Background on VMT Projections

- MPO Land Use Projections
- Transportation Networks
- Travel Pattern Data (Surveys)
- Traffic Counts (AADT)

Travel Demand Model

Roadway Volumes

\[ \sum \text{Roadway Volumes} = \text{VMT} \]

WILMAPCO Air Quality Subcommittee
March 13, 2014
DNREC AQS: “Why Does VMT Grow Faster than Population?”

Some Indications for Delaware:

1) Relative Location of Existing and Future:
   -- Dwelling Units
   -- Jobs

2) Relative Growth of Longer Distance VMT.

3) Relative Growth in Certain “Modeled” Counties.
Study Process:

1) Coding/Quality Check of ALL Model Inputs:
   - *TAZ Data* -- Existing and MPO Projections
   - *Roadway Network Coding* -- Speeds, Lanes, Capacities
   - *Model Equations (from U of D Monthly Survey):*
     - Trip Generation Rates
     - Trip Length Frequencies (Time and Distance of Travel)
     - Mode Shares (Auto vs. Transit, NO BIKE/PED)
     - Assignment Calibration (2012 Traffic Summary AADT)

2) Review 2012 – 2040 VMT Trends:
   - *County (over Time)*
   - *County – to – County*

3) Identify Indicators / Variables Affecting VMT in (Any) Model.
1) Relative Location of:
2013 Existing Dwellings
2040 Future Dwellings

Sources:
- Delaware Population Consortium
- MPO Data Subcommittees
2) Relative Growth in Longer Distance VMT:
3) Relative Growth in Modeled Counties:
Decrease (RED)  Moderate Growth (GREYS)  Higher Growth (BLUES)
Relative Growth in Modeled Counties:
Decrease (RED)  Moderate Growth (GREYS)  Higher Growth (BLUES)
Some Other Indicators:

1) “External to External” Travel:
   Traffic traveling from one “edge” of the modeled area to another; traffic that “passes thru” modeled area and does not stop.
   **Task:** Review and update assumptions (i.e. Bay Bridge, I-95, etc).

2) Trip Lengths in Maryland:
   **Task:** Review and update assumptions.

3) Evaluate Freight and Trucks:
   **Task:** Review VMT Trends.

4) Evaluate Other MPO VMT Trends.

5) Evaluate Aging Population.

5) Evaluate VMT without MD Counties:
   **Task:** Drop Peninsula Model for AQS purposes – return to “individual county models” with fixed assumptions.