Key Findings Report
Survey on Transportation Commute Choices in Bozeman, Montana

Montana State University Employees

June 20, 2018
Summary

The Center for Health and Safety Culture in partnership with the Small Urban and Rural Livability Center, led by the Western Transportation Institute at Montana State University, surveyed several workplaces in Bozeman to better understand the prevalence and beliefs about using alternative commute options to get to work (e.g., carpooling, using the Streamline bus, riding a bicycle, and walking).

These results are based on responses from 341 Montana State University employees. Overall, respondents’ concerns about commuting include traffic, pollution, and the cost of expanding roads and building new roads in the Bozeman area.

Most respondents (76%) indicate that people should use more alternative commute options. Similarly, they have positive attitudes about using these options and feel they can save money, decrease pollution, decrease traffic, and improve their health by using alternative commute options. However, some have concerns regarding safety.

Results from the survey show that MSU employees are more likely to use alternative ways of commuting than employees at other Bozeman workplaces. Most (70%) drive to work in a personal vehicle by themselves half the time or more often; some (18%) ride with one other person half the time or more often; and some (4%) ride the Streamline bus. Nearly one-fifth (19%) of MSU employees report riding a bicycle half the time or more often, and about 16% walk half the time or more often. With 45% of MSU employees living within 2 miles of campus and 40% living within 1/4 of a mile of a Streamline bus stop, significant opportunities exist to further increase alternative ways of commuting among MSU employees.

Many respondents are willing to increase their use of alternative commute options considering the following factors. Many respondents (63%) indicate they would be more willing to carpool if it was easier to find people to carpool with. Likewise, most (over 66%) are willing to use the Streamline bus more if it had more frequent service and stops closer to their homes. Many (62%) are more willing to ride a bicycle if there were more paths separated from motor vehicles. Most respondents (87%) agree that it is up to them whether they use more alternative ways of commuting.

In addition to surveys, WTI mapped addresses from 3,368 MSU employees, showing how many people live within walking or biking distance, where clusters of people live that might try carpools or vanpools and proximity to Streamline bus stops. Maps are shown at the end of this report.

Map 1, MSU Car/Van Pool Potential, shows the location of employees reaching from Three Forks to Livingston. The table in the lower left corner shows that 1031 MSU employees (31%) live greater than 5 miles from work. Map 2, MSU Employee Transit Access, shows where employees live in proximity to Streamline bus stops and routes. The table in the lower left shows that 40% live within a 5-minute walk (quarter mile) of a Streamline bus stop. Map 3, MSU Bike/Walk Access, shows a closer view of employees that live within about a 20-minute bike ride or walk to MSU. Please note that there may be discrepancies between percentages based on survey results reported by employees and mapping results above, calculated from mapped addresses.

More specific results and recommendations are provided in the subsequent pages.
Introduction
This report presents the key findings from a survey about ways of commuting to work. The survey was implemented by the Center for Health and Safety Culture in partnership with the Small Urban and Rural Livability Center at Montana State University’s Western Transportation Institute.

The purpose of this survey is to characterize the culture within several Bozeman workplaces regarding support for commuting alternatives to the single occupancy vehicle (SOV). The objective is to identify opportunities to increase support and willingness to choose options such as carpooling, the Streamline bus, biking, and walking.

The survey began by asking about concerns that employees may have about the impact of commuting. Next, the survey asked questions to measure how often employees are using various forms of commuting as well as their willingness to try new ways of commuting given certain conditions. The survey asked about how respondents feel about alternative ways of commuting (i.e., their attitude), their sense as to whether people are expected to use alternatives, and how much control they have in choosing commuting alternatives. Attitudes, expectations, and sense of control are three components that typically predict behavior.

The following sections summarize who completed the survey, concerns about commuting, current choices employees are making about commuting to work, employees’ willingness to choose alternative ways of commuting, and beliefs about various commute options based on the behavioral model.

Who Took the Survey
These results are based on 341 surveys (45% male, 55% female, 1% other / prefer not to respond; 83% report working full time). Most respondents (77%) indicate their commute from home is less than 10 miles, and they commute in the morning (66% between 4 am and 8 am; 31% between 8 am and noon).

Concerns About Commuting
Most respondents are moderately to extremely concerned about issues related to commuting:
- 84% are moderately or more concerned about safety on roads and highways;
- 79% are moderately or more concerned about traffic in Bozeman;
- 75% are moderately or more concerned about pollution created by motor vehicles;
- 74% are moderately or more concerned about Bozeman expanding existing roads or building new roads (including the taxes required to pay for expanding roads); and
- 64% are moderately or more concerned about finding a parking place at work.
Current Commute Choices made by MSU Employees

The following percentages indicate current commute choices of MSU employees at least half the time or more often. Many employees commute to work in ways other than alone in their personal vehicles. Over the past 12 months,

- 70% drive in their personal motor vehicle by themselves half the time or more often;
- 18% use a personal motor vehicle with one other person half the time or more often;
- 19% ride a bicycle half the time or more often;
- 16% walk half the time or more often;
- 6% telecommute half the time or more often;
- 4% use a personal motor vehicle with two or more people half the time or more often; and
- 4% use the Streamline bus half the time or more often.

Willingness to Use Commute Options

While some people regularly use alternative ways of commuting, many people are willing in certain situations.

Many are moderately to extremely willing to carpool more frequently given the following situations:

- 63% if it was easier to find people to carpool with;
- 53% if there was a financial incentive such as a tax credit;
- 44% if there was a place to park your vehicle along the way and meet others to carpool; and
- 42% if parking fees increased where they presently park.

Many are moderately to extremely willing to take a bus more frequently given the following situations:

- 72% if bus stops were closer to their home;
- 66% if bus service was more frequent;
- 61% if there was a place they could park their vehicle along the way then take a bus;
- 61% if bus stops were closer to their workplace;
- 55% if there was a financial incentive such as a tax credit;
- 48% if there were better bicycle connections to bus stops;
- 44% if there were better sidewalk connections to bus stops; and
- 42% if parking fees increased where they presently park.

Many are moderately to extremely willing to ride a bicycle more frequently given the following situations:

- 67% if there was a place to park their vehicle along the way and then bike to their workplace (and this parking lot included a safe place to store their bike);
- 62% if there were more paths separated from motorized vehicles;
- 47% if there was a financial incentive such as a tax credit;
- 41% if the roads felt safer; and
- 36% if parking fees increased where they presently park.
Many are moderately to extremely willing to walk more frequently given the following situations:

- 41% if there was a place to park their vehicle along the way and then walk to their workplace;
- 38% if there was a financial incentive such as a tax credit;
- 37% if there were more paths;
- 33% if the roads felt safer; and
- 31% if parking fees increased where they presently park.

**Attitudes About Commute Options**

Most respondents have positive attitudes about alternative ways of commuting to work.

Respondents have the following feelings about **carpooling**:

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Dangerous</td>
<td>9%</td>
</tr>
<tr>
<td>Unpleasant</td>
<td>39%</td>
</tr>
<tr>
<td>Wasteful</td>
<td>0%</td>
</tr>
<tr>
<td>Harmful</td>
<td>0%</td>
</tr>
<tr>
<td>Stressful</td>
<td>51%</td>
</tr>
<tr>
<td>Embarrassing</td>
<td>0%</td>
</tr>
</tbody>
</table>

Respondents have the following feelings about **taking the Streamline bus**:

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous</td>
<td>9%</td>
</tr>
<tr>
<td>Unpleasant</td>
<td>31%</td>
</tr>
<tr>
<td>Wasteful</td>
<td>12%</td>
</tr>
<tr>
<td>Harmful</td>
<td>7%</td>
</tr>
<tr>
<td>Stressful</td>
<td>43%</td>
</tr>
<tr>
<td>Embarrassing</td>
<td>11%</td>
</tr>
</tbody>
</table>
Respondents have the following feelings about riding a bicycle:

- Dangerous: 59% / Safe: 25%
- Unpleasant: 32% / Pleasant: 52%
- Wasteful: 11% / Efficient: 71%
- Harmful: 13% / Beneficial: 66%
- Stressful: 39% / Stress-Relieving: 39%
- Embarrassing: 7% / Proud: 58%

Respondents have the following feelings about walking:

- Dangerous: 29% / Safe: 47%
- Unpleasant: 30% / Pleasant: 54%
- Wasteful: 27% / Efficient: 47%
- Harmful: 13% / Beneficial: 66%
- Stressful: 27% / Stress-Relieving: 48%
- Embarrassing: 5% / Proud: 52%

Expectations About Commute Options

Many people have positive expectations about using alternative ways of commuting. Specifically, if they used an alternative way to commute:

- 82% agree they could reduce pollution (and 86% agree this is important);
- 75% agree they could save money (and 89% agree this is important);
- 68% agree they could improve their health (and 94% agree this is important); and
- 64% agree they could reduce traffic and the need for Bozeman to spend more taxes on expanding roads or building new roads (and 49% agree this is important).

However, some have negative expectations using about alternative ways of commuting. Specifically, if they used an alternative way to commute:

- 84% agree it would take more time to commute (and 85% agree this is important);
- 77% agree they could not run errands (and 78% agree this is important);
- 42% agree they would not feel as safe (and 92% agree this is important); and
- 38% agree they could not accommodate their children (and 43% agree this is important).
Support for Commute Options
Most respondents (76%) agree that people should use more alternative ways to commute including carpooling, using the bus, riding a bicycle, and walking. And many felt that other would feel similarly:
- 71% believe that most people who are important to them would agree;
- 67% believe that most people in their workplace would agree;
- 62% believe that most leaders in their workplace would agree;
- 61% believe that most people who live in Bozeman would agree; and
- 57% believe that most elected officials in Bozeman would agree.

Sense of Control About Making Commute Choices
Most respondents (87%) agree that it is up to them whether they use more alternative ways of commuting, and 64% agree they could use more alternative ways of commuting if they really wanted to. However, many (78%) agree that situations come up that are out of their control that don’t let them use alternative ways of commuting.

Some (48%) believe their workplace could make minor changes which would make it easier to use more alternative ways of commuting. For example, 44% of respondents indicated they would be more likely to use alternative commuting if their employer’s schedule allowed more flexibility in their work schedule.

Other conditions that would make them more likely to use alternative ways of commuting included if:
- the bus had stops closer to their home (65%);
- there were bike paths so they did not have to ride on roads with motorized vehicles (65%);
- they were able to identify people with whom they could carpool (49%);
- the bus had stops closer to their workplace (40%); and
- their children’s schedule aligned better with alternative commute options (29%).

Some respondents report (38%) living within half of a mile of a bus stop (52% within a mile). Most report (85%) working within half of a mile of a bus stop.

Recommendations
Positive attitudes towards, and willingness to try new commute options point toward potential to further shift mode choice among MSU employees. There are opportunities to grow the utilization of alternative ways of commuting and thereby reduce traffic, pollution, and the demand for wider roads and more parking. In this section, several recommendations are presented based on the findings of the survey.

Framing and messaging
Most respondents share concerns regarding commuting by car including concerns about traffic, pollution, and growth requiring new roads. Furthermore, most respondents agree that people should use more alternative ways of commuting such as carpooling, using the bus, riding a bicycle, and walking.

Recommendation: Use these concerns about the negative impacts of drive-alone commutes and positive associations with using other commute options as ways to frame communication efforts. Explicitly noting these beliefs can foster a sense of shared culture about the benefits of having several
different commute options. For example: “A recent survey revealed that many employees in our workplace are concerned about potential negative consequences of drive-alone commuting like traffic and pollution, and many employees believe we should be using more alternative commute options. Our workplace will be introducing a new resource to offer employees more commute options to get to and from campus...”

**Potential Ways to Increase Carpooling**

Overall, people have a positive attitude about carpooling; however, they do see it as potentially stressful, some are concerned about safety, and few see it as pleasant. Respondents indicate they could save money, reduce pollution, and reduce traffic by carpooling. Many feel they would be more likely to carpool if it was easier to find people to carpool with.

**Recommendation:** Encourage employees to connect with others to share a ride using the Bozeman Commuter Project’s trip planner at [www.Bozemancommute.org](http://www.Bozemancommute.org). Provide preferred parking for carpoolers close to building entrances. Create incentive programs to encourage employees to carpool. Provide employees with a list of questions to ask potential carpool partners to help address perceived safety concerns. Identify and share positive experiences from those currently carpooling to reduce perceptions of stress.

**Potential Ways to Increase Use of the Streamline Bus**

Overall, people have a positive attitude about using the Streamline bus; however, they do see it as potentially stressful, some are concerned about safety, and few see it as pleasant. Respondents indicate they could save money, reduce pollution, and reduce traffic by using the bus. Many feel they would be more likely to use the bus if service was more frequent and if bus stops were closer to their home. Some are willing to use the bus if they could park along the way.

**Recommendation:** Ensure continued funding of existing Streamline service, consider leveraging funding from increased parking fees and other sources to expand the service, adding routes and/or frequency. Funding the expansion of transit services for MSU employees and students can act as a financially and environmentally sustainable solution to the growing demand for parking on campus. Explore options to inform employees of Streamline stops and schedules. Use [Bozemancommute.org](http://Bozemancommute.org) to create ongoing incentive programs to encourage employees to ride the bus. As some are concerned about safety and few see riding the bus as pleasant, explore ways to make transit stops on and near campus more welcoming places, enhance the quality of riders’ experience while on the bus, and market the quality of the service by featuring testimony from current riders in messaging.

**Potential Ways to Increase Biking and Walking**

Overall, people have positive attitudes about biking and walking, and improving their health was an important factor; however, safety is an important concern (especially with biking). Over thirty percent of employees report that they are extremely willing to ride a bicycle more often if there were more paths separated from motorized vehicles.

**Recommendation:** Separate bike facilities from motorized traffic to the extent possible per recommendations in MSU’s Bicycle Master Plan. Continue to offer campus bike share to employees and encourage its use. Create ongoing incentive programs through [Bozemancommute.org](http://Bozemancommute.org) to encourage
employees to bike more often. Continue to improve bike parking facilities on campus while introducing and advertising new programs that benefit bike commuters such as secure and covered bike storage as well as shower and changing room access. Efforts to grow biking and walking can leverage the health benefits by partnering with the MUS wellness program to highlight the importance of transportation-related physical activity.

**Overall Recommendations**

MSU employees indicate that they do have control over the decision to choose alternative ways of commuting, although some indicate that flexibility in scheduling at work would help. **Establish flexible work protocols**, such as a 4-day work week, a 5-day work week with one remote work day (telework), or flexible arrival and departure times to better align with bus schedules or off-peak hours for bike commuters.

**Guaranteed Ride Home (or Emergency Ride Home) programs** also help facilitate people’s decisions to try alternative commute options. These programs ensure that people who choose to ride the bus, carpool, walk, or bike have an option to leave work in the event of a personal or family emergency, illness, or unexpected job-related delay. This typically consists of a taxi, Uber or Lyft ride that is paid for by the employer. These programmatic or institutional recommendations coupled with improvements to and expansion of bike, pedestrian, and transit infrastructure are all ways in which MSU can improve access to campus for employees using all modes of transportation.
Map 1: MSU Employee Car/Van Pool Potential

Legend
- MSU Employee Addresses

MSU Employee addresses outside 5 miles
- 1031 (31%)
Map 2: MSU Employee Transit Access

Legend:
- MSU Employee Address
- Streamline Routes
  - Blue
  - Green
  - Orange
  - Red
  - Yellow

MSU Employee addresses within 1/4 mile of Streamline
1363
40%