

Clara Reschovsky Metropolitan Washington Council of Governments January 23, 2009

Washington Region Complexity

- o Multi state, multi jurisdictional
- o Different modal options
 - Commuter Bus (multiple providers)
 - Commuter Rail (multiple providers)
 - Subway (Metro)
 - Local Bus (multiple providers)
 - HOV lanes slugging
 - Bicycle paths and lanes

Washington Region Complexity (cont'd)

- Special accommodations for challenges
 - Trained interviewers on local area geography
 - Geocoded trip ends in house
 - Offered \$50 incentive to attract nontraditional households
 - Minorities, households in poverty, cell phone-only households

Working with Baltimore

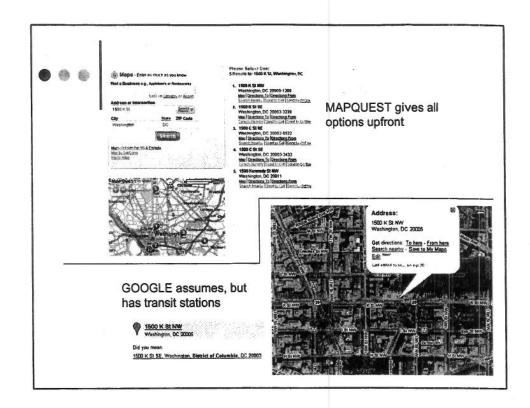
- o Baltimore Metropolitan Council joined beginning in Quarter 2
- Win-win for both agencies resulting in fuller dataset that is completely integrated
- Have continued to work with BMC during the editing process

Geocoding

- o Done during the survey
 - New for both MPO and for contractor
 - Allowed for local knowledge to be applied
 - Moved to Navteq Database (very helpful)
- o Results: 97% of trip ends geocoded to x,y coordinates

Geocoding Technology

- o Anybody can geocode, but not always well!
- o ArcMap allows for a reasonable autocoder
 - Overall about 75% autocoded
- o Manual coder is tedious but functional
- o Online map services have come a long way
 - Mapquest has a solid tight algorithm, but requires state/city or zip
 - GoogleMaps is looser good when provided info is thin



Post Survey Activities

- o Contractor runs edit checks on data
- o Contractor QCs geocoding
- o MWCOG runs additional edit checks (adding local knowledge)
- o Determine if any households will need to be dropped for insufficient data

Basic Edit Checks

- o Verify Persons with no trips are reasonable
- Verify Persons outside Region for full travel day are truly outside Region
- Verify Trip +Activity Time = Full 24 hours (for trip makers who spent some or all of their day in region)

Basic Edit Checks (cont'd)

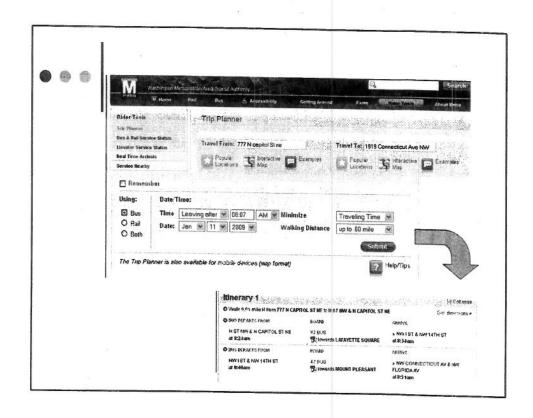
- o Geocoded remaining missing trip ends
 - About 3% of 132,000 trip ends
 - Used other household members or other destinations to determine locations where necessary
- Conduct analysis of Quick Stops (gas vs. other)
 - Recode trip purpose of some 'Quick Stops'

Commuter Rail/Bus Analysis

- o Standardize Rail Station Names
- o Verify Rail Trips start & end at stations
- Recode trips to Metro/Local Bus as necessary
- o Add missing Mode of Access/Egress segments

Metrorail Trip Analysis

- Standardize Metrorail Station Names
- o Verify Metro Trips start & end at stations
- Recode trips to Commuter Rail or Local Bus as necessary
- Add missing Mode of Access/Egress segments
- Used Metro's Trip Planner to aid in decision making for trip tours missing segments



Local Bus (only) Trips Analysis

- o Verify Trips are Bus Only
- Add missing Mode of Access/Egress segments
- o Switch to MetroRail trips as necessary

Carpool/Auto Passenger Analysis

- o Verify each passenger has a driver
- o Consistency check with other household members

Trip Linking & Survey Weighting

- Verify estimated modal shares and person trip totals with other data sources (eg. Metrorail and Metrobus surveys, ACS Commuting Data)
- Time/Distance/Speed checks by mode
- o Check trip length frequency distribution by trip purpose

Some Lessons Learned

- Schedule sufficient time for developing survey materials and scripts for CATI system
- Pretest is helpful for checking methodology and trying strategies
- Schedule time to analyze pretest results before moving into main survey

Some Lessons Learned (cont'd)

- o Incentive is useful
 - Industry question How much money should be offered to be effective without spending more than necessary?
- Geocoding in house allowed us to keep closer control on how it was going during the survey – rather than after the fact

Next Steps

- o Finish processing data
- o Fully analyze results
- o Produce reports