



Ten Pollutant Study in Jacksonville, Florida

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Regulatory & Environmental Services
Department

Air & Water Quality Division

Jacksonville's Air Toxics Program

- ✦ Toxic Release Inventory (TRI)
- ✦ Risk Assessments
- ✦ Air Toxics Monitoring
- ✦ HAP Emission Inventories
- ✦ Special Studies.

Air Toxics Monitoring

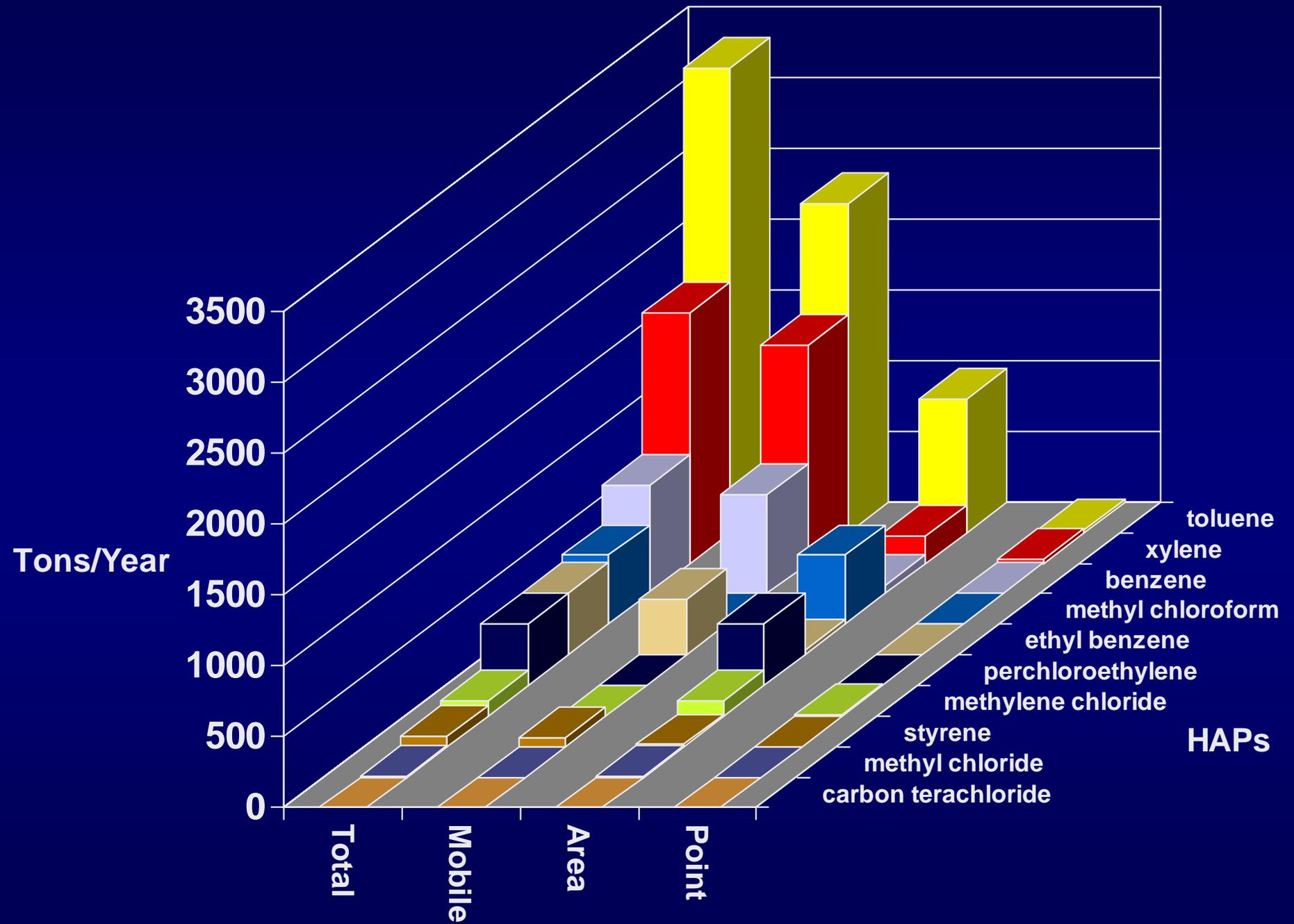
- ✱ Mobile Lab (1997)
- ✱ Two Stationary Sites (1999)
- ✱ Three Stationary Sites (2002)
- ✱ EPA Method TO-15
- ✱ Monitor 38 Organic Pollutants
- ✱ Monitor 26 HAPs.

Ten Pollutant Study

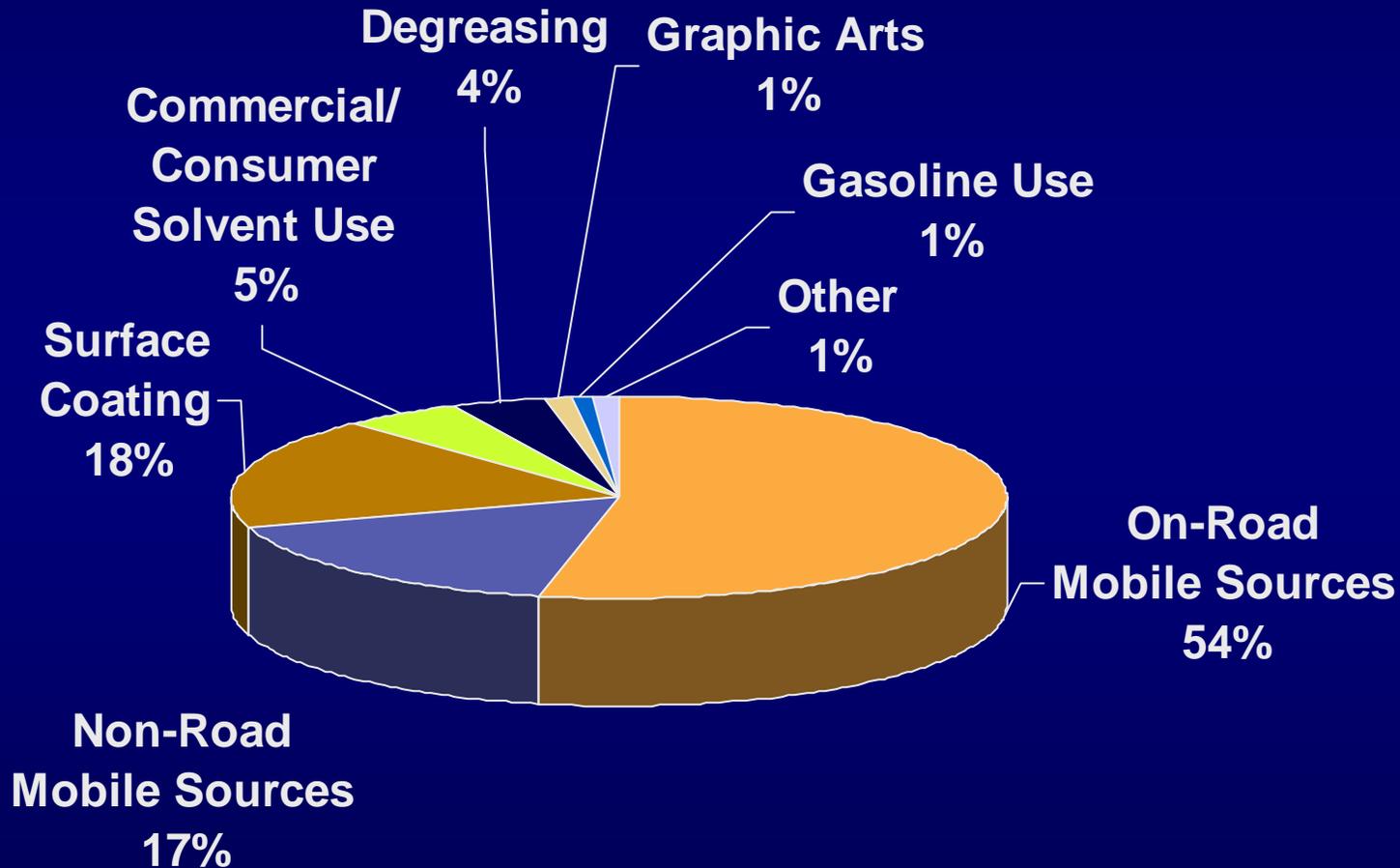
- ★ 10 HAPs - Present in Majority of Air Toxics Monitoring Samples
- ★ 10 HAPs – Consistently High Annual Averages
- ★ Used 2000 HAP Inventory Data to Determine Origin of Ten HAPs.

Ten Pollutants Chosen for Study

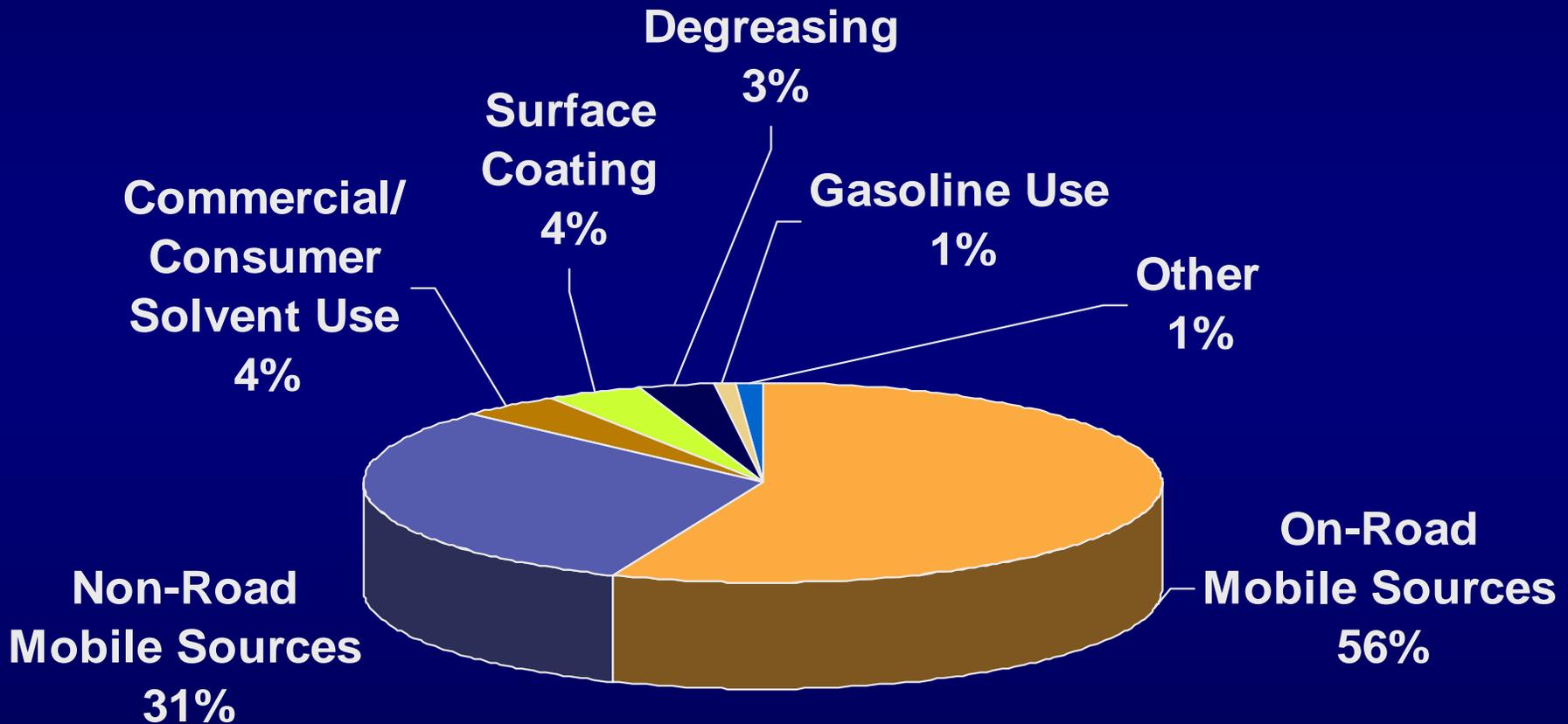
- ☀ Toluene
- ☀ Xylene
- ☀ Benzene
- ☀ Ethyl Benzene
- ☀ Methyl Chloroform.
- ☀ Carbon Tetrachloride
- ☀ Methyl Chloride
- ☀ Methylene Chloride
- ☀ Perchloroethylene
- ☀ Styrene



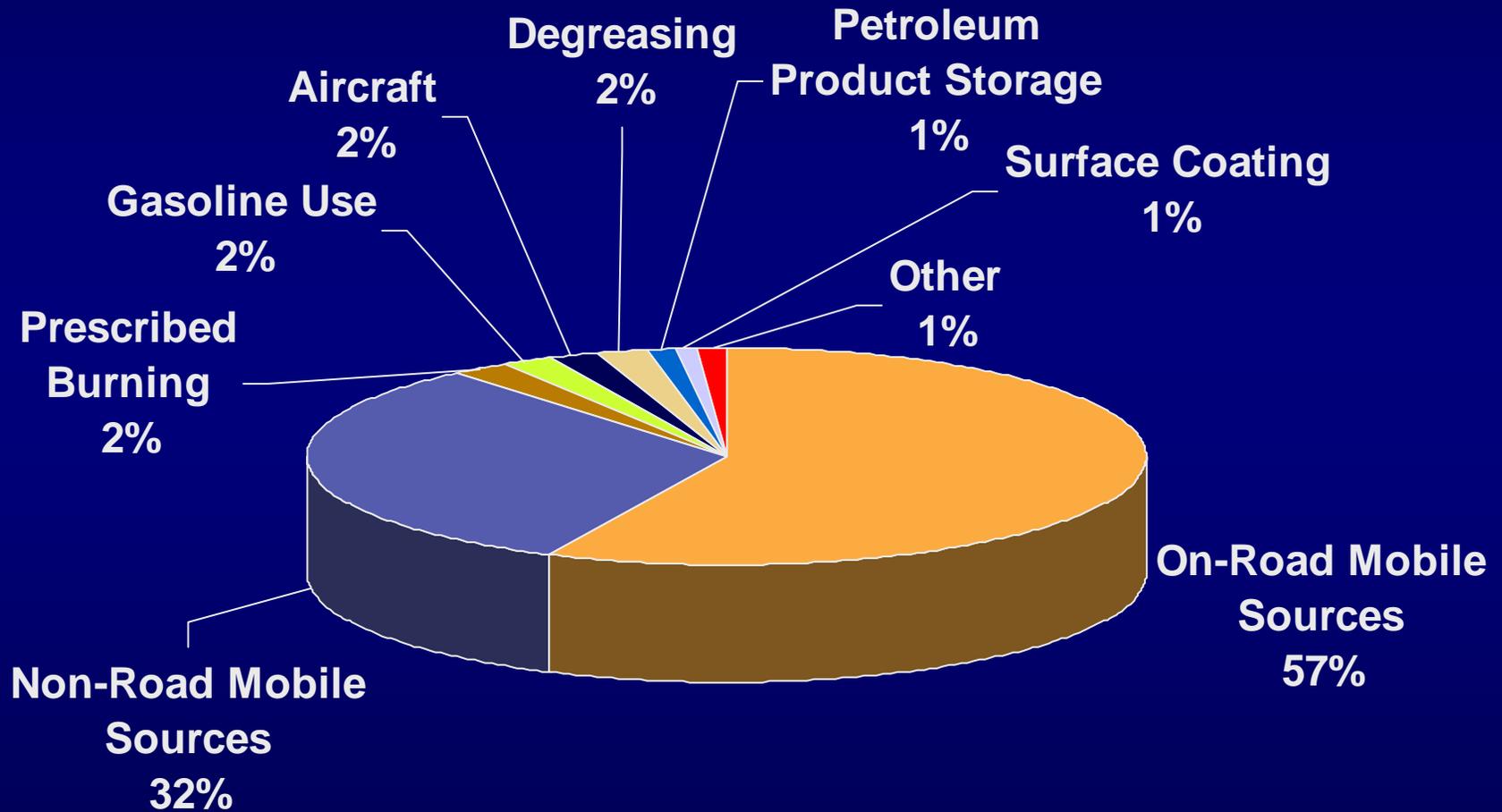
Sources of Toluene Emissions



Sources of Xylene Emissions

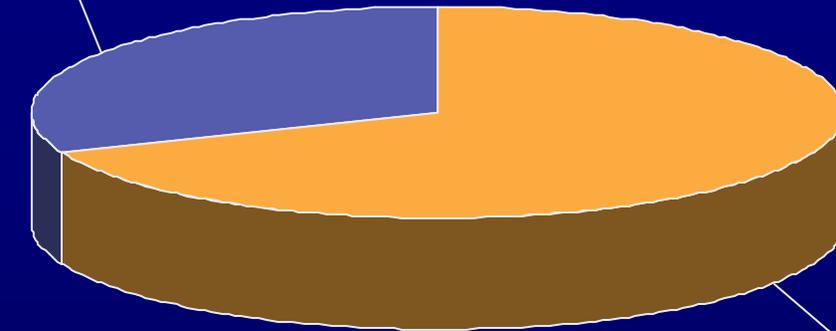


Sources of Benzene Emissions



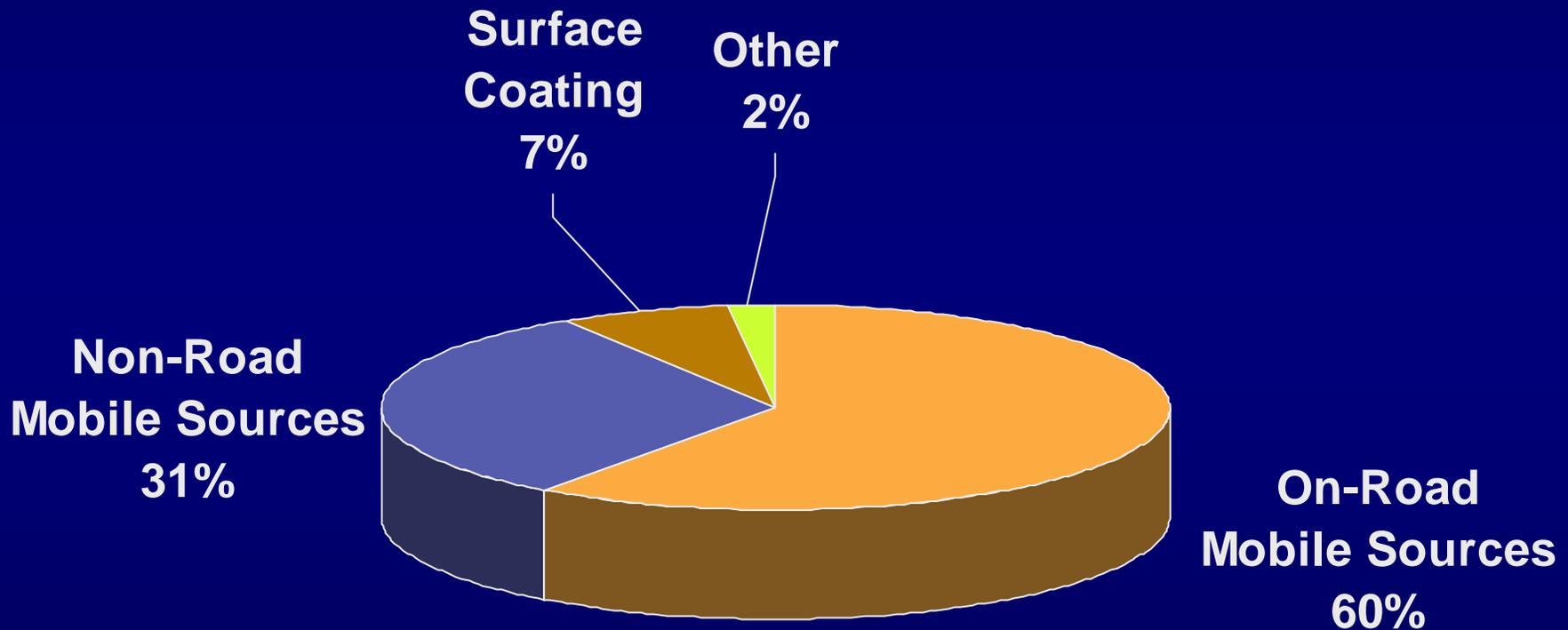
Sources of Methyl Chloroform Emissions

**Commercial/
Consumer
Solvent Use
31%**

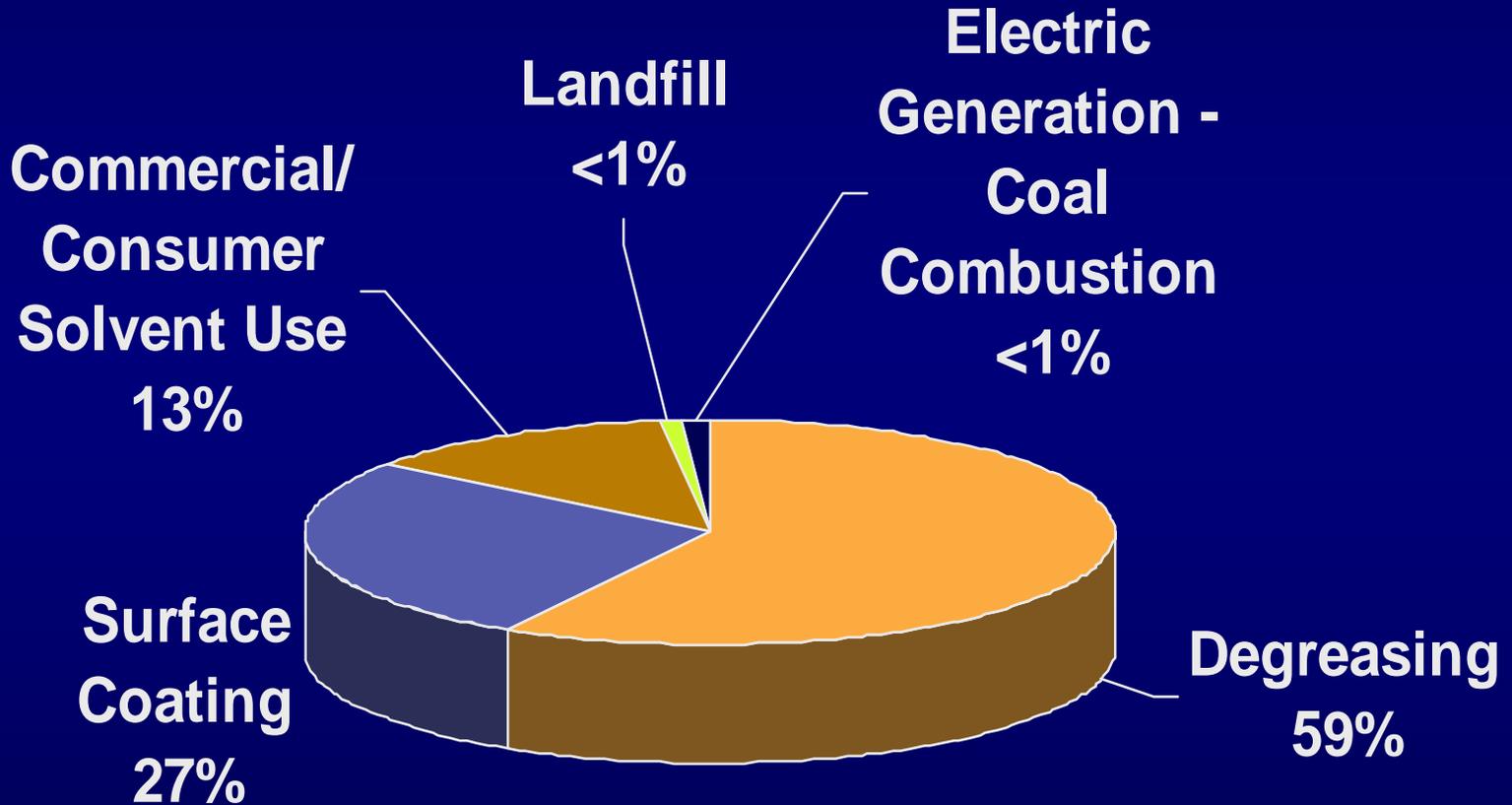


**Degreasing
69%**

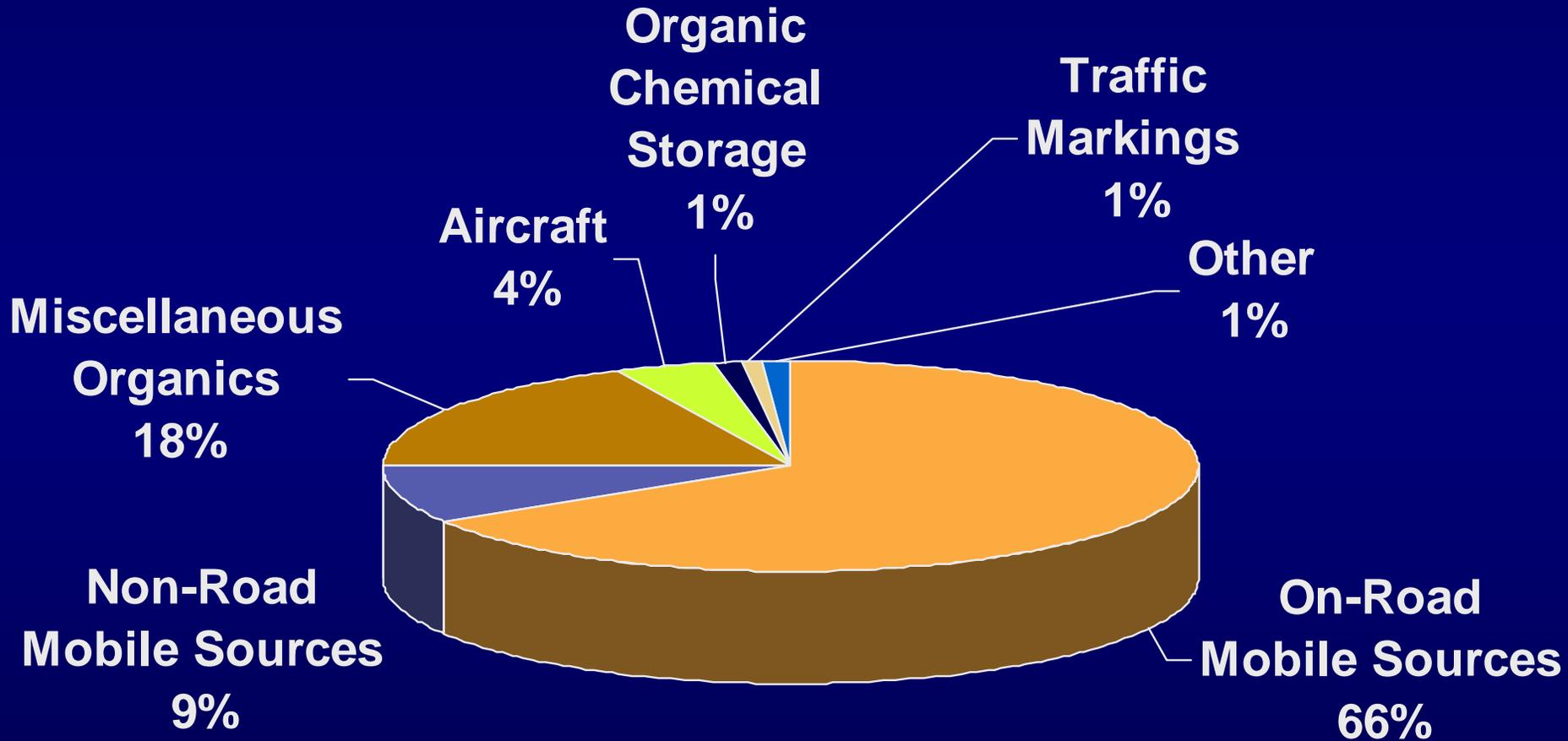
Sources of Ethyl Benzene Emissions



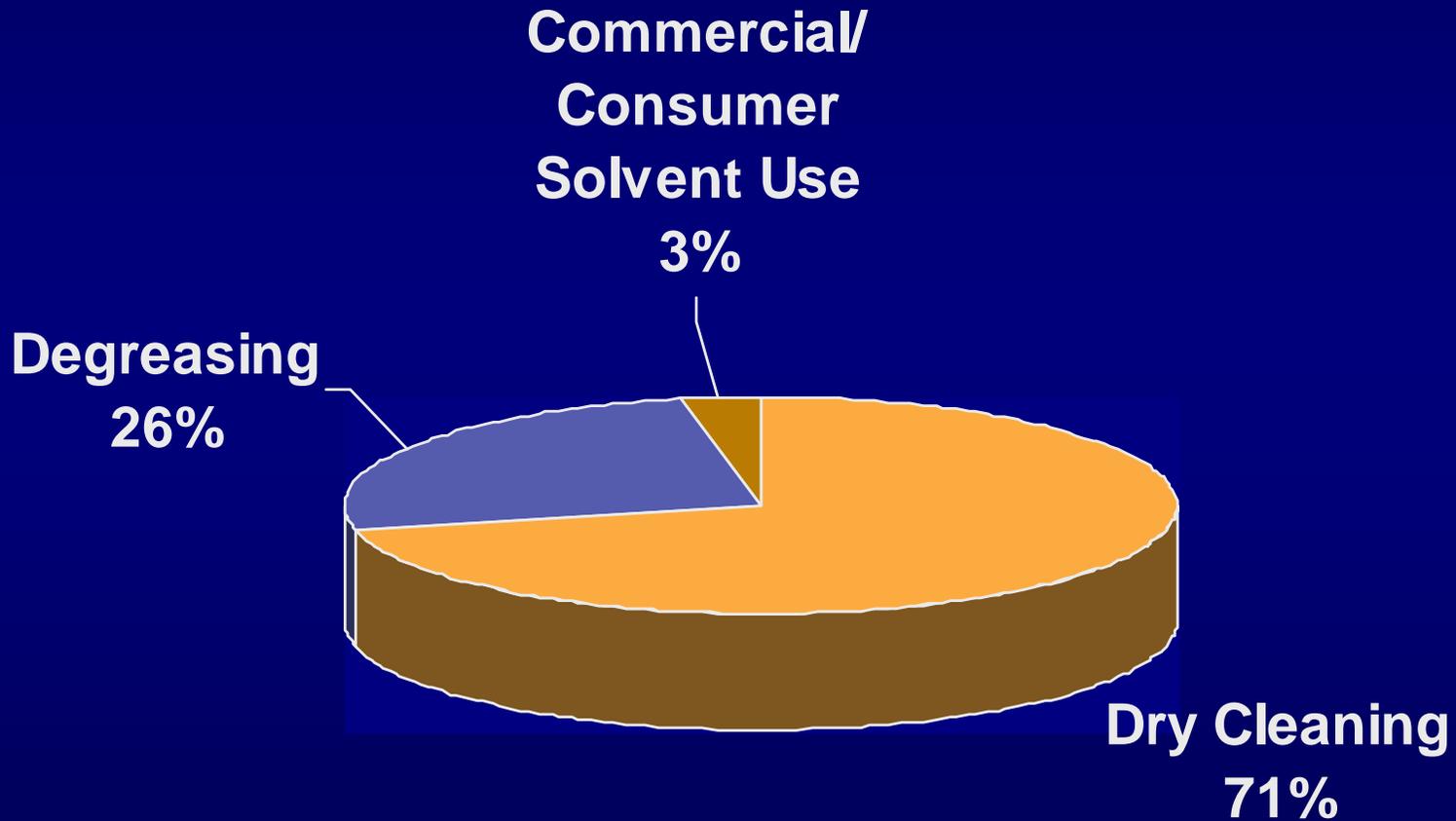
Sources of Methylene Chloride Emissions



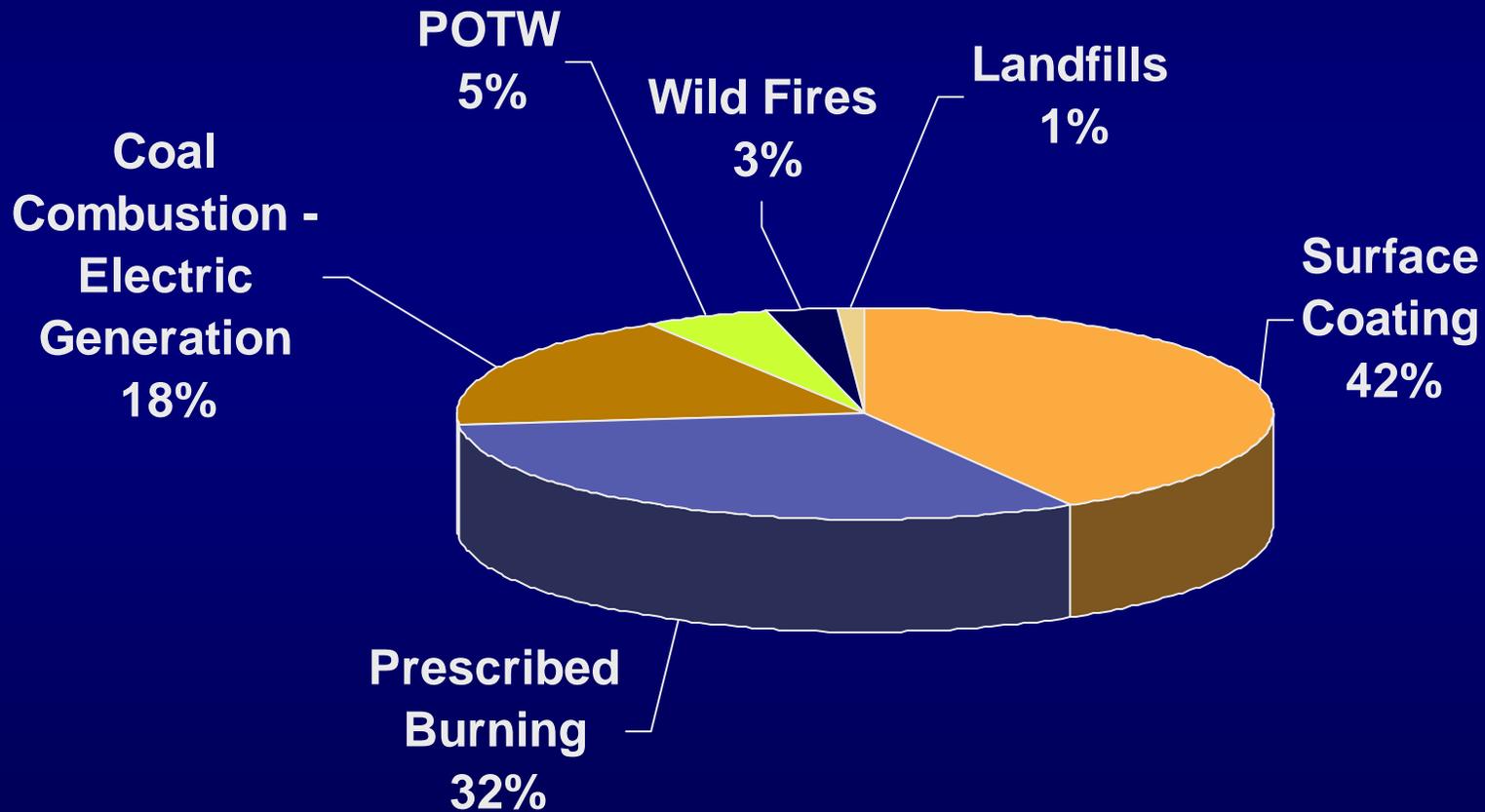
Sources of Styrene Emissions



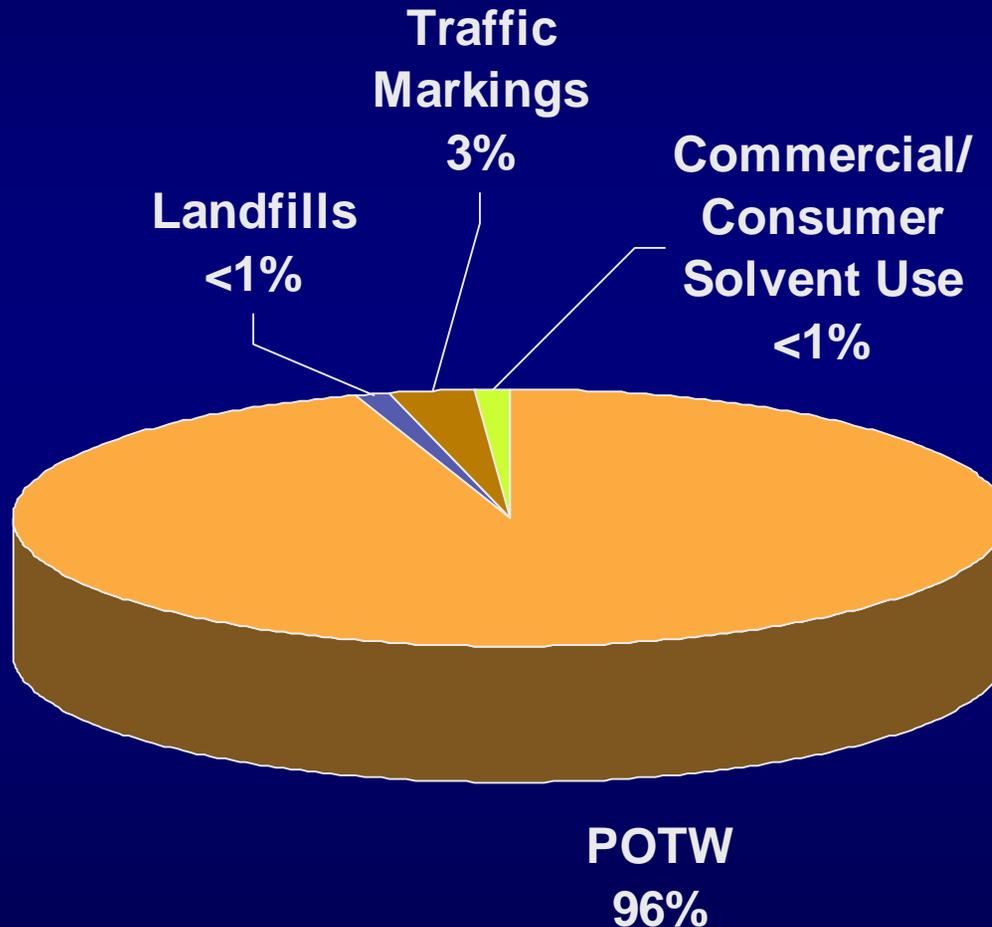
Sources of Perchloroethylene Emissions



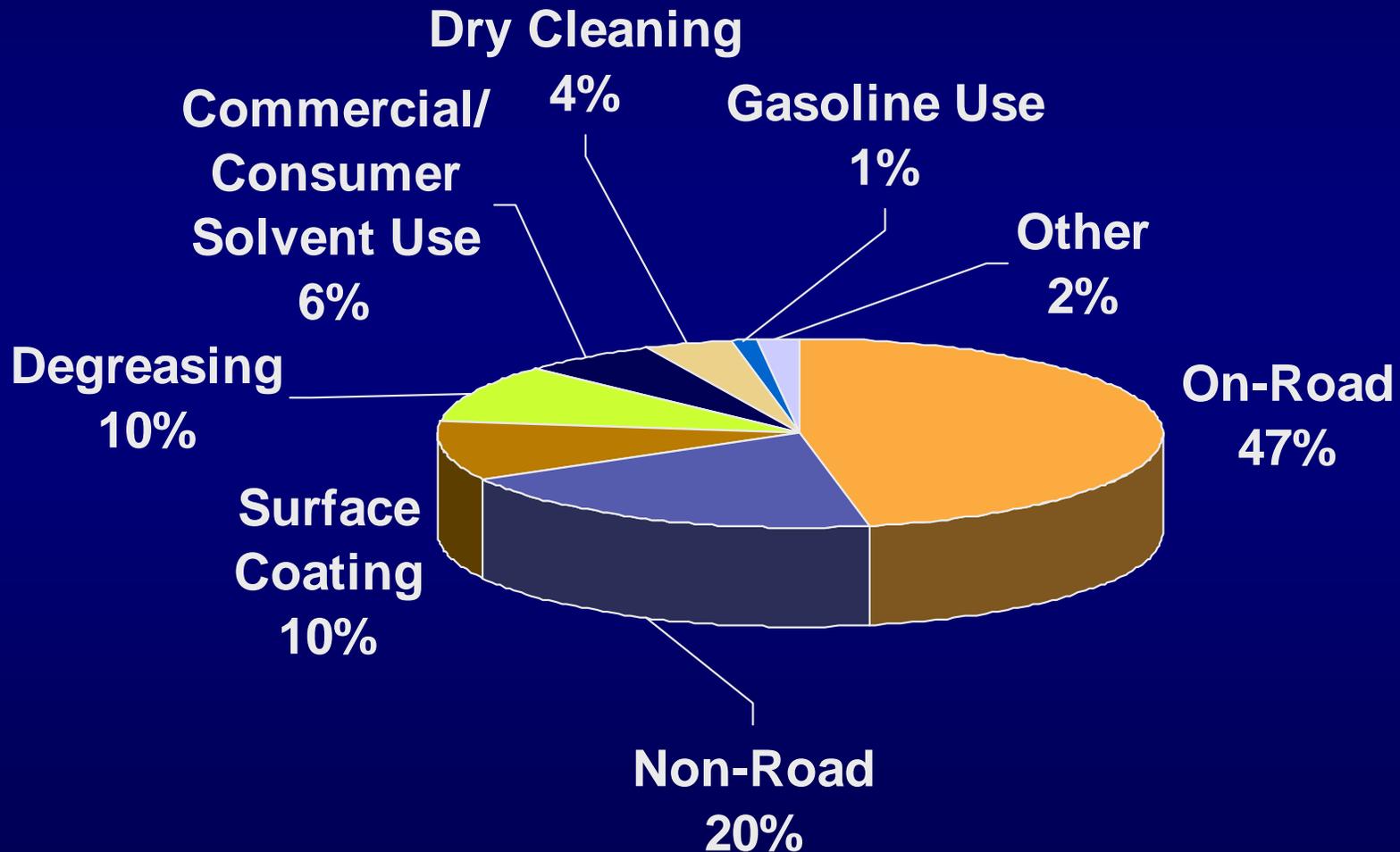
Sources of Methyl Chloride Emissions



Sources of Carbon Tetrachloride Emissions



Conclusions – Ten Pollutant Study



Conclusions – Ten Pollutant Study

- ★ On-Road Mobile 50 - 60% for 5 HAPs (styrene, xylene, toluene, ethyl benzene, benzene)
- ★ Non-Road Mobile ~30% for 3 HAPs (Benzene, Ethyl Benzene & Xylene)
- ★ Surface Coating ~ 7 HAPs
- ★ Degreasing & Commercial/Consumer Solvent Use ~ 6 HAPs
- ★ Other Contributors: Dry Cleaning & Gasoline Use.

Conclusions & Future Study

- ★ Study aided Jax in determining which types of facilities contribute to ambient levels of 10 HAPs
- ★ Local Regulatory Development
- ★ Air Pollution Dispersion Modeling
- ★ Risk Assessment
- ★ Conduct 2002 HAP Inventory & Compare Data.

Questions???

