2008 University of Montana Student
Southern Route Pilot Survey

June 19, 2008
Purpose

• Conduct a pilot test of a possible general population survey that examines factors which influence passenger train travel on the proposed southern route.

• Focus on the UM student population because of easy access to the population and low cost of the pilot test.
Methods

• **How?**
  – World-wide web
  – List-based random sample

• **Whom?**
  – Age 18 +
  – UM Students

• **When?**
  – 4/24/08 through 4/30/08

• **How Many?**
  – 469 completed questionnaires

• **Sampling Error Rate?**
  – 5% (+/-)

• **Response Rate?**
  – 23.5%
Self-reported likelihood of UM student passenger train travel from Missoula to Billings

Overall
Add convenient connections to final destination

Very likely
37.1% 51.7%

Somewhat likely
29.4% 29.5%

Neither likely nor unlikely
9.4% 17.0%

Somewhat unlikely
10.2% 0.4%

Very unlikely
13.9% 1.3%
Self-reported likelihood of UM students paying $200 to ride a passenger train from Missoula to Billings round-trip

- Very likely: 1.9%
- Somewhat likely: 9.2%
- Neither likely nor unlikely: 8.3%
- Somewhat unlikely: 19.8%
- Very unlikely: 60.8%
Maximum amount UM students are willing to pay to ride a passenger train from Missoula to Billings round-trip

- $50 or less: 49.8%
- $75: 24.6%
- $100 - $125: 19.7%
- $150+: 5.9%
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by trip duration

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>6 hours</th>
<th>7 hours</th>
<th>8 hours</th>
<th>9 hours</th>
<th>10 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Very likely</td>
<td>1</td>
<td>1.6</td>
<td>2.5</td>
<td>3.5</td>
<td>4.2</td>
</tr>
<tr>
<td>2 = Somewhat likely</td>
<td>2</td>
<td>1</td>
<td>3.5</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>3 = Neither likely nor unlikely</td>
<td>3</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 = Somewhat unlikely</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 = Very unlikely</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by trip availability

<table>
<thead>
<tr>
<th>Trip Availability</th>
<th>1 = Very likely</th>
<th>2 = Somewhat likely</th>
<th>3 = Neither likely nor unlikely</th>
<th>4 = Somewhat unlikely</th>
<th>5 = Very unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 trips / day</td>
<td>2.2</td>
<td>2.2</td>
<td>2.5</td>
<td>2.9</td>
<td>3.6</td>
</tr>
<tr>
<td>1 trip / day</td>
<td></td>
<td></td>
<td>2.5</td>
<td>2.9</td>
<td>3.6</td>
</tr>
<tr>
<td>5 trips / week</td>
<td></td>
<td></td>
<td>2.5</td>
<td>2.9</td>
<td>3.6</td>
</tr>
<tr>
<td>3 trips / week</td>
<td></td>
<td></td>
<td>2.5</td>
<td>2.9</td>
<td>3.6</td>
</tr>
<tr>
<td>1 trip / week</td>
<td></td>
<td></td>
<td>2.5</td>
<td>2.9</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval
UM Student Survey Southern Route Catchment Area
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by visited the southern route catchment area since September 2007

1 = Very likely
2 = Somewhat likely
3 = Neither likely nor unlikely
4 = Somewhat unlikely
5 = Very unlikely

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by parent(s) live in the southern route catchment area

1 = Very likely
2 = Somewhat likely
3 = Neither likely nor unlikely
4 = Somewhat unlikely
5 = Very unlikely

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by age

1 = Very likely
2 = Somewhat likely
3 = Neither likely nor unlikely
4 = Somewhat unlikely
5 = Very unlikely

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval
OLS Regression Model: Factors That Influence UM Students’ Self-Reported Likelihood of Train Travel from Missoula to Billings

\[ L = -0.997 + 0.085*TC + 0.031*A + 0.626*PC + 0.29*CC + 0.059*NT + -0.079*DT \]

Where:

\( L \) = Self-reported likelihood of UM student passenger train travel from Missoula to Billings

- Very likely = 2
- Somewhat likely = 1
- Neither likely nor unlikely = 0
- Somewhat unlikely = -1
- Very unlikely = -2

\( TC \) = Number of trips into the southern route catchment area since September 2007

\( A \) = Age

\( PC \) = Parent(s) live in southern route catchment area

\( CC \) = Availability of convenient connections to final destination

\( NT \) = Number of trips available per day or week

\( DT \) = Duration of trip
OLS Regression Model: Factors That Influence UM Students’ Self-Reported Likelihood of Train Travel from Missoula to Billings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T Statistic</th>
<th>Significance of T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.997</td>
<td>0.297</td>
<td>-3.350</td>
<td>0.001</td>
</tr>
<tr>
<td>Number of trips to catchment area</td>
<td>0.085</td>
<td>0.013</td>
<td>6.516</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>0.031</td>
<td>0.011</td>
<td>2.695</td>
<td>0.007</td>
</tr>
<tr>
<td>Parent(s) live in catchment area</td>
<td>0.626</td>
<td>0.142</td>
<td>4.400</td>
<td>0.000</td>
</tr>
<tr>
<td>Availability of connections</td>
<td>0.299</td>
<td>0.071</td>
<td>4.207</td>
<td>0.000</td>
</tr>
<tr>
<td>Number of trip available</td>
<td>0.059</td>
<td>0.016</td>
<td>3.786</td>
<td>0.000</td>
</tr>
<tr>
<td>Duration of trip</td>
<td>-0.079</td>
<td>0.016</td>
<td>-4.947</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by ever travelled on a train

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Very likely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 = Somewhat likely</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5 = Very unlikely</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by financial aid status

1 = Very likely
2 = Somewhat likely
3 = Neither likely nor unlikely
4 = Somewhat unlikely
5 = Very unlikely

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval
Self-reported likelihood of UM student passenger train travel from Missoula to Billings by having a car, truck, or van

1 = Very likely
2 = Somewhat likely
3 = Neither likely nor unlikely
4 = Somewhat unlikely
5 = Very unlikely

Overall mean UM student likelihood = 2.3

Error bars: 95% confidence interval