Travel Behavior Trends: Competing for Mode Loyalty

Moderator: Matthew Dickens, APTA Senior Policy Analyst

Wednesday, January 30th, 3:00-4:15 PM Eastern
Speakers

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ALG Research
The Transformation of the American Commuter
Research Objectives

Frame
• Frame public transportation’s role in the New Mobility Landscape

Show
• Show how public transit will be necessary and relevant going forward, even in the face of new offerings/technology

Explain
• Explain public transit agencies’ emerging role as mobility managers
Key Finding #1

• Public Transportation is the Backbone of a Multi-Transit Lifestyle
  • New technologies, data capabilities, and business models disrupt public transportation
Public Transportation: Backbone of a Multi-Transit Lifestyle

• Millennials own cars more because they need them than because they want them

• Changing demographics and personal preferences favor public transportation
Key Finding #2

• Consumers Support Public Transportation
  • Support for more funding for public transportation is high
  • Support for transit priority: bus lanes
Consumers Support Public Transit

• Public transit will remain the most efficient way to move people, especially at peak periods
• Bus lanes and other interventions make public transportation more efficient
• These interventions are necessary to prioritize transit, grow ridership, and prevent congestion disaster
Key Finding #3

• Public Transportation’s Role is as Mobility Manager
  • Regional actors needed to organize the wealth of transportation options
Public Transportation’s Role: Mobility Manager

- Public transportation agencies well-suited to this role
- Best prepared to guide users to efficient and cost-effective travel
- Public agency has public mandate to protect the consumer and social equity
Takeaways/Next Steps

• Public Transportation will be the backbone of a multi-modal society
• Continue engagement with private sector partners
• Embrace culture of experimentation
• Protect consumer data & public interest as mobility managers
• Continue investing in public transportation
NEXTGEN
Bus Study
Understanding Transit Market Potential
APTA FutureView Webinar
01.30.19
Metro System Overview

**BUS**
- 140 Lines/170 Routes
- 2,300 buses
- 14,000 stops
- 800,000 weekday boardings
- 7 million annual service hours
- $1.2 billion annual operations

**RAIL**
- 4 Light Rail/2 Subway
- 240 cars
- 93 stations
- 350,000 weekday boardings
- 1.3 million annual service hours
- $542 million annual operations
So, what is NextGen?

A new bus network

Something for everyone

Why are we doing this?

Outdated bus network
It’s been 25 years since last redesign!

More People
1 million new residents

More places to go
New destinations

More ways to get there
Travel patterns have changed
Four Types of Customers

Frequent: 7%
Occasional: 22%
Infrequent: 55%
Non-Rider: 16%

As a % of all LA County residents
### Frequency of Travel

Based on four months of TAP (farecard) data

<table>
<thead>
<tr>
<th>Usage Frequency</th>
<th>Count of Tap Cards</th>
<th>Count of Boardings</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;150 Transactions</td>
<td>152,532</td>
<td>43,680,893</td>
</tr>
<tr>
<td>50 – 150 Transactions</td>
<td>248,851</td>
<td>22,027,882</td>
</tr>
<tr>
<td>10 – 50 Transactions</td>
<td>552,374</td>
<td>12,585,194</td>
</tr>
<tr>
<td>&lt;10 Transactions</td>
<td>1,905,501</td>
<td>5,614,072</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,859,258</strong></td>
<td><strong>83,908,041</strong></td>
</tr>
</tbody>
</table>

- **Frequent**
  - >150 Transactions: 152,532 (5%)
  - 50 – 150 Transactions: 248,851 (9%)
  - 10 – 50 Transactions: 552,374 (20%)
  - <10 Transactions: 1,905,501 (66%)

- **Occasional**
  - >150 Transactions: 152,532 (5%)
  - 50 – 150 Transactions: 248,851 (9%)
  - 10 – 50 Transactions: 552,374 (20%)
  - <10 Transactions: 1,905,501 (66%)

- **Infrequent**
  - >150 Transactions: 152,532 (5%)
  - 50 – 150 Transactions: 248,851 (9%)
  - 10 – 50 Transactions: 552,374 (20%)
  - <10 Transactions: 1,905,501 (66%)

Source: TAP data - Metro and Municipal Operators (July through October, 2017)
If 1 in 4 non riders used transit two times per month, we would more than recoup the lost ridership.
Regular riders take buses to...

Work: 85% of riders

Shopping, Errands, & Entertainment: Over 50% of riders

- **School**: High Frequency (70%)
- **Work**: High Frequency (90%)
- **Shopping**: High Frequency (55%)
- **Errands**: High Frequency (65%)
- **Entertainment/Dining**: Medium Frequency (40%)
- **Medical Appointments**: Low Frequency (30%)

**Days Per Week**

- **Never**
- **<1**
- **1-2**
- **3-4**
- **5+**

Source: Metro Customer Survey, 2017
Main Reason for Riding

- It’s convenient
- I don’t have a car available
- I don’t want to drive in traffic
- I don’t have a drivers license
- It’s good for the environment
- It’s cheaper than parking

Source: Metro Customer Survey, 2017
Main Reason for Riding

It’s convenient because...

It gets me where I need to go in timely matter
There is a stop near my house
It’s easy to use
It’s affordable

Source: Metro Customer Survey, 2017
More frequent service
More reliable service
Lower fares
More security
More late-night service
Cleaner buses or stops
Better walking access
More weekend service
Better information
Improved amenities

Over 40% indicated that each improvement would lead them to ride more

Source: Metro Customer Survey, 2017
Current Riders

What Does Frequent Mean?

During Peak Hours
- 5 min: 39%
- 10 min: 26%

Off-Peak Hours
- 10 min: 31%
- 15 min: 24%
- 20 min: 12%

What Does Reliable Mean?

1. Buses are on time
2. Accurate information on real-time arrival
3. Reduced transfer wait time
   (for Former and Infrequent Riders)

Source: Metro Customer Survey, 2017
Service Parameters

All Riders

- Travel Speed
- Frequency
- Reliability

Current

- More Service
- Fares
- Information

Former

- Security (women, certain geographies)
- First/Last Mile (elderly, higher income)
- Comfort (odors, crowding)

Infrequent/Non-Rider

- Information (non-riders)
- First/Last Mile (women, youth, elderly)
- Comfort (odors, crowding)
Population and Employment Density
Travel Intensity (cell phone data)
Travel Time Comparison with Auto

Transit Market Share

Transit is most competitive when no more than 2x slower than auto

Transit to Drive Time Ratio
Competitiveness and Market Potential

Transit Market Share by Distance & Percent of Total Trips

Increasing our transit share of short distance trips to 6% means 500,000 new trips.

% of total trips

0-1 miles: 22%
1-5 miles: 46%
5-10 miles: 16%
10+ miles: 16%
The *walk/wait* and *on-board* time are the two factors that make up total transit travel time.
When is **Travel Speed** important?

*For Long Distance Trips: 10 to 12.5 Miles*

- **30% of time** getting to/from transit
  - e.g. 10 mins

- **70% of time** on-board transit
  - e.g. 25 mins

**Travel Speed** is the key factor for longer trips.
When is **Frequency** important?

*For Short Distance Trips: 0 to 2.5 Miles*

- **Walk/Wait Time**
  - 50% of time getting to/from transit
  - *e.g. 10 mins*

- **On-Board Time**
  - 50% of time on-board transit
  - *e.g. 10 mins*

*Frequency* is the key factor for shorter trips.
More Frequent Service for Non-Commute Trips

Travel and Operations by Time of Day

Share of all trips and service by time of day

Current service does not match midday and evening travel demand.

Note: Bar chart shows data by time period while area plot shows hourly data.
Major Discoveries

It’s about the complete transit experience
• We need to be fast, frequent and reliable to be considered a viable travel option.
• Attracting customers to our services requires attention to the overall experience, including security for women, first/last mile connections for elderly, clear and relevant information for new customers, etc.

The existing network is misaligned with current travel demand
• High concentration of travel does not always mirror areas of high population and employment densities where we have the most transit service.
• Transit travel time must not be more than 2 times slower than driving to be competitive, which means faster bus service for long distance trips and more frequent service for short distance trips.
• We focus on serving long distance peak hour commute trips, while our biggest opportunity for growth is short distance trips throughout the day and evening.
Where do we go from here?

Technical Analysis

- **(Supply)** - Evaluate current network to identify high performing services for optimization and low performing for restructuring.
- **(Demand)** - Use new data (e.g. cell phone) and tools (e.g. transit propensity index) to identify new market opportunities.
- Understand travel patterns of existing and potential customers.
- Identify what it takes for transit to be competitive in these markets.

Public Outreach

- Conduct workshops to educate the public on process, data considerations, and to solicit feedback and ideas for improvement.
- Targeted outreach to specific needs (e.g. persons with disabilities, vulnerable communities)
Example: Corridor Analysis
Example: Market Opportunities

NextGen Public Transit Propensity Score (1/9/2019) 
(LACMTA Regional Service Councils, 2019)
Example: Mode Share Analysis
Example: Transit Competitiveness Analysis

- Transit Trip patterns match All Trips
- Increase midday frequency to improve competitiveness
Thank You

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Port Authority of Allegheny County
American Public Transportation Association
Key Findings from National Poll

January 30, 2019
Methodology

- Anzalone Liszt Grove Research conducted a nationwide survey of 1000 adults from June 7-14, 2018.

- The survey included a phone survey of 800 adults which has a margin of error of 3.5% at the 95% confidence level. The survey was conducted in English and Spanish and 52% of interviews were conducted over cell phones.

- The survey also included an online oversample of 200 millennials (aged 18 to 34). In all, the survey included interviews with 441 millennials over the phone and online.
Americans overwhelmingly agree that public transportation is the backbone of a “mixed-transit lifestyle.”

This belief is especially strong among African Americans and Latinos.

*Do you agree or disagree with the following statement: Public transportation is the backbone of a ‘mixed-transit lifestyle’*
Millennials place the most importance on access to public transit in deciding where to live and work, particularly millennials who are Democrats, who live in cities, who are well-educated and those of color.

<table>
<thead>
<tr>
<th>Importance of Public Transit to Deciding Where to Live</th>
<th>% Important</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL ADULTS</strong></td>
<td>48</td>
</tr>
<tr>
<td>18-34 Dem Male</td>
<td>76</td>
</tr>
<tr>
<td>18-34 City Dem</td>
<td>74</td>
</tr>
<tr>
<td>18-34 Liberal</td>
<td>68</td>
</tr>
<tr>
<td>18-34 of Color</td>
<td>67</td>
</tr>
<tr>
<td>18-34 City</td>
<td>65</td>
</tr>
<tr>
<td>18-34 Post College Grad</td>
<td>63</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Importance of Public Transit to Job Search</th>
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<tr>
<td><strong>ALL ADULTS</strong></td>
<td>50</td>
</tr>
<tr>
<td>18-34 City Dem</td>
<td>81</td>
</tr>
<tr>
<td>18-34 Dem Male</td>
<td>80</td>
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<td>18-34 City College Grad</td>
<td>74</td>
</tr>
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<td>18-34 Liberal</td>
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<td>71</td>
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<td>69</td>
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Americans strongly prefer the terms “mixed transit” or “multi-transit” to “multi-modal” for describing a lifestyle that regularly uses more than one type of transportation. There was no difference in preference for “mixed transit” vs. “multi-transit.” There was also a lack of awareness over what multi-modal meant in our qualitative research with millennials.

Which of the following do you think is a better term for describing a lifestyle in which someone uses more than one type of transportation on a regular basis?

Overall

Multi-modal vs. Mixed Transit

Multi-modal: 53%
Mixed: 25%

Multi-modal vs. Multi-transit

Multi-modal: 53%
Multi-transit: 22%

Millennial

Multi-modal vs. Mixed Transit

Multi-modal: 60%
Mixed: 26%

Multi-modal vs. Multi-transit

Multi-modal: 63%
Multi-transit: 23%
85% of Americans think public transportation is important to a “mixed transit” lifestyle. Millennials believe public transit is as important to such a lifestyle as a car.

For each of the following, please indicate how important you think it would be to a “mixed-transit” lifestyle:
There is strong support for increased funding for public transit at both the local and federal level.

Would you support or oppose your **city or town** increasing funding for public transportation?

- Strongly Support: 35%
- S'what Support: 21%
- Strongly Oppose: 10%
- S'what Oppose: 14%

Would you support or oppose the **federal government** increasing funding for public transportation?

- Strongly Support: 36%
- S'what Support: 26%
- Strongly Oppose: 15%
- S'what Oppose: 7%
By a more than two-to-one margin, Americans support more bus lanes in their city or town. Support for more bus lanes extends to those with no public transit in their town.

Which of the following comes closer to your opinion?

- I would support more bus lanes in my city or town to make public transportation easier to use and more efficient

![Bar chart showing support for more bus lanes by category](chart)

- Overall: 60% support, 28% oppose, +32
- Millennial: 62% support, 27% oppose, +35
- Public transit in city/town: 64% support, 27% oppose, +35
- No public transit in city/town: 52% support, 33% oppose, +19
Nearly half of Americans, and two-thirds of millennials, say they would be more likely to use public transportation if it were more convenient and accessible. Millennial Democrats, particularly men and those in the suburbs, would be most likely to use public transit more if it was more convenient. 40% of Americans with no public transit access say they would use it if more accessible.

**IMPACT OF MAKING PUBLIC TRANSIT MORE CONVENIENT / ACCESSIBLE**

*Would you use public transportation more if it were more convenient or accessible?*

<table>
<thead>
<tr>
<th>Subgroups Most Likely to Use Public Transit More if More Convenient / Accessible</th>
<th>% More Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OVERALL</strong></td>
<td>48</td>
</tr>
<tr>
<td>18-34 Dem Male</td>
<td>85</td>
</tr>
<tr>
<td>18-34 Suburb Dem</td>
<td>84</td>
</tr>
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<td>18-34 Liberal</td>
<td>80</td>
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<td>18-34 College Suburb</td>
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<td>18-34 Post College Grad</td>
<td>75</td>
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For those with public transit in their town, greater convenience and accessibility would have more of an impact on their public transit use than greater frequency. That said, over 40% of those with public transit in their town would use it more if it ran more frequently.

**MAKING PUBLIC TRANSIT MORE CONVENIENT / ACCESSIBLE VS. MORE FREQUENT**

**ADULTS WITH PUBLIC TRANSIT IN TOWN**
- Would use public transit more if more convenient and accessible: 52%
- Would use public transit more if more frequent: 42%

**MILLENNIALS WITH PUBLIC TRANSIT IN TOWN**
- Would use public transit more if more convenient and accessible: 69%
- Would use public transit more if more frequent: 54%
One challenge we have is that Americans have lost touch with what is a reasonable commute. Nine-out-of-ten commuters are satisfied with their commute, including 62% of those whose commute is over an hour. Car commuters are more likely to be very satisfied than those that commute by public transit.
Most Americans would prefer to commute by car, even if it took 10 minutes longer, than commute by public transit. This sentiment is held by millennials and across almost all major demographic groups. Frequent public transit riders are one of the few exceptions.

**COMMUTING PREFERENCE: PUBLIC TRANSIT VS. DRIVING**

Which of the following commutes would you prefer?

- Commute by public transportation even if it were 10 minutes longer
- Commute by car even if it were 10 minutes longer
- Whichever commuting option was faster

<table>
<thead>
<tr>
<th>Overall</th>
<th>Millennial</th>
<th>Use public transit a few times a week or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commute by car</td>
<td>47%</td>
<td>50%</td>
</tr>
<tr>
<td>Commute by public transportation</td>
<td>35%</td>
<td>22%</td>
</tr>
<tr>
<td>Whichever</td>
<td>26%</td>
<td>29%</td>
</tr>
</tbody>
</table>
While most prefer to drive even if it takes longer, Americans think taking public transit is more affordable than driving a car by a 20-point margin. Those who have public transit in their town are much more likely to see it as more affordable than those who do not.

**MORE AFFORDABLE COMMUTE: PUBLIC TRANSIT VS. DRIVING**

*Which do you think is typically a more affordable way to get around: public transportation or driving a car?*

- **Overall**: +20
- **Millennial**: +19
- **Public transit in city/town**: +18
- **No public transit in city/town**: +17

<table>
<thead>
<tr>
<th>Group</th>
<th>Public Transportation</th>
<th>Driving a car</th>
<th>NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>56</td>
<td>36</td>
<td>+20</td>
</tr>
<tr>
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<td>56</td>
<td>37</td>
<td>+19</td>
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<tr>
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</tr>
<tr>
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<td>46</td>
<td>44</td>
<td>+17</td>
</tr>
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</table>
While Americans believe public transit is more affordable, they believe driving is faster during rush hour. This belief may be driven by most public transit users taking the bus. Americans who commute on a train were one of the only groups that viewed public transit as a faster option during rush hour.

FASTER COMMUTE: PUBLIC TRANSIT VS. DRIVING

Which do you think is typically the faster way to get around a city or town during rush hour - public transportation or driving a car?

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<th></th>
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<td>Overall</td>
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<td>30</td>
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<td>29</td>
</tr>
<tr>
<td>Have access to frequent public transit bus</td>
<td>58</td>
<td>34</td>
</tr>
<tr>
<td>Use train</td>
<td>60</td>
<td>32</td>
</tr>
</tbody>
</table>

NET

Overall: -31
Millennial: -35
Have access to frequent public transit bus: -24
Use train: -28
FASTER COMMUTE: PUBLIC TRANSIT VS. DRIVING: +12
Americans overall are split on congestion pricing, but millennials support it by a 10-point margin. In our qualitative research, the biggest concern about it was its potential impact on lower income drivers, but lower income adults support it by double-digit margins, as do communities of color.

As you may know, “congestion pricing” increases toll prices for driving during peak travel times to help reduce traffic. Would you support or oppose the use of congestion pricing in your city or town if all the money that it raised was used to increase funding for public transportation?
Nearly a quarter of Americans – and almost a third of millennials – say they would use a ride-sharing service operated by their town’s public transit agency. Black and Latino adults would be much more likely to use such a service than White adults.

If the public transit agency in the city or town you live in operated a ride-sharing service similar to Uber or Lyft, how likely would you be to use it – would you definitely use it, probably use it, probably not use it, or definitely not use it?