



# **Air Quality Standards -**

# **Are We There Yet?**

**Rob Kaleel**

**Illinois Environmental Protection Agency**

# Overview

- The National Ambient Air Quality Standards
- Emissions Trends
- Air Quality Trends
- Future Revisions of the Standards

# National Ambient Air Quality Standards

USEPA sets federal health standards for criteria pollutants



# Chicago Air Quality Designations

## Pollutant

## Designation

Carbon Monoxide (CO)

Attainment

Nitrogen Oxides (NO<sub>2</sub>)

Attainment

Sulfur Dioxide (SO<sub>2</sub>)

Attainment

Ozone

1-Hour standard

Revoked

8-hour standard

Nonattainment

Particulates

PM<sub>10</sub>

Attainment

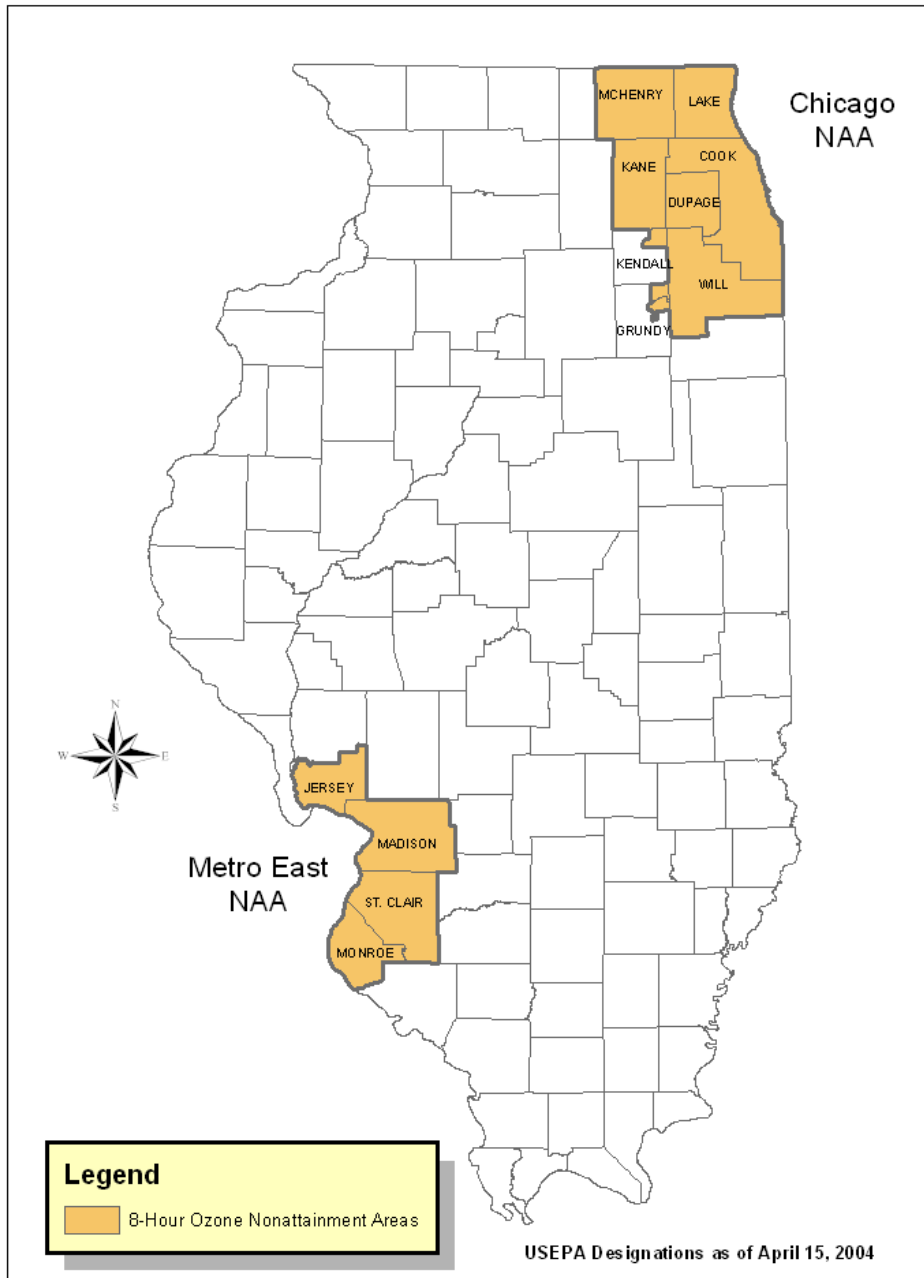
PM<sub>2.5</sub>

Nonattainment

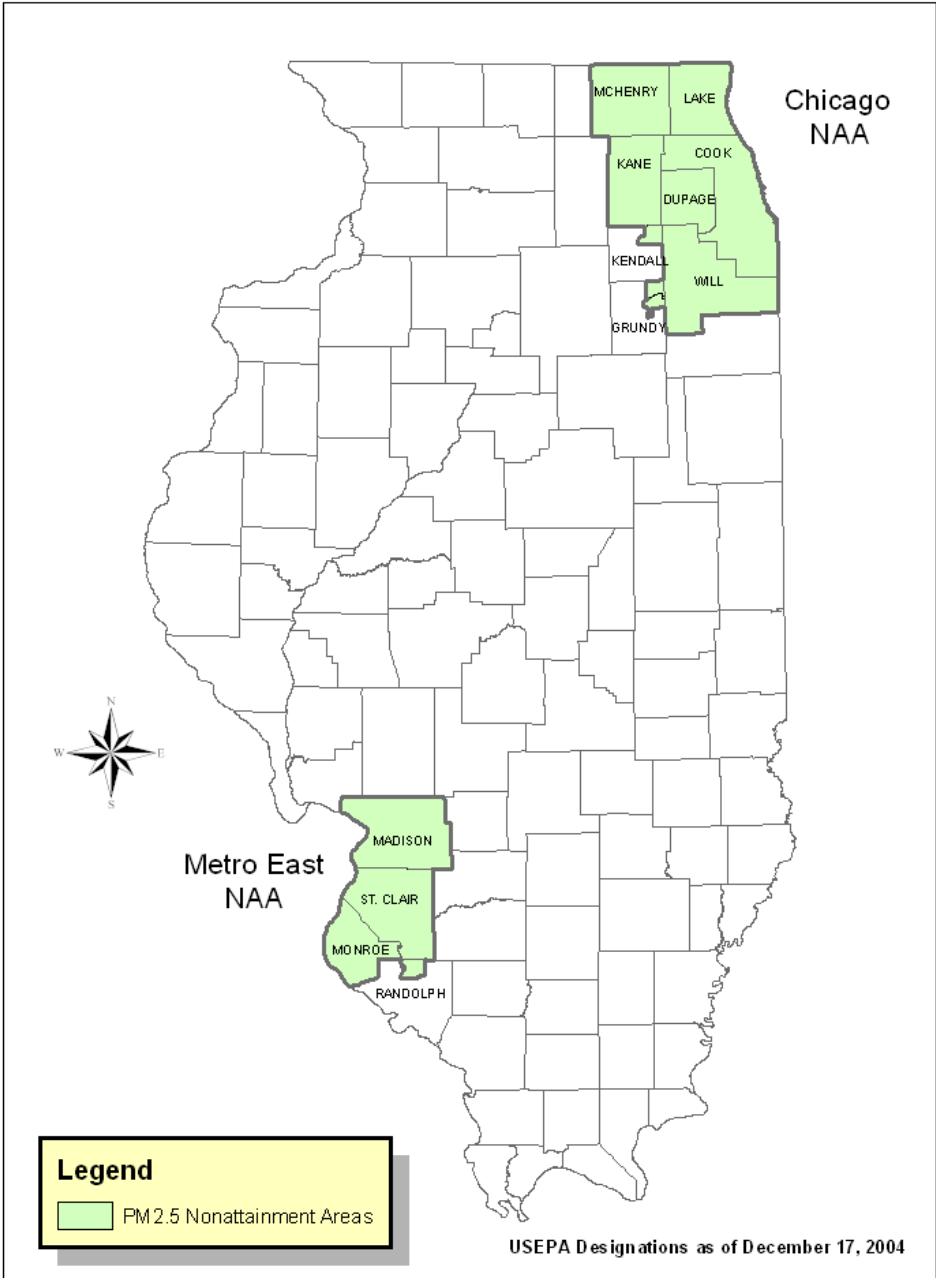
Lead

Attainment

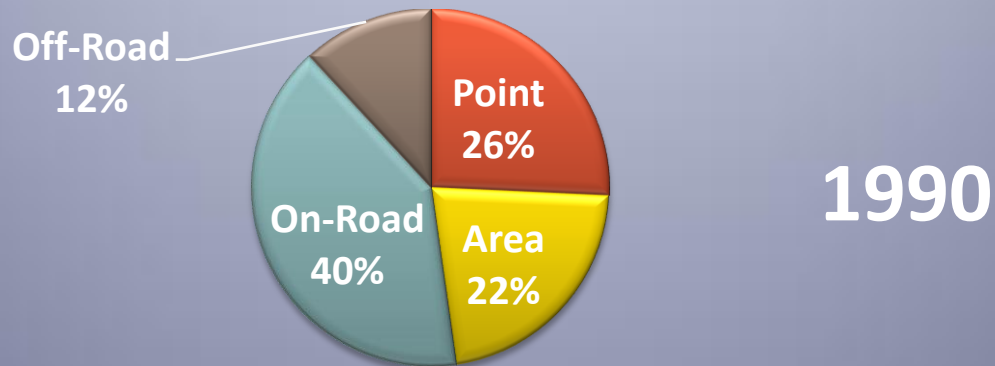
# Illinois Ozone 8-Hour Nonattainment Areas



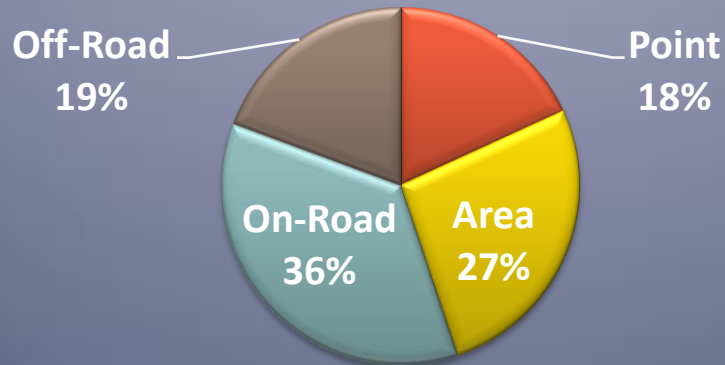
# Illinois PM2.5 Nonattainment Areas



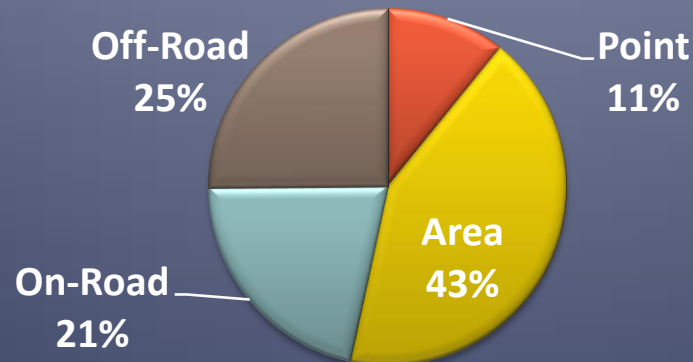
# Chicago VOC Source Categories



1990

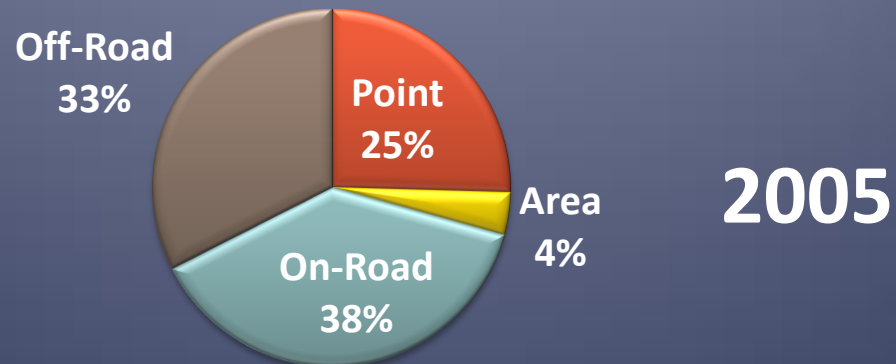
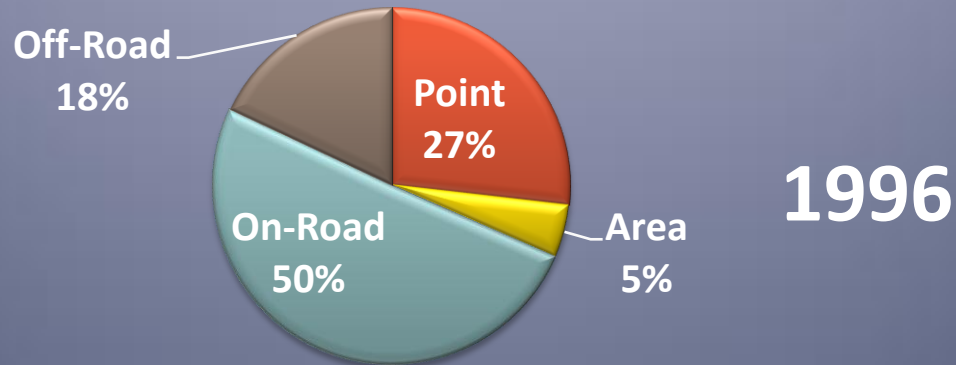
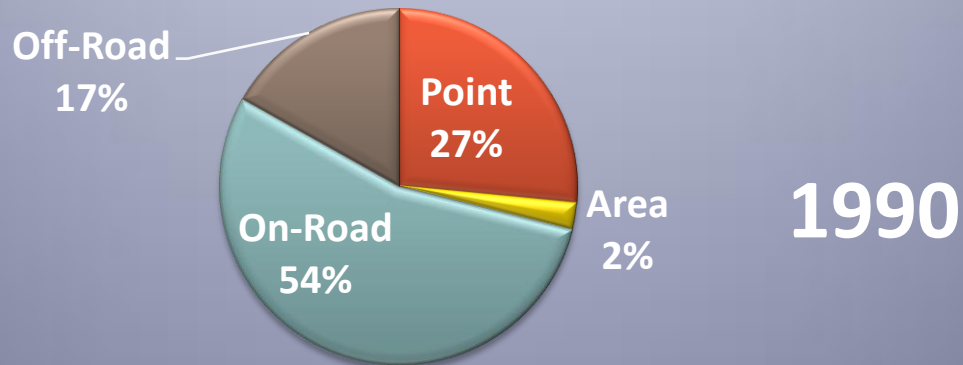


1996

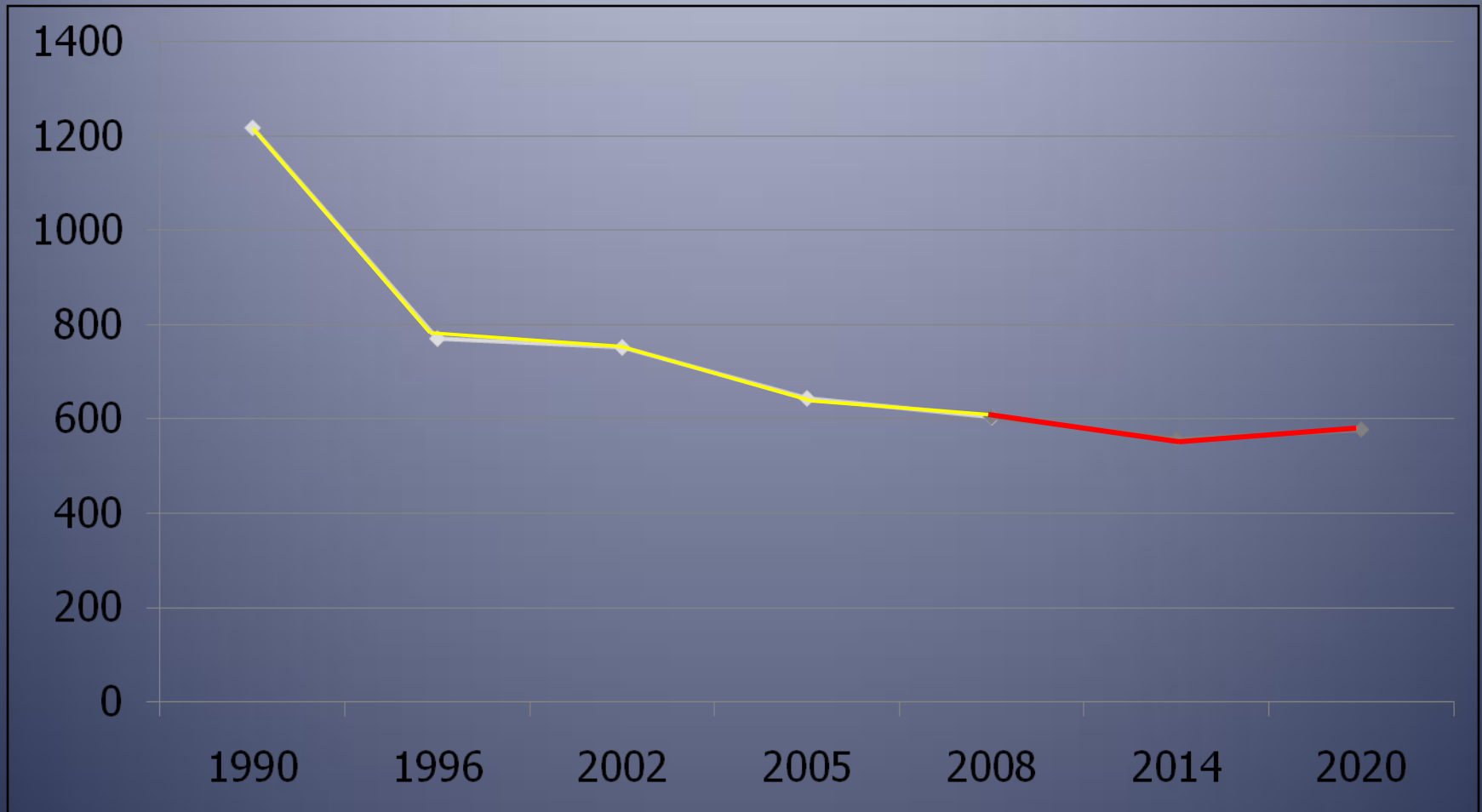


2005

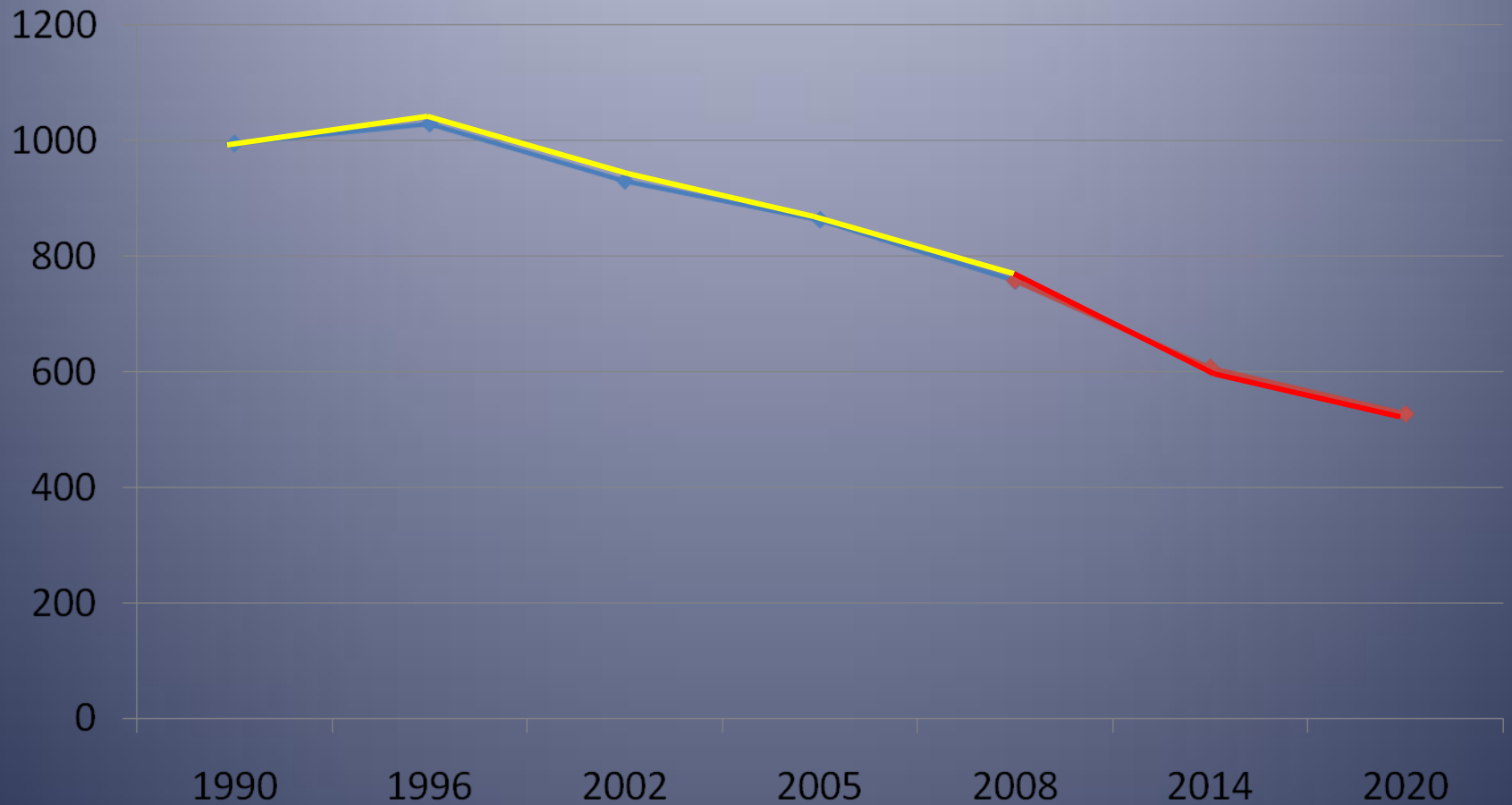
# Chicago NOx Source Categories



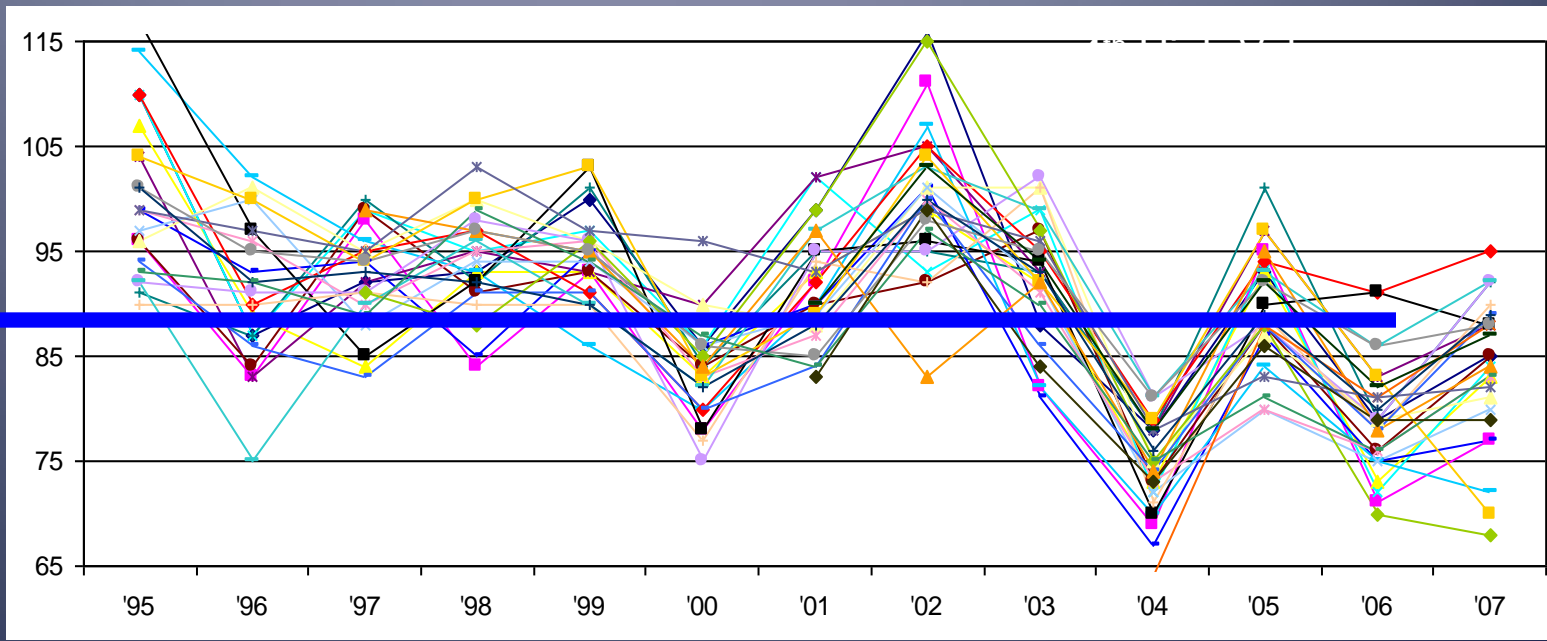
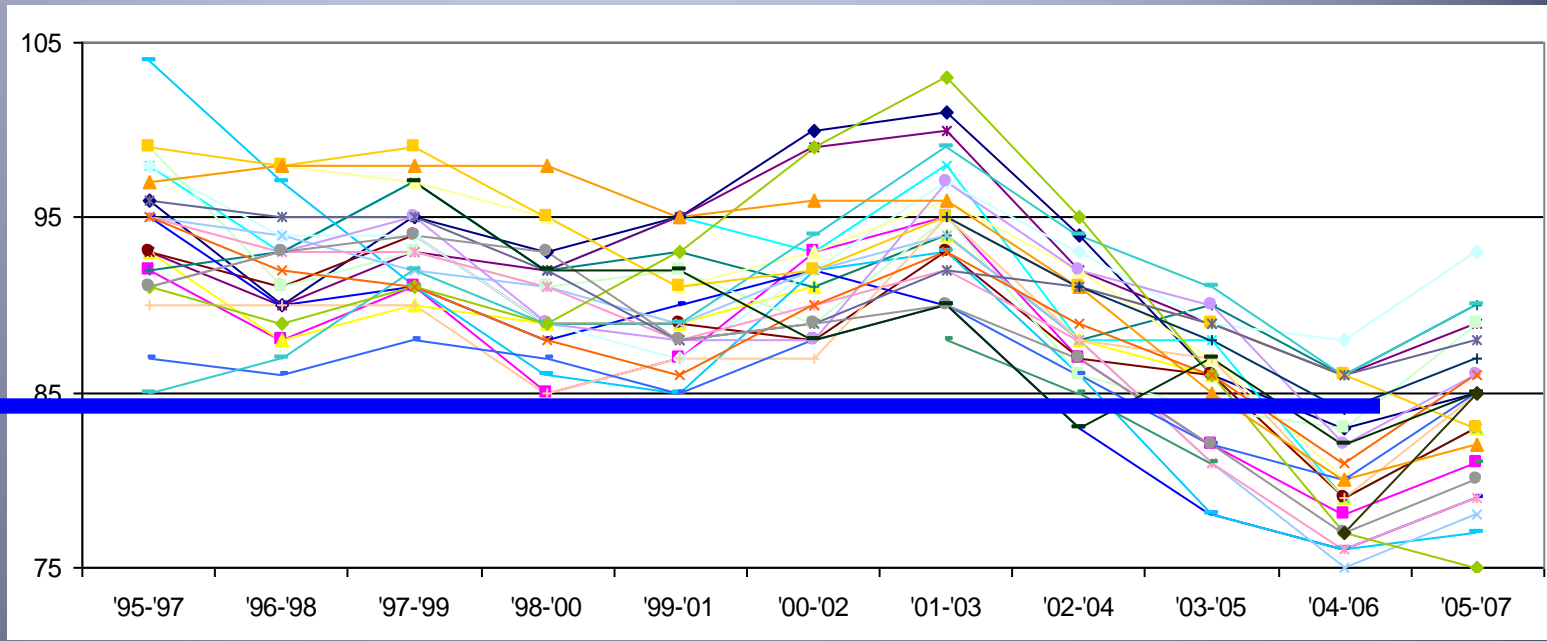
# Chicago VOC Emissions Trend (tons/day)



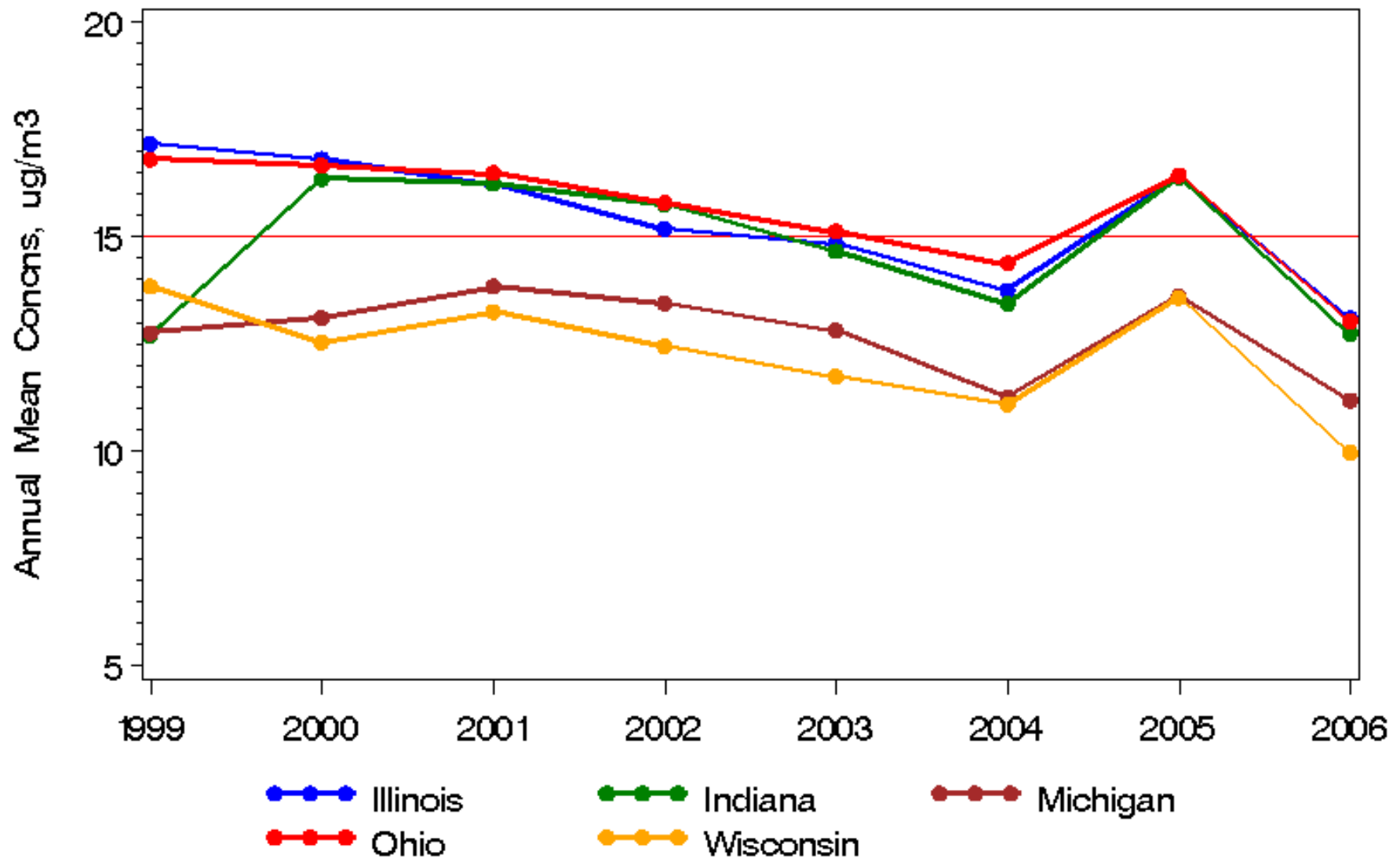
# Chicago NOx Trend (tons/day)



# Midwest Ozone Trends



# PM2.5 Annual Mean Trends, LADCO States, 1999–2006



Preliminary data for 2006; trends for monitors with at least 7 years of data

# Future Revision to the NAAQS???

Are we  
there yet?



# USEPA Considering Revisions to NAAQS

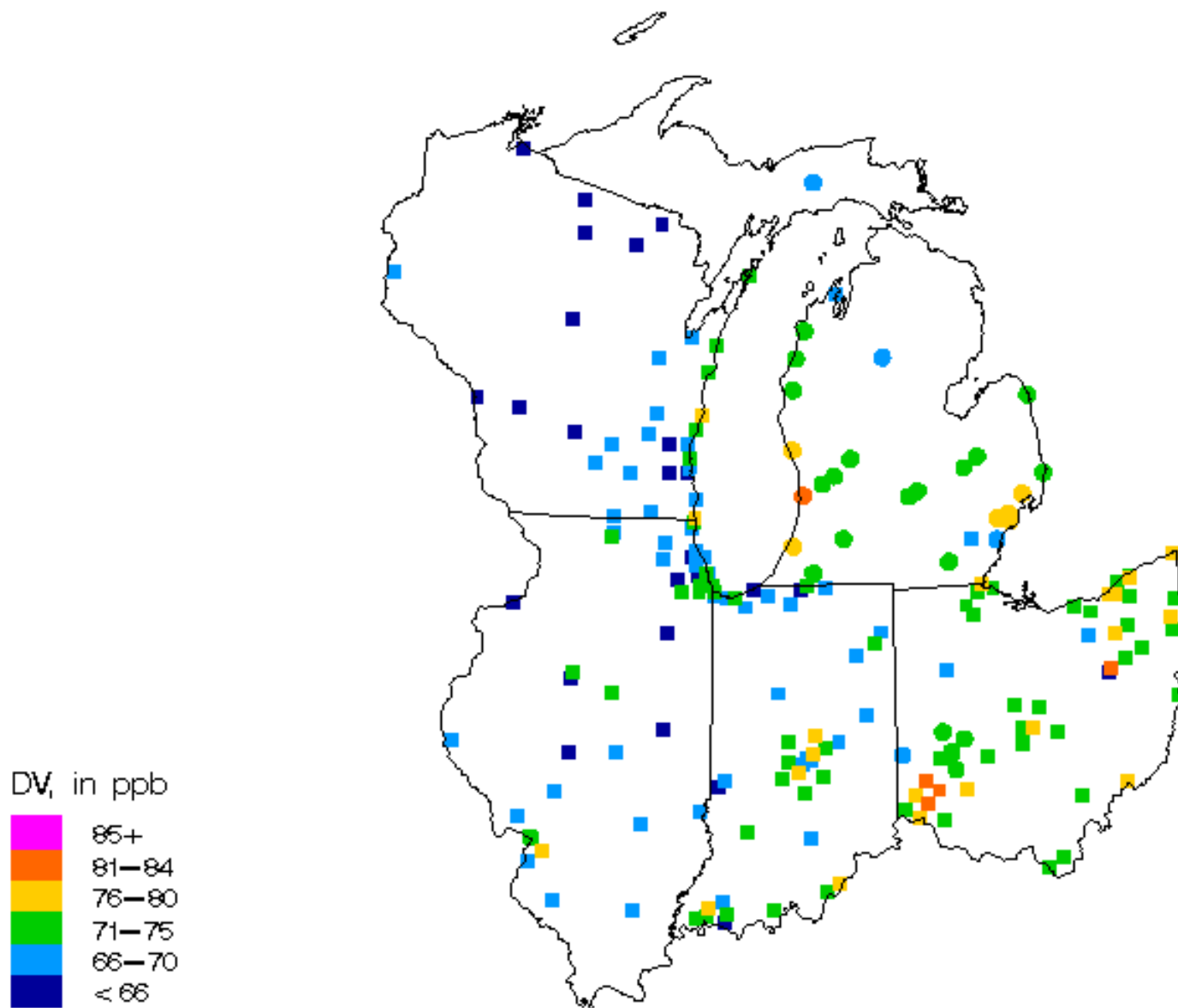
- **NO<sub>2</sub>** – USEPA proposed new 1-hour NO<sub>2</sub> NAAQS on June 26, 2009. Final by Jan 2010.
- **O<sub>3</sub>** - On Sept 16, 2009, USEPA announced its intent to reconsider the 2008 ozone NAAQS. Proposal expected by Dec 2010. Final by Aug 2010.
- **PM<sub>2.5</sub>** – USEPA expected to propose new annual PM<sub>2.5</sub> NAAQS in 2011.



# Ozone Design Values, Preliminary 2007\_2009

Sites with Incomplete Data Plotted as Squares, Complete Data as Dots

Data from AQS October 6, 2009



# PM2.5 FRM Annual Design Values, 2006–2008

