

2045 LONG-RANGE TRANSPORTATION PLAN: Transportation Analysis Zone Base Year Update and Boundary Review



Presented to the Long-Range Transportation Plan Subcommittee
February 7, 2018

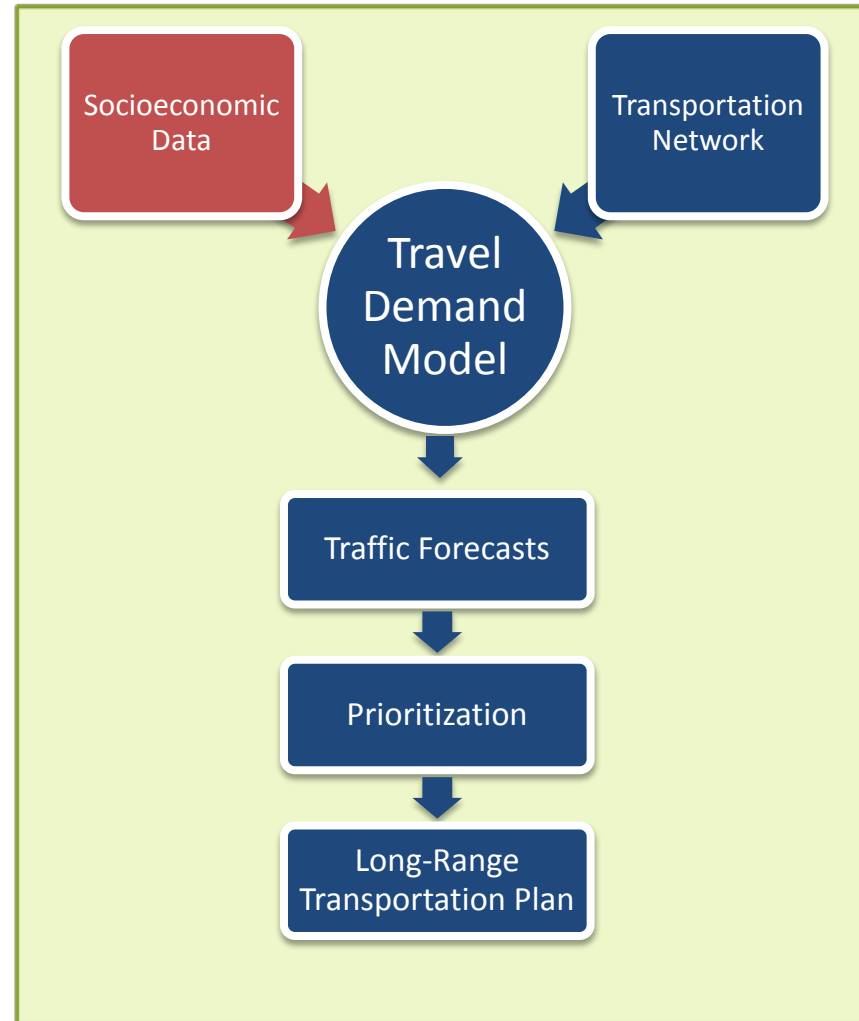
Leo Pineda II
Transportation Planner II

2045 SOCIOECONOMIC FORECAST



Approved by the Board July 20, 2017

- Population
- Households
- Vehicles per Household
- Workers per Household
- Total Employment
 - Retail
 - Office
 - Industrial
 - Other

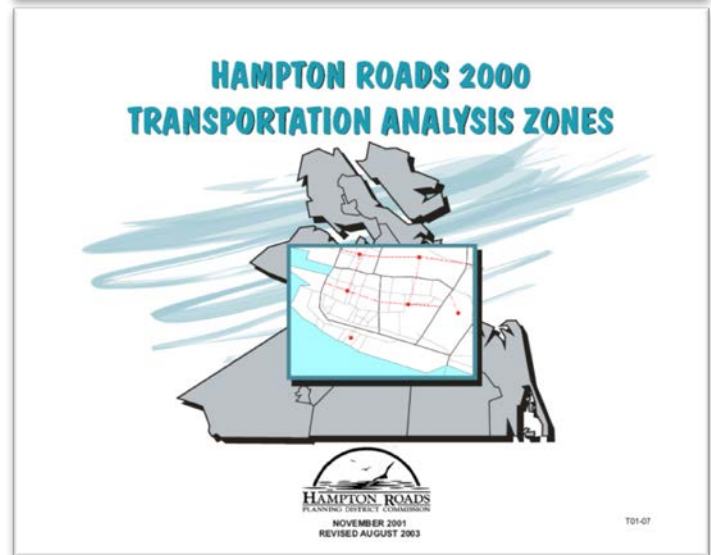
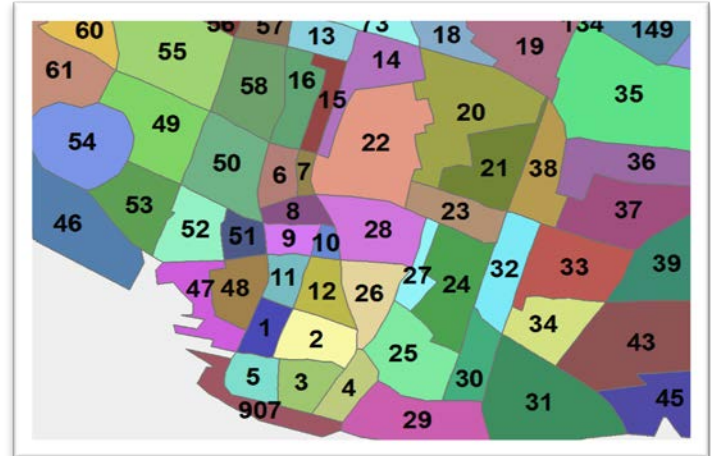


TAZ BOUNDARY REVIEW



- Last Reviewed/Updated in 2000
- Model Needs to Reflect Current Land Uses
 - Impacts Trip Generation, Distribution, and Assignment

Transportation Analysis Zones (TAZs)



TAZ Guidelines*

Compatible with base- and future-year highway/transit networks

Compatible with census, physical, political, and regional boundaries

Homogeneous land uses

Average population between 1,200 and 3,000

Generates less than 15,000 person trips/day

Reasonable number of intrazonal trips

Special generators/attractors should be isolated

Source: VDOT Travel Demand Modeling Policies and Procedures, 2014

*Exceptions for rural and downtown areas

SOCIOECONOMIC DATA



Current Base Year: 2009

- Base Year data cannot be more than 10 years old

2015 Base Year Data

- Data Sources (to distribute to TAZ level):
 - Business Analyst
 - Virginia Employment Commission (VEC)
 - Does not include self-employed, agriculture, domestic workers or military employment
 - Department of Education
- Validation Check:
 - Locality Control Totals (US Census Bureau, Weldon Cooper Center, HRPDC)
 - **Locality Review**

ASSUMPTIONS

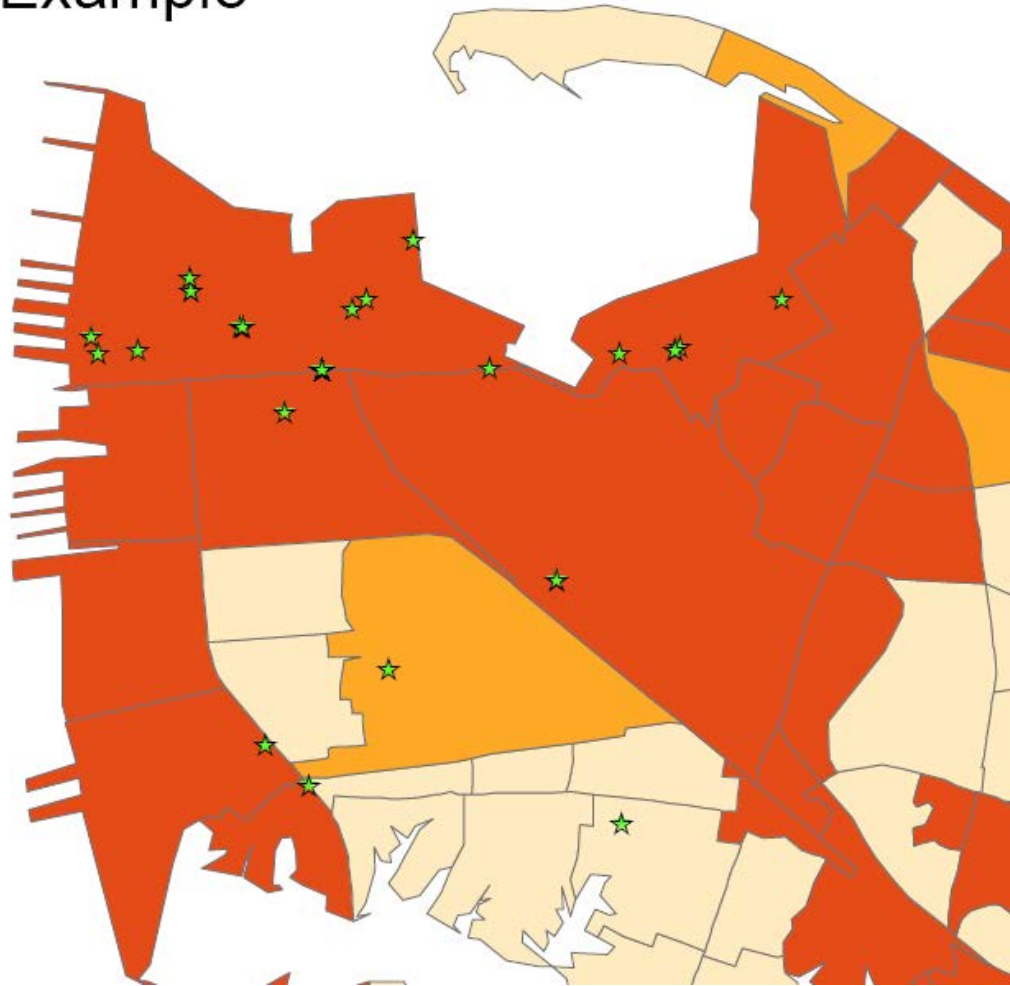


- Business Analyst (BA)
 - ESRI and Infogroup
 - Geocoded dataset
 - May not be as accurate
- Virginia Employment Commission (VEC)
 - > 90% Geocoded
 - Latitude/Longitude
 - Addresses
 - ~10% Not Geocoded
 - Used distribution patterns from BA data
- Both data sets adjusted to Locality Control Totals
- Highlighted TAZ's above/below VDOT Guidelines based on current boundaries

MILITARY EMPLOYMENT



Example



Reviewing Data

- Provided to localities using existing TAZ boundaries
- Highlighted fields that are above/below the population guideline thresholds

Following Review

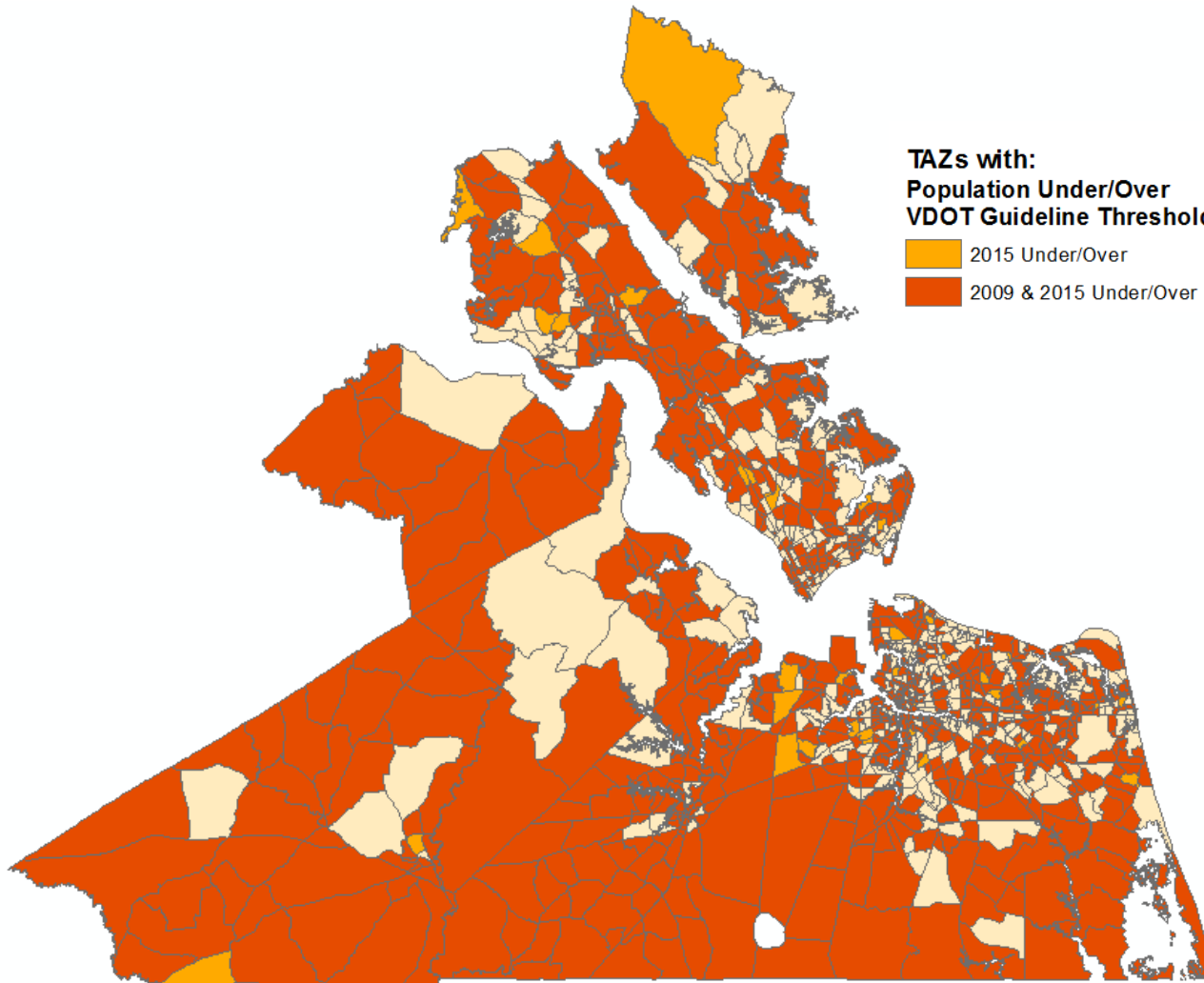
- TAZs will be adjusted based on feedback and guidelines
- Meet with localities to go over all changes made to boundaries

SOCIOECONOMIC DATA

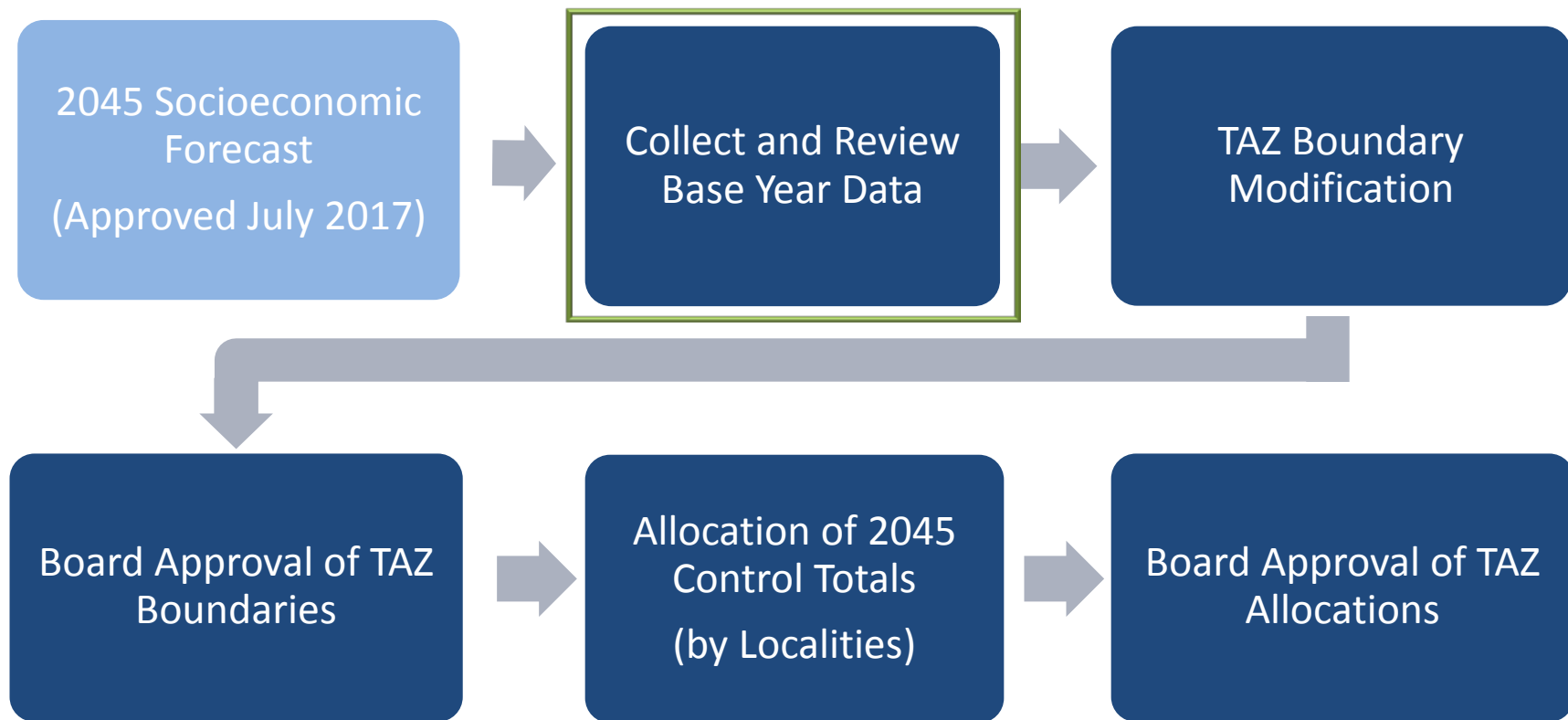


TAZ	Local	Sq mi	Population		Employment		
			2009	2015 BA Adjusted	2009	2015 BA Adjusted	2015 VEC Adjusted
355	Chesapeake	0.1057	283	362	21	15	21
356	Chesapeake	0.1174	493	516	273	220	327
357	Chesapeake	0.2516	0	0	222	195	190
358	Chesapeake	0.1401	463	454	78	211	203
359	Chesapeake	0.3527	1	1	465	538	594
360	Chesapeake	0.6096	4543	4210	177	102	171
361	Chesapeake	0.2932	666	694	15	83	97
362	Chesapeake	0.5107	1605	1531	1083	498	484
363	Chesapeake	1.1844	3110	2880	10247	8426	8174
365	Chesapeake	0.5212	2550	2454	34	230	224
366	Chesapeake	0.6960	2445	2304	830	1080	1048
367	Chesapeake	0.2847	1039	1468	804	484	470
368	Chesapeake	0.5702	5175	4129	490	409	397
369	Chesapeake	1.0159	5352	5924	1341	1080	1048
370	Chesapeake	0.9034	147	108	1656	931	904
371	Chesapeake	0.2618	26	11	120	218	212
372	Chesapeake	0.2179	1145	1388	131	176	171
373	Chesapeake	0.5960	2304	2346	523	449	483
374	Chesapeake	0.4429	1744	1871	468	381	370

SOCIOECONOMIC DATA



NEXT STEPS



Comments

- Review 2015 base year data and submit comments by February 28, 2018

Contact

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