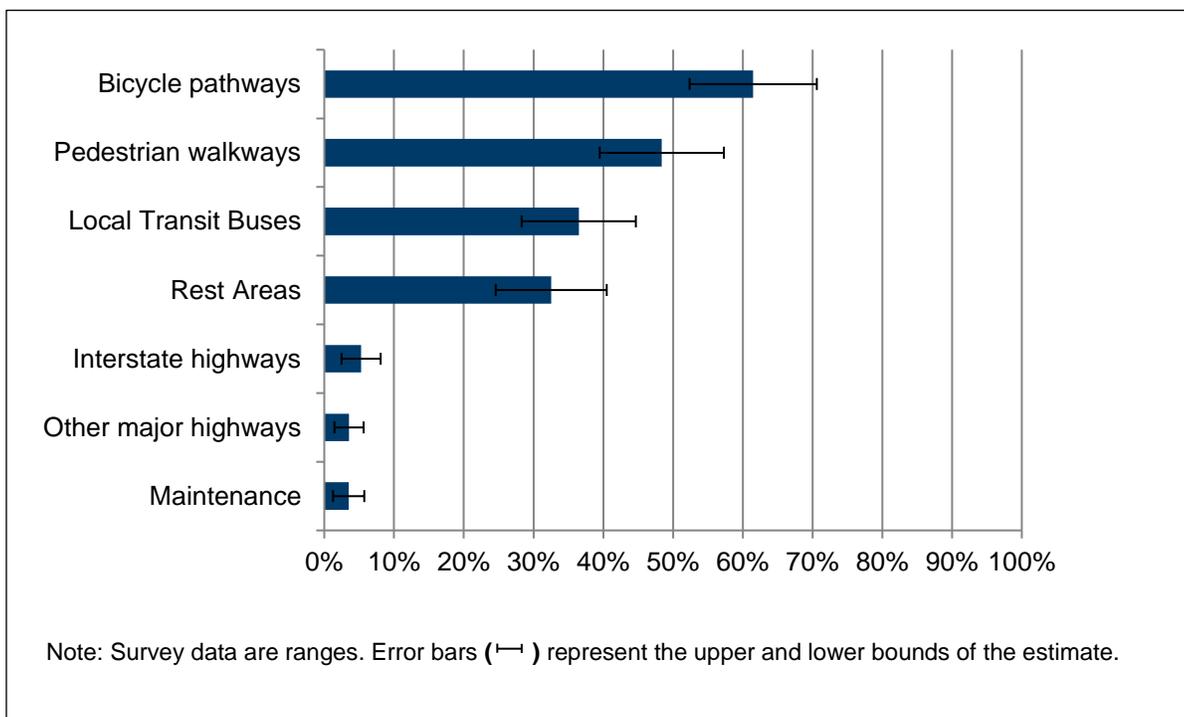


Possible Areas to Decrease Funding

Figure 6.12 presents District 3-Great Falls residents' preferences for areas within the transportation system to cut if future budgets decline.

- Bicycle pathways and pedestrian walkways were most often cited as possible areas for cuts if budgets decline.
- Maintenance, other major highways, and interstate highways were least often cited as areas for possible cuts if budgets decline.

Figure 6.12: District 3-Great Falls Potential Areas for Cuts if Future Budgets Decline, % Yes Responses



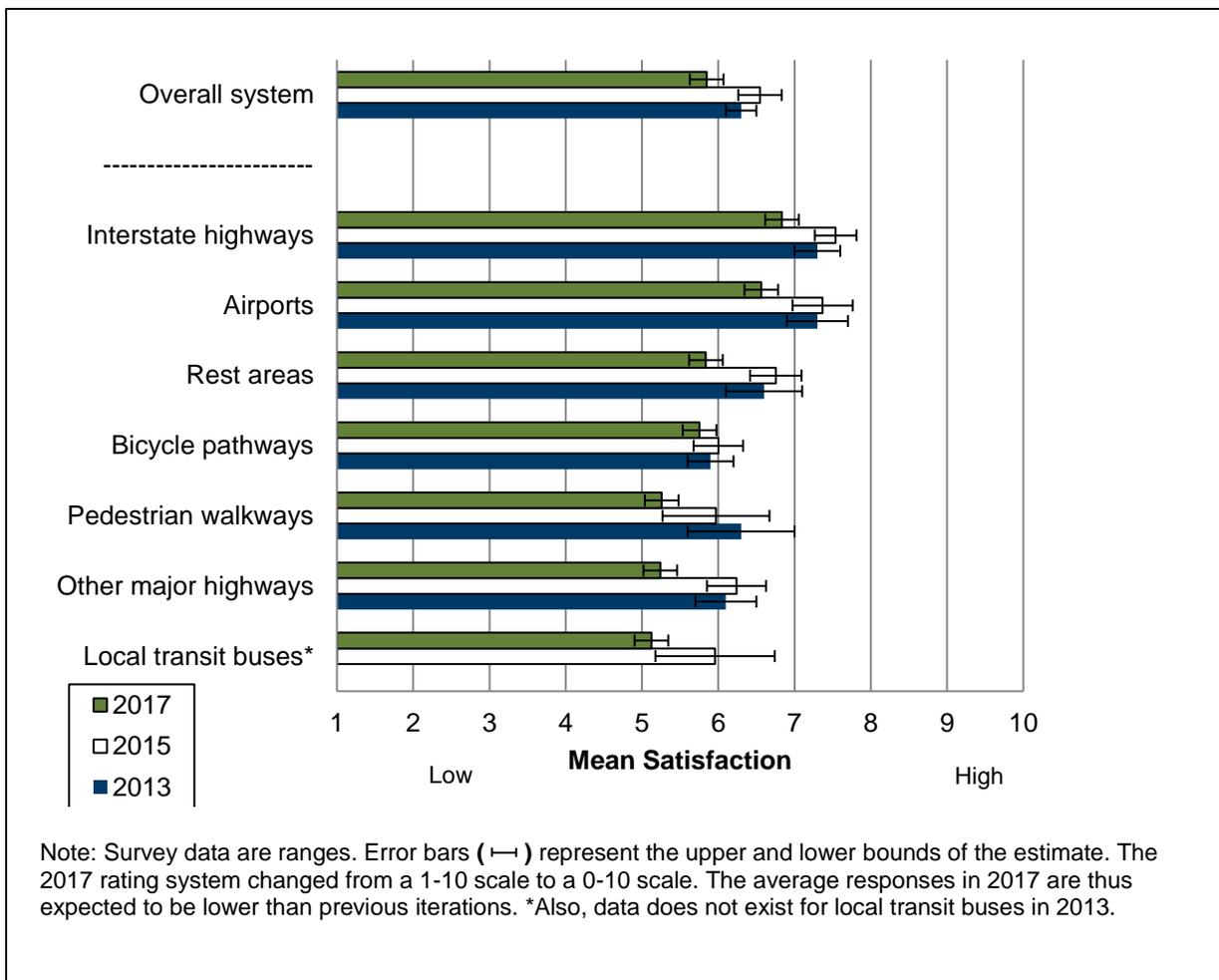
District 4 – Glendive

Residents of District 4-Glendive indicated they were satisfied with the overall transportation system (Figure 6.13).

- Respondents were most satisfied with interstate highways and airports.
- They were least satisfied with pedestrian walkways, other major highways, and local transit buses.

- The 2017 rating system changed from a 1-10 scale to a 0-10 scale. The average responses in 2017 are thus expected to be lower than previous iterations.

Figure 6.13: District 4-Glendive Satisfaction with the Condition of System Components



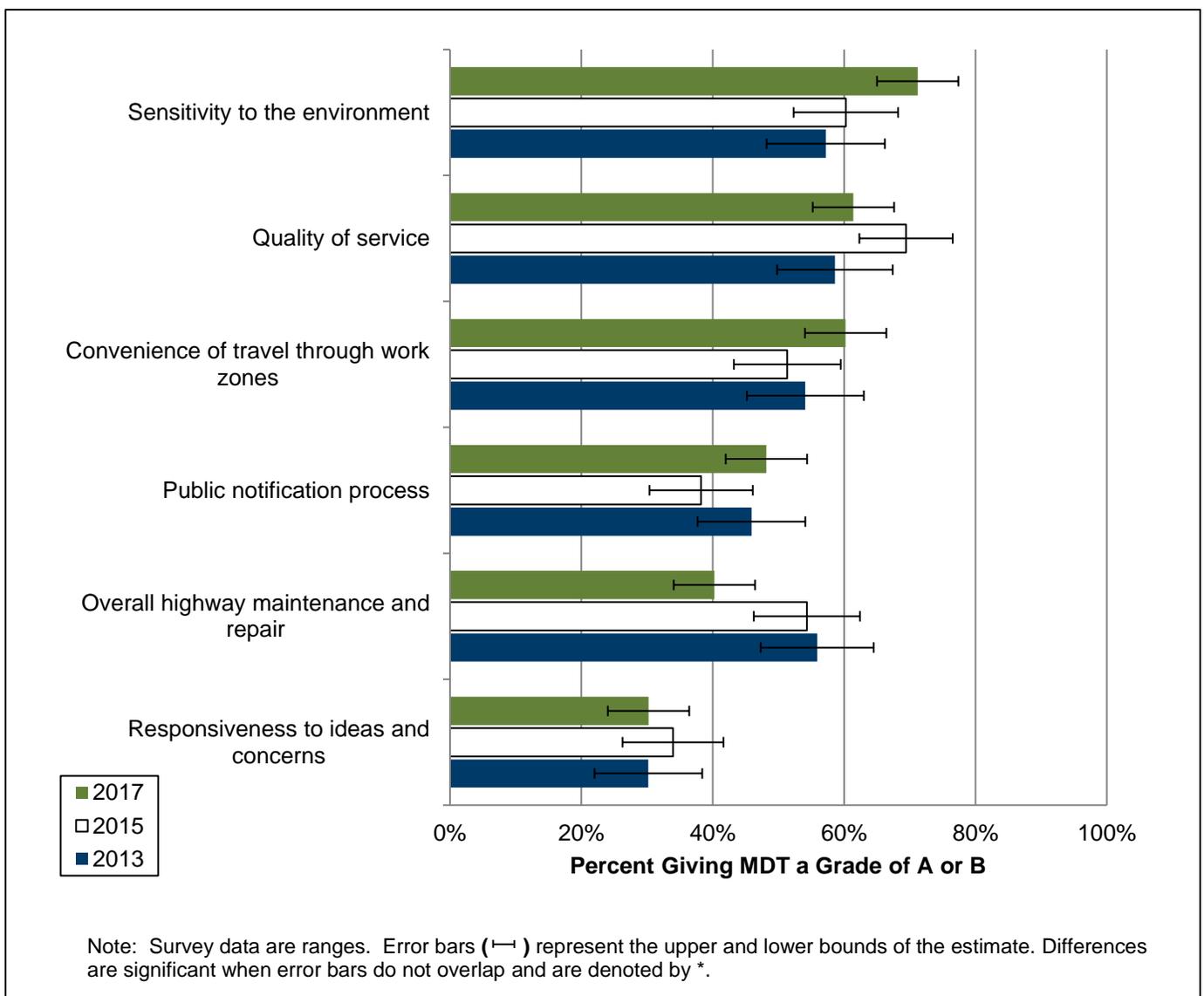
Quality of Service and Performance

District 4-Glendive respondents graded MDT's performance and quality of service (Fig. 6.14).

- Roughly 60% of District 4-Glendive respondents gave MDT a grade of A or B for quality of service.

- Only 30% of respondents graded MDT an A or B on responsiveness to ideas and concerns.
- Sensitivity to the environment showed a slight increase in customer grade from 2015 while overall highway maintenance and repair declined.

Figure 6.14: District 4-Glendive Quality of Service and Performance Grades % of A or B

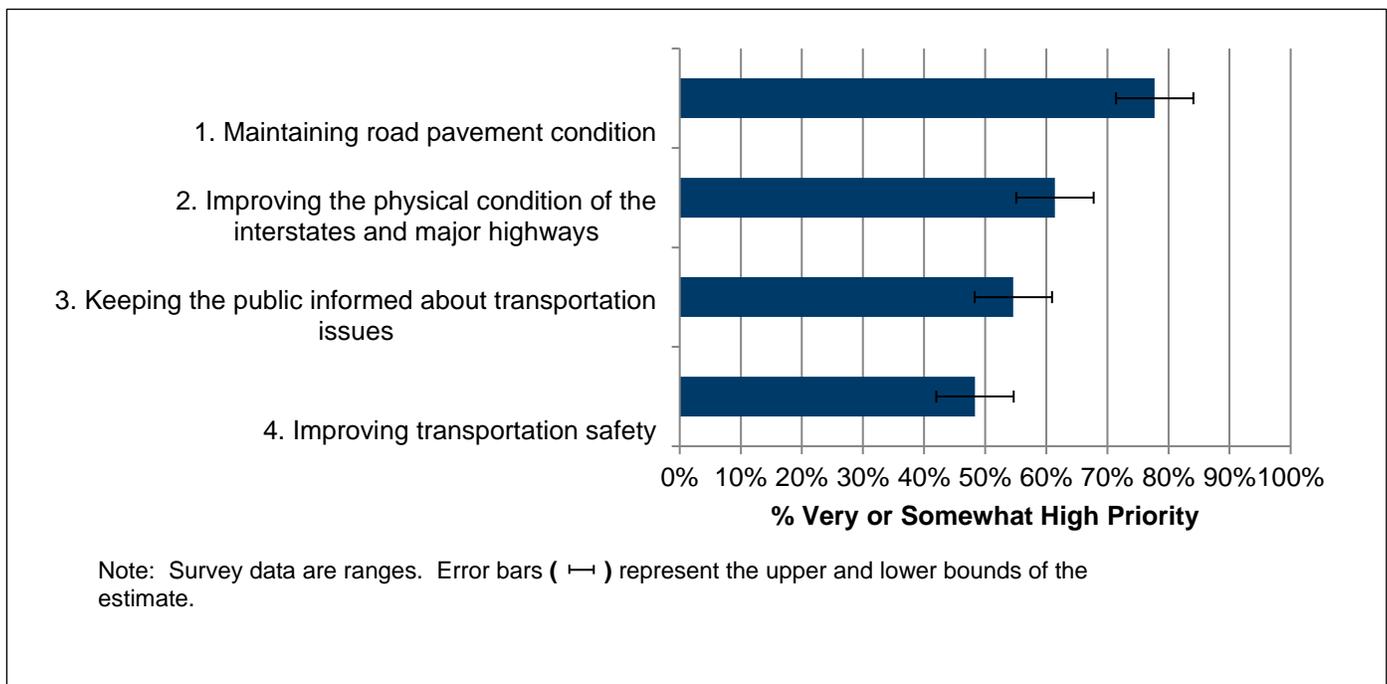


Potential Actions

Figure 6.15 presents District 4-Glendive’s top ranked potential actions that MDT could take to improve the transportation system. Four different items were ranked as a very or somewhat high priority by a majority of District 4-Glendive residents.

- Maintaining road pavement conditions and improving the physical condition of interstates and major highways ranked highest in priority for potential improvements.
- Keeping the public informed about transportation issues and improving transportation safety ranked as a moderate high priority items.

Figure 6.15: District 4-Glendive Potential Actions to Improve the Transportation System Rated to be a Very or Somewhat High Priority

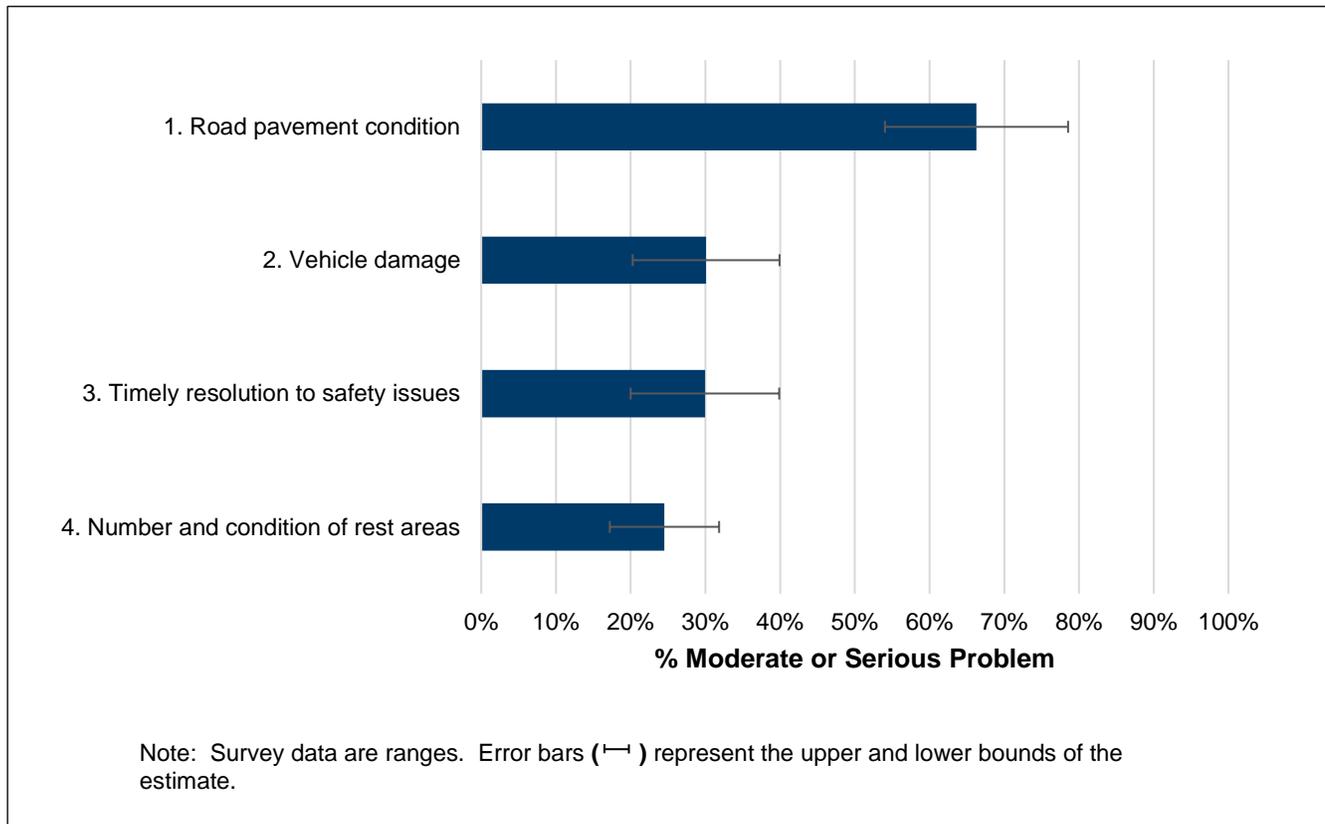


Perceived Problems

District 4-Glendive respondents also ranked possible problems with the transportation system.

- Road pavement condition ranked as the highest priority problem.
- Vehicle damage, the ability to manage emergency situations, timely resolution to safety issues, and the number and condition of rest areas all ranked as medium priority items.
- Adequate road signs and too many access points (including driveways) onto major roads ranked lowest in priority.

Figure 6.15b: District 4-Glendive Issues Rated to be Moderate or Serious Problems

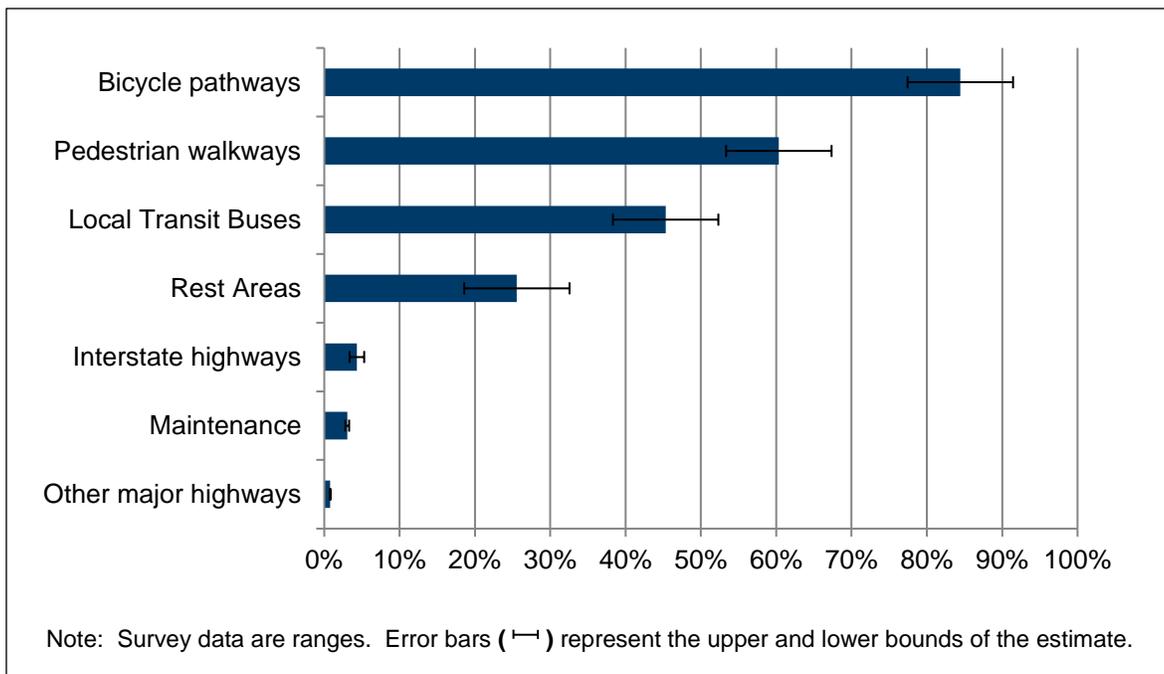


Possible Areas to Decrease Funding

Figure 6.16 illustrates District 4-Glendive residents' preferences for areas within the transportation system to cut if future budgets decline. Bicycle pathways were favored by a majority of residents as a possible area for cuts if future budgets decline.

- Bicycle pathways and pedestrian walkways were most often cited as possible areas for cuts if budgets decline.
- Other major highways, maintenance, and interstate highways were least often cited as areas for possible cuts if budgets decline.

Figure 6.16: District 4-Glendive Potential Areas for Cuts if Future Budgets Decline, % Yes Responses

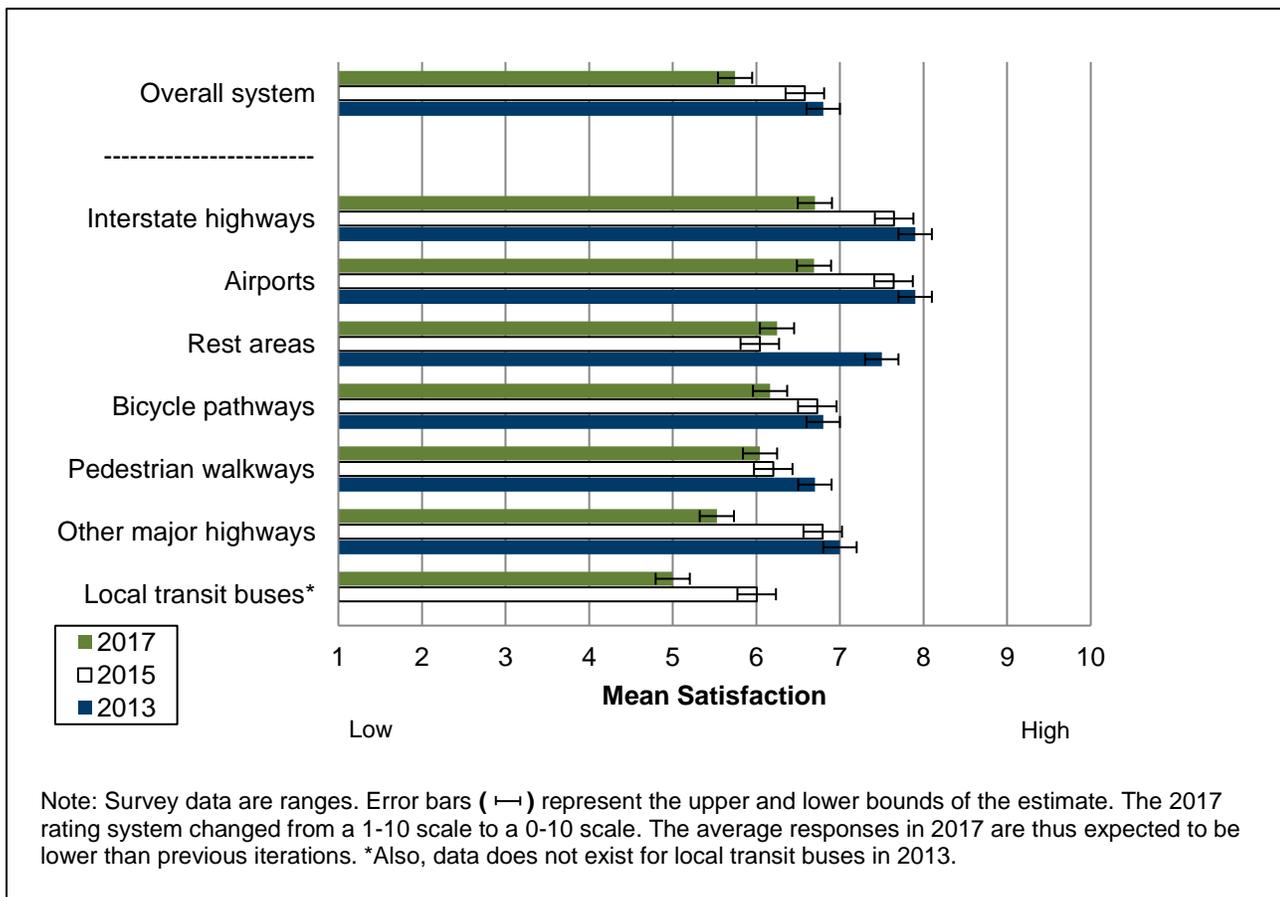


District 5 – Billings

Residents of District 5-Billings indicated they were satisfied with the overall transportation system (Figure 6.17).

- Respondents were most satisfied with interstate highways and airports.
- They were least satisfied with local transit buses and other major highways.

Figure 6.17: District 5-Billings Satisfaction with the Condition of System Components

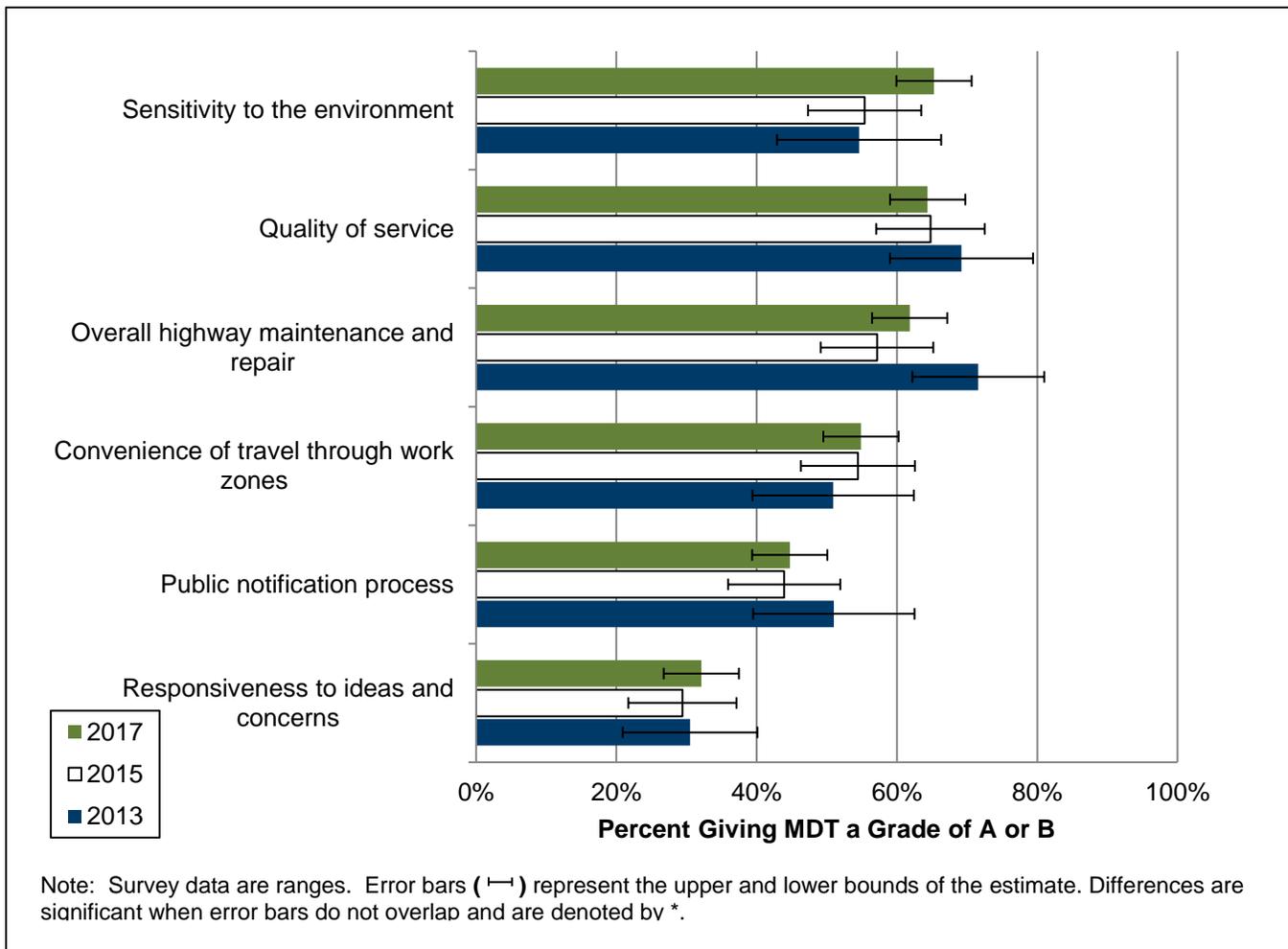


Quality of Service and Performance

District 5-Billings respondents graded MDT’s performance and quality of service (Fig. 6.18).

- Grades averaged a B-.
- Roughly 65% of District 5-Billings respondents gave MDT a grade of A or B for quality of service.
- Approximately 60% of respondents gave MDT a grade of A or B for current overall performance during the past year.
- Only 30% of respondents graded MDT an A or B on responsiveness to ideas and concerns.
- Sensitivity to the environment increased from 2015.

Figure 6.18: District 5-Billings Quality of Service and Performance Grades % of A or B

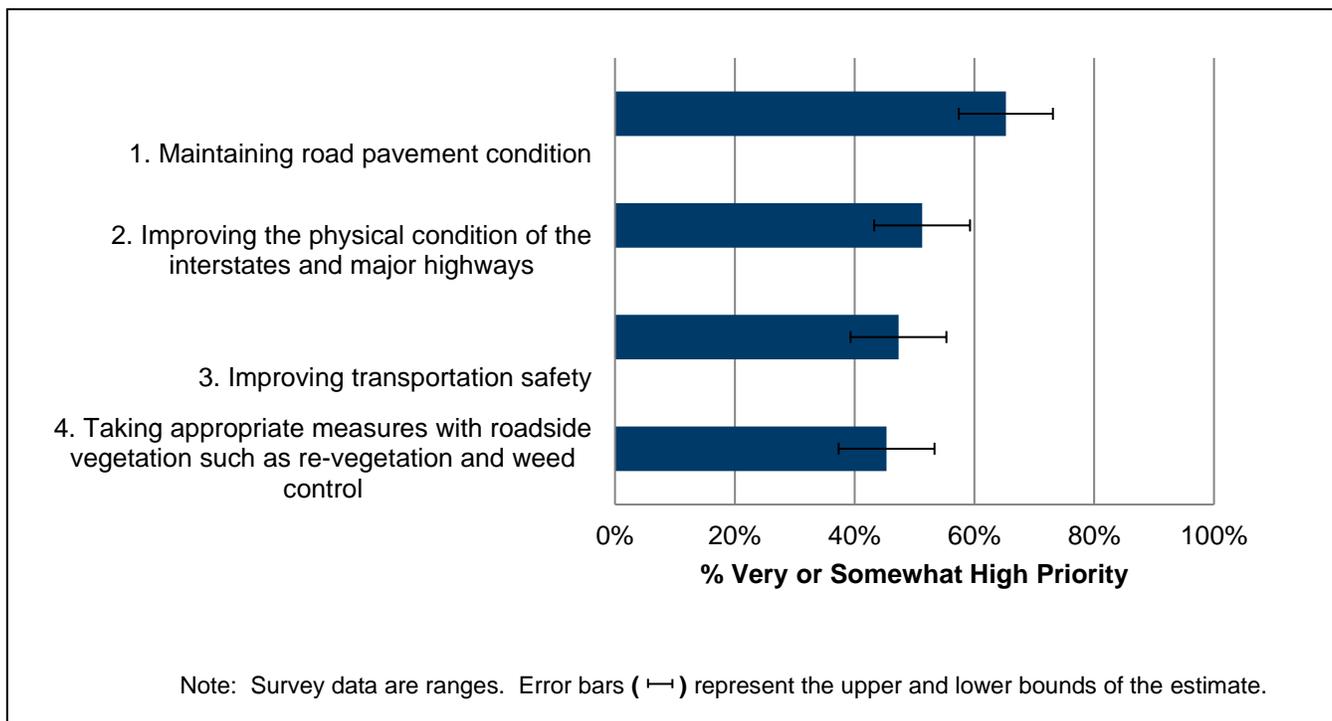


Potential Actions

Figure 6.19 presents District 5-Billings’ top ranked potential actions that MDT could take to improve the transportation system. Four different items were ranked as a very or somewhat high priority by a majority of District 5-Billings residents.

- Maintaining road pavement condition ranked highest in priority for potential improvements.
- Improving the physical condition of the interstates and major highways, improving transportation safety, and taking appropriate measures with roadside vegetation ranked closely behind.

Figure 6.19: District 5-Billings Potential Actions to Improve the Transportation System Rated to be a Very or Somewhat High Priority

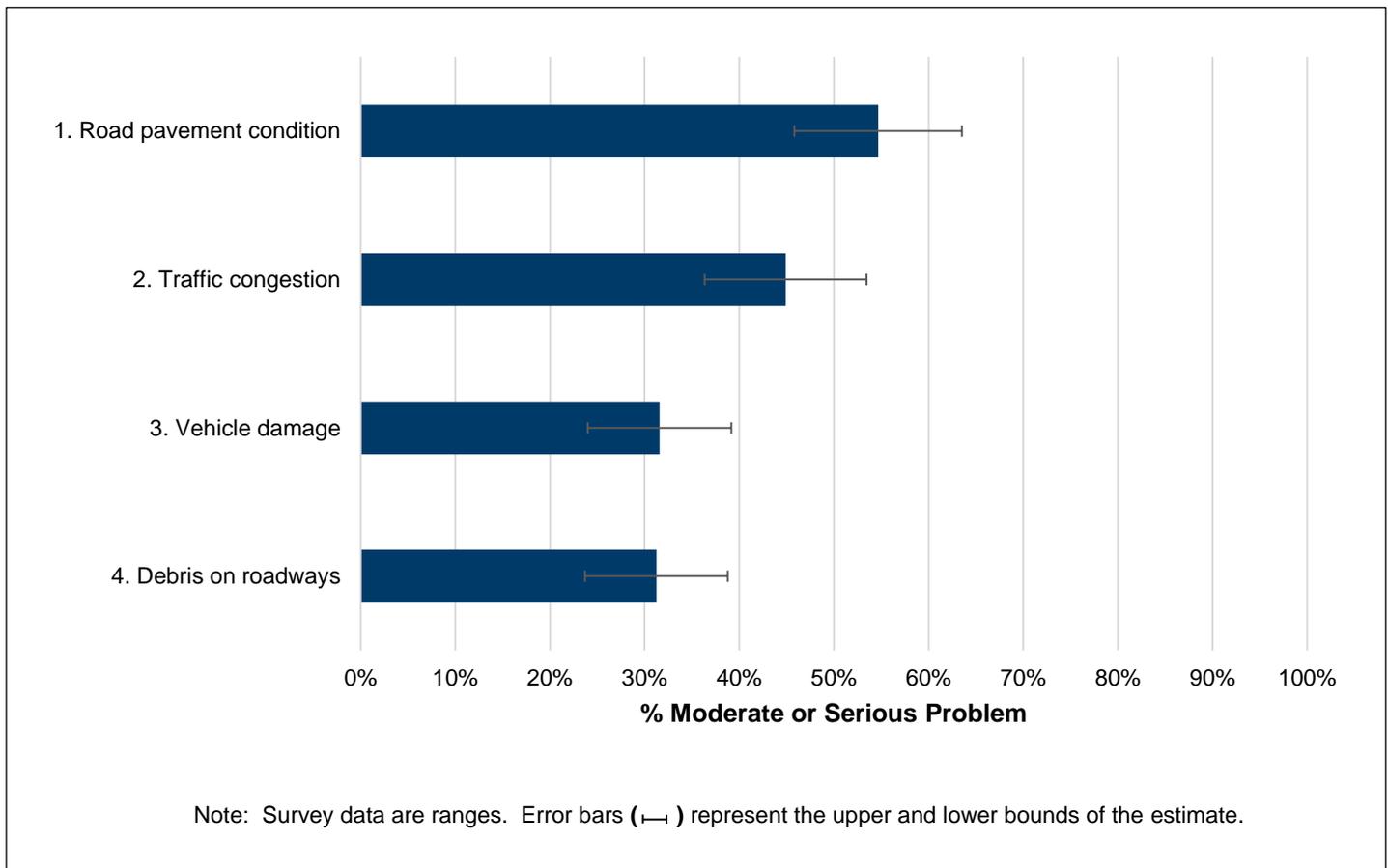


Perceived Problems

District 5-Billings respondents also ranked possible problems with the transportation system.

- Road pavement condition ranked as the highest priority problem.
- Traffic congestion, vehicle damage from highway construction, and debris on roadways all ranked as medium priority items.
- Adequate road signs and too many access points (including driveways) onto major roads ranked lowest in priority.

Figure 6.19b: District 5-Billings Issues Rated to be Moderate or Serious Problems

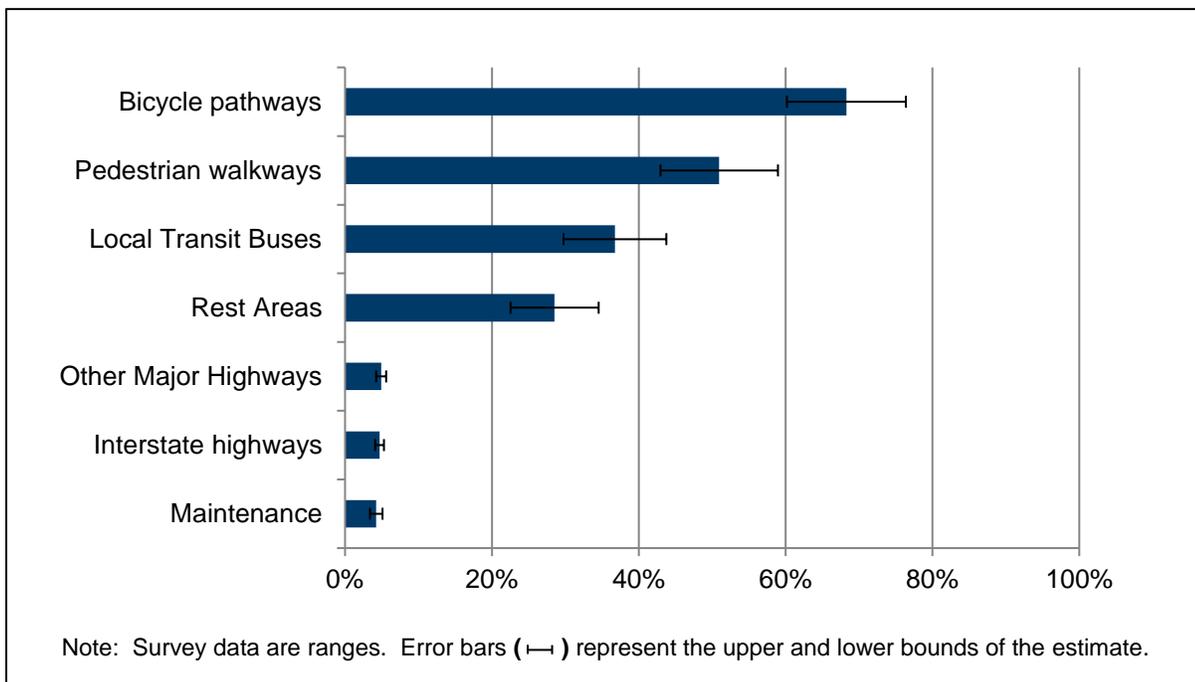


Possible Areas to Decrease Funding

Figure 6.20 illustrates District 5-Billings residents' preferences for areas within the transportation system to cut if future budgets decline. A majority of residents favored cutting bicycle pathways and pedestrian walkways if future budgets decline.

- Bicycle pathways, pedestrian walkways, and local transit buses were most often cited as possible areas for cuts if budgets decline.
- Maintenance, interstate and other major highways were least often cited as areas for possible cuts if budgets decline.

Figure 6.20: District 5-Billings Potential Areas for Cuts if Future Budgets Decline, % Yes Responses



Survey Design

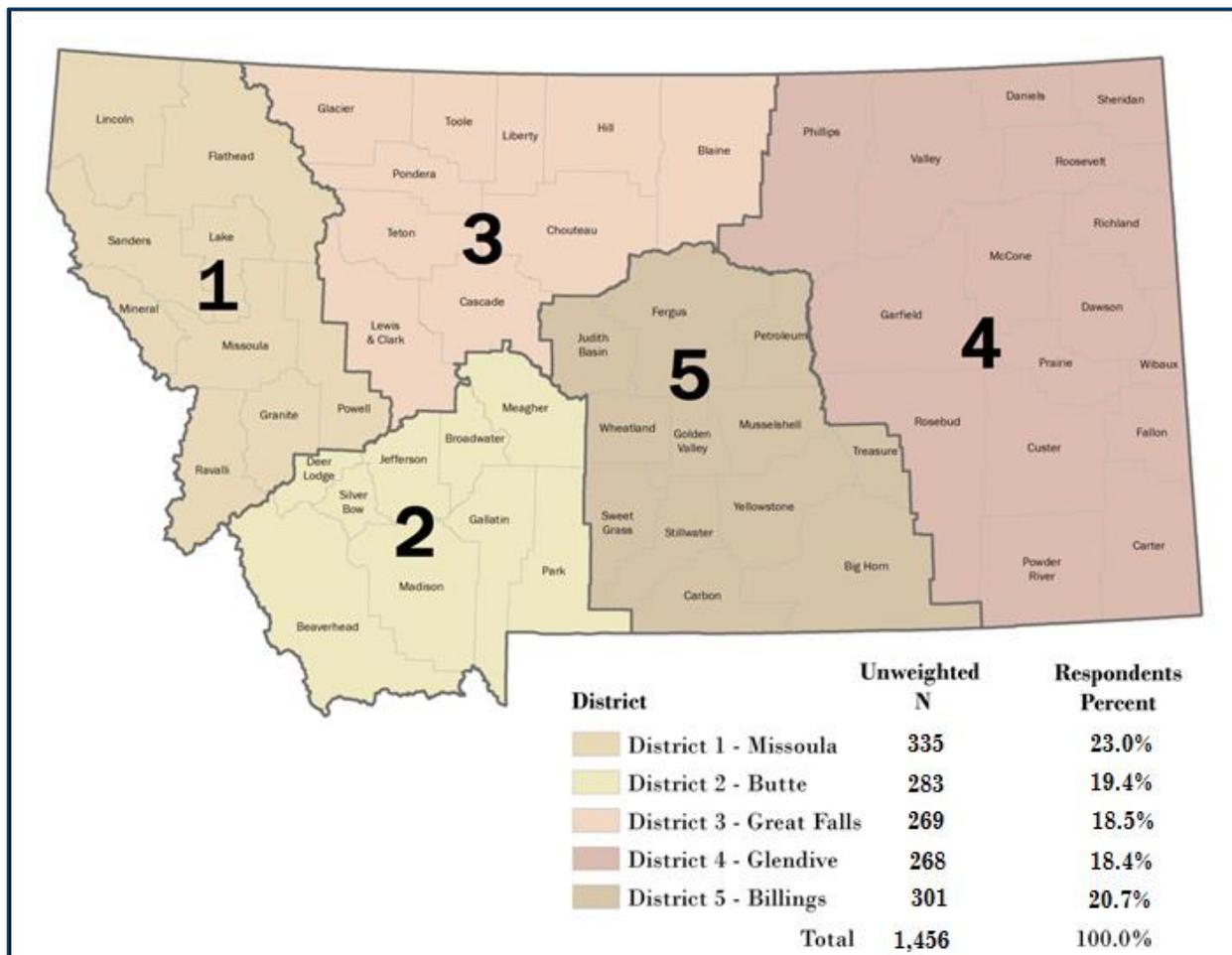
The 2017 TranPlanMT Public Involvement Survey is the eleventh iteration of a repeated, cross-sectional analysis designed to provide both a snapshot of current public opinion and also trends over time. The survey was administered by mail and responses were collected over the internet or via a hardcopy questionnaire. Sampling was conducted using an addressed-based, random sample purchased from SSI, Inc. Within household sampling was conducted using the most recent birthday method. The study population was adult Montanans (ages 18+) who lived in an occupied Montana dwelling that was listed on the U.S. Postal Service's Delivery Sequence File. This population differs slightly from all adult Montanans as it excludes institutionalized persons, homeless persons, and those absent from the state during the survey period.

The survey sample was stratified by MDT district with a goal of obtaining a minimum of 200 respondent completions within each of the five MDT districts. Weights were applied to the data to account for the stratified sampling design, to adjust for survey nonresponse, and to ensure the data included the proper proportion of adult Montanans by sex, age, race, 2016 household income, education attainment, and MDT region within Montana. The weighting proportions use the U.S. Census Bureau's American Community Survey 2011-2015 five-year estimates. (U.S. Census Bureau, 2017) The approximate sampling error for this survey is plus or minus 4.0 percent, or equivalently in 95 of 100 samples a sampled proportion would be within 4.0 percent of the population proportion.

Data Set Preparation

Following collection and data entry, 10% of the mailed in cases were randomly selected and were then 100% verified for data entry accuracy. Appropriate data labels were added as well as composite variables and flags to facilitate analysis. Missing values for the weighting variables, necessary for comparison to the 2011-2015 ACS estimates, were imputed using the hot deck method which substitutes the responses of similar cases for missing data.

Figure 7.1: MDT Regions and 2017 Unweighted Respondents



The figure above shows that 23.0% of respondents live in MDT District 1 (Lincoln, Flathead, Sanders, Mineral, Missoula, Ravalli, Granite, Powell, and Lake counties), 19.4% live in District 2 (Beaverhead, Madison, Deer Lodge, Silver Bow, Jefferson, Broadwater, Meagher, Gallatin, and Park counties), 18.5% live in District 3 (Glacier, Pondera, Teton, Lewis and Clark, Cascade, Toole, Chouteau, Liberty, Hill, and Blaine counties), 18.4% live in District 4 (Phillips, Valley, Daniels, Sheridan, Roosevelt, Richland, McCone, Garfield, Dawson, Prairie, Rosebud, Fallon, Custer, Powder River, Carter, and Wibaux counties) and 20.7% live in District 5 (Big Horn, Treasure, Stillwater, Sweet Grass, Wheatland, Yellowstone, Golden Valley, Petroleum, Fergus, Musselshell, Judith Basin, and Carbon counties).

Structure of this Report

The report is broken into two volumes. Volume I describes data collected by the 2017 TranPlanMT Public Involvement Survey and presents summary statistics, analytical results, and trends over time. Volume I is organized into sections progressing from attitudes about Montana's transportation system, security priorities, MDT communication, actions to improve roadways, customer service, and finally other issues/special topics. Volume II contains the appendices and includes the full text of the survey as well as a complete set of tables documenting responses to all questions.

The 2017 TranPlanMT Public Involvement Survey was designed to facilitate trend analysis over time. The wording of questions was repeated exactly (to the extent possible) so that responses from the 2017 survey could be compared to those from previous years. Results in Volume I are compared to 2013 and 2015. Several questions have been added and deleted over time and thus in some cases comparisons can only be made since the question's inception.

This report presents an extensive set of figures and tables. To determine the difference between group means and percentages, t-tests were calculated and are reported throughout the report. T-test results reported here will use the .05 significance level unless stated otherwise. This is interpreted as in 95 out of 100 samples a reported value will differ from another if their difference is significant at the .05 level.

T-tests here are calculated using specialized software that estimates sampling error while accounting for the stratified random sampling design of this survey. These estimates of the sampling error are the most accurate estimate possible and cannot be derived using most off-the-shelf statistical software packages. Failure to account for the sampling design when estimating

sampling error in this study could falsely identify differences between groups when none statistically exist.

Alternative accessible formats of this document will be provided upon request. Persons who need an alternative format should contact the Civil Rights Bureau, Department of Transportation, 2701 Prospect Avenue, PO Box 201001, Helena, Montana 59620. Telephone (406) 444-9229. Those using a TTY may call 1(800) 335-7592, or through the Montana Relay Service at 711.

