

Data / Information Needs Air Quality Modeling in Areas Without Network Models

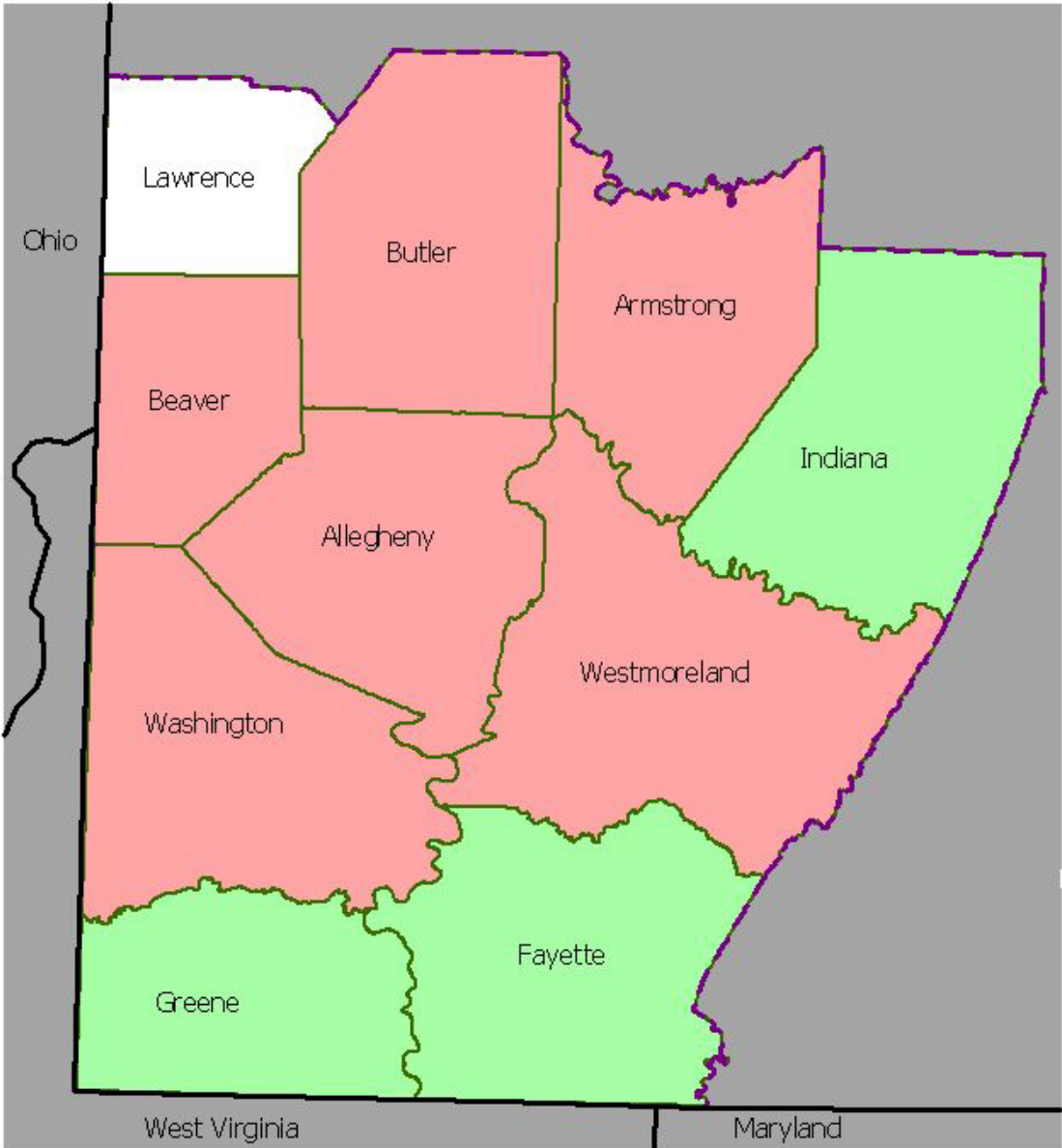
Presentation to:
National Association of Regional Councils
37th Annual Conference and Exhibition
Pittsburgh Hilton and Towers

Chuck Imbrogno
Southwestern Pennsylvania Commission
June 22, 2003

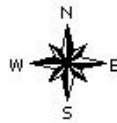
The SPC Region

- **SPC is MPO for Ten County Region:**
 - **Six County Region Prior to 1998**
 - **Three Counties Added in 1998**
 - **One County Added in 2003**

SPC Planning Region



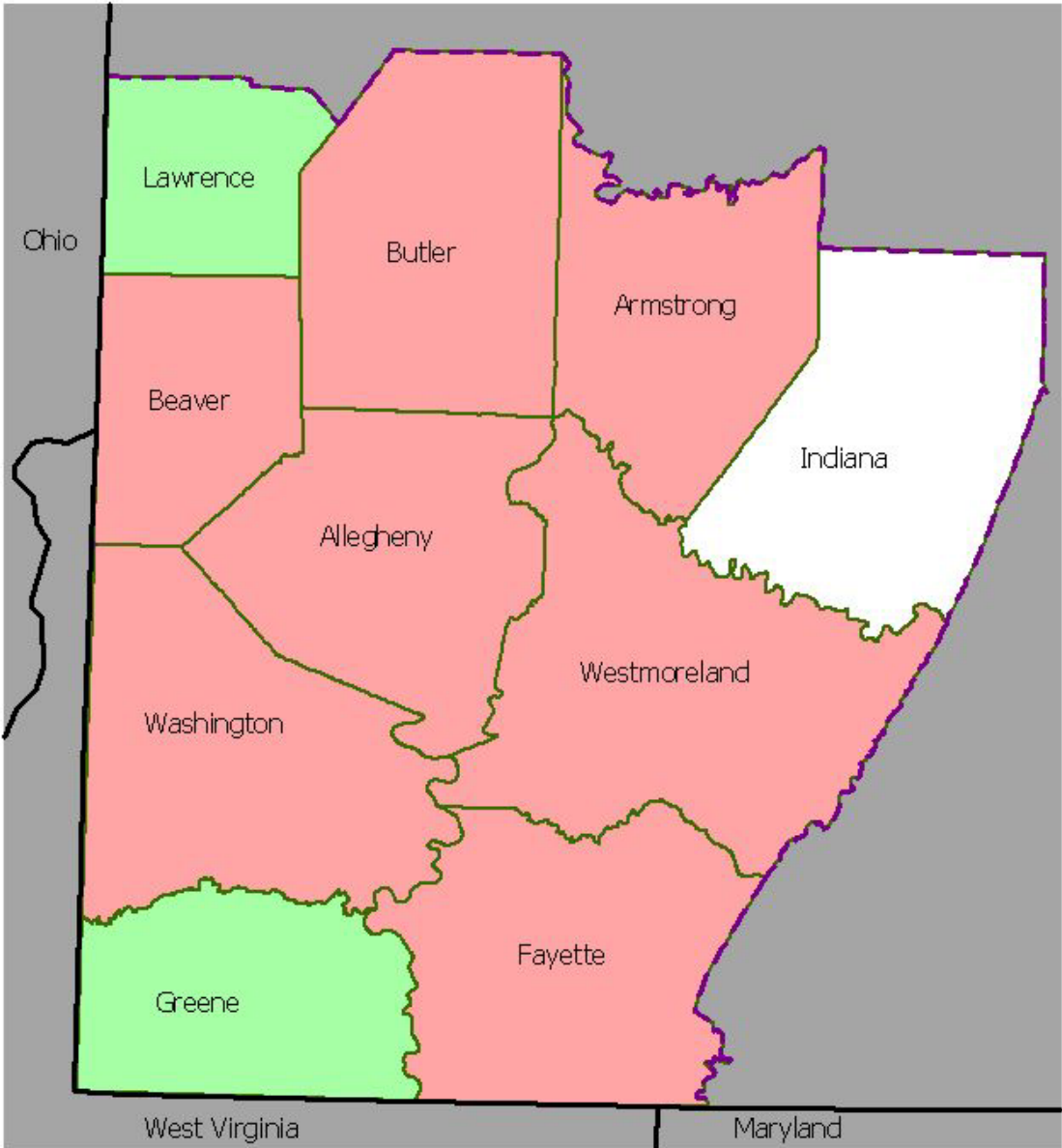
- State Boundaries
- - - SPC Planning Region
- County Boundary
- Planning Region Before 1998
- Added To Planning Region in 1998
- Added To Planning Region in 2003



Conformity at SPC

- **Three Ozone Non-Attainment Areas in Region:**
 - **A Seven County Moderate Non-Attainment Area**
 - **Two Unclassified “No-Data” Non-Attainment Areas**

SPC Planning Region



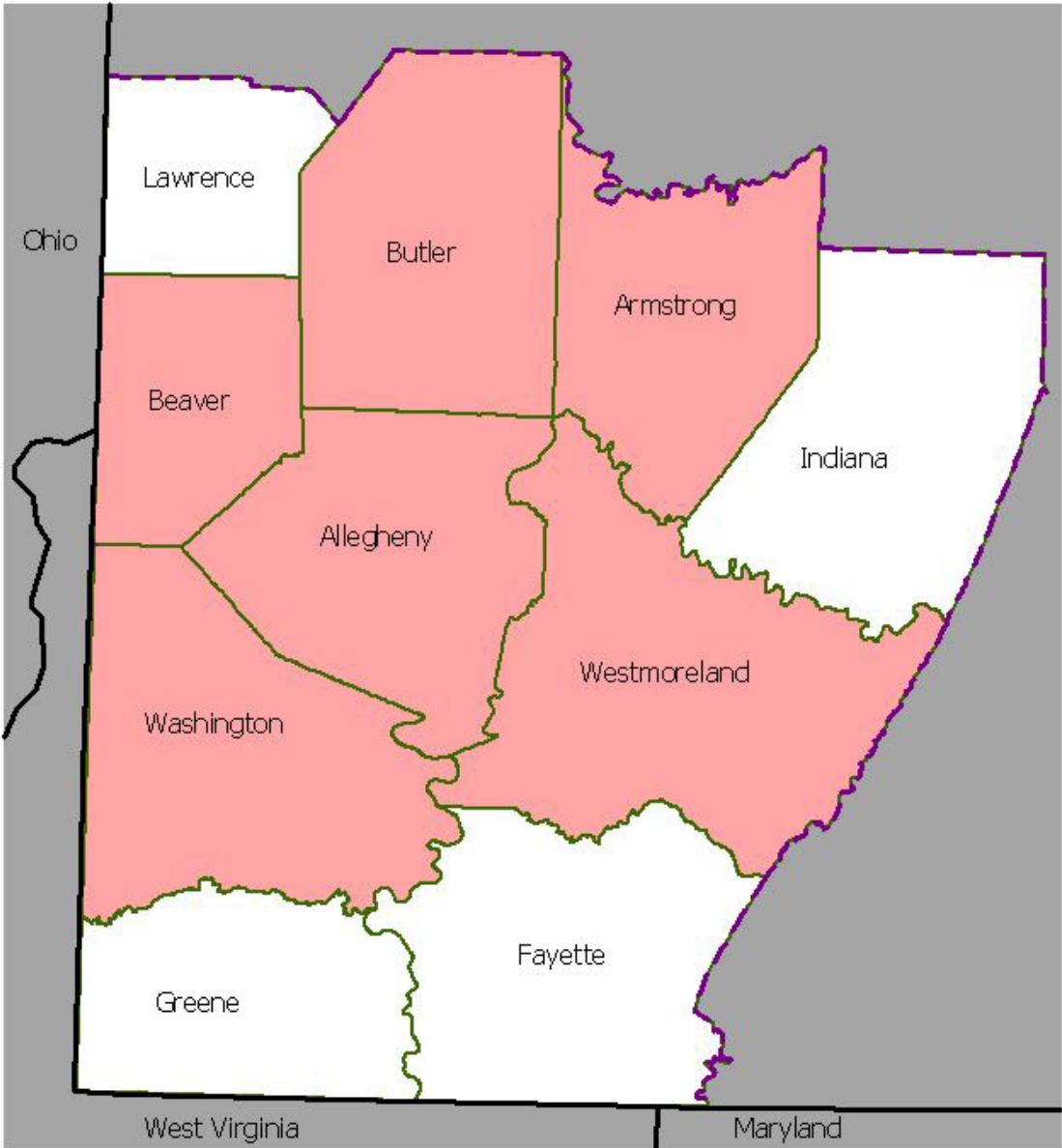
- State Boundaries
- - - SPC Planning Region
- County Boundary
- Moderate Ozone Non-Attainment Area
- Undassified 'No Data' Ozone Non-Attainment Area
- Attainment Area



Conformity at SPC

- **Network Travel Demand Model:**
 - **Covers Six of SPC's Ten Counties**
 - **Covers Six of Seven Counties in the Moderate Non-Attainment Area**
 - **Used in Conformity Process for Part of Moderate Non-Attainment Area**
- **Off-Network Model:**
 - **Used for Conformity - Both "No-Data" Areas**
 - **Used for Conformity - Part of Moderate Area**

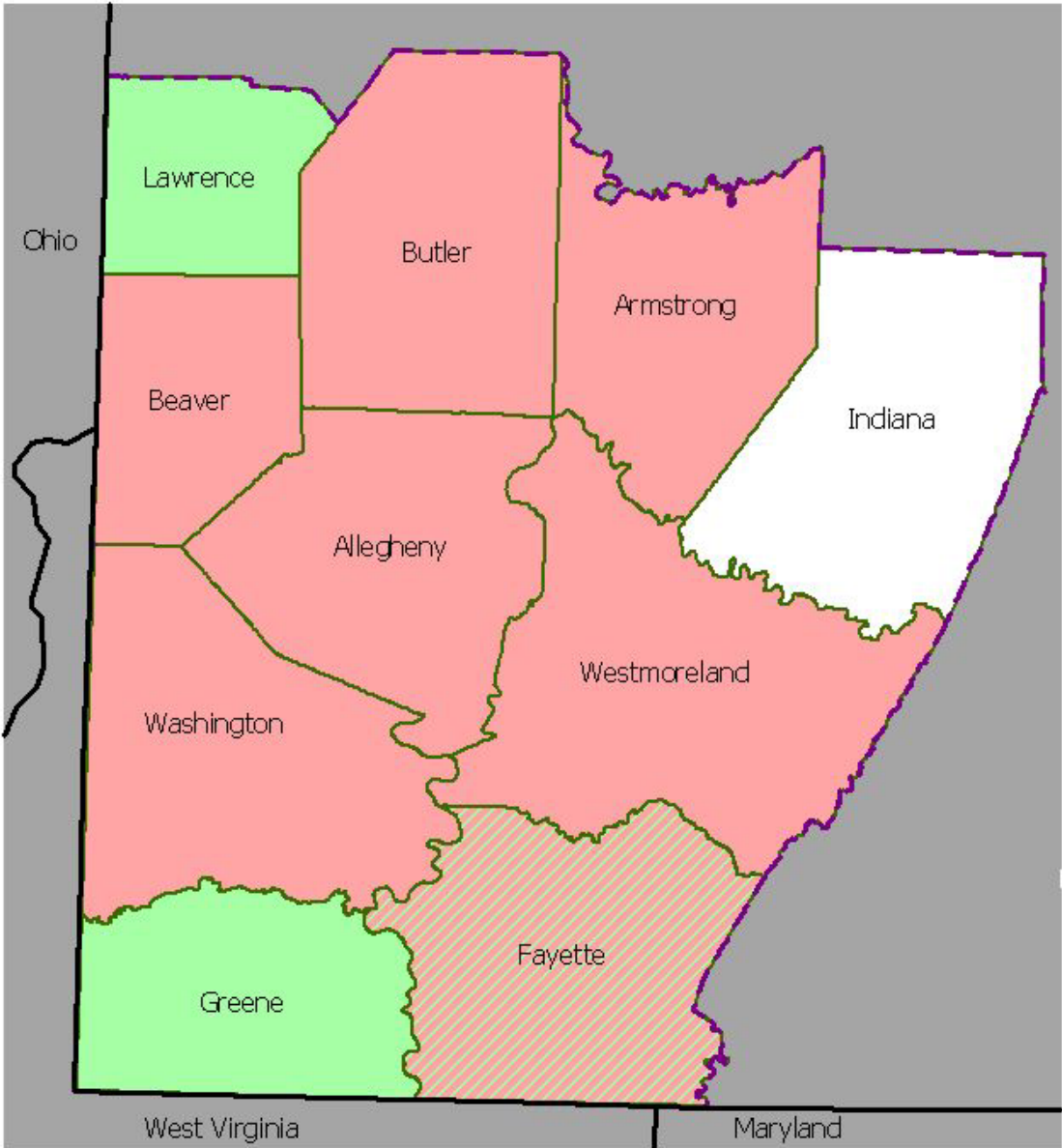
SPC Planning Region



- State Boundaries
- - - SPC Planning Region
- County Boundary
- Area Covered By Travel Demand Model
- Not Covered By Travel Demand Model



SPC Planning Region



- State Boundaries
- - - SPC Planning Region
- County Boundary
- Emissions From Network Travel Model
- Emissions From Non-Network Model - Added to Network Results
- Emissions From Non-Network Model - Separate Conformity Findings
- Attainment Area



Data for Off-Network Model

- **Data Items:**
 - **Roadway Inventory – Existing System:**
 - **State System / Federal Aid System**
 - **Speed Limit**
 - **Number of Lanes**
 - **Facility Type / Functional Class**
 - **Traffic Volume (by vehicle type)**
 - **Traffic Growth Rate**
 - **Vehicle Inventory:**
 - **Vehicle Age by Vehicle Type**
 - **Mileage Accumulation by Vehicle Age / Vehicle Type**

Data for Off-Network Model

- **Data Items:**
 - **Proposed New Facilities:**
 - **Facility Type**
 - **Speed Limit / Number of Lanes**
 - **Technique to Estimate Traffic Volume**
 - **Diverted Travel**
 - **Induced Travel**
 - **Traffic Growth Rate**
 - **Technique to Estimate Impact on Existing Facilities**
 - **Volume / Speed / Delay**

Data / Information Sources

- **Data Sources:**
 - **US Census Bureau**
 - **FHWA – Highway Statistics**
 - **Pennsylvania DOT**
 - **HPMS**
 - **Highway Capacity Manual**

Data / Information Sources

- **Information Sources:**
 - **EPA Conformity Website**
 - <http://www.epa.gov/otaq/transp/traqconf.htm>
 - **FHWA Conformity Website**
 - <http://www.fhwa.dot.gov/environment/conform.htm>
 - **Pennsylvania DOT**
 - **PENNDOT's Air Quality Consultant Team**
 - **Pennsylvania's Conformity Working Group**

Pennsylvania's Conformity Working Group

- **Members Include:**
 - **MPOs in Pennsylvania's Non-Attainment Areas**
 - **Pennsylvania DOT**
 - **FHWA and FTA**
 - **EPA**
 - **PaDEP**
- **Interagency Coordination on Conformity Issues**
- **Meets Quarterly**

What We Learned

- **Conformity Without Network Models is Possible**
- **Data is Available**
- **Information is Available**
- **Help is Available**
- **Interagency Coordination is Critical**