

# Task 2. Data Identification, Collection and Review

## 1.1 Outline

This task will assemble the data needed for model estimation, validation, and application and to create the databases needed for these efforts. Tasks will include:

- identify and review the available data sources.
- examine the relevant variables available in existing data sets and how they can be used in the ABM model development process.
- evaluate the quality, integrity, and potential issues with the available data in relation to the model development.
- combine the data from the various sources into consistent databases for model development and validation.
- identify any data gap and develop a data collection plan

**Table 1. Data Development Tasks**

<b>Tasks</b>	<b>Task Lead</b>	<b>Oversight</b>	<b>Revised Schedule</b>
Identify and review data sources	CS (Feng Liu)	CS (Tom Rossi)	8-9/2013 (Done)
Develop data from surveys for model estimation	CS (Feng Liu)	CS (Tom Rossi)	1/31/2014
Prepare a memo on conducting systematic checking of transportation networks (highway and transit) and path building procedures for quality assurance and quality control	AECOM (Pat Coleman)	CS (Feng Liu)	9/2013 (Done)
Conduct systematic checking of highway networks and refinements	SWA (Paul Silverman)	AECOM (Pat Coleman)	1/31/2014
Conduct systematic checking of transit networks and refinements	Gallop (Eric Ho)	AECOM (Pat Coleman)	1/31/2014
Develop highway skims	SWA (Paul Silverman)	AECOM (Pat Coleman)	2/14/2014 3/14/2014
Develop transit skims	Gallop (Eric Ho)	AECOM (Pat Coleman)	2/14/2014 3/14/2014
Prepare a memo on network development	AECOM (Pat Coleman)	CS (Tom Rossi)	11/2013 (Done)
Identify the socioeconomic data variables needed for model development	CS (Feng Liu)	CS (Tom Rossi)	10/2013 (Done)
Develop additional MEF-related employment data	BMC (Birat/Dunbar)	CS (Feng Liu)	12/2013
Develop socioeconomic data for model development, including location-specific data	SWA (Paul Silverman)	CS (Feng Liu)	1/31/2014
Identify the need for supplemental data	CS (Feng Liu)	CS (Tom Rossi)	9/2013 (Done)
Develop supplemental data	SWA (Paul Silverman)	CS (Feng Liu)	2/28/2014

Potential supplemental data collection:

- Transit ridership by local providers - 3/2014

- Bike/pedestrian network - (existing data)
- Parking cost and supply - (existing data)

#### Detailed Tasks for AECOM

- Prepare model assignable transit survey trip tables (01/31/14)
- Review Sabra Wang/Gallop findings and make necessary model changes, e.g., highway/transit times calculations etc.(02/14/14)
- Perform transit survey trip table assignments and refine path parameters (02/28/14)
- Develop highway and transit skims for model estimation (03/14/14)

#### Detailed Tasks for Gallop

- Check if all the base year transit routes are coded in the model. Add/modify routes as necessary. (12/20/2013)
- Check/modify the route coding. Check headways, route alignment, stops etc. (1/15/2014)
- Check bus coding at major transit centers and transfer points to make sure buses are stopping at those nodes and transfers can occur.
- Check the list of park and ride lots coded in the model (1/24/2014)
- Prepare observed versus modeled transit travel times comparison for transit routes. Use travel times from schedules/GTFS data for observed. (1/31/2014)

#### Detailed Tasks for Sabra & Wang Associates

- Obtain most recent HPMS data
- 2010 Base year network coding QA/QC (facilities, lanes, turning restrictions, capacities, ffspeeds, time of day restrictions, Toll and HOV coding, etc.)
- 2010 Base year access coding QA/QC (centroid connections, terminal times by time of day, walk networks)
- Create 2010 intersection type point GIS file from centerline GIS network (12/31/2013)
- Check/Create stop/station/Route GIS (From GTFS Feeds or other sources) for BMC region using Baseline Centerline Network Base Maps (12/31/2013)
- Calculate distance to transit stops/stations from Parcel/Points (12/31/2013)
- 2010 Base Year (Round 8 BMC 4.3) Model Runs with updated networks/data: Run and QA/QC OD Time Checks by time of day

- Conduct speed/travel time QA/QC on all networks using INRIX and Traffic Count data (By facility type, jurisdiction, screen line, etc.) VMT, times, etc. (1/31/2014)
- Develop socioeconomic data for model development, including location-specific data
  - MdProperty View Data GIS Integration
  - School Enrollment (Colleges & Private Schools) (12/31/2013)
  - Parcel/Point Variable Estimation (Householders, Workers, Employment, etc. (2/28/2014)
- Develop supplemental data
  - Transit Service & Ridership (Private & Local Providers) (2/28/2014)
  - Bike & Pedestrian Networks (2/28/2014)
  - On street parking Cost & Supply (2/28/2014)
  - Off street parking Cost & Supply (2/28/2014)

#### Detailed Tasks for BMC

- INRIX data processing (1/10/2014)
- Parcel-point buffer variables (1/31/2014)