MTA Planning Survey Program

- Why survey?
- Who was surveyed?
- Challenges
- Methodologies
- Findings
- Uses for data
Why Survey?

- Integrate household and demographic data with travel data
- Inform service and capital planning decisions
- Understand the growing and evolving uses and users of the system
- Understand market opportunities
- Maintain federal funding eligibility
- Recalibrate MTA’s regional forecasting model
- Create a “system of surveys” for the entire region
Who was surveyed?

- **Metro-North Railroad Customers, 2007**
- **New York City Residents, 2008**
- **Long Island Rail Road Customers, 2012-2014**
Unique Challenges

• Commuter railroad systems are extensive and diverse
  – Complex travel patterns
  – Commuter sheds that extend over 100 miles
  – Diverse travel markets with different characteristics and demographics
  – Need for ridership counts for every station

• NYCT network is vast and heavily used
  – 23 subway lines with 468 stations; thousands of bus stops – surveying on board would be difficult and expensive
  – Distribution and collection of surveys– i.e. short trips, transfers to other lines, crowded conditions
Metro-North
Origin & Destination Survey
Methodology: MNR

• Fieldwork conducted in spring and fall of 2007
• On-board survey distribution for all Manhattan-bound trains
  – 45% response rate: 206,000 distributed, 93,000 returned
  – Surveys in English and Spanish
• On board ridership counts for all trains
  – Total of 1,378 trains counted
  – Later used to expand survey data
• Asked about current and return trips
• First O&D survey for MNR; first time Internet used as a response option
## MNR Snapshot of Travel Markets

<table>
<thead>
<tr>
<th></th>
<th>Work Travel to Manhattan</th>
<th>Non Work Travel to Manhattan</th>
<th>Intermediate Travel</th>
<th>Reverse Work Travel</th>
<th>Outbound Discretionary Travel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Travelers</strong></td>
<td>75,500</td>
<td>21,200</td>
<td>14,400</td>
<td>11,500</td>
<td>3,200</td>
</tr>
<tr>
<td><strong>Car Available?</strong></td>
<td>86%</td>
<td>74%</td>
<td>59%</td>
<td>27%</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Primary Access Mode</strong></td>
<td>Drive Alone (51%)</td>
<td>Drive Alone (36%)</td>
<td>Drive Alone (29%)</td>
<td>Subway (39%)</td>
<td>Subway (60%)</td>
</tr>
<tr>
<td><strong>Primary Egress Mode</strong></td>
<td>Walk (62%)</td>
<td>Subway (45%)</td>
<td>Walk (60%)</td>
<td>Walk (61%)</td>
<td>Picked Up (40%)</td>
</tr>
<tr>
<td><strong>Predominant Ticket Type</strong></td>
<td>Monthly (86%)</td>
<td>Round Trip (32%)</td>
<td>Monthly (56%)</td>
<td>Monthly (62%)</td>
<td>One Way (29%)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>F (40%)</td>
<td>F (54%)</td>
<td>F (49%)</td>
<td>F (55%)</td>
<td>F (56%)</td>
</tr>
<tr>
<td></td>
<td>M (60%)</td>
<td>M (46%)</td>
<td>M (51%)</td>
<td>M (45%)</td>
<td>M (44%)</td>
</tr>
<tr>
<td><strong>Median HH Income</strong></td>
<td>$173,800</td>
<td>$120,200</td>
<td>$80,000</td>
<td>$72,000</td>
<td>$86,800</td>
</tr>
<tr>
<td><strong>Median Age</strong></td>
<td>40</td>
<td>38</td>
<td>35</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>
Inbound customers tend to be more affluent; over 2/3 have median household incomes of $100,000 or more.

More than 1/3 of outbound customers have median household incomes < $50,000.
MNR Customer Insights: Age

Age Distribution by Travel Direction
Weekday Trips, All Purposes

- Outbound customers tend to be younger, with more than 40% under 30.
- Inbound customers tend to be older, with more than 50% over 40.
More than half of outbound customers rely on transit to access MNR.
Inbound customers’ primary mode of access to the train is by car.
Access to White Plains Station

Access Modes:
- Walk
- Park & Ride
- Dropped Off
- Bus
- Taxi
- Other
NYC Travel Survey
Methodology: New York City Survey

- Conducted in spring and fall of 2008
- Mainly telephone-based; land lines and cell phones
- Over 16,000 NYC residents aged 18+; 13,500 randomly selected households
  - All households contacted by mail
  - Non-landline households offered incentives to call
- Asked about all travel via all modes in the previous 24 hours
- Travel confirmation
  - MetroCard serial # records
  - Immediate electronic geocoding
Overall, trips generated in each borough remain in that borough.
NYC Insights: Trip Destinations
Weekdays, Work Trips, All Modes

*Weekday work trips tend to be more Manhattan-centric*
NYC Insights: Manhattan Destinations
Weekdays, All Modes

Trips to Manhattan increase significantly when looking at the following four types of trip markets
Auto & Transit Trip Destinations
Weekdays, Work Trips, 6-10 AM

Auto Trip Destinations

Transit Trip Destinations
NYC Insights: Trip Purposes
Weekdays, by Mode & Time of Day

- Most weekday trips are NOT for work
- Work is the predominant purpose for all trips between 6 and 10 AM on weekdays
- Even during the AM Peak, non-work trips account for up to a third of travel.

"School" purpose trips are made by NYC residents aged 18+ and include students in post secondary schools.
Income Distribution by Mode (Weekdays)

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Subway Only</th>
<th>Subway &amp; Bus</th>
<th>Bus Only</th>
<th>All Transit Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $25,000</td>
<td>19%</td>
<td>26%</td>
<td>35%</td>
<td>23%</td>
</tr>
<tr>
<td>$25,000 to $50,000</td>
<td>24%</td>
<td>29%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>$50,000 to $75,000</td>
<td>20%</td>
<td>18%</td>
<td>14%</td>
<td>19%</td>
</tr>
<tr>
<td>$75,000 to $100,000</td>
<td>13%</td>
<td>13%</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>$100,000 to $150,000</td>
<td>12%</td>
<td>9%</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>$150,000 to $200,000</td>
<td>5%</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>$200,000 or more</td>
<td>7%</td>
<td>2%</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Median Income

- Subway Only: $58,300
- Subway & Bus: $46,300
- Bus Only: $39,600
- All Transit Modes: $52,042
Age Distribution by Mode (Weekdays)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Subway Only</th>
<th>Subway &amp; Bus</th>
<th>Bus Only</th>
<th>All Transit Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>9%</td>
<td>9%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>25-54</td>
<td>71%</td>
<td>65%</td>
<td>51%</td>
<td>66%</td>
</tr>
<tr>
<td>55-64</td>
<td>16%</td>
<td>19%</td>
<td>27%</td>
<td>19%</td>
</tr>
<tr>
<td>65+</td>
<td>4%</td>
<td>7%</td>
<td>17%</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Median Age**
- Subway Only: 41
- Subway & Bus: 42
- Bus Only: 49
- All Transit Modes: 43
Long Island Rail Road
Origin & Destination Survey
Methodology: LIRR

• Fieldwork began in fall 2012
• On-board survey distribution for all westbound trains
  – Almost 90,000 surveys returned (as of 2/28/14)
  – Estimated response rate of 43%
  – Surveys in English and Spanish
• On board ridership counts for all trains
  – Total of 1,662 trains (when complete)
  – Ridership counts to be used for survey data expansion
• Complexity of Jamaica transfer hub
• Work expected to be completed by mid-2014
Uses for Survey Data

**MNR O&D Survey**
- Station access and parking improvement analyses
- Better understand how customers use system
  - West of Hudson customers using East of Hudson service
  - Intermediate riders, other market segments
- Compliance with Federal reporting requirements

**NYC Survey**
- Inform service planning and policy decisions
- Better understand demographics of transit users
- Knowledge about station usage, including access to transit, propensity of transfers, etc.
- Update travel forecasting models; check model results
Data Available on MTA Website

MNR and NYC Surveys are now posted on the MTA Website and include:

- Databases
- Data Dictionaries
- Final Reports

http://web.mta.info/mta/planning/index.html
For more information contact Julia Seltzer at jseltzer@mtahq.org

To listen to the webinar recording go to https://meetny.webex.com/meetny/lsr.php?RCID=94221ffcefd1167fde405f59eb469e9c