# Travel Demand Model Fact Sheet

**Identification**

Model Name: Ashland Travel Model  Model Area: Ashland, Boyd County & Greenup County

Purpose of Model: MPO model for transportation project planning and air quality

Model Developer: The Corradino Group  Mod. Software Used: TransCAD

Date Model Work Began: 2001  Date Finished: December 2002

| Model Years: | Base Yr: | Fut. Yr: | Interim Years: | | | |
|---|---|---|---|---|---|---|
| | 2000 | 2025 | | | 2010 | 2020 |

**Technical Specifications**

**# TAZs / # links:**

120 TAZs in Boyd Co, 60 TAZs in Greenup Co, 18 external zones; Total 198 TAZs
# links varies by alternate year

**Trip Rates:**

1.33987 for Boyd; 0.86577 for Greenup

**Trip Generation Equations:**

NCHRP Report 365

**EE Methodology:**

Original NCHRP Report 365. Then adjusted using TransCAD's O-D matrix estimation routine.

**BPR Equations Used:**

F(I)p = ap * (I**bp) * EXP (cp *I)

**Assignment Methodology:**

TransCAD's gravity model/ O-D Matrix Estimator

| Truck Model: | Mode Choice: |
|---|---|
| NA | NA |

| Time of Day Modeling: | Model Running Time: | Air Quality Component: |
|---|---|---|
| NA | <1 minute | NA |

**Script / Batch File Description (How Developed?)**

TransCAD GISDK

**Calibration/Validation**

| RMSE: | Screenline Summary - Y/N: | How Many: |
|---|---|---|
| @ 36% | Y | 5 |

**Methods Used for Calibration:**

**Urban / Rural Comparison:**

Urban better than rural.

**Unusual Calibration Measures Taken (K-Factors; Matrix Estimation):**

Added trip generation factors to counter overestimation in Greenup County and underestimation in Boyd County.

**VMT Model / (HPMS) VMT KYTC Comparison:**

Boyd: 1,354,814 vs. 1,349,000  Greenup: 904,072 vs. 908,000

**VMT Increase In Future Year:**

Yes

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**Data Collection/Network Development**

Special Counts - Y/N: N How Many? Where?

SE Data: Base Data Source: Census/ ES-202 Population/Employment Ratio:

Future Estimate Source: KY State Data Center + prudently minor growth estimate

Base Network Developed From?: Tiger files

Other Data (e.g. Origin-Destination): Used Owensboro as example of adjustments in TransCAD

Other Networks: Scenarios / Alternative Networks:

None

E + C: None