

# **The Role of Transportation Demand Management**

## **Innovative Approaches to Climate Change: A State-Federal Workshop**

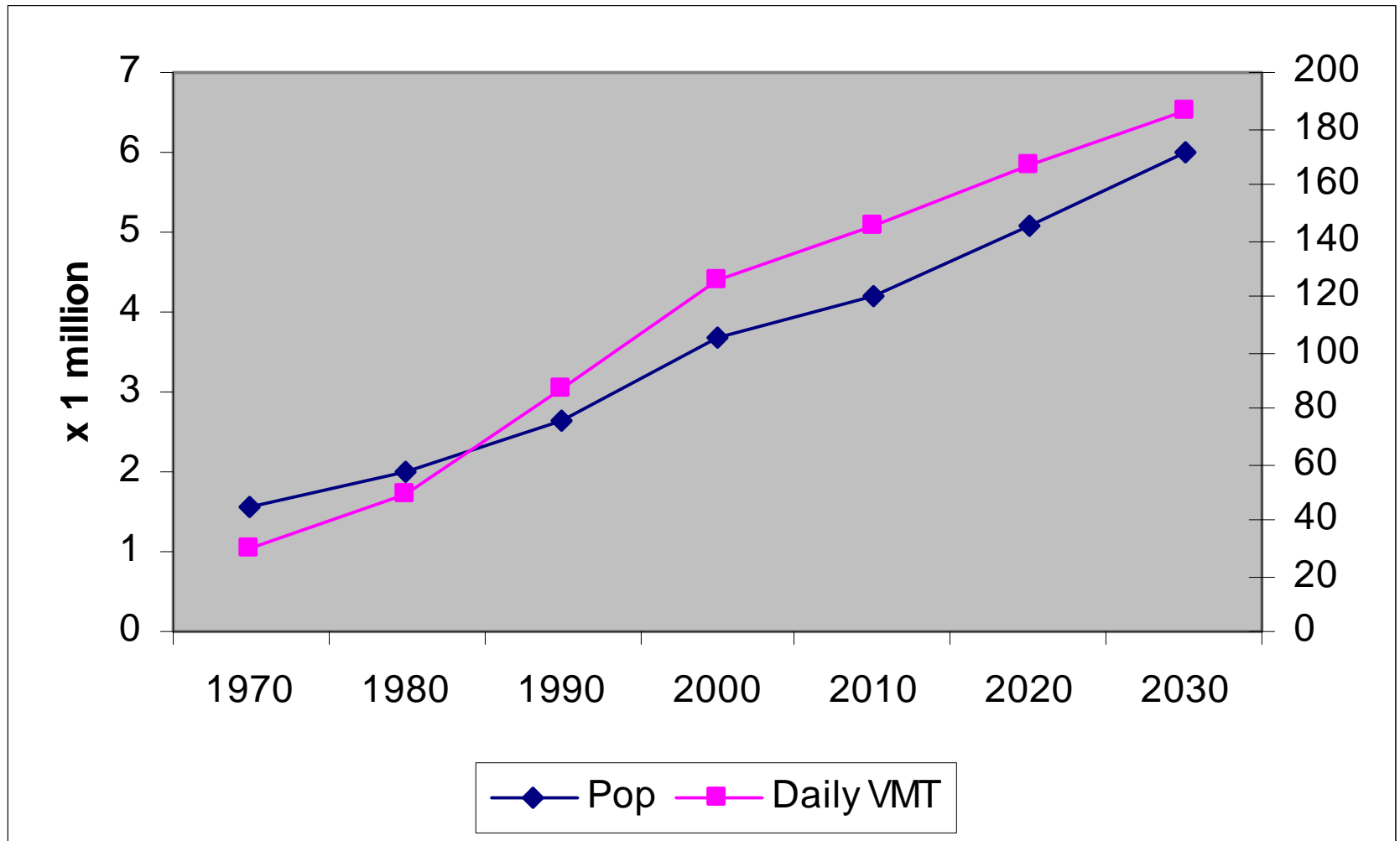
**Pew Center on Global Climate Change  
February 7-8, 2005**

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# What is TDM?

- Matching travel demand to mode supply
  - Less waste, more efficiency
- Alternatives to Single Occupant Vehicles (SOVs)
  - Personal Travel Pods (PTPs)
- Commute options
  - Carpool
  - Vanpool
  - Transit
  - Telework
  - Compressed work schedule

# Atlanta's Growth: Population and Vehicle Travel

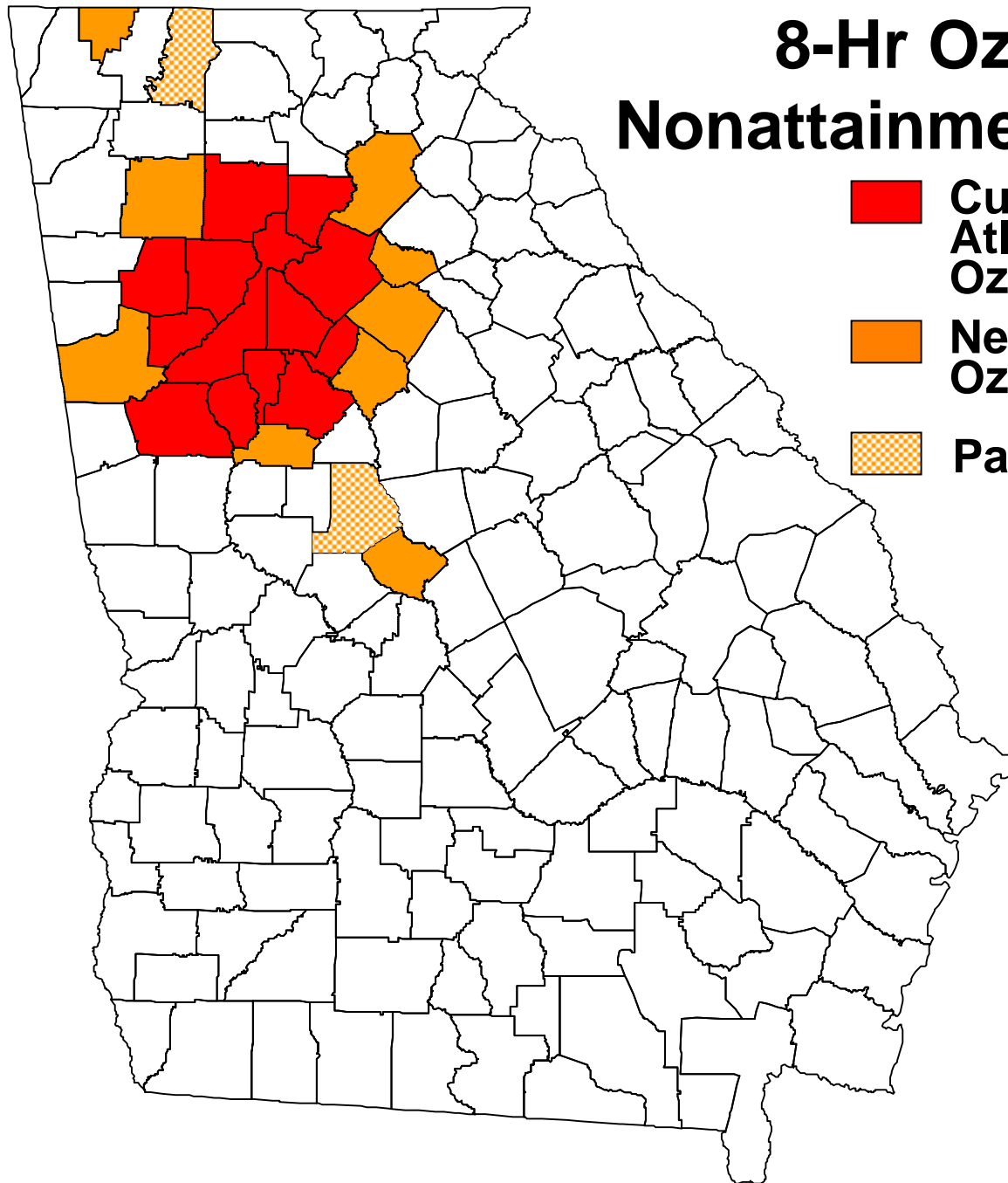





# AQ and the Clean Air Act

- **Carbon monoxide (CO)**
  - Sulfur dioxide (SO<sub>2</sub>)
  - Nitrogen dioxide (NO<sub>2</sub>)
  - **Particulate matter (PM)**
  - **Ozone (O<sub>3</sub>)**
  - Lead (Pb)
  - **Air toxics** (solvents, fuels, metals, etc.)
  - **Haze**
- } “criteria” pollutants

● Chattanooga




# 8-Hr Ozone Nonattainment Areas



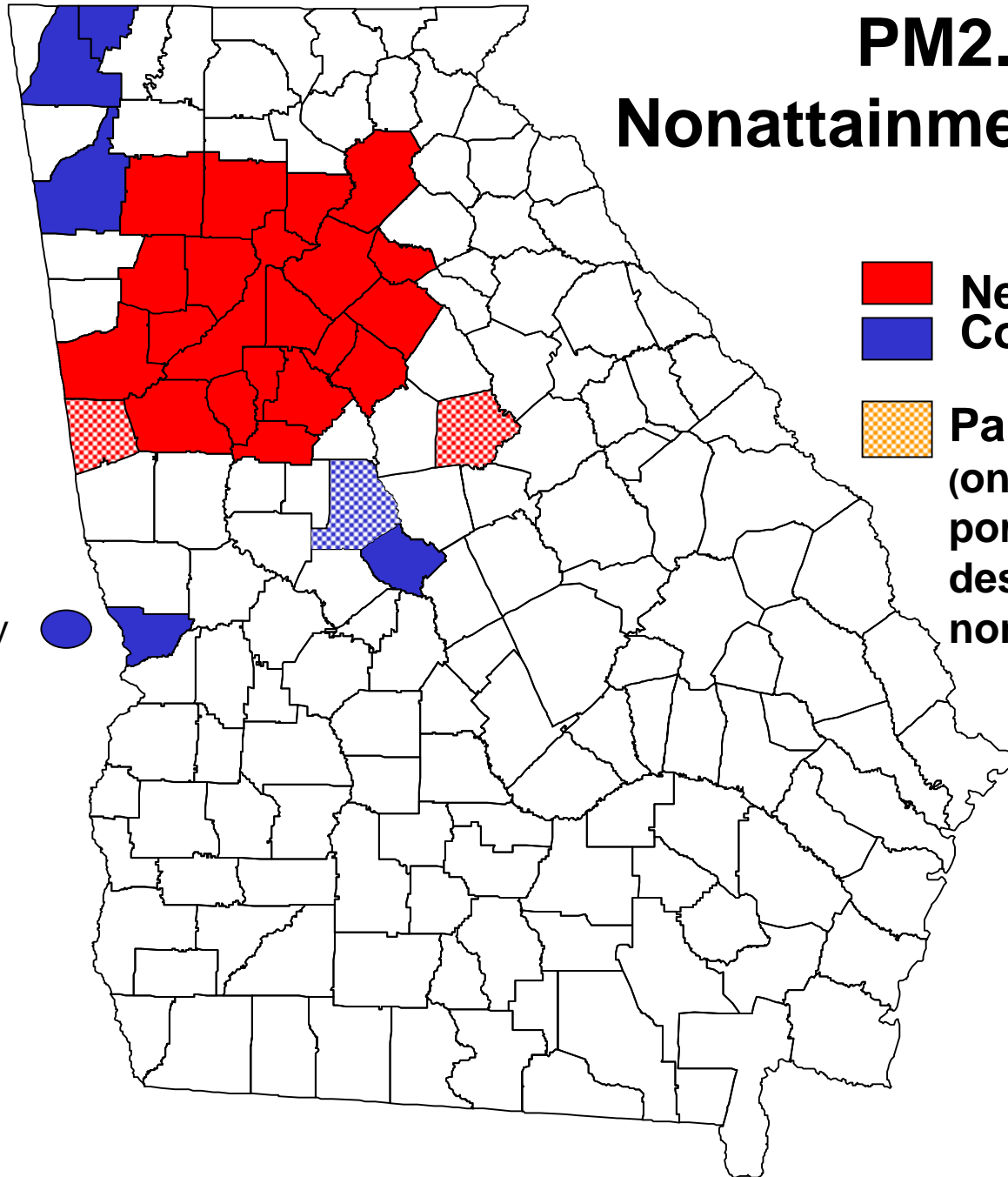
-  Current Atlanta 1-Hour Ozone Area
-  New 8 Hour Ozone Counties
-  Partial County

● Chattanooga

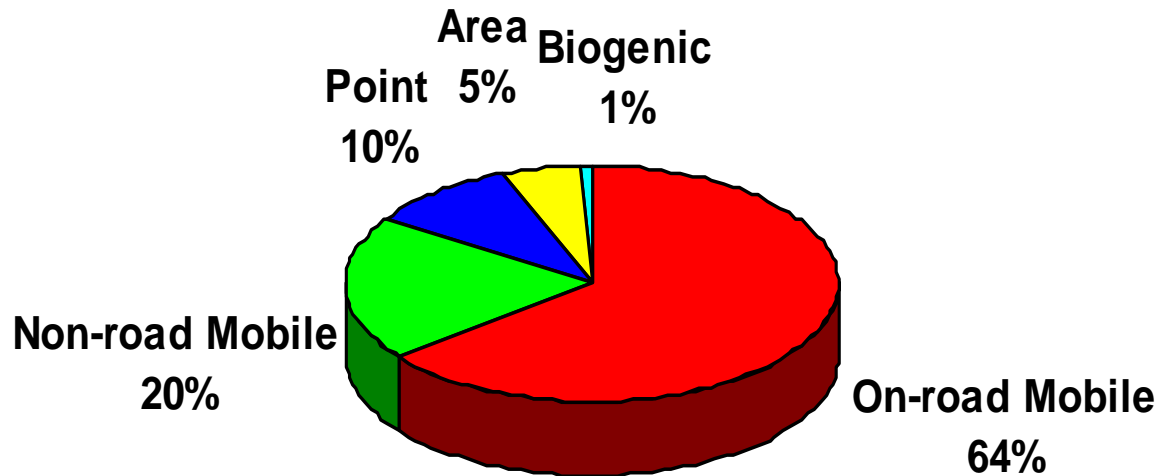
# PM2.5 Nonattainment Areas

-  **New PM2.5 Counties**
-  **Counties**
-  **Partial County (only small portion of area is designated nonattainment)**

Phenix City



# 2002 NO<sub>x</sub> Emissions For Atlanta Nonattainment Area (569 tpd)



# Mobile Emissions Simplified

- **Emissions = Rate x Activity**
  - Tons per day = grams/mile x miles/day
- **Rate**
  - Engine technology/standards
  - Fuel type/standards
  - In-use controls: inspection/maintenance
- **Activity**
  - Transportation demand management

# TDM in Atlanta

- **The Clean Air Campaign**
  - Employer services and incentives
  - Media and public relations
  - [www.cleanaircampaign.com](http://www.cleanaircampaign.com)
- **Transportation Management Associations**
  - Employer services and incentives
- **Atlanta Regional Commission**
  - Rideshare database
  - Guaranteed ride home

# How TDM Got Started

- **ISTEA and CMAQ funding**
- **Traffic congestion**
  - **1996 Olympic Games**
  - **Atlanta Regional Commission**
  - **Transportation Management Associations**
- **Air quality**
  - **Clean Air Campaign**
  - **EPA's VMEP Policy and Atlanta's SIP**
- **Conformity lapse = \$\$\$**
  - **~\$14 million in FY2005**

# Atlanta TDM Impacts

## 2002

	Lower Limit	Upper Limit
<b>Net Trips Reduced</b> (#/day)	<b>37,507</b>	<b>207,402</b>
<b>Net VMT Reduced</b> (miles/day)	<b>779,924</b>	<b>4,108,628</b>
<b>Net NO<sub>x</sub> Reduced</b> (kg/day)	<b>1,694</b>	<b>10,934</b>

# **CO<sub>2</sub> Co-benefits**

## **2002**

	<b>Lower Limit</b>	<b>Upper Limit</b>
<b>Net VMT Reduced</b> <b>(10<sup>6</sup> miles/yr)</b>	<b>285</b>	<b>1,500</b>
<b>Fuel Use Reduced</b> <b>(10<sup>6</sup> gals/yr)</b>	<b>12.1</b>	<b>63.6</b>
<b>CO<sub>2</sub> Reduced</b> <b>(metric tons/yr)</b>	<b>106,000</b>	<b>558,000</b>

# Summary

- **TDM is an important tool in reducing traffic congestion and improving air quality**
- **TDM reduces emissions that contribute to ozone, particulate and haze problems**
- **As a co-benefit, TDM reduces fuel consumption and greenhouse gas emissions, such CO<sub>2</sub>**
  - **Approx 0.6% - 3.3% of CO<sub>2</sub> from gasoline vehicles**