



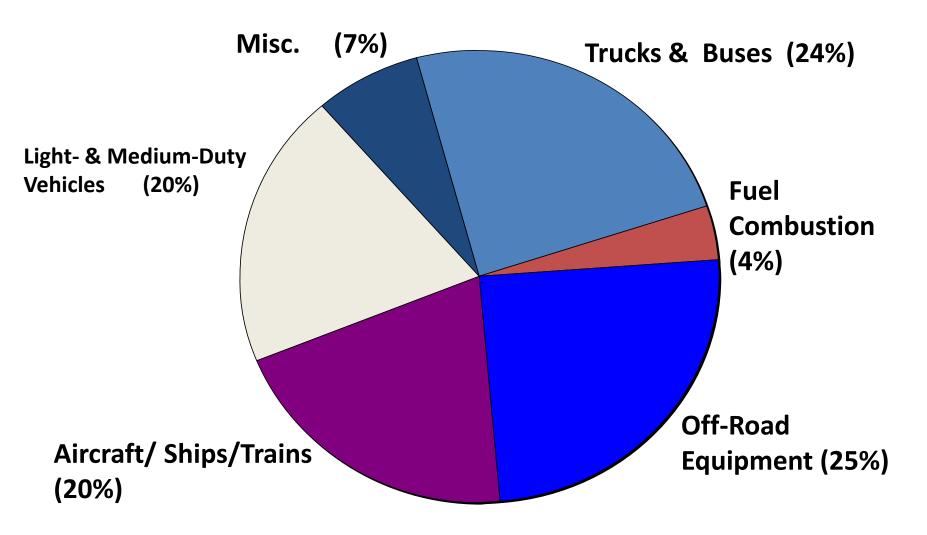
#### Session 1: Mobile Source





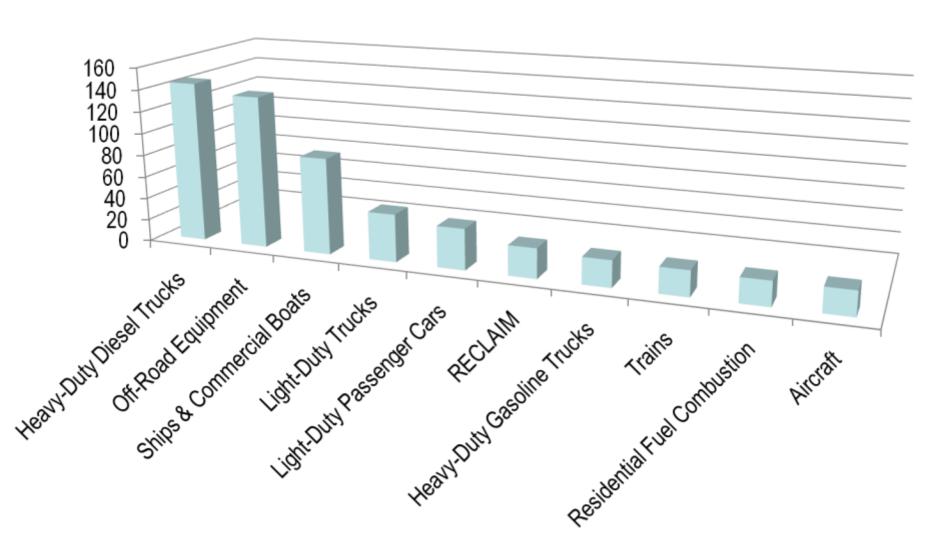
Dipankar Sarkar Technology Advancement Office

## Major Contributors to NO<sub>x</sub> (2014)

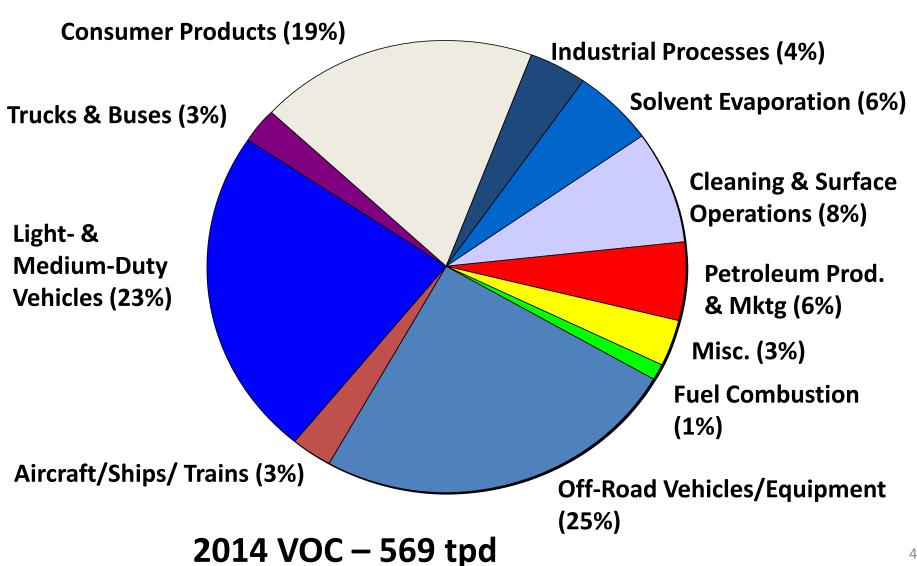


2014 NOx - 650 tpd

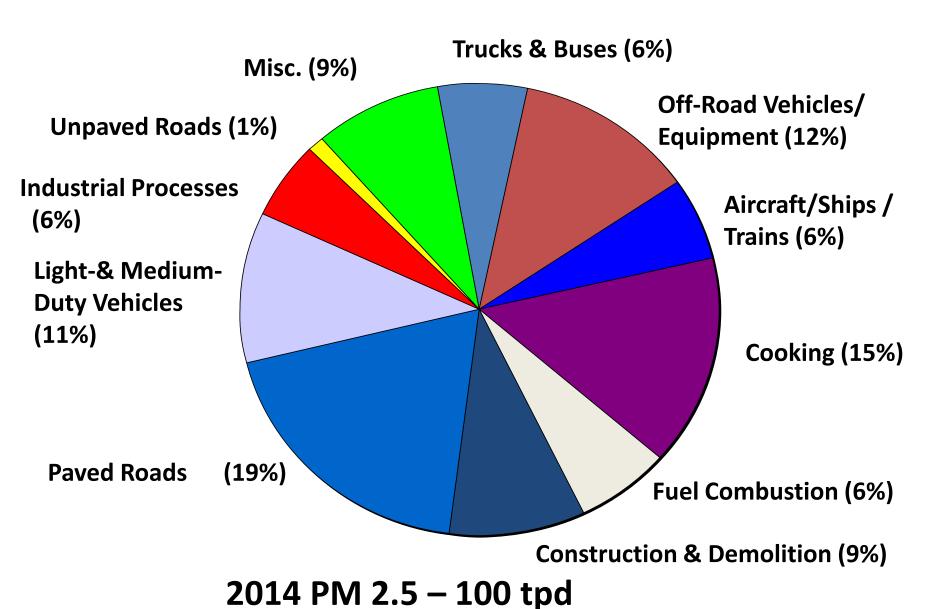
## NOx Emissions (2014) Top 10 Categories (tpd)



### Major Contributors to VOC (2014)

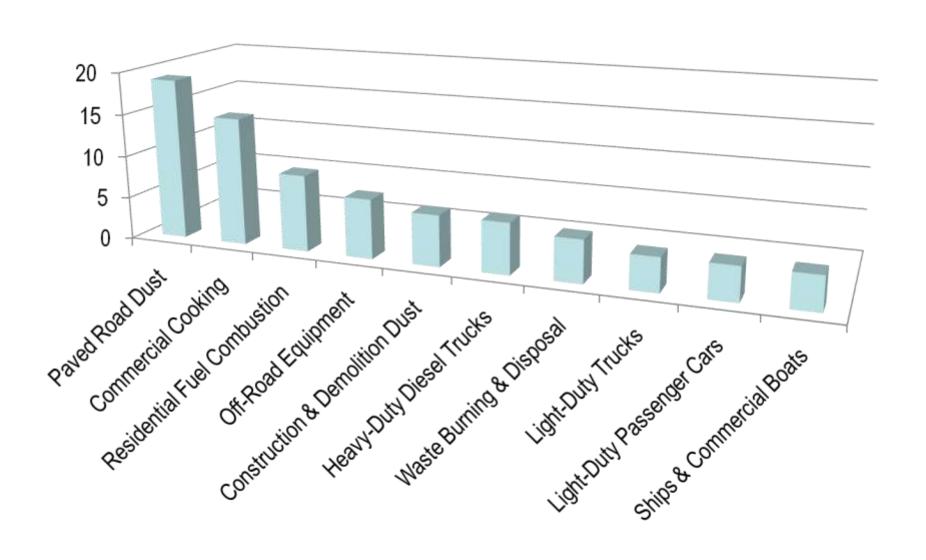


#### Major Contributors to PM 2.5 (2014)



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# PM2.5 Emissions (2014) Top 10 Categories (tpd)



### On-Going Programs

- In-Use Emissions Testing of On-Road Heavy Duty Vehicles
- Natural Gas Fuel Composition Impact Emissions Testing on Heavy-Duty Vehicles
- Natural Gas Heavy Duty Engine Development
- Battery Electric, Hybrid Electric and Fuel Cell Truck Development and Demonstration
- Battery Electric and Fuel Cell Transit Bus Development and Demonstration
- Alternative Fuel Vehicle Demonstration

#### On-Going Programs

- Construction Equipment NOx and PM Emissions Control Demonstration
- Health Effects of PM Emitted from Heavy Duty Vehicles

#### **Mobile Source Presentations**

- Joe Impullitti
  - Fuel Cell Bus Project
- Brian Choe
  - Natural Gas Fuel Composition Impact Emission
    Testing
- Richard Carlson
  - AQMD's Showcase Program
- Lisa Mirisola
  - STEPS Program