Three Different Mobility Challenges and Three Different Potential Solutions

David Kack, Director
Small Urban, Rural and Tribal Center on Mobility

WTI Team
Karalyn Clouser, Laura Fay, Rebecca Gleason & Natalie Villwock-Witte
Thanks To:

- National Association of Development Organizations (NADO) Research Foundation
  - Carrie Kissel
- United States Department of Agriculture
Cost of Mobility

Note: In 1917 transportation was 2% of the budget, or the 6th highest expense
# Cost of Mobility

## Annual Cost to Own & Operate a Car

<table>
<thead>
<tr>
<th>Annual Mileage</th>
<th>Small Sedan</th>
<th>Medium Sedan</th>
<th>Large Sedan</th>
<th>Small SUV</th>
<th>Medium SUV</th>
<th>Minivan</th>
<th>Pickup</th>
<th>Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000</td>
<td>$5,775</td>
<td>$7,720</td>
<td>$8,428</td>
<td>$6,664</td>
<td>$8,229</td>
<td>$8,370</td>
<td>$8,563</td>
<td>$7,678</td>
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<tr>
<td>15,000</td>
<td>$6,777</td>
<td>$8,866</td>
<td>$9,804</td>
<td>$7,869</td>
<td>$9,697</td>
<td>$9,677</td>
<td>$10,215</td>
<td>$8,986</td>
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<tr>
<td>20,000</td>
<td>$7,810</td>
<td>$10,043</td>
<td>$11,219</td>
<td>$9,115</td>
<td>$11,219</td>
<td>$11,022</td>
<td>$11,930</td>
<td>$10,337</td>
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</tbody>
</table>

Note: Based on 250 working days,
10,000 miles equals 40 miles per day
15,000 miles equals 50 miles per day

Source: AAA Your Driving Costs 2018 Edition
Are You A One Percenter?

\[
\frac{1}{24} = 4.2\% \\
x 25\% \\
= 1.05\%
\]
Three Areas/Communities

• Cortez & Durango, Colorado
  – Intercity/Commuter Mobility

• Lebanon, Missouri
  – Community Transit Implementation

• Jasper, Texas
  – Basic Mobility in Five Counties
Note: Cortez and Durango are approximately 45 miles apart
Project Goals

Evaluate the potential for a Regional Intercity Bus Service between Cortez and Durango.

– Determine the potential route (stop locations, etc.)
– Operational aspects of the route (timing, number of runs, etc.)
– How the route/service could/should be funded
## Population Info

<table>
<thead>
<tr>
<th>County</th>
<th>Largest City</th>
<th>Less than 15</th>
<th>15-19</th>
<th>20-24</th>
<th>25-34</th>
<th>35-59</th>
<th>60+</th>
<th>2016 TOTAL Population</th>
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<tbody>
<tr>
<td>Archuleta</td>
<td></td>
<td>1,815</td>
<td>594</td>
<td>831</td>
<td>1,018</td>
<td>4,065</td>
<td>4,032</td>
<td>12,355</td>
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<tr>
<td>Pagosa Springs</td>
<td></td>
<td>361</td>
<td>71</td>
<td>82</td>
<td>404</td>
<td>538</td>
<td>510</td>
<td>1,966</td>
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<tr>
<td>Dolores</td>
<td></td>
<td>328</td>
<td>42</td>
<td>83</td>
<td>213</td>
<td>530</td>
<td>593</td>
<td>1,789</td>
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<tr>
<td>Dove Creek</td>
<td></td>
<td>145</td>
<td>21</td>
<td>50</td>
<td>64</td>
<td>173</td>
<td>187</td>
<td>640</td>
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<tr>
<td>La Plata</td>
<td></td>
<td>8,762</td>
<td>3,835</td>
<td>3,537</td>
<td>7,464</td>
<td>18,433</td>
<td>11,963</td>
<td>53,994</td>
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<tr>
<td>Durango</td>
<td></td>
<td>2,388</td>
<td>1,756</td>
<td>2,095</td>
<td>3,427</td>
<td>5,541</td>
<td>2,700</td>
<td>17,817</td>
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<tr>
<td>Montezuma</td>
<td></td>
<td>4,871</td>
<td>1,533</td>
<td>1,396</td>
<td>2,736</td>
<td>8,334</td>
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<tr>
<td>Cortez</td>
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<td>1,782</td>
<td>546</td>
<td>554</td>
<td>1,064</td>
<td>2,690</td>
<td>2,047</td>
<td>8,683</td>
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<tr>
<td>San Juan</td>
<td></td>
<td>47</td>
<td>12</td>
<td>36</td>
<td>95</td>
<td>213</td>
<td>149</td>
<td>552</td>
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<tr>
<td>Silverton</td>
<td></td>
<td>41</td>
<td>9</td>
<td>32</td>
<td>91</td>
<td>199</td>
<td>121</td>
<td>493</td>
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<tr>
<td><strong>SWCCOG Totals</strong></td>
<td></td>
<td>15,823</td>
<td>6,016</td>
<td>5,883</td>
<td>11,526</td>
<td>31,575</td>
<td>23,873</td>
<td>94,696</td>
</tr>
</tbody>
</table>

Notes: Achuleta and Dolores counties have nearly 1/3<sup>rd</sup> of their population over the age of 60. La Plata county is the only county of the five with its population of residents aged 60 or older under 25%.
Route/Service in Previous Plans

- 2015 Regional Public Transit Feasibility Report
- 2015 Statewide Transit Plan
- 2014 Colorado Intercity and Regional Bus Network Plan
- 2014 Southwest Transportation Planning Region Regional Coordinated Transit & Human Services Plan
- 2012 Southwest Regional Transportation Coordinating Council Action Plan
- 2009 Regional Transit Feasibility Study
- 2008 Colorado Statewide Intercity and Regional Bus Network Study
- 2008 Southwest Local Transit and Human Service Transportation Coordination Plan
- 2035 Regional Transportation Plan (published in 2008)
Existing Services

• Southern Colorado Community Action Agency (SOCOCAA)
  – Bustang Outrider (daily service, dept. Durango at 9:40 am, arrive Cortez at 7:27 am; dept. Cortez at 6:20 pm, arrive Durango at 7:10 pm).

• Durango Transit
  – “in city” transportation

• Montezuma County Public Transportation
  – Demand response service, with trips to Durango for medical appointments only
Proposed Service

<table>
<thead>
<tr>
<th>Stop</th>
<th>7:00 am</th>
<th>10:00 am</th>
<th>1:00 pm</th>
<th>4:00 pm</th>
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<tbody>
<tr>
<td>Cortez-Montezuma County Annex Building</td>
<td>7:00 am</td>
<td>10:00 am</td>
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<td>Cortez-Walmart</td>
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<tr>
<td>Southwest Colorado Community College</td>
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<tr>
<td>Mancos</td>
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<tr>
<td>Durango West</td>
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<td>Durango Transit Center</td>
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<td>Mercy Regional Medical Center</td>
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<td>12:45 pm</td>
<td>3:45 pm</td>
<td>6:45 pm</td>
</tr>
</tbody>
</table>

Note: Given the distance between the communities, it may be necessary to operate two buses in the opposite direction for timing purposes.
Costs/Funding

255 service days*12 hours per day* $70 per hour = $214,000 per year.

CDOT offered two years of FASTER (state) funding at 20% local match, and then revert to regular ratio of 50/50 match. Therefore, first two years would require $42,800 per year of local funding.
Changing Conditions

- Durango Transit going from over $1 million per year in Section 5311 funding to $415,000 per year (over six years).
- Montezuma County Public Transit going from $66,000 per year to $157,000 per year in Section 5311 funding.
- Rebranding of intercity service from Road Runner to Bustang Outrider.
Moving Ahead

“Plans are worthless, but planning is everything”
President/General Eisenhower

I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Being willing is not enough; we must do.

Leonardo Da Vinci
Questions?

BUSTANG OUTRIDER
NEW BUSES, RELIABLE SCHEDULES, CONVENIENT SERVICE

Western Transportation Institute
Lebanon, Missouri
Transit Feasibility Study

by
Natalie Villwock-Witte, Ph.D., P.E.
Assistant Research Professor/Research Engineer

Karalyn Clouser
Research Associate

David Kack
Director, Small Urban, Rural and Tribal Center on Mobility (SURTCOM)

Western Transportation Institute
College of Engineering
Montana State University

A report prepared for the
• Lake of the Ozarks Council of Local Governments (LOCLG)
• City of Lebanon, Missouri
• United States Department of Agriculture (USDA)
• National Association of Development Organizations (NADO)

December, 2018

LEBANON
MISSOURI
Friendly people. Friendly place.®
Where to Start: No Simple Formula

Imagine a transit/public transportation system in Lebanon…

What does that look like?
Who does it serve?
Mobility: A Means To An End
Scope of Work

• Collect & analyze data & information
• Provide examples of public transportation in other communities
• Provide a “decision tree”
Defining Terms

• Feasibility – “capable of being done or carried out”

• Need – “a strong feeling that you must have or do something”

• Necessary – “so important that you must do it or have it”

Source: Merriam-Webster Online Dictionary
Transportation/Mobility Options

- Demand Response
- Fixed Route
- Van Pool
- Volunteer Driver Programs
In 2016, the population in Lebanon was estimated to be 14,652 people
## Review of other transit systems in Missouri

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
<th>County</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lebanon</td>
<td>14,709</td>
<td>Cape Girardeau</td>
<td>78,913</td>
</tr>
<tr>
<td>Bloomfield</td>
<td>2,020</td>
<td>Dunklin</td>
<td>30,535</td>
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<tr>
<td>Carthage</td>
<td>14,309</td>
<td>Franklin</td>
<td>102,838</td>
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<td>Mississippi</td>
<td>13,799</td>
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<td>Columbia</td>
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<td>13,817</td>
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<td>El Dorado Springs</td>
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<td>Nevada</td>
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<td>St. Joseph</td>
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<td></td>
</tr>
<tr>
<td>West Plains</td>
<td>12,320</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Would you or someone in your household use a public transportation system if one were available in your community?
Won’t use transit, but see value to the community
Would transit improve your quality of life?
Would transit improve the quality of life for others?
Tan Route

Potential Stops
1. Laclede County Library*
2. OTC/MSU
3. Hospital Loop
4. Tower Rd & Copeland Dr
5. Bland Rd (near Whispering Pines)
6. Social Security Office
7. Buzz Pride Rd
8. Ivey Ln (near hotels)
9. Laclede Industries
10. Bland Rd (near Tracker Marine)
11. Lebanon City Hall
12. Lebanon High School
13. Harwood Manor
14. Commercial St & Washington Dr

Total Travel Time:
18.6 miles/50 minutes

*The Laclede County Library will serve as the first and last stop for each route, and as the transfer point between routes.

The gray area around each stop represents a quarter mile buffer.

Legend
- Major Employers
- Apartments/Senior Living Facilities
- Other Destinations
Red Route
Potential Stops
1. Laclede County Library*
2. Washington Ave & Oak St
3. Washington Ave & Commercial St
4. Harwood Manor
5. Jordan Valley Community Health
6. Lebanon High School
7. Brice St & Lee St
8. The Timbers Apartments
9. 4th St & Madison Ave
10. Lebanon Senior Center
11. Monroe St & Commercial St
12. Lebanon City Hall
13. Ivey Ln (near hotels)
14. Britti Estates
15. Laclede Industries
16. Bland Rd (near Tracker Marine)
17. Boswell City Park

Total Travel Time:
13.2 miles/45 minutes

Green Route
Potential Stops
1. Laclede County Library*
2. Regal
3. Buzz Pride Rd
4. Social Security Office
5. Whispering Pines Mobile Homes
6. Tower Rd & Copeland Dr
7. Hospital Loop
8. OTC/MSU
9. Park-N-Ride
10. Civic Center

Total Travel Time:
13.65 miles/32 minutes

*The Laclede County Library will serve as the first and last stop for each route, and as the transfer point between routes.

The gray area around each route represents a quarter mile buffer.
**Purple Route**

Potential Stops:
1. Laclede County Library*
2. Tower Rd & Copeland Dr
3. Hospital Loop
4. OTC/MSU
5. Park-N-Ride
6. Civic Center
7. Washington Ave & Commercial St
8. Harwood Manor
9. Jordan Valley Community Health
10. Lebanon High School
11. Brice St & Lee St
12. The Timbers Apartments
13. 4th St & Madison Ave
14. Lebanon Senior Center
15. Monroe St & Commercial St
16. Lebanon City Hall

Total Travel Time:
14.6 miles/46 minutes

**Orange Route**

Potential Stops:
1. Laclede County Library*
2. Whispering Pines Mobile Homes
3. Social Security Office
4. Regal
5. Buzz Pride Rd
6. Ivey Ln (near hotels)
7. Britt Estate
8. Laclede Industries
9. Bland Rd (near Tracker Marine)
10. Boswell City Park

Total Travel Time:
9.3 miles/26 minutes

*The Laclede County Library will serve as the first and last stop for each route, and as the transfer point between routes.

The gray area around each route represents a quarter mile buffer.
Next Steps

1. Ask the MoDOT Transit Section to review the report.

2. Meet with MoDOT Transit and MoDOT Planning together with the Lake of the Ozarks Council of Local Governments (LOCLG) to discuss opportunities to access FTA and any State funding.

3. Attend an MPTA Annual Conference.

4. Collaborate with employers and other key destinations (e.g., Mercy Hospital) on partnerships and understand their interest in partnering, and what resources they might offer.

5. Add a full-time position to oversee the public transportation system, if LEBANON decides to move forward with implementing one.

6. Consider forming a formal stakeholder committee if LEBANON decides to move forward.
Questions?
Deep East Texas Council of Governments (DETCOG) Service Region Transportation Voucher Program
Why a Transportation Voucher Program for DETCOG?

- Medicaid transportation does not provide for access to groceries
- Social isolation can lead to depression
- Lack of healthy food choices can contribute to obesity and other illnesses
Why These 5 Counties?

- Target populations have significant representation (Veterans, older Americans, people with disabilities)
- Smallest county populations
- 6% of DETCOG households do not have access to a vehicle (Jasper = 7.3%)
- Largest percentages of populations of people with disabilities (San Augustine = 20.4%)
- Average household incomes 25% below state average
- No existing public transportation options
Transportation Voucher Program Details

• 60 years or older
• Maximum of $150/month ($1800/yr)
• Targeted 40 participants
• 5 county focus (Jasper, Newton, San Augustine, Sabine, Tyler)
• Trips can be used for:
  – Medical appointments, grocery stores, personal care appointments, bank, post office
DETCOG Travel Voucher Program

Rider’s Name (print): ____________________________________________  Date: __________

Pay to the
order of: ____________________________________________________________ $

Trip Start Time: __________  Trip End Time: __________  Total Travel Time: __________

Number of One-Way Rides: _____  Odometer Start: __________  Odometer End: __________

Reason for Trip:

_____ MEDICAL–Doctor/Pharmacy Visit  _____ SCHOOL/WORK  CHURCH/RELIGIOUS ACTIVITIES

_____ SHOPPING  _____ Brookshire Bros  _____ Walmart  _____ Other  _____

_____ OTHER (Beauty/Barber Shop, Personal Business, Post Office, etc.)

PLEASE SIGN AND GIVE TO DRIVER: ________________________________

Rider’s Signature
Participants

![Bar chart showing the number of riders enrolled in the program over time.](chart.png)

- 29 riders on 7/18/2018
- 40 riders on 8/18/2018
- 41 riders on 9/18/2018
- 43 riders on 10/18/2018
- 47 riders on 11/18/2018
- 50 riders on 12/18/2018
Cost by Month
Trip Purpose

- Medical: 43.6%
- Shopping: 36.2%
- Social: 10.6%
- Religious: 2.9%
- Other (personal, bank): 1.3%
- School: 0.5%
- No Information: 5.0%
Anecdotal Benefits

• Allows DETCOG to identify other applicable programs for participants (e.g. SNAP)
• Allows participants to access other benefits
The Future

• Existing Program
  – Ensure sustainability
    • Diversifying funding sources

• Expand to Address Needs for Younger than 60 years of Age
Questions?

In any moment of decision, the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing.

--Theodore Roosevelt