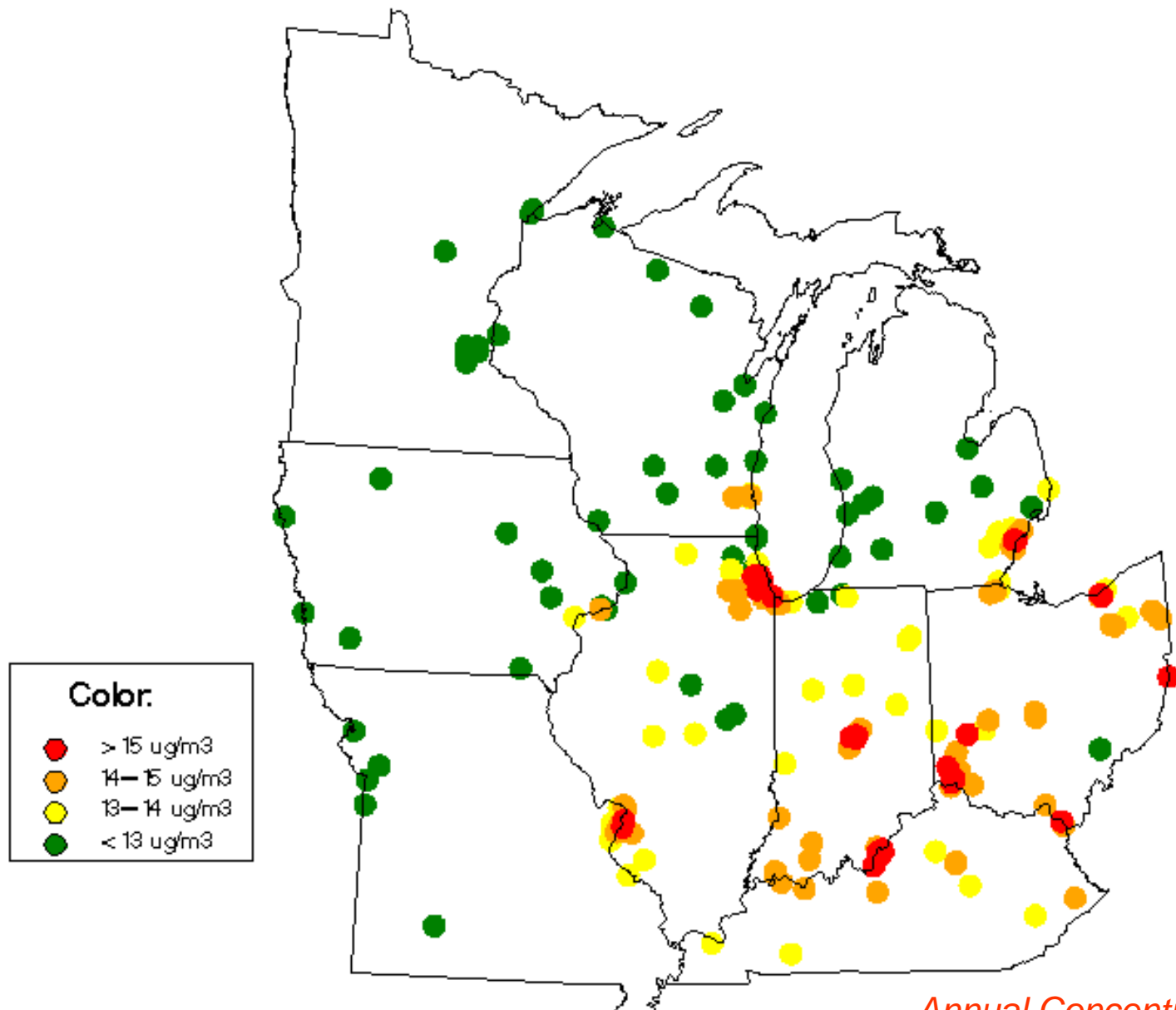


# A Few Things You Need to Know About PM<sub>2.5</sub>

Michael Koerber  
Lake Michigan Air Directors Consortium

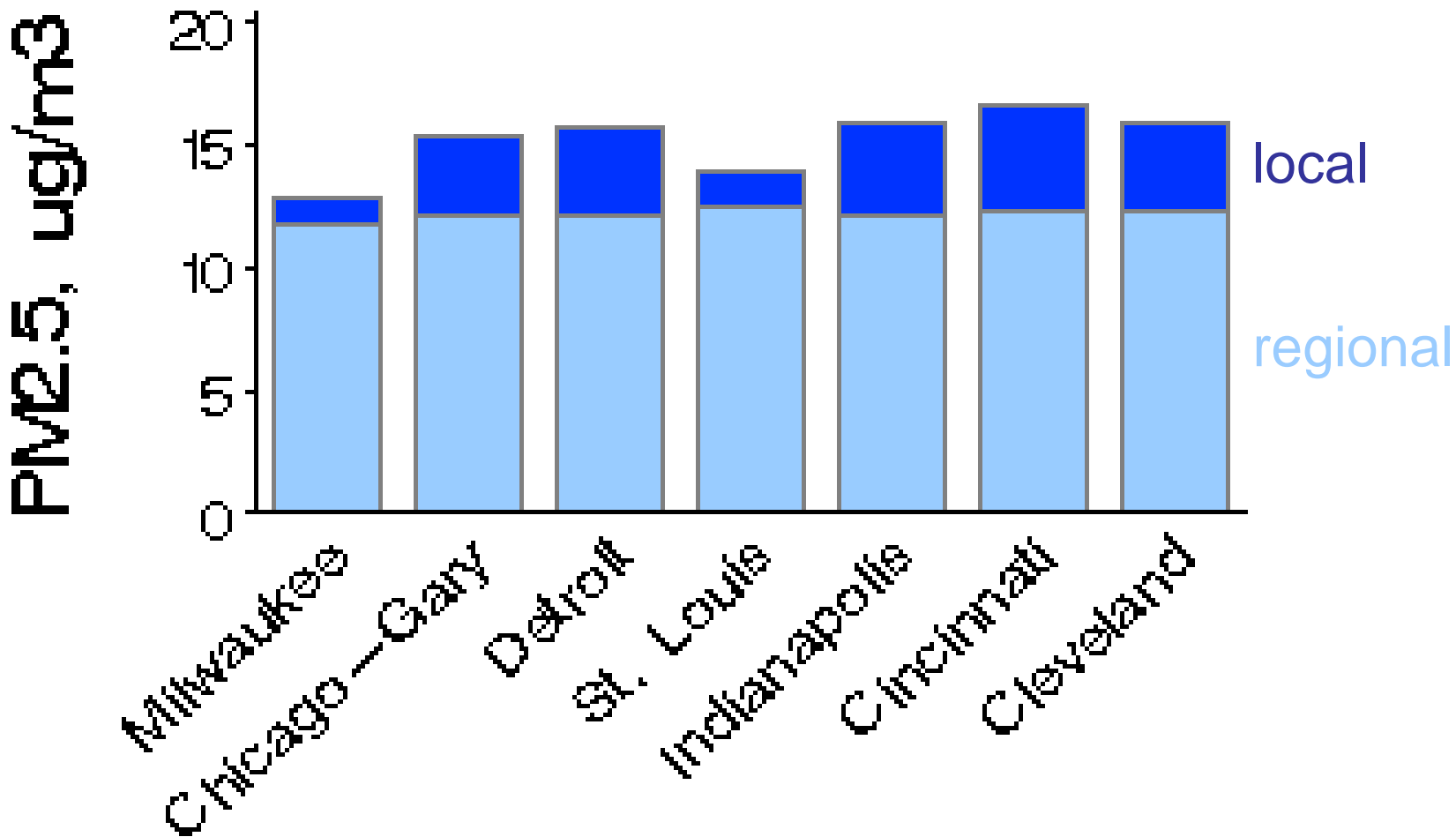
October 16, 2008

# Spatial Variation



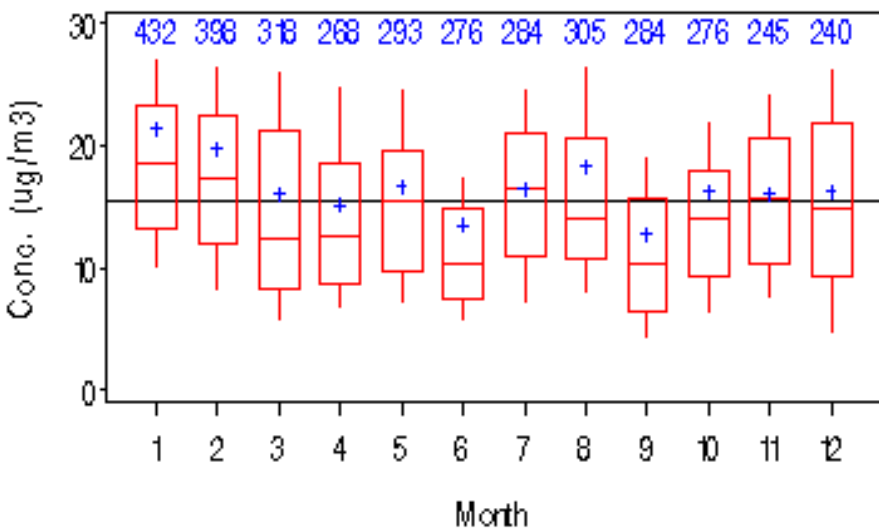
*Annual Concentrations, 2005-2007*

# Urban-Rural Differences

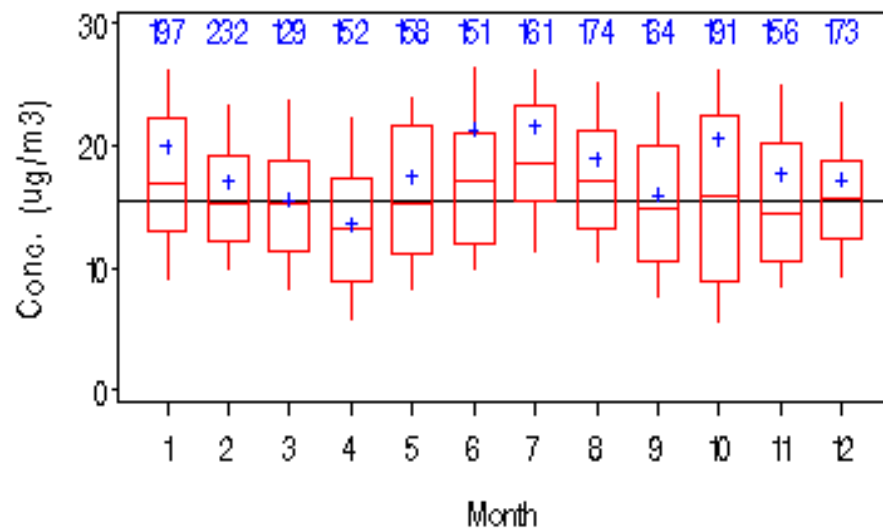


# Temporal Variation

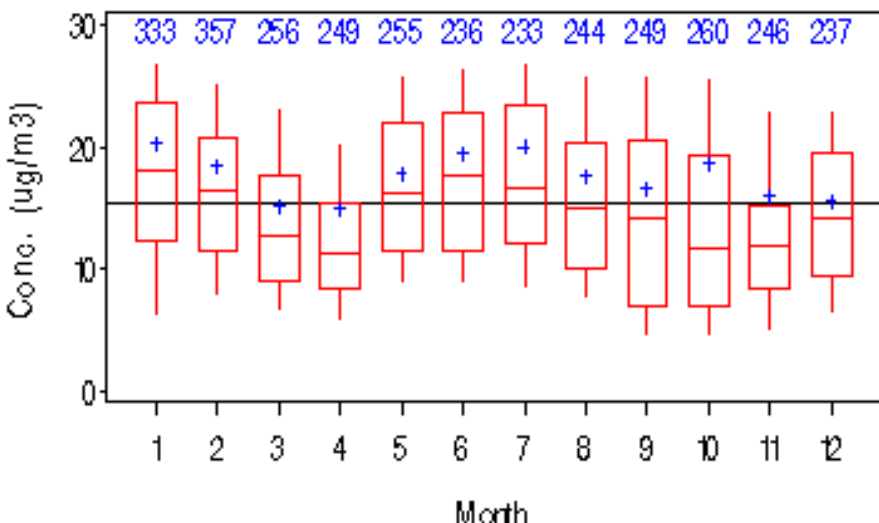
CHICAGO, IL



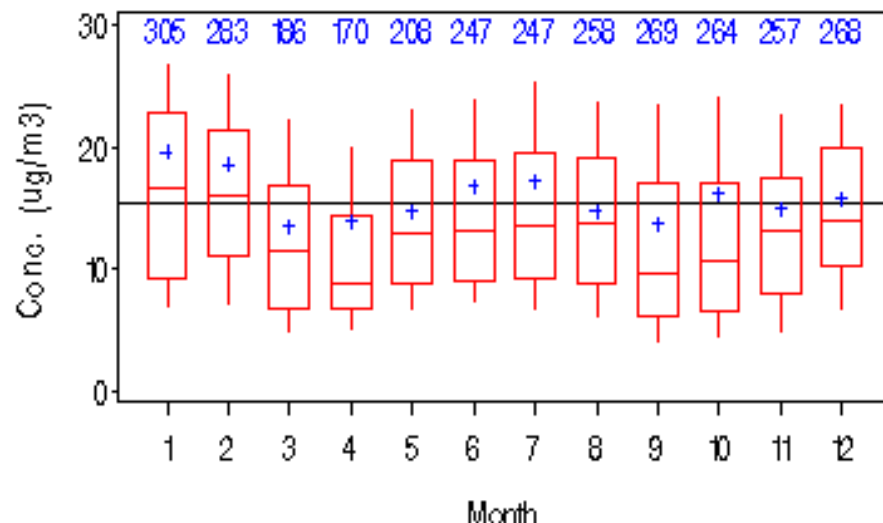
CINCINNATI, OH-KY-IN



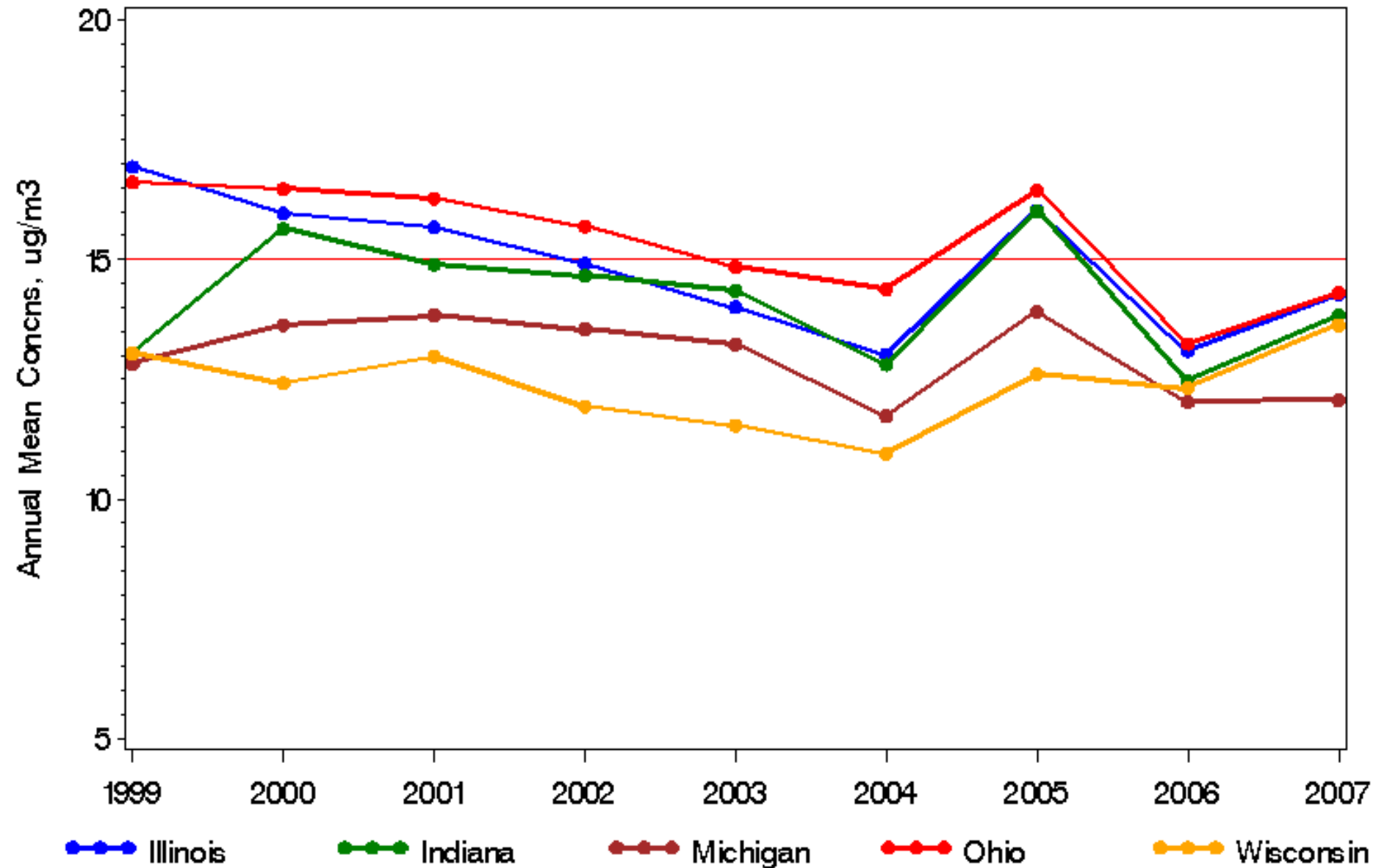
CLEVELAND-LORAIN-ELYRIA, OH



DETROIT, MI

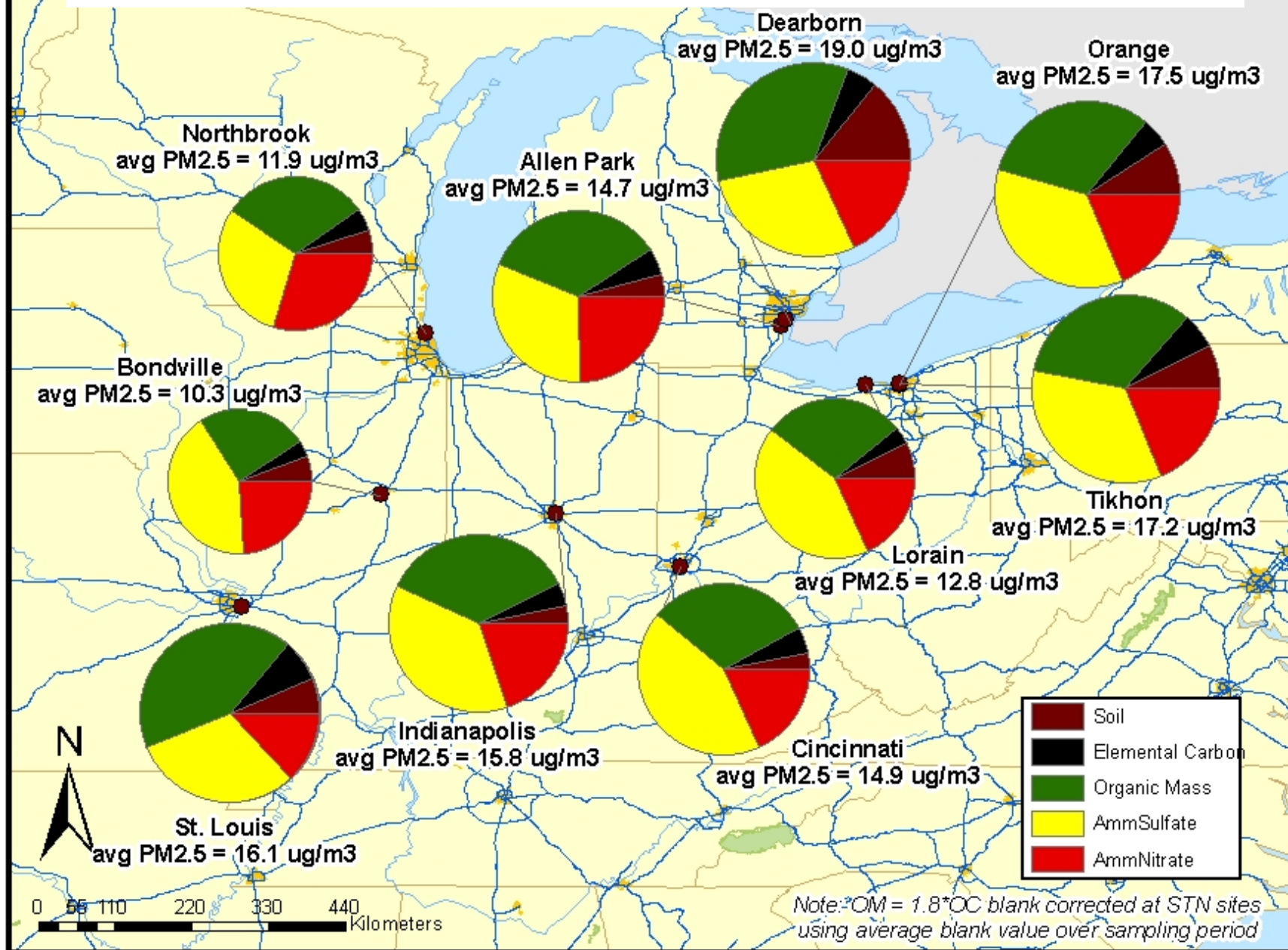


# Trends



trends for monitors with at least 8 years of data

# Chemical Variation



# Conceptual Model: Summary

- Compliance with federal air quality standards
  - 30 sites not meeting annual standard ('05-'07 data)
- PM<sub>2.5</sub> concentrations vary...
  - Spatially: north-south gradient, urban-rural differences
  - Temporally: seasonal differences, improving trends
  - Chemically: sulfate, nitrate, organic carbon important