Public Transit on the I-70 Corridor

Mikhail Kaminer. Kirsten Christensen.
University of Colorado Denver, Department of Geography and Environmental Sciences, UROP Funding

PHASE 1- Literature

Flatiron Flyer as a Model
- 2018: 3.29 million people
- 2019: 3.37 million people

• Flexibility is key: Longer and Shorter routes with different destinations

CDOT Plans
- 2011 I-70 Mountain Corridor Record of Decision and Final Programmatic Environmental Impact Statement
  • Mindfulness of safety, mobility, adaptability, economic and environmental resources
- 2014 Advanced Guideway System Feasibility Study
  • High potential, but financially unfeasible
- 2015 Bustang Operations
  • Long-range CDOT routes

PHASE 1- Demography

Demographic Analysis

Field Observations

<table>
<thead>
<tr>
<th>Type</th>
<th>Destination</th>
<th>Peak Time</th>
<th>Pacing Option</th>
<th>Arrival Time</th>
<th>Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3</td>
<td>Denver</td>
<td>6:00 AM</td>
<td>6:00 AM</td>
<td>8:30 AM</td>
<td>Right</td>
</tr>
<tr>
<td>4, 5, 6</td>
<td>South Terminus</td>
<td>12:00 PM</td>
<td>12:30 PM</td>
<td>12:30 PM</td>
<td>Right</td>
</tr>
<tr>
<td>7, 8, 9</td>
<td>South Terminus</td>
<td>6:00 AM</td>
<td>6:30 AM</td>
<td>8:30 AM</td>
<td>Right</td>
</tr>
<tr>
<td>10, 11</td>
<td>West Terminus</td>
<td>8:00 AM</td>
<td>8:30 AM</td>
<td>10:30 AM</td>
<td>Right</td>
</tr>
<tr>
<td>12, 13</td>
<td>West Terminus</td>
<td>10:00 AM</td>
<td>10:30 AM</td>
<td>12:00 PM</td>
<td>Right</td>
</tr>
</tbody>
</table>

PHASE 2- Field Work

PHASE 3- Analysis

Analysis

Modeling the FF
• Flexibility in the routes would serve the given demographics best.
  • FF is a better model than AGS or Bustang because it is more cost-effective and convenient

Feasibility
• Mileage (330 miles a week), gas, and parking stress could be alleviated by a public transit option
• Not time-convenient in summer; investigate seasonal services for when driving conditions worsen in the winter
• Expand access to RTD for out-of-district residents for W Line

Pandering Questions from Observations

1. How does the summer environment reflect (or does not reflect) the “normal” traffic patterns?
   a. Especially from the observations made about how there seemed to be more cars headed up the mountain in the morning and down the mountain in the afternoon, the researcher can interpret this as tourists or day-trippers headed to the mountains. Being said, the people on the route seen are more likely to be driving to mountainous destinations for summer recreation, rather than commuting.
   b. If there are no issues during the summer in traveling between Idaho Springs and Denver; there does not seem to be a need for year-round public transit service. If people are more concerned about traffic along I-70 during the snow season rather than during the summer, one of the options that can be explored about expanded public transit is the implementation of seasonal routes to serve the commuters.
   c. The research was done throughout the week right after the U.S. Independence Day Weekend. A prediction of limited trouble during the research phase can be attributed to people who might have taken time off associated with the U.S. Independence Day.

2. How has the COVID-19 Pandemic Influenced Traffic patterns?
   a. With Colorado along with the whole world, battling a global pandemic that hit in 2020, many people switched to working remotely from home. It would be interesting to understand how the data collected during the pandemic may differ from any other time, even on the same dates, just in a different year.

References

CDOT & USDOT (2010). I-70 Mountain Corridor Record of Decision and Final Programmatic Environmental Impact Statement (Req.). CDOT
CDOT (2014). Advanced Guideway System (AGS) Feasibility Study (Req.). CDOT