First and Last Mile Connections in Salt Lake and Atlanta, and the State of New Mobility

Research for MHC / September 3, 2015

Catherine Cox Blair, Senior Advisor, NRDC (ccoxblair@nrdc.org)
Logan Sand, Intern, NRDC (logan.sand@ucdenver.edu)
CLIMATE CHANGE AND INEQUALITY ARE THE TWO MOST URGENT CHALLENGES OF OUR TIME

Urban Solutions makes cities a part of the answer to climate change, while lowering energy bills, reducing flooding, improving access to healthier food and making it cheaper and easier for everyone to get around.
Overview: Why this work?

- MHC has identified and prioritized First and Last Mile Connections (FLMC) as priority area of work.

- Two case studies of different contexts provide insight into the interface and collaboration between the MPO, transit agency, and local jurisdictions around FLMC strategies and policies.

- A third case study covers the state of shared mobility and social equity practices across the nation.

- These case studies will help provide MHC with useful information and a set of best practices to complement their regional and local work around social and equitable transit solutions.
Overview: Selected Regions

The Salt Lake Region was selected having a comparable context to Denver. The geographic character, political climate, and social equity issues around transit parallel many of those facing the Denver region.

The Atlanta Region was selected as a case study to learn how FLMC prioritization can take place in one of the most low-income suburbanized areas of the nation.
The Bottom Line

- NRDC and MHC want to draw out FLMC strategies, policies, and programs that may be replicable in the Denver region.

- Present best practices and replicable ideas to practitioners, officials and decision-makers.

- Educate advocates around FLMC opportunities in the Denver region.
Key Findings: The Salt Lake Region

• High level of interagency collaborative leadership, funding, and program support for FLMC.

• Wasatch Front Regional Council (WFRC) expanding active transportation projects and hiring an Active Transportation Coordinator.

• Utah Transit Authority (UTA) completed a FLMC Strategies Study in collaboration with WFRC, MAG, and UDOT
Key Findings: The Salt Lake Region

- Ogden City is in the process of completing the Bicycle Master Plan. The new infrastructure build out will serve as the backbone of a low-stress pedestrian and bike system connecting low-income communities.

- Strong coordination of FLMC efforts with Envision Utah, a local nonprofit agency that works with low income communities to support the regional Wasatch Choice for 2040.

- WFRC’s Local Planning Resource Program (LPRP) is a technical and consulting assistance program for local jurisdictions. Salt Lake County is a partner with WRFC in the LPRP.
Key Findings: The Atlanta Region

• MARTA has a growing TOD program with strong regional support.

• City of Atlanta’s existing infrastructure backlog is currently in excess of $1 billion. Renew Atlanta Infrastructure Bond (GO Bond) will fund up to $250 million in public improvement capital outlay projects.

• ARC is making an explicit effort to address regional poverty issues.
Key Findings: The Atlanta Region

- The Livable Centers Initiative (LCI) is ARC’s unique competitive planning grant program.

Transportation Projects Funded by Type

- Pedestrian Facility | 50%
- Joint Bike-Ped Facility | 17%
- Operations & Safety | 11%
- Capacity Reduction or Conversion | 8%
- Transit Facilities Capital | 8%
- Sidewalks and Trails | 5%
- Bicycle Facility | 1%

$8.2 million in LCI studies
$3.7 million in supplemental studies
$172 million in transportation projects (design, right-of-way and construction of 105 projects) in 63 LCI communities

$184 MILLION total federal investment
Key Findings: The Atlanta Region

• Equitable Target Area (ETA) Index to address environmental justice issues in Atlanta’s communities at a regional level.

• MARTA, ARC, GDOT collaborate on significant advancements within the Atlanta BeltLine.
What is shared mobility?
Key Findings: Shared Mobility

Shared mobility is comprised of short-term transportation solutions enabling users to access various shared vehicles, bicycles, or other low speed modes. Innovative shared mobility programs help to reduce vehicle miles traveled (VMT), auto emissions, car ownership rates, household costs, street space and parking demands, and traffic and congestion. Furthermore,

“shared mobility encourages greater use of transit, opens up more land for parks and other public space and can help improve users’ health by encouraging biking, walking and other forms of active transportation.”

Examples of shared mobility

**TYPOLOGIES AND OPERATIONS**

- Bikeshare systems
- Ridesharing services
- Bike libraries
- Ridesourcing services
- Carshare services
- Technology-enabled transit services
What are the challenges for shared mobility operations in low-income communities?
Shared mobility challenges

**FOUR KEY ISSUE AREAS**

**Structural**
- Physical access
- Logistical access difficulty

**Financial**
- Costs to the user
- “Unbanked” populations

**Informational and Cultural**
- Lack of information access
- Language barriers
- Cultural stigmas around shared mobility

**Profitability**
- Limits what kinds of ridership are included
- Impacted by lack of demand and the costs incurred by the user due to liability
Key Findings: Bikeshares

- Washington DC’s Capital BikeShare partners with Bank on DC to encourage and educate new and existing members.

- In D.C.’s Ward 8, Congestion Mitigation Air Quality (CMAQ) funding has been used for the first three years allowing for a capture of revenue.

- Huge success of bike library programs with low income and communities of color. Diverse learning opportunities and educational programs are generally offered.

- More subsidies mean more overhead, some models are better suited for self-sufficiency.
Key Findings: The Denver bikeshare landscape

<table>
<thead>
<tr>
<th>Memberships Purchased Or Redeemed</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual</td>
<td>1,784</td>
<td>2,675</td>
<td>2,734</td>
<td>4,023</td>
<td>3,980</td>
</tr>
<tr>
<td>30 Day</td>
<td>262</td>
<td>139</td>
<td>242</td>
<td>514</td>
<td>450</td>
</tr>
<tr>
<td>7 Day</td>
<td>268</td>
<td>215</td>
<td>281</td>
<td>417</td>
<td>500</td>
</tr>
<tr>
<td>24-HR</td>
<td>32,392</td>
<td>41,966</td>
<td>39,183</td>
<td>52,609</td>
<td>69,382</td>
</tr>
<tr>
<td>Total Memberships</td>
<td>34,706</td>
<td>44,995</td>
<td>42,440</td>
<td>57,563</td>
<td>74,312</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trips By Membership Type</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual</td>
<td>52,829</td>
<td>121,781</td>
<td>131,176</td>
<td>165,897</td>
<td>242,770</td>
</tr>
<tr>
<td>30 Day</td>
<td>555</td>
<td>1,314</td>
<td>3,179</td>
<td>5,640</td>
<td>6,094</td>
</tr>
<tr>
<td>7 Day</td>
<td>931</td>
<td>1,080</td>
<td>1,938</td>
<td>2,554</td>
<td>3,890</td>
</tr>
<tr>
<td>24-HR</td>
<td>47,644</td>
<td>78,556</td>
<td>70,681</td>
<td>89,019</td>
<td>124,475</td>
</tr>
<tr>
<td>Total Trips</td>
<td>102,159</td>
<td>202,731</td>
<td>206,974</td>
<td>263,110</td>
<td>377,229</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distance and Health (Estimates)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles Ridden</td>
<td>211,111</td>
<td>431,817</td>
<td>440,855</td>
<td>560,424</td>
<td>803,498</td>
</tr>
<tr>
<td>Estimated calories burned</td>
<td>6,333,332</td>
<td>12,954,511</td>
<td>13,225,639</td>
<td>16,812,729</td>
<td>24,104,933</td>
</tr>
<tr>
<td>Pounds of body weight equivalent to estimated calories burned</td>
<td>1,810</td>
<td>3,701</td>
<td>3,779</td>
<td>4,804</td>
<td>6,887</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Stations</td>
<td>50</td>
<td>52</td>
<td>53</td>
<td>62</td>
<td>84</td>
</tr>
<tr>
<td>Number of Bikes</td>
<td>500</td>
<td>520</td>
<td>530</td>
<td>709</td>
<td>709</td>
</tr>
<tr>
<td>Operating Days</td>
<td>227</td>
<td>271</td>
<td>278</td>
<td>288</td>
<td>365</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental and Economic Benefits (Estimates)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pounds of CO2 emissions avoided</td>
<td>311,900</td>
<td>729,783</td>
<td>807,887</td>
<td>1,028,836</td>
<td>1,486,288</td>
</tr>
<tr>
<td>Gallons of gasoline not used</td>
<td>15,857</td>
<td>37,101</td>
<td>41,071</td>
<td>52,305</td>
<td>75,561</td>
</tr>
<tr>
<td>Gasoline cost savings</td>
<td>$41,227</td>
<td>$120,579</td>
<td>$139,642</td>
<td>$180,452</td>
<td>$236,018</td>
</tr>
<tr>
<td>Parking cost savings</td>
<td>$311,126</td>
<td>$506,909</td>
<td>$505,203</td>
<td>$770,412</td>
<td>$1,110,638</td>
</tr>
</tbody>
</table>
Key Findings: The Denver bikeshare landscape

**OPERATIONS**
- 365 DAYS  \(\rightarrow\) FIRST YEAR-ROUND OPERATION
- January 1 \(\rightarrow\) December 31

**USE & USERS**
- 2 NEW STATIONS
- 803,498 MILES RIDDEN (+43% YOY)
- 377,229 RIDES (+43% YOY)
- 1,034 AVERAGE RIDES/DAY (+13% YOY)
- 74,312 MEMBERS (+29% YOY)

---

**Other Key Findings**
- 42% REPLACED CAR TRIPS WITH B-CYCLE TRIPS
- 29% USED B-CYCLE TO ENABLE JOINT TRANSIT
Key Findings: Carshares

- Buffalo CarShare was very successful and affordable to low income communities. Unfortunately, recent conflict with NY state law around “no-fault” insurance mandates led to a case of operations for BCS.

- It is important to keep the market open for nonprofit carshares, and prevent oversaturation of major conglomerate models.

- Carshares need to be part of the transportation plan, requiring a strong look at applicability at local and community levels.
Key Findings: Ridesourcing, Ridesharing and Technology

- Dallas Area Rapid Transit (DART) collaborated with Uber to create a mutual mobile ticketing application.

- These mobility options are often heavily used by low income populations, despite the financial barrier of needing a smart phone to use services.

- Controversial employment and labor impact from Transportation Network Companies (TNC) like Uber and Lyft.
RECOMMENDATIONS

Regional, local jurisdictions, and transit agency collaborations to implement FLMC policies, programs, and strategies.
Recommendations: Denver Regional Council of Governments (DRCOG)

- **Define First and Last Mile Connections:** With RTD, lead a consensus-building process for defining FLMC. This will enhance policy making and project selection through DRCOG’s TIP funding process.

- **Explicit Peer-to-Peer Exchange:** Continue to leverage and use existing relationships with the Salt Lake agencies as a learning and knowledge sharing opportunity.

- **Cross-boundary Dialogue:** This recommendation intends to drive the inter-agency relationship building process. Land use conversations are touchy, but important.
Recommendations: DRCOG

- **Equity and Poverty Committee:** Consider an interagency collaborative that explicitly focuses on cultivating and tracking regional work being done on poverty and equity.

- **Sub-Regionalize Denver Metro County Priorities:** Examine the potential to sub-regionalize counties and partners that want to undertake FLM strategies, such as building out bicycle and pedestrian infrastructure. Sub-regionalizing allow partners to participate by choice.
Recommendations: DRCOG

• **Leverage The Regional Equity Atlas to Develop Equitable Target Areas**: Use the Regional Equity Atlas to define specific Equitable Target Areas (ETAs). Well defined ETAs will help decision and policymaking moving forward with the prioritization of equitable resource allocation and projects.

• **Develop a funding model comparable to the Livable Center Initiative (LCI)**: Expand the Transportation Improvement Program (TIP) and other programs to set aside a pot of funds to apply to improvements in areas that have completed housing and transit studies.
Recommendations: Regional Transportation District (RTD)

• **First and Last Mile Connections and Strategies Study**: RTD should expedite the FLMC study with funding support and participation from DRCOG. In addition, this study should build in an explicit equity component.

• **Develop Real-time Geo-location Capabilities**: RTD should provide a multi-language tracking platform for their services. In addition, mobile service Wifi and mobile fare payment options should be included.

• **Parking and TOD**: RTD should analyze current and future land use around stations, and assess the valuations of turning parking into affordable housing or enhanced community station areas.
Recommendations: Local Jurisdictions

- **Prioritize FLMC with Future Bond Program:** Any future local bond program for capital projects and investments should have an emphasis on First and Last Mile Connection strategies and policies, and transit-supportive infrastructure.

- **Community Barriers and Needs Assessment:** In a greater regional effort to understand infrastructure and shared mobility applicability, local jurisdictions should assess their own communities’ needs.

- **Expand Active Transportation:** Elevate active transportation as a priority with projects and initiatives within opt-in local jurisdictions. Local jurisdictions will benefit from active transportation projects and initiatives on many levels.
Recommendations: Local Jurisdictions

• **Expand the Bike Depot:** Bike libraries are a great alternative for those residents that can not afford to purchase or rent a bike. The Bike Depot needs to expand, but also needs funding subsidies to do so.

• **Expand the B-Cycle:** Work with B-cycle to expand service into low-income and communities of color. Address the “unbanked” challenge by partnering with a local financial institution.
NEXT STEPS

Moving forward
Next Steps:

- **First and Last Mile Connections Program:** Solicit Feedback
- **Finalize Publications:** September 2015
- **Meet with Local and Regional Officials:** Remainder of 2015
- **Identify Priority Activities for 2016:** Remainder of 2015
Thank You!

Research for MHC / September 3, 2015

Catherine Cox Blair, Senior Advisor, NRDC (ccoxblair@nrdc.org)
Logan Sand, Intern, NRDC (logan.sand@ucdenver.edu)