
Emissions Inventory Status

**OTC Control Strategy Committee Meeting
October 5, 2005**

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MARAMA

Presentation Outline

- Basis for selection of candidate measures
 - Emission contribution
 - Source apportionment
 - Potential for additional reductions in the near-future timeframe (cost effectiveness, geographic/seasonal applicability, time frame for implementation)
- Where we are
 - 2002 MANE-VU Modeling Inventory Inventory by pollutant, major source categories, state and regional totals
 - Important source categories by pollutant, SCC, state, and regional totals and density maps Where did we come from? Regional trends: 1996-2002
- Where are we going? Projected future trends: 2002-2020

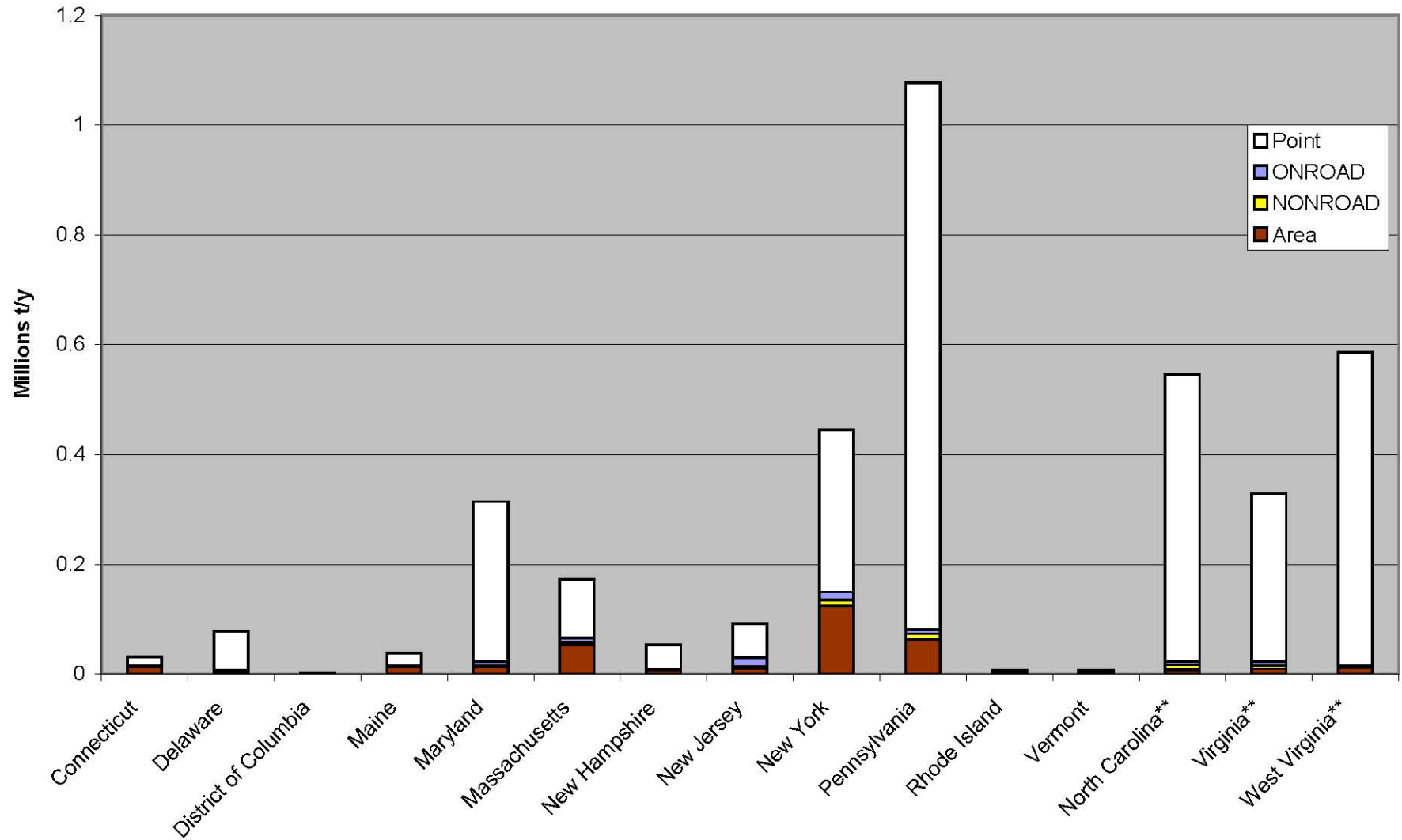
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MANE-VU 202 Inventory

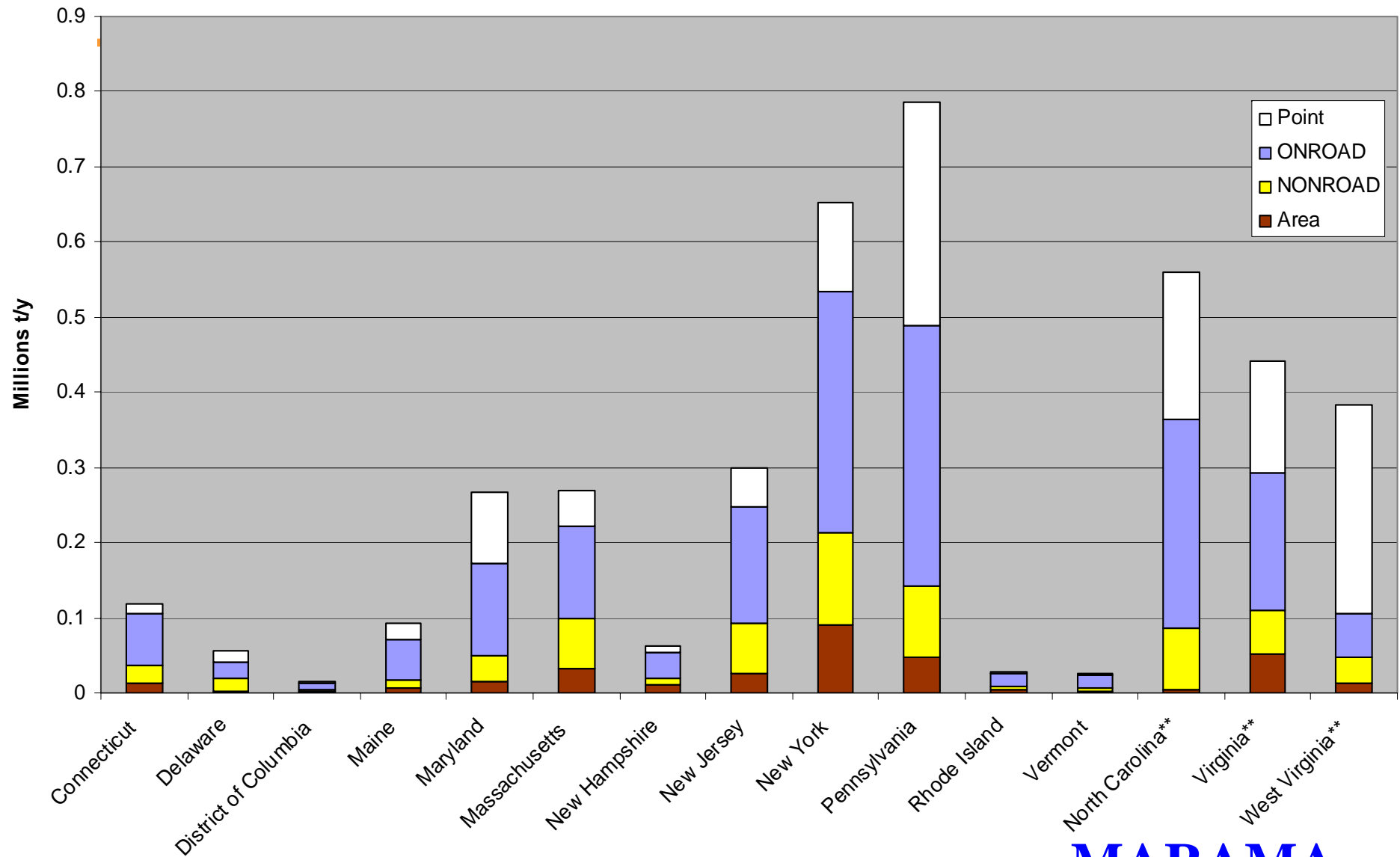
- Version 2 of 2002 MANE-VU Modeling Inventory available
 - Based on updates from states (adding emissions for new SCCs, or updating old data)
- Documentation is available at www.marama.org click on Regional Haze, then 2002 MANE-VU Inventory
- TSD for SIPs will be devoped
- Data available: [ftp.marama.org](ftp://ftp.marama.org)
 - Username: mane-vu
 - Password: exchange

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2002 MARAMA + NESCAUM Total Annual SO₂ Emissions by State

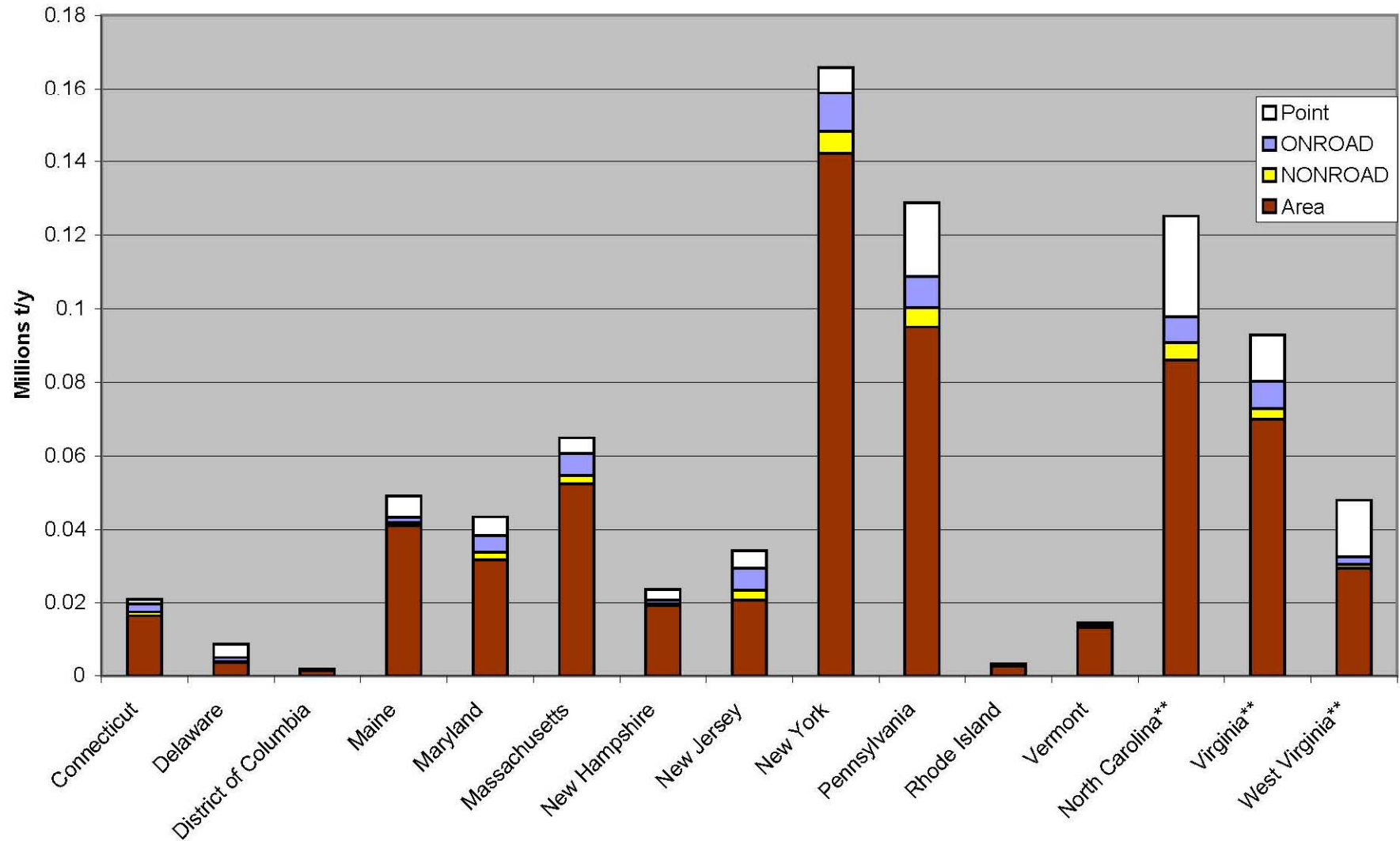


2002 MARAMA + NESCAUM Total Annual NOx Emissions by State

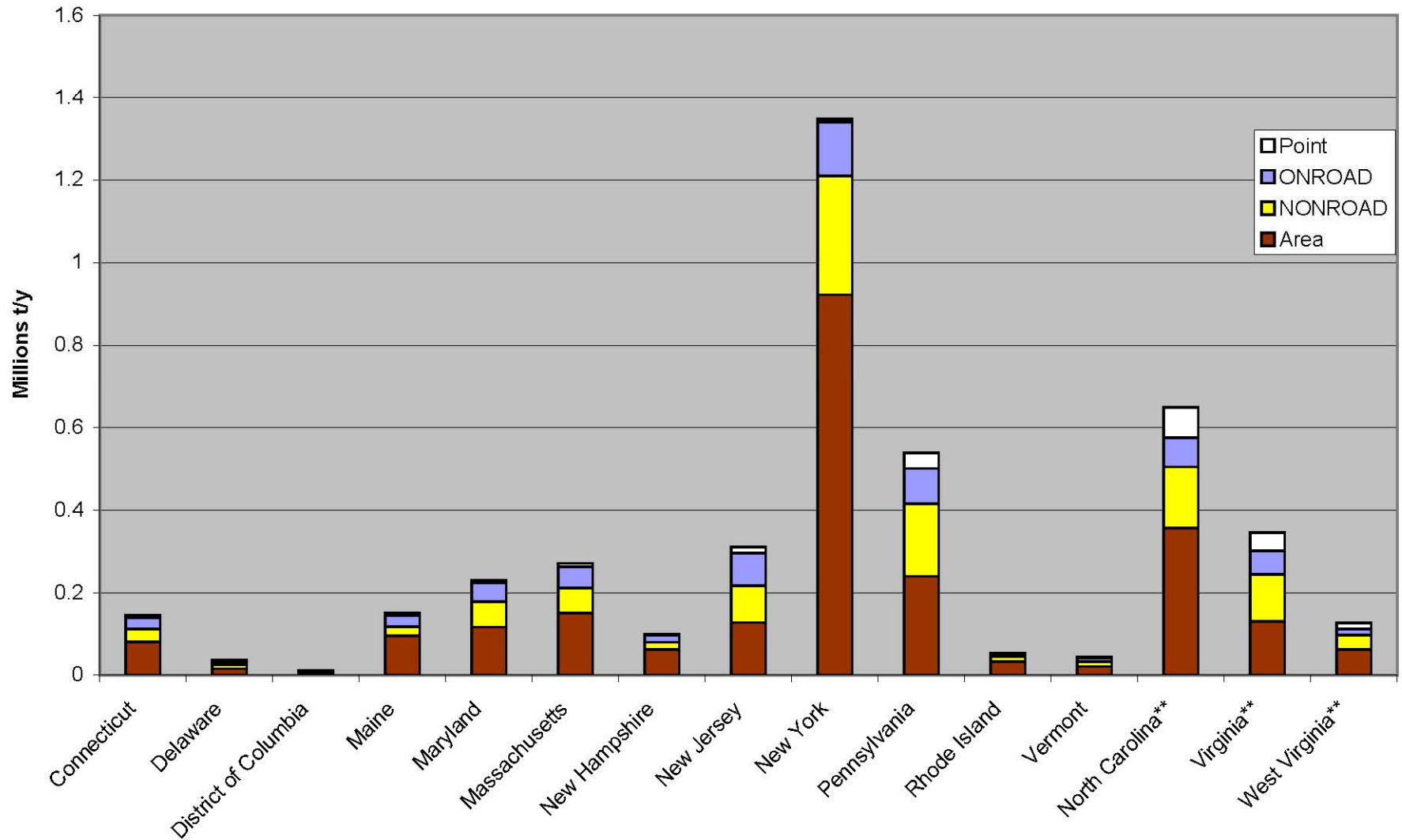


MARAMA

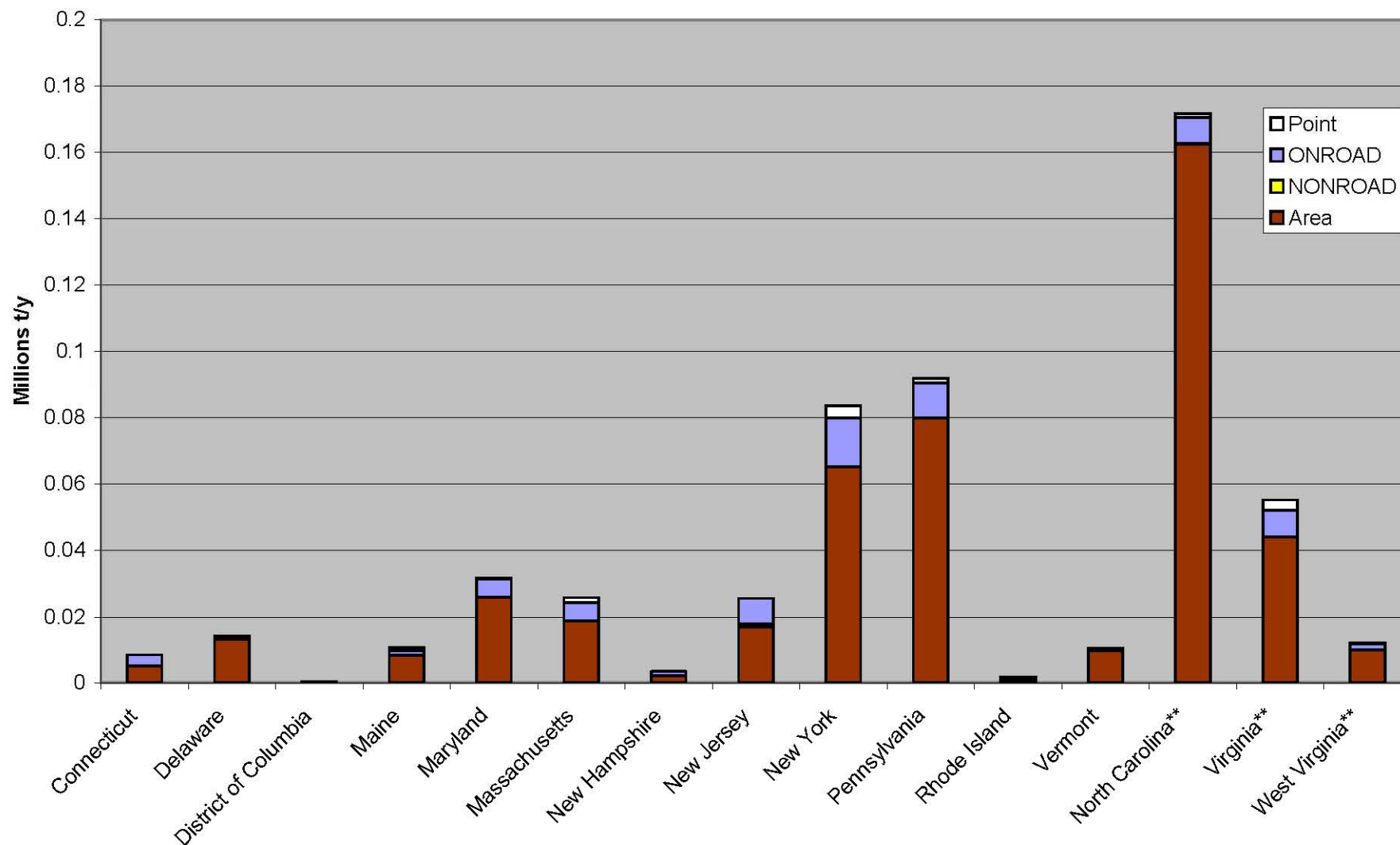
2002 MARAMA + NESCAUM Total Annual PM2.5 Primary Emissions by State



2002 MARAMA + NESCAUM Total Annual VOC Emissions by State

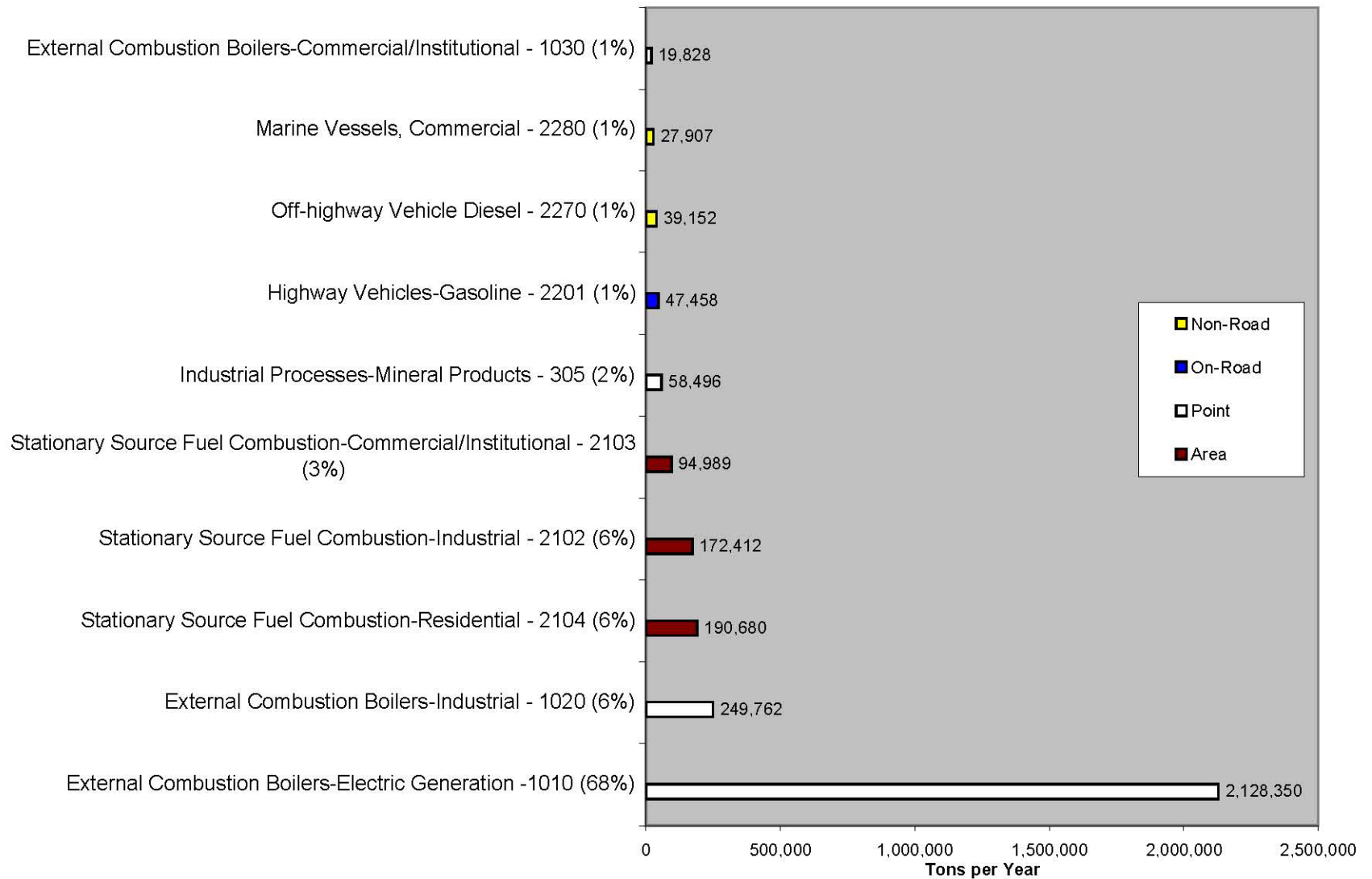


2002 MARAMA + NESCAUM Total Annual NH3 Emissions by State



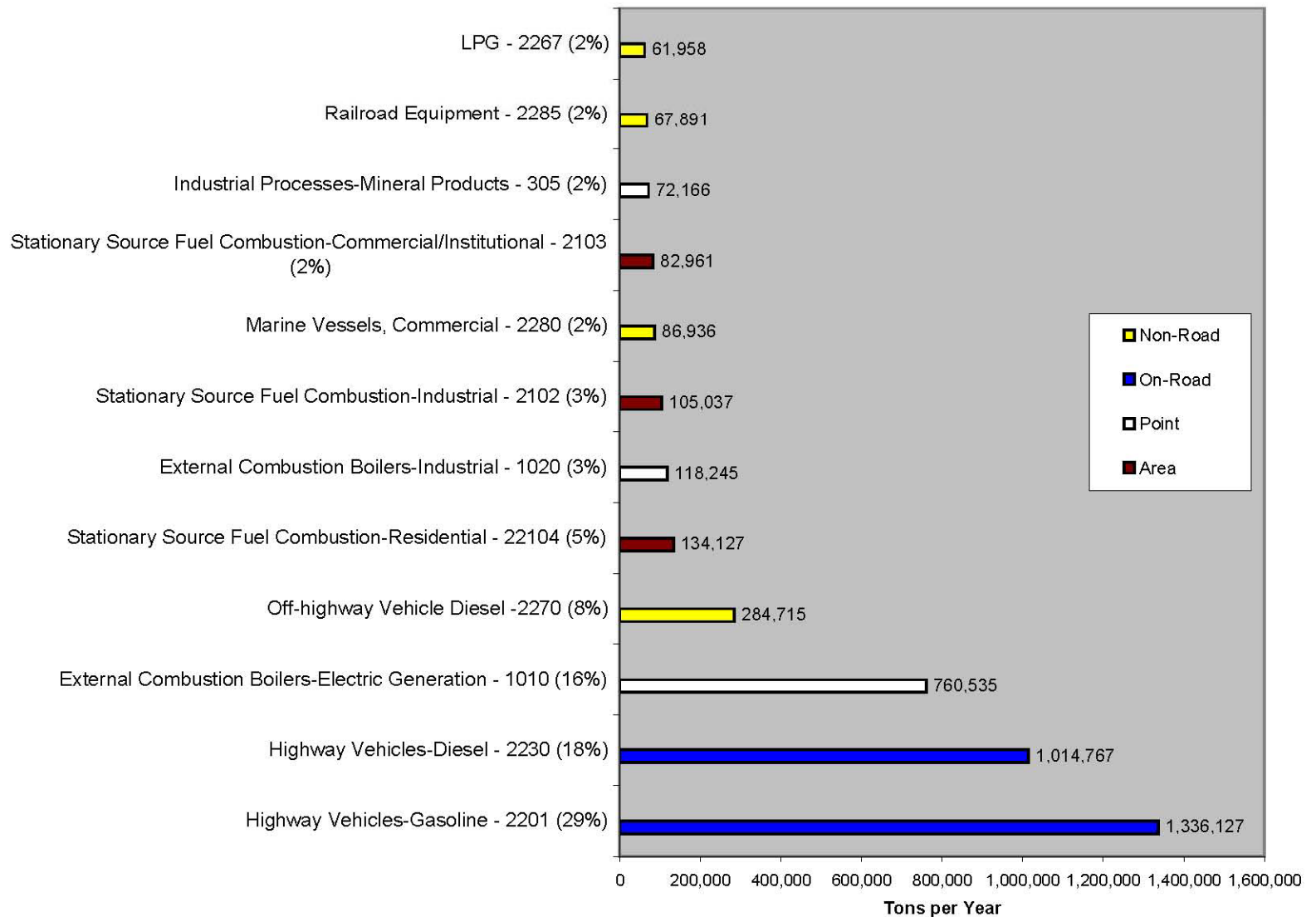
MARAMA + NESCAUM 2002 SO₂ Inventory (Top Source Categories)

Total Emissions - 3,140,418 t/yr



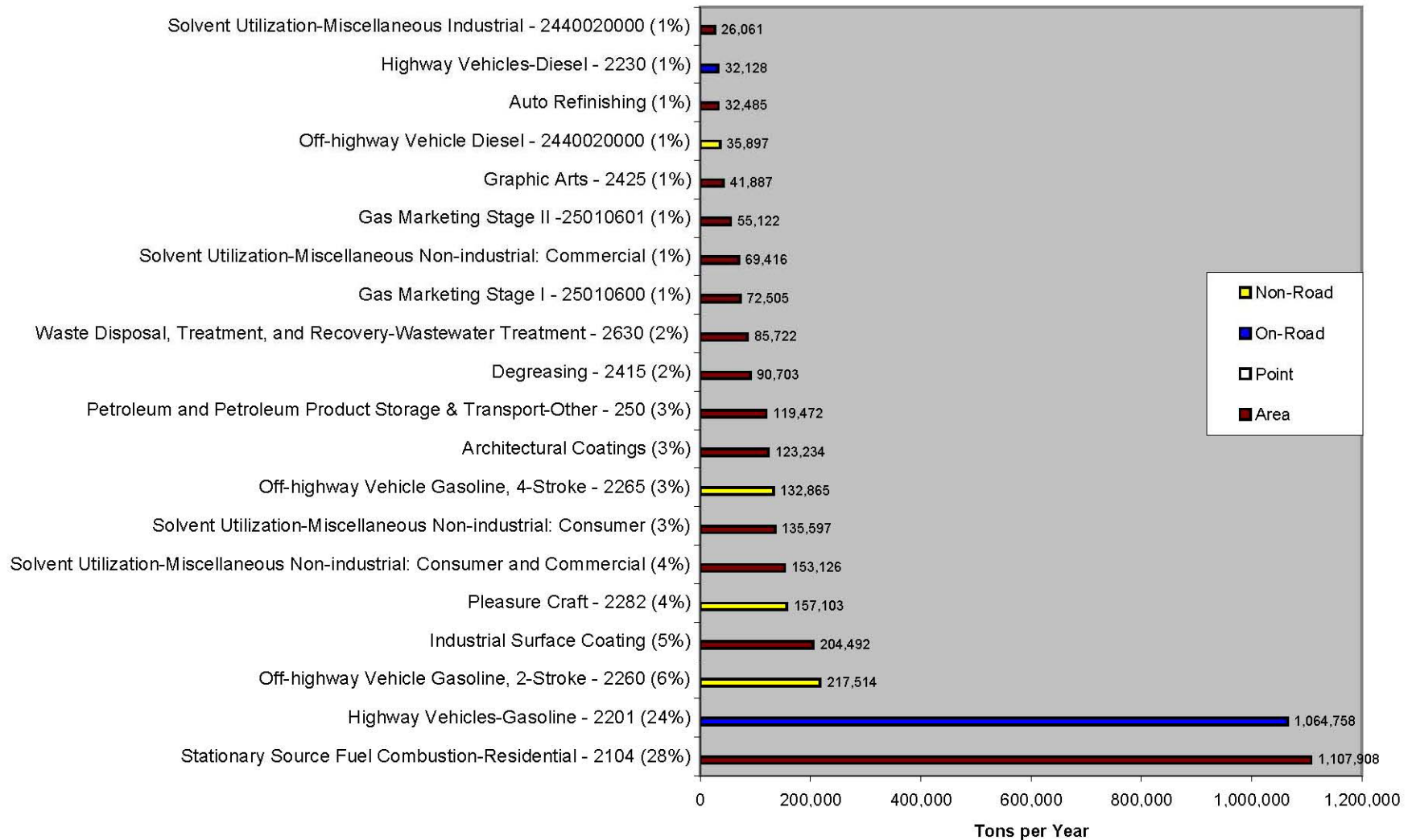
MARAMA + NESCAUM 2002 NOx Inventory (Top Source Categories)

Total Emissions - 4,447,752 t/yr



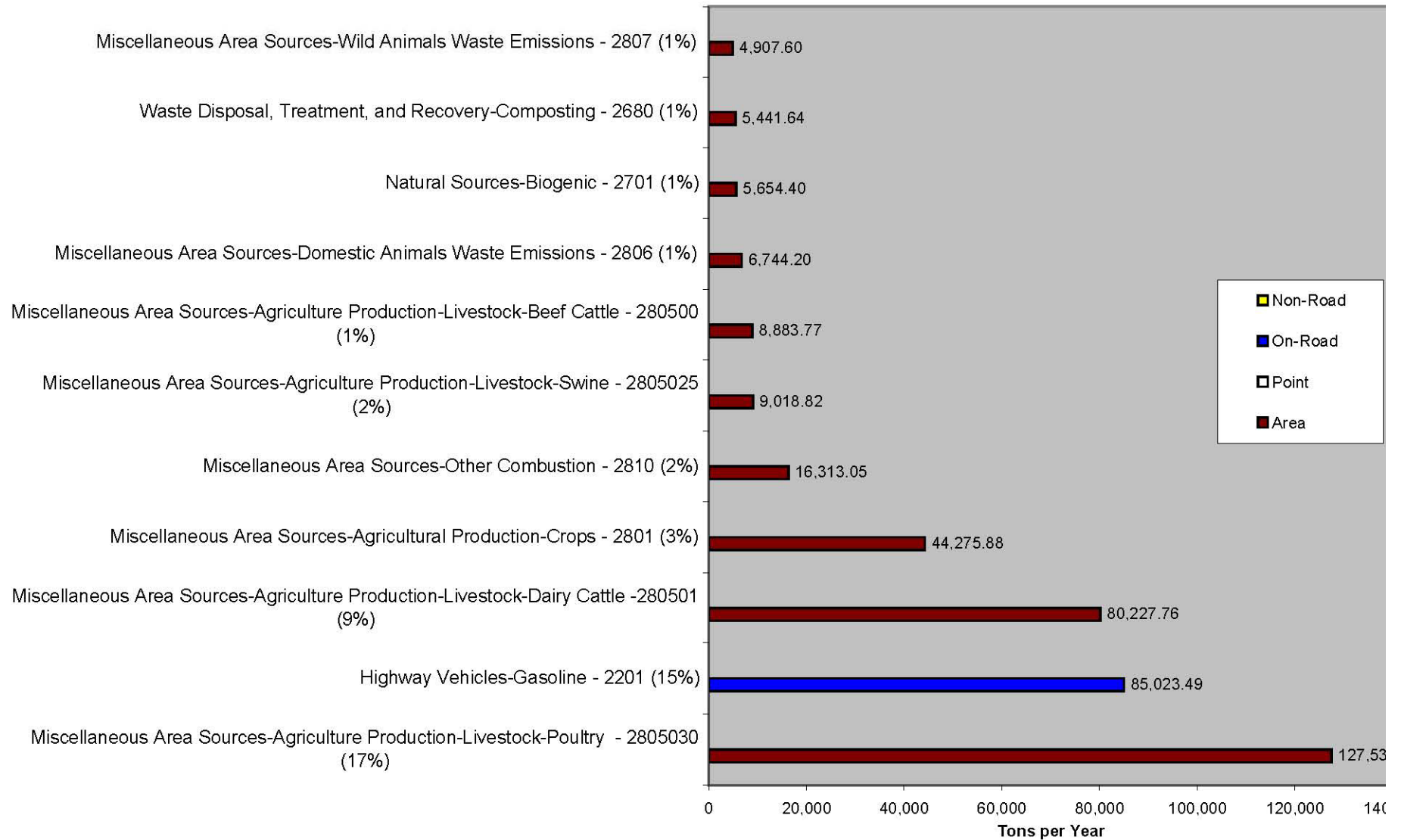
MARAMA + NESCAUM 2002 VOC Inventory (Top Source Categories)

Total Emissions - 4,185,386 t/yr

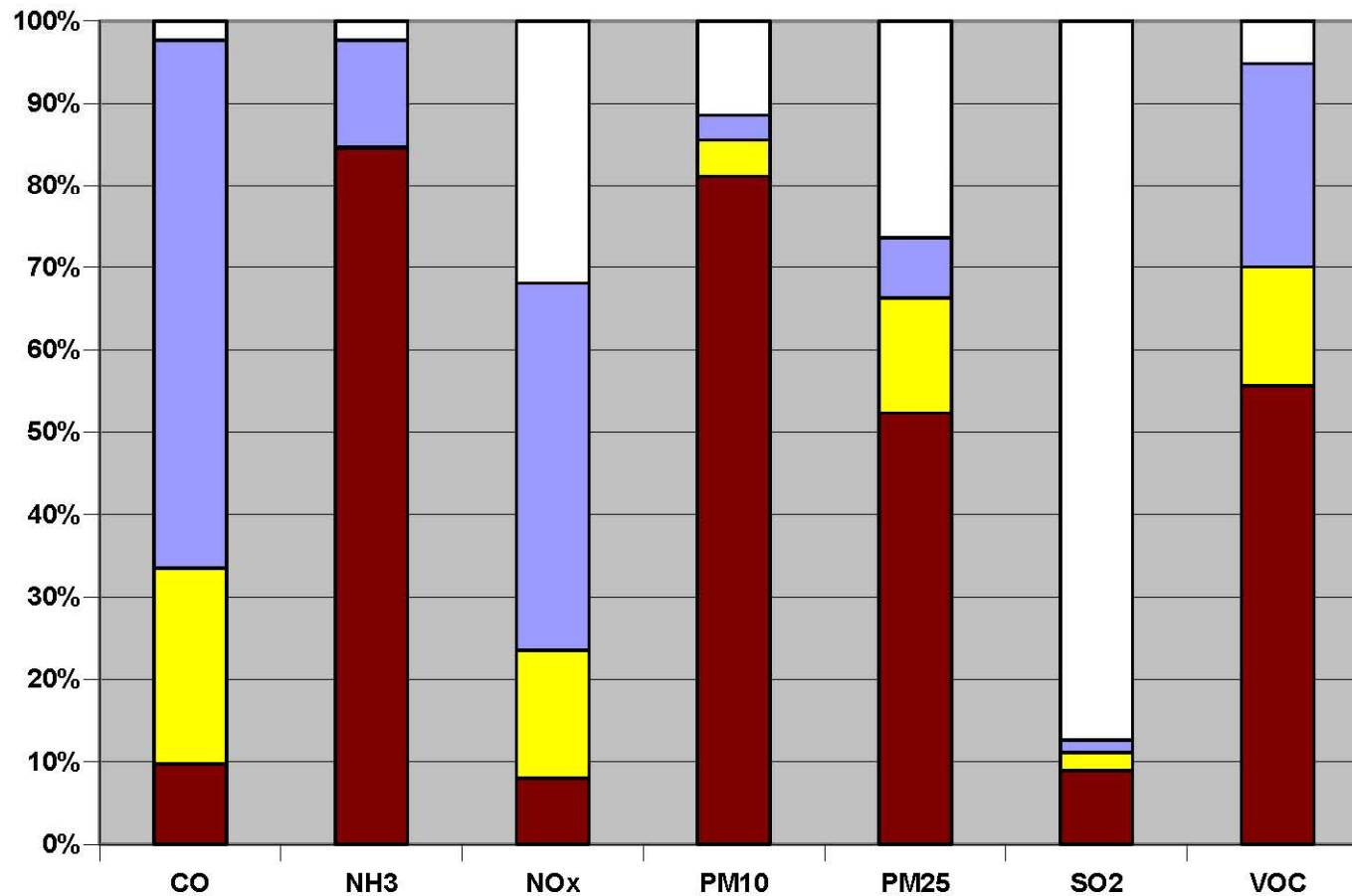


MARAMA + NESCAUM 2002 NH₃ Inventory (Top Source Categories)

Total Emissions - 538,023 t/yr



2002 MARAMA + NESCAUM Annual Source Comparison



	CO	NH3	NOx	PM10	PM25	SO2	VOC
POINT (t/y)	593,381	12,723	1,295,857	165,384	111,167	3,309,186	226,656
ONROAD (t/y)	16,088,190	70,778.2	1,806,315	43,709	30,907	57,669	1,083,914
NONROAD (t/y)	5,960,416	1,356	630,874	64,214	58,728	82,102	631,763
AREA (t/y)	2,453,073	463,171	325,248	1,176,114	220,157	339,811	2,431,371

MANE-VU Future Year Inventories (2009, 2012, 2018)

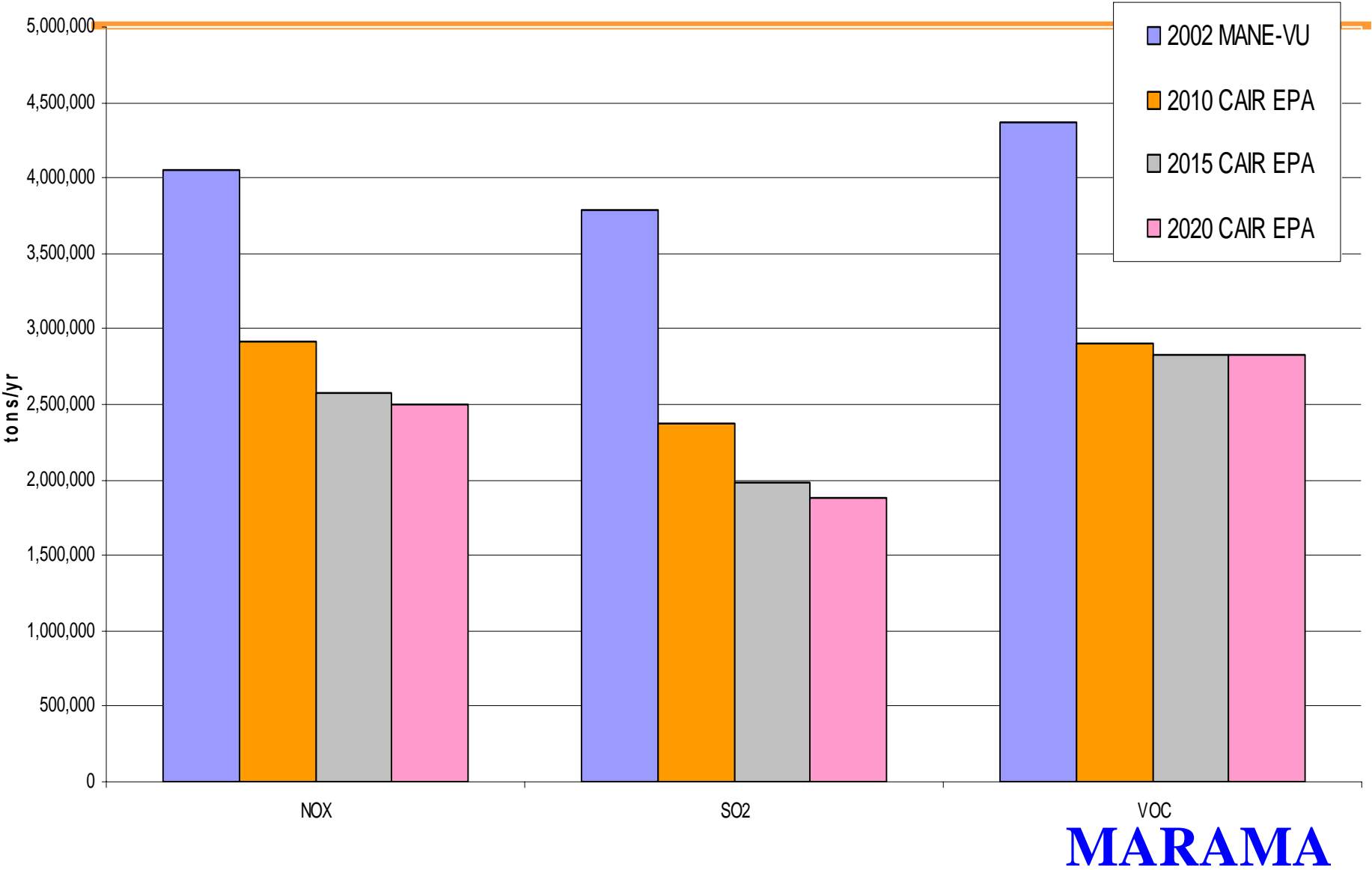
- EGU sector:
 - Worked with eastern RPOs, ran IPM with and without CAIR/CAMR
 - Data for SMOKE modeling for 2018 CAIR case available
 - 2009 CAIR SMOKE modeling files will be available soon
 - Contract in place with ICF for further technical sensitivity and policy (“BOTW”) runs
- Non-EGU Point, Area, and Non-Road
 - Growth and control packages and emission summaries available for OTB+OTW (includes CAIR/CAMR) .
 - Worked with states, used different methodologies for different sources (EGAS 5.0, NONROAD, EPA data, State data, DOE data)
 - Contract in place with MACTEC for further work to develop inventories with “BOTW” controls.

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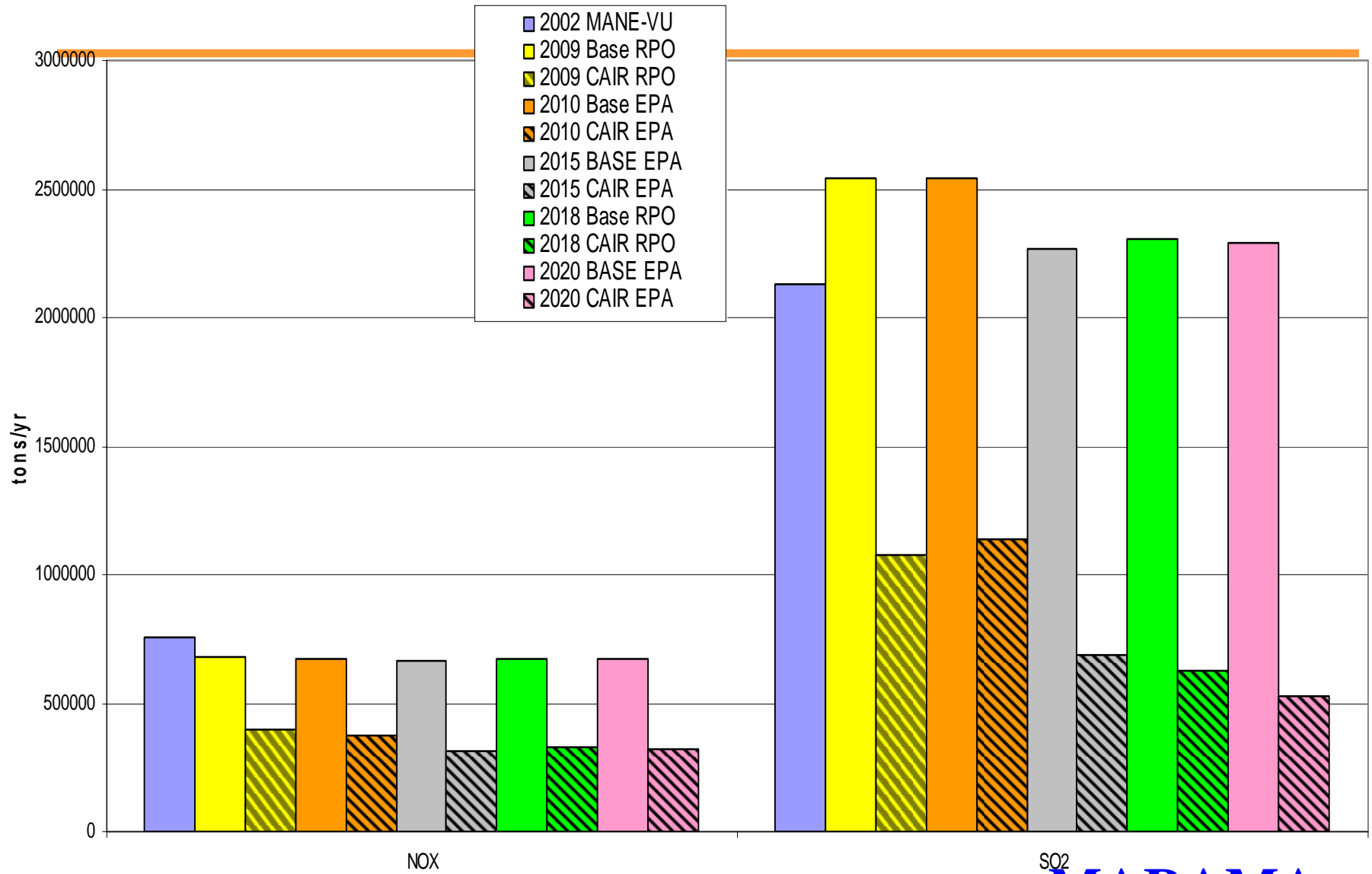
MANE-VU Future Year Inventories (2009, 2012, 2018)

- Mobile source inventories
 - States submitted M6 input files and VMT data for 2009, 2012, and 2018
 - NESCAUM QA'd data and it is ready for SMOKE modeling
- TSD for SIPs will be developed

MARAMA + NESCAUM Total Emissions

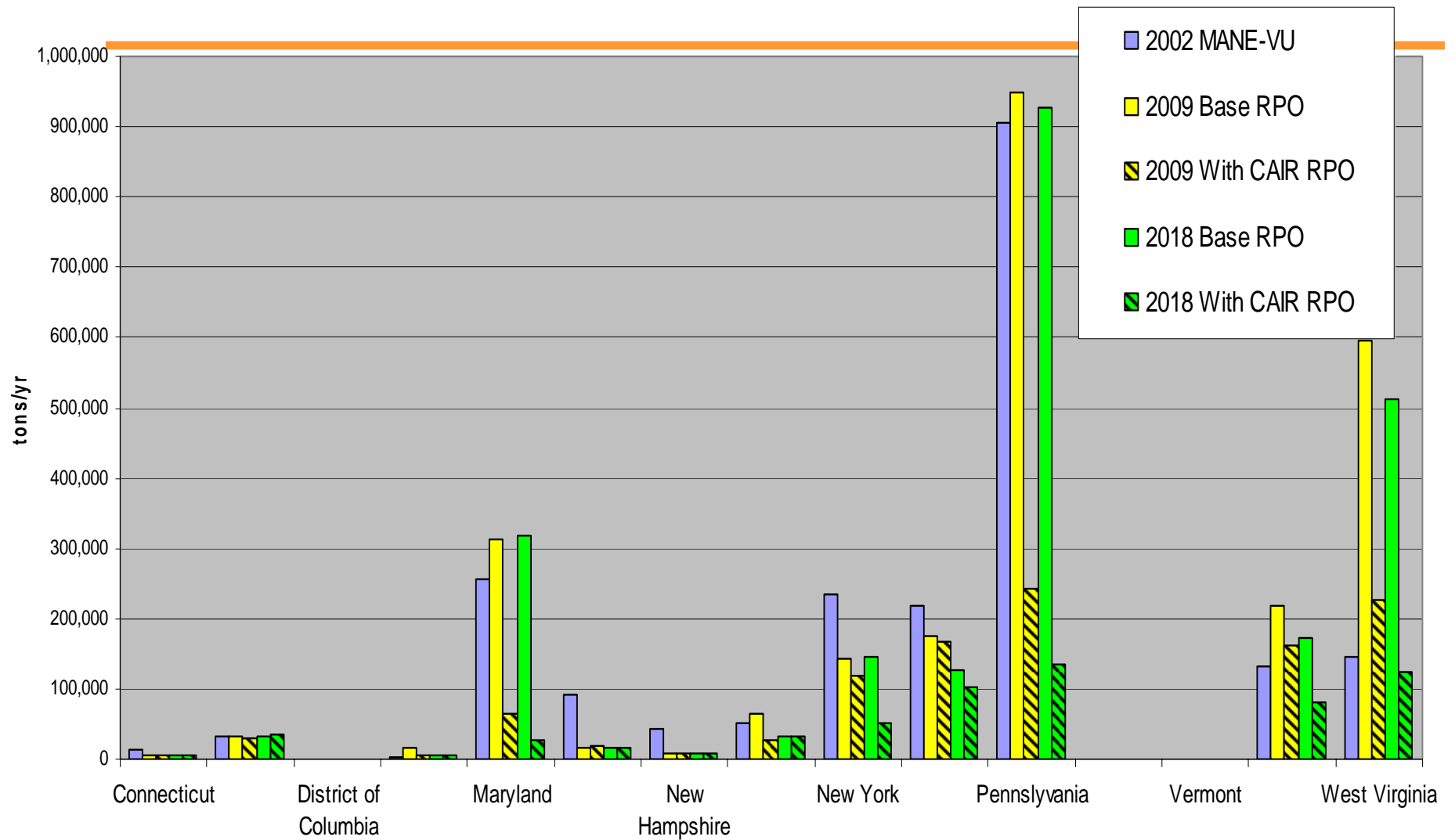


MARAMA + NESCAUM EGU Sector Emissions



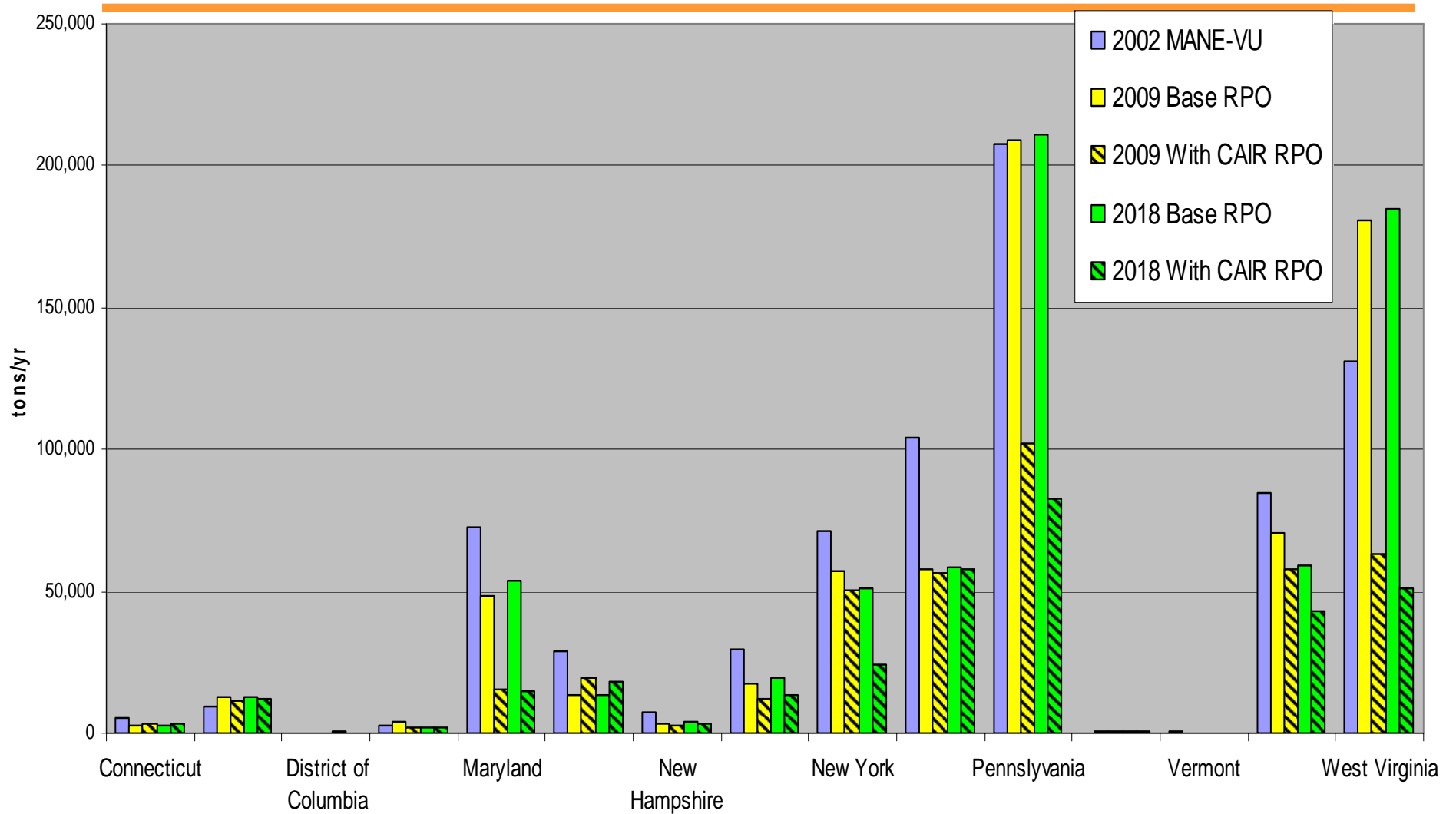
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Comparison of EGU Sector SO2 Emissions



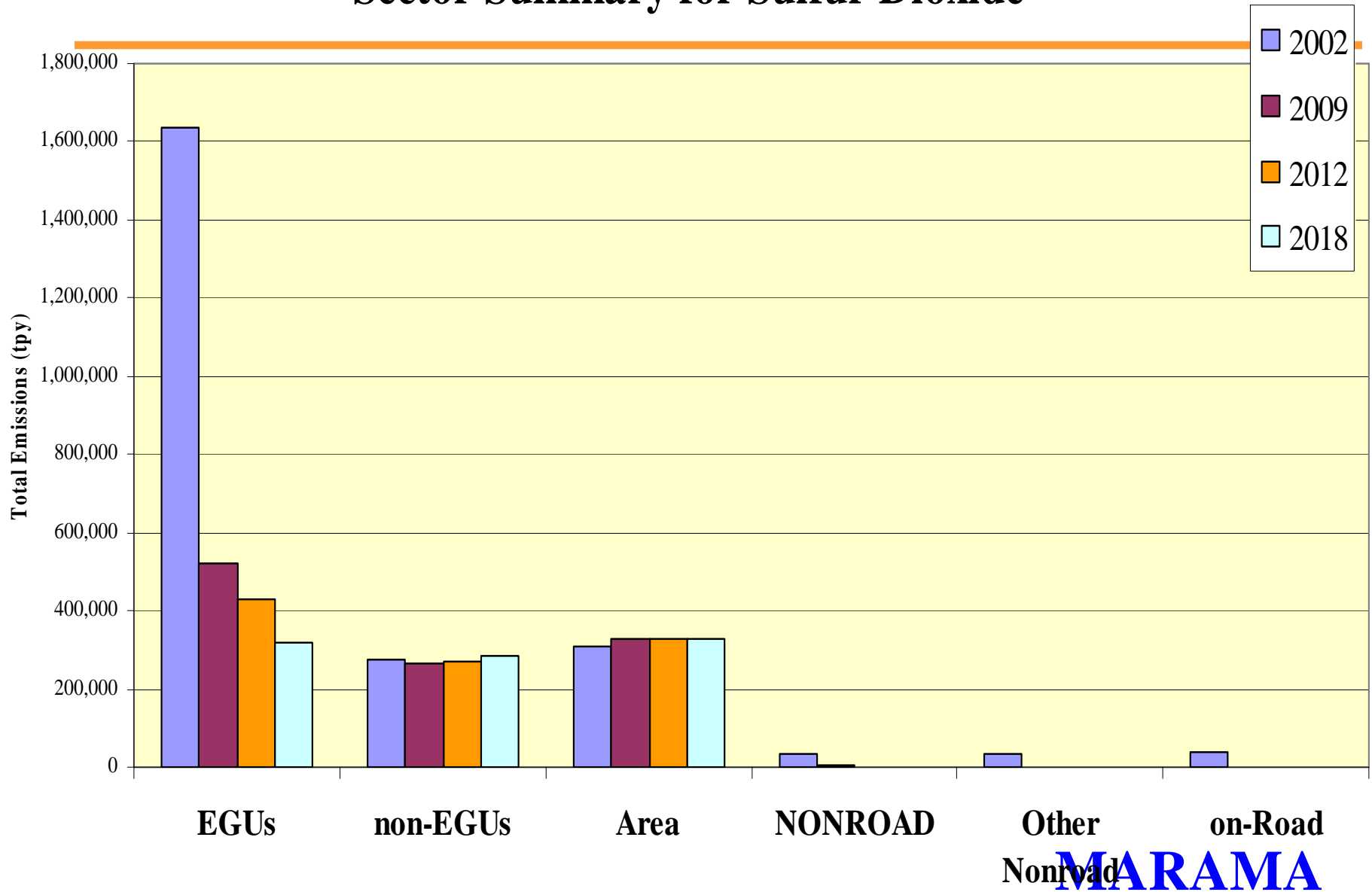
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Comparison of EGU Sector NOx Emissions

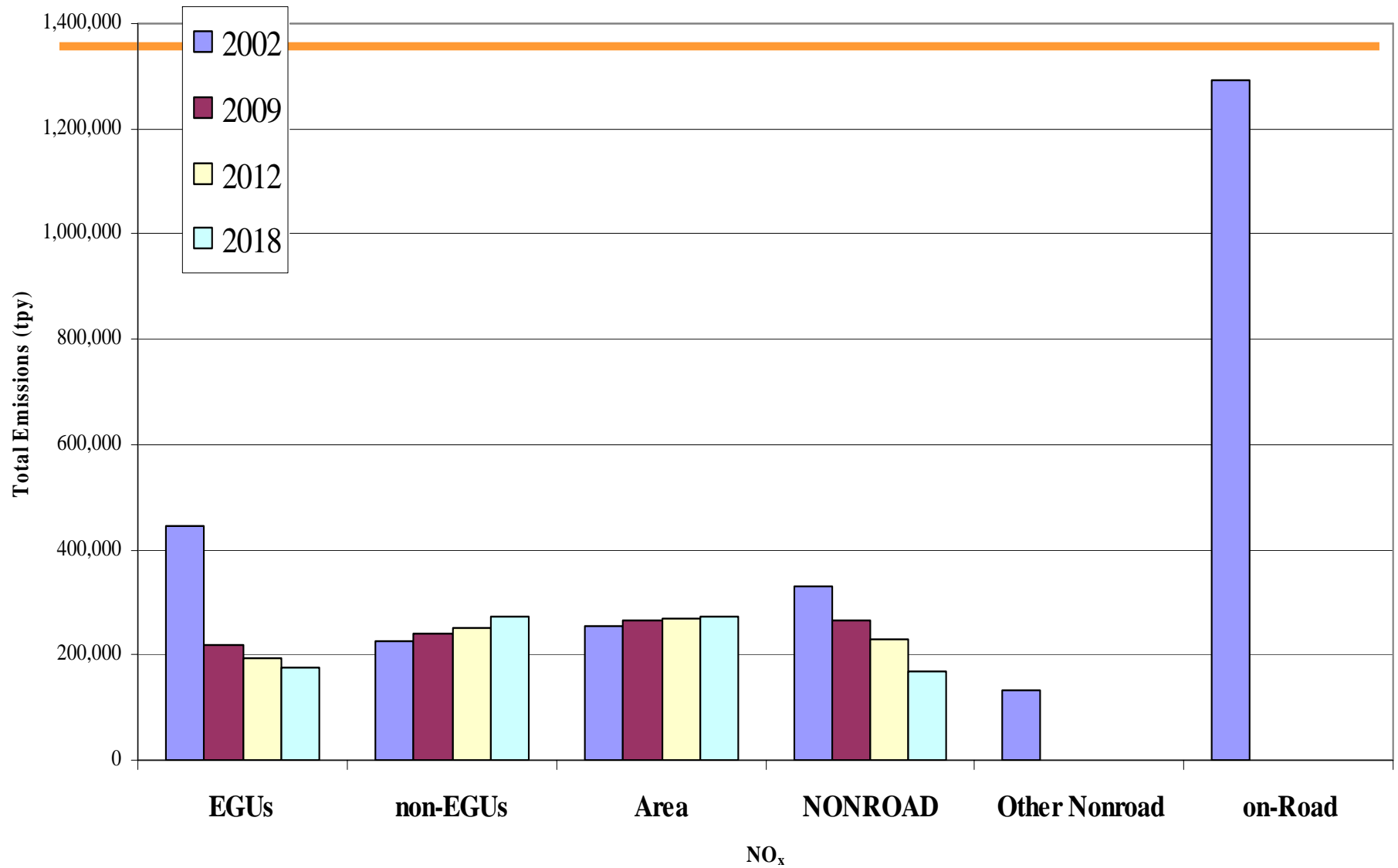


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Sector Summary for Sulfur Dioxide

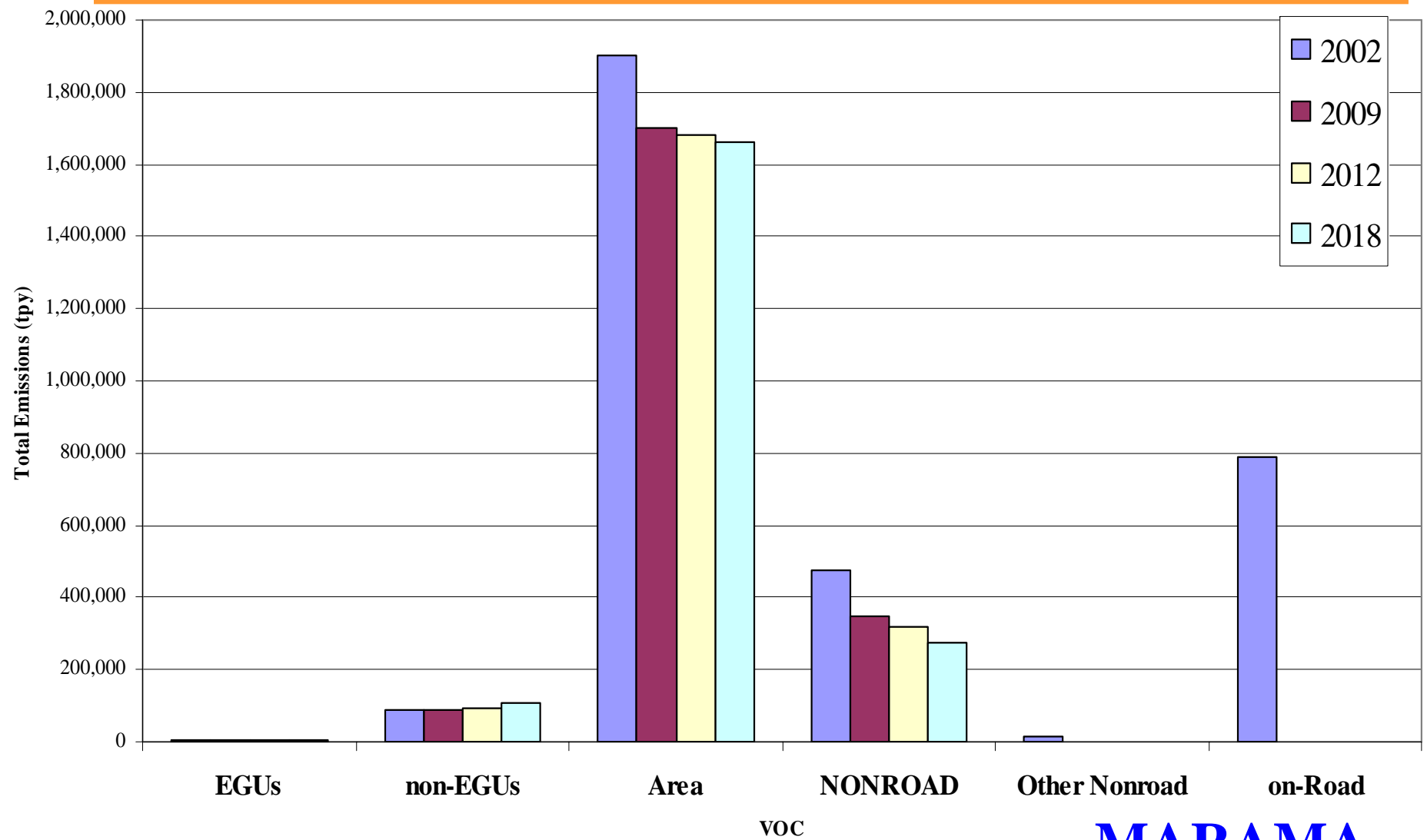


Sector Summary for Oxides of Nitrogen



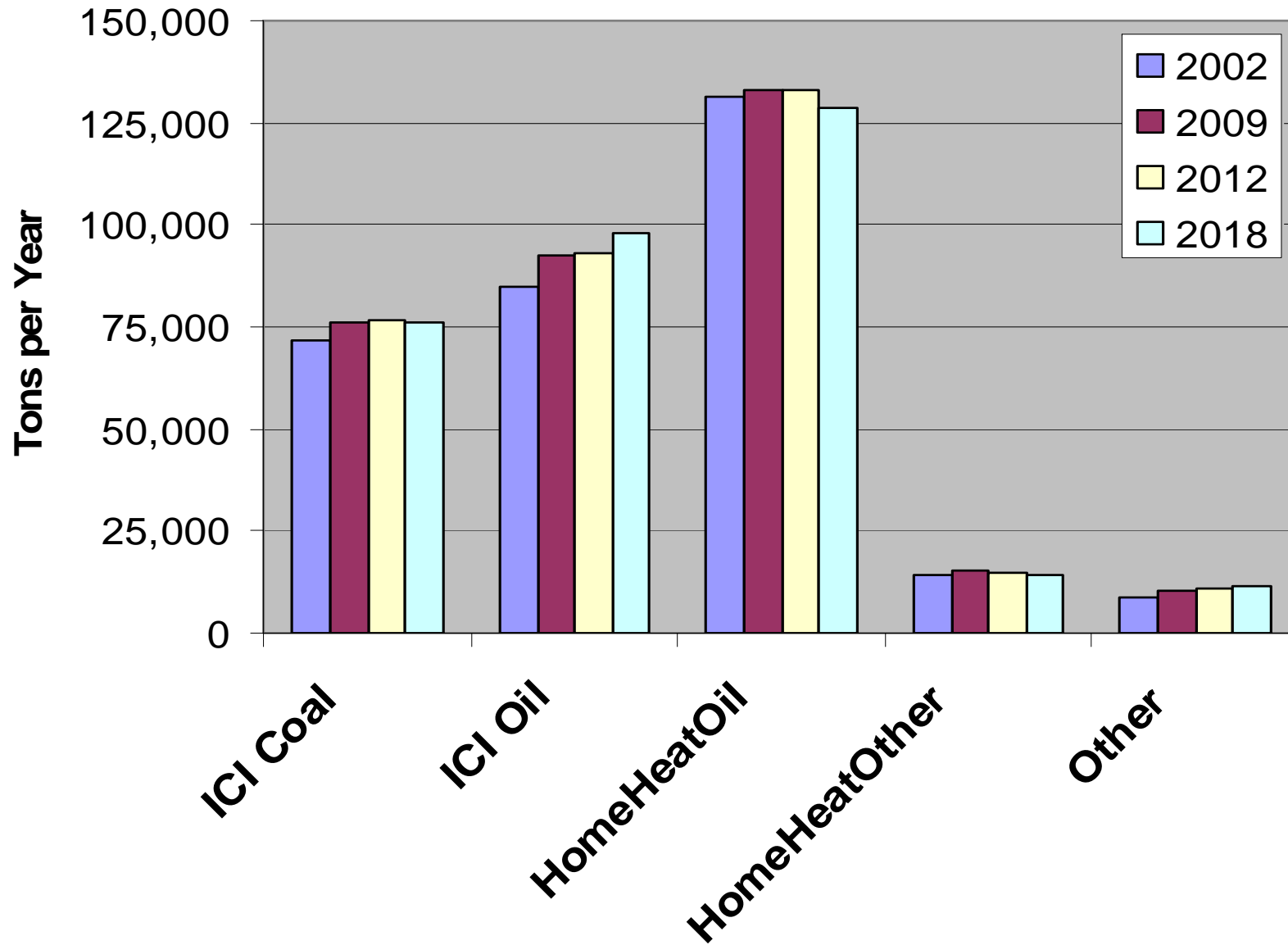
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Sector Summary for Volatile Organic Compounds

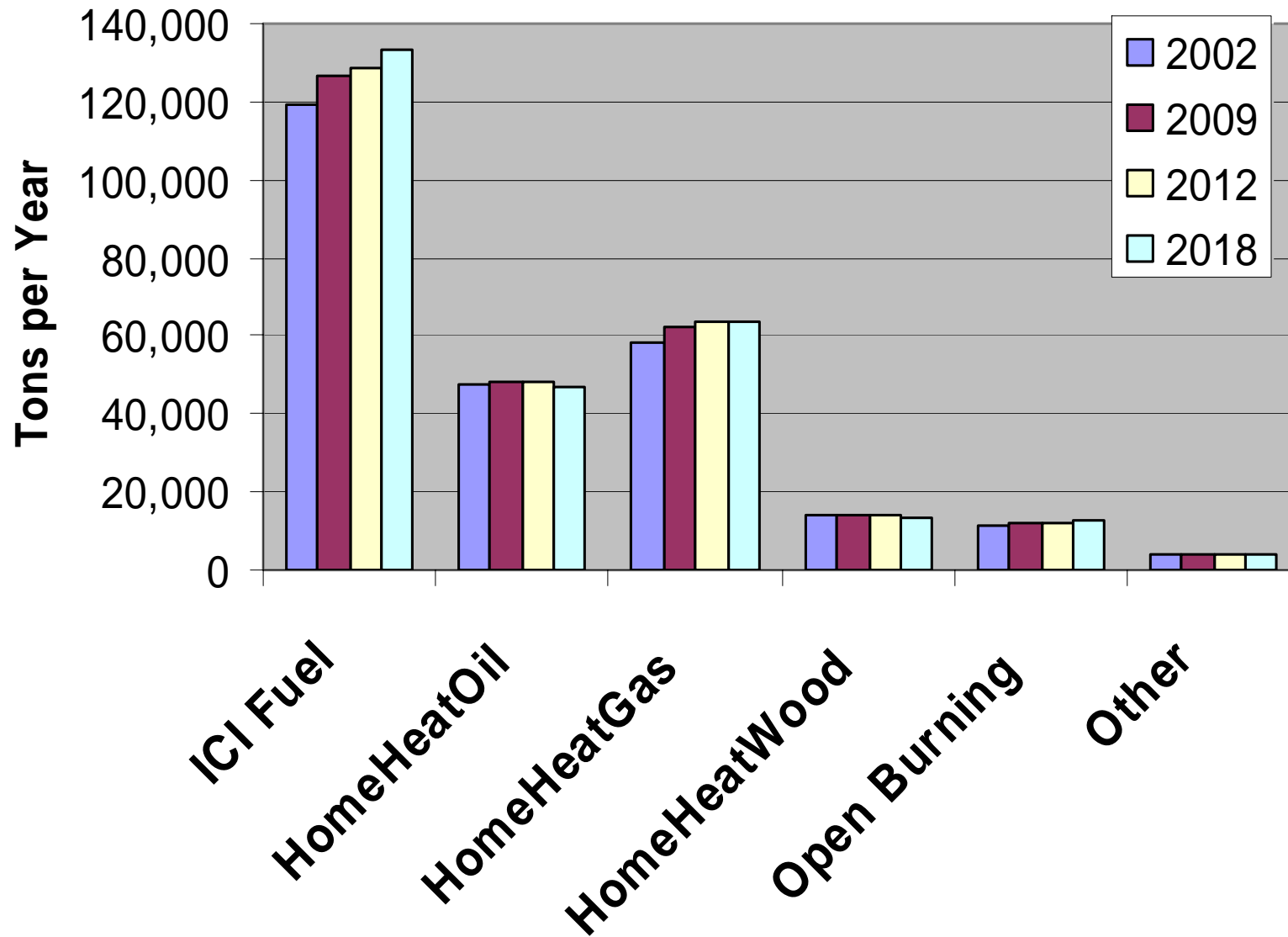


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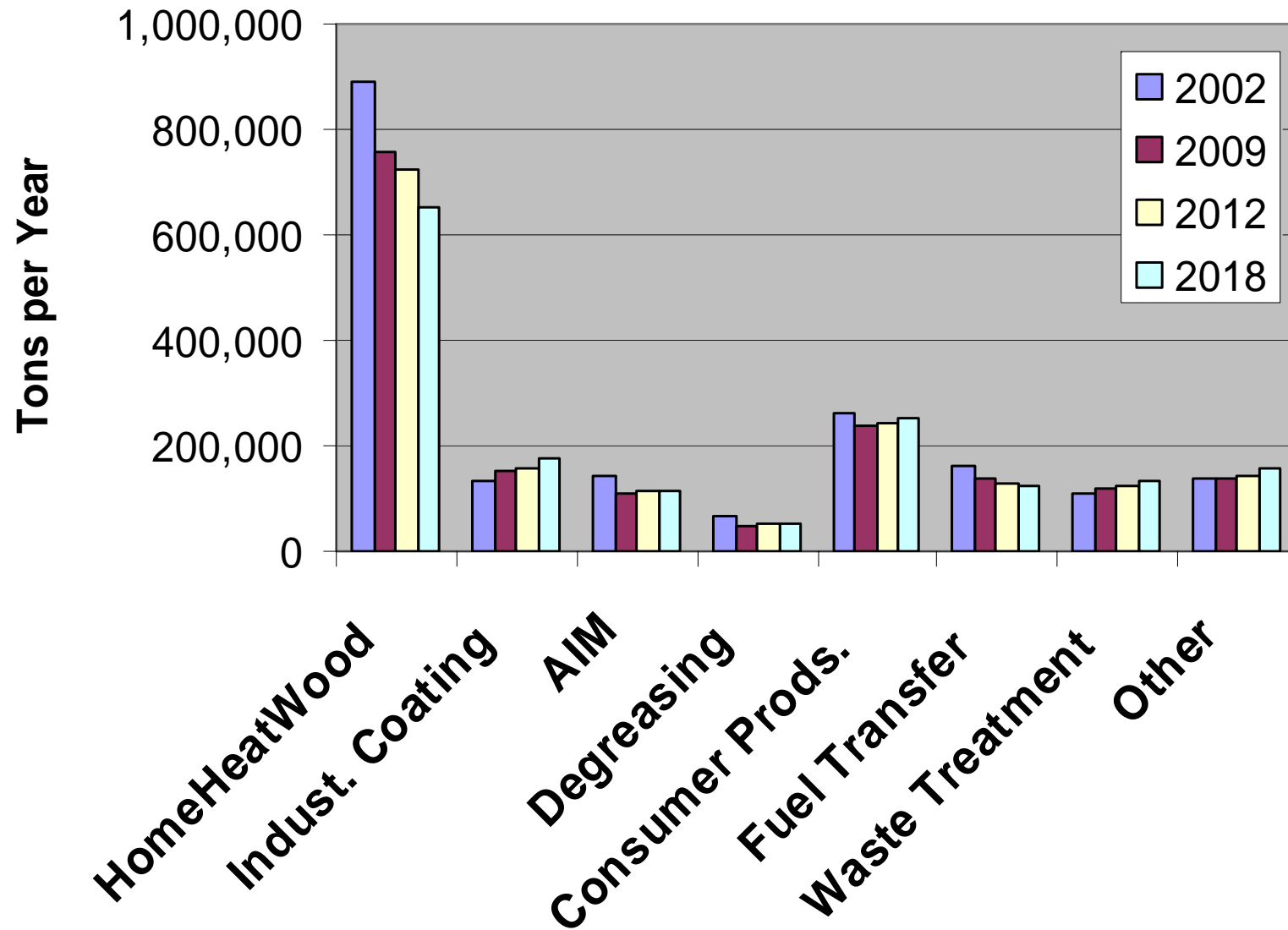
Area Source SO2 Emissions



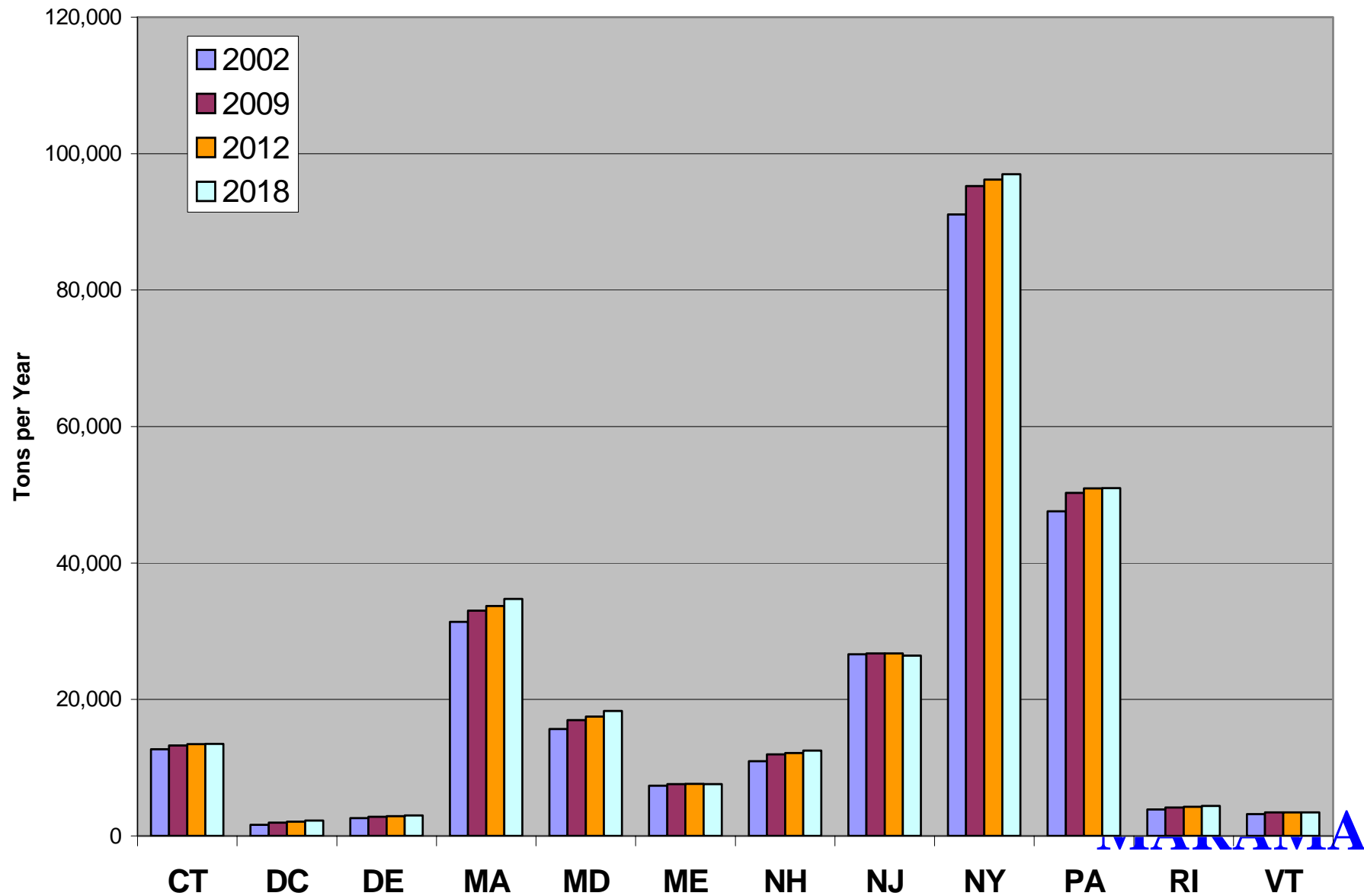
Area Source NOx Emissions



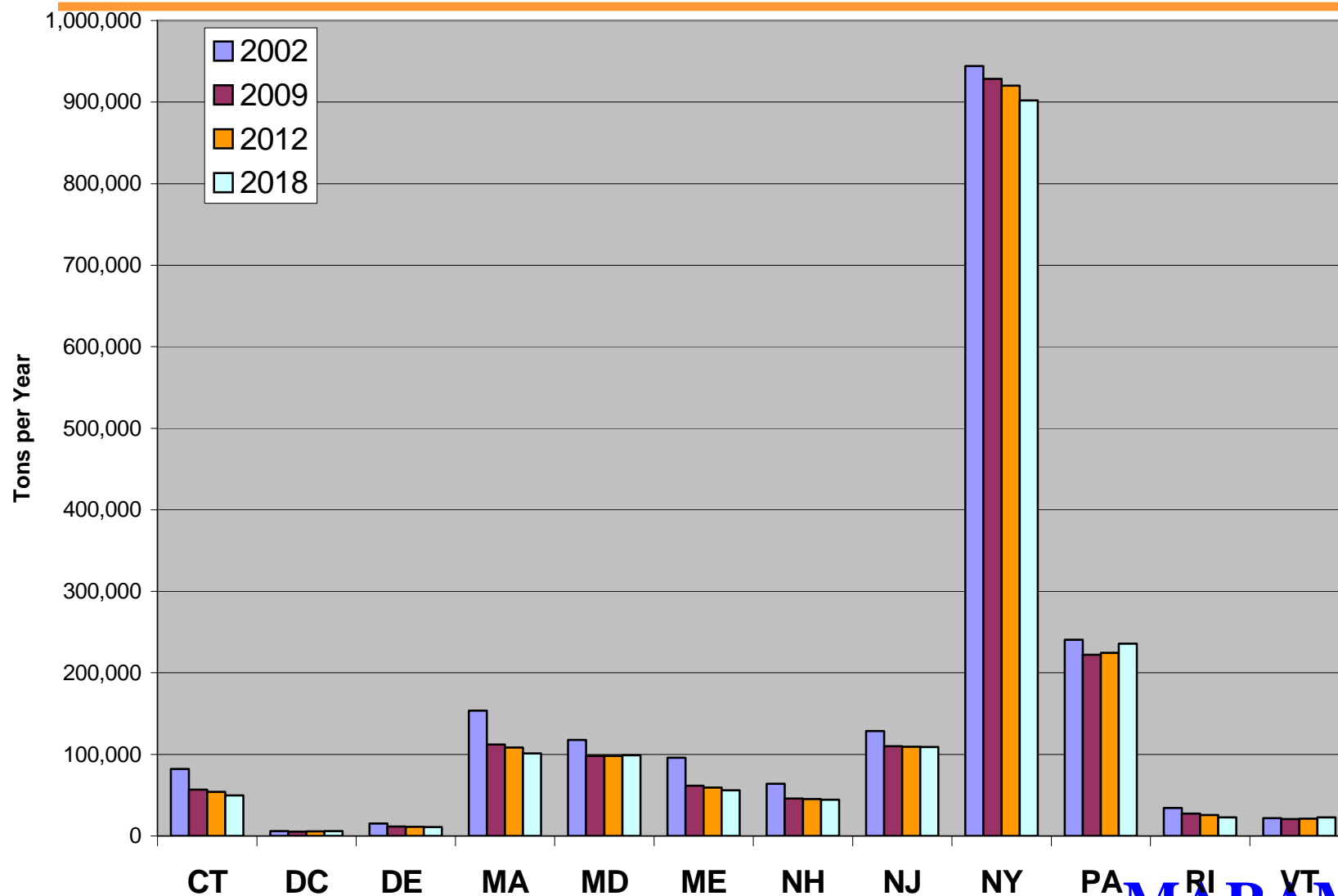
Area Source VOC Emissions



Area Source NOx Emissions by State



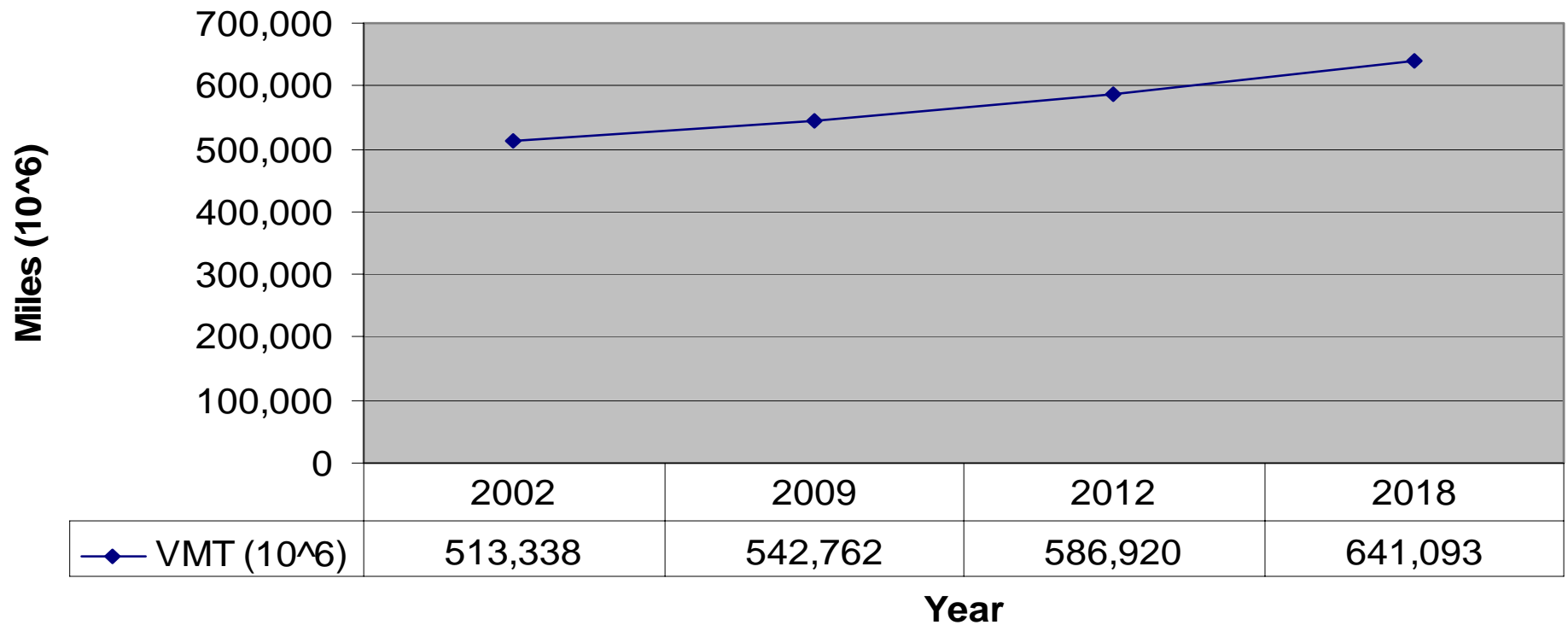
Area Source VOC Emissions by State



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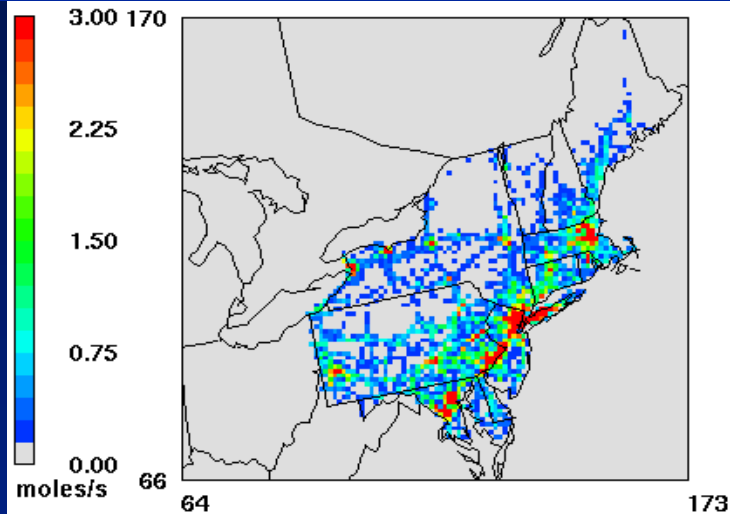
MANE-VU Vehicle Miles Traveled

Vehicle Miles Travel growth



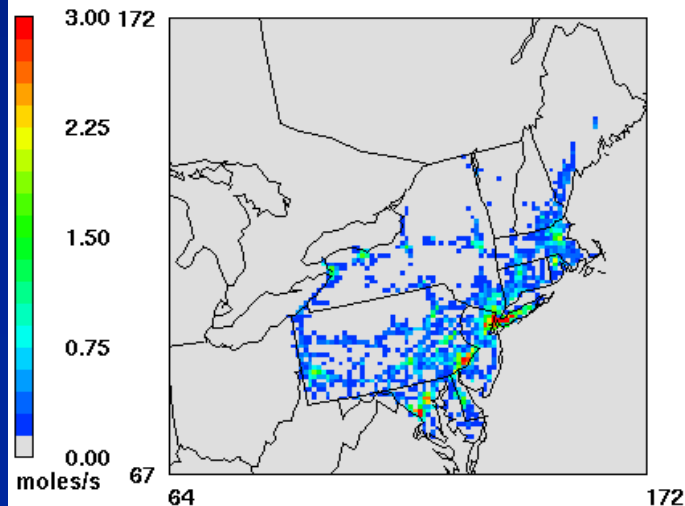
On-Road NOx Emissions Distribution

Aug 1st, 12LST of year 2002/2009/2012/2018



August 1, 2002 17:00:00
Min= 0.00 at (64,66), Max= 13.55 at (138,103)

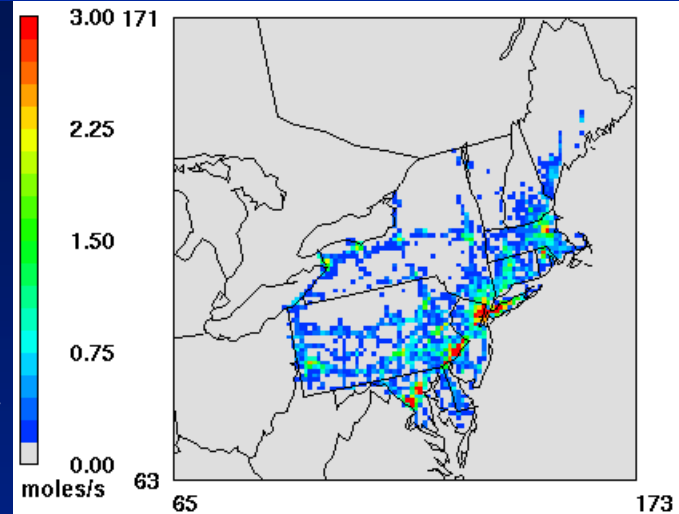
c=mgts_l.20020801.1.otc12.manevu_2012_m6.ncf



August 1, 2002 17:00:00
Min= 0.00 at (64,67), Max= 5.64 at (138,103)

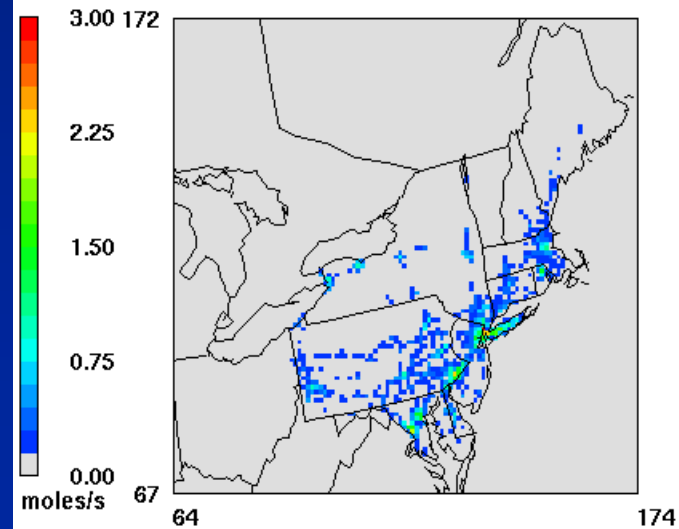
Y2002

Y2012



August 1, 2002 17:00:00
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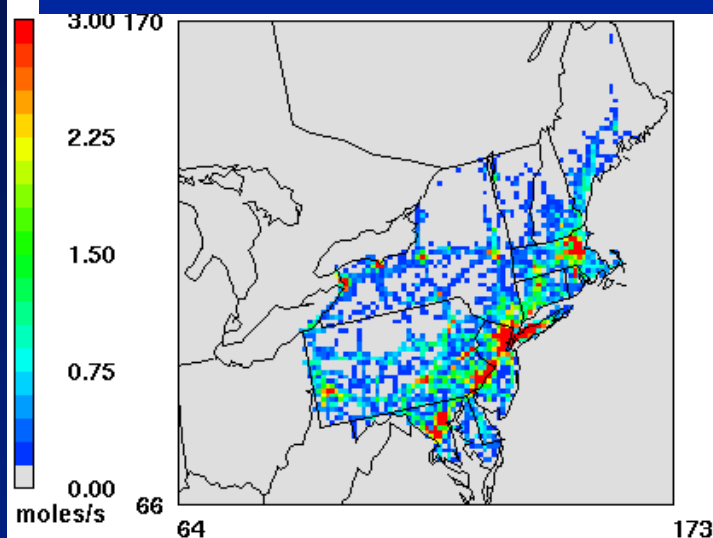
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Y2009

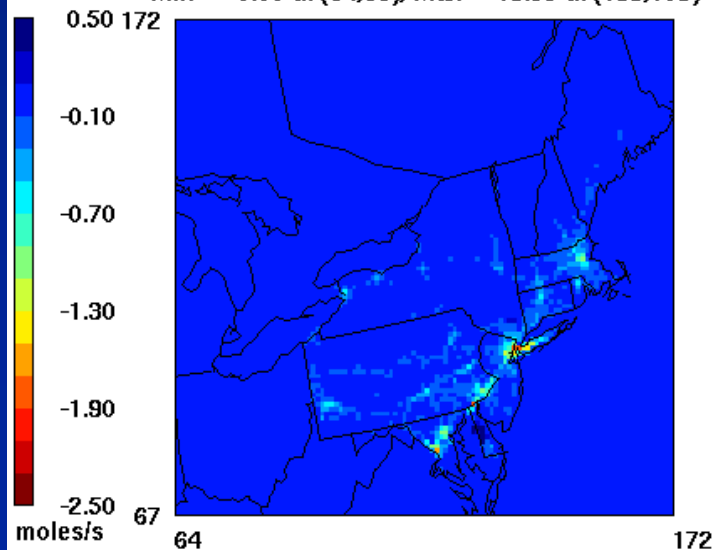
Y2018

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On-Road NO_x Emissions Difference Aug 1st, 12LST



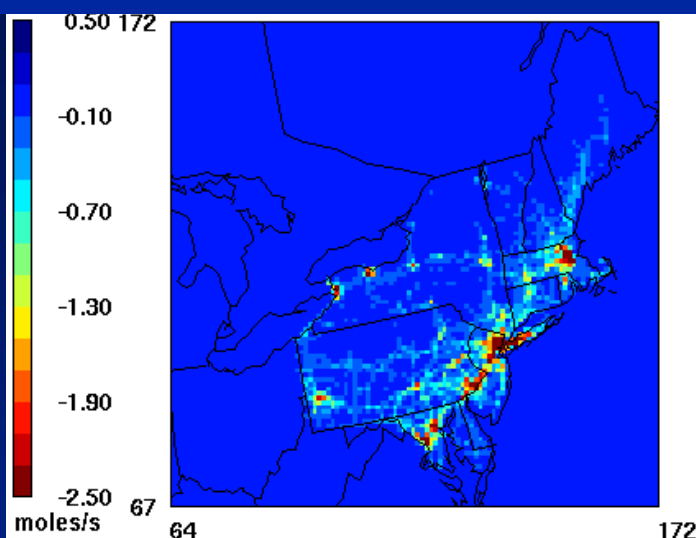
August 1, 2002 17:00:00
Min= 0.00 at (64,66), Max= 13.55 at (138,103)



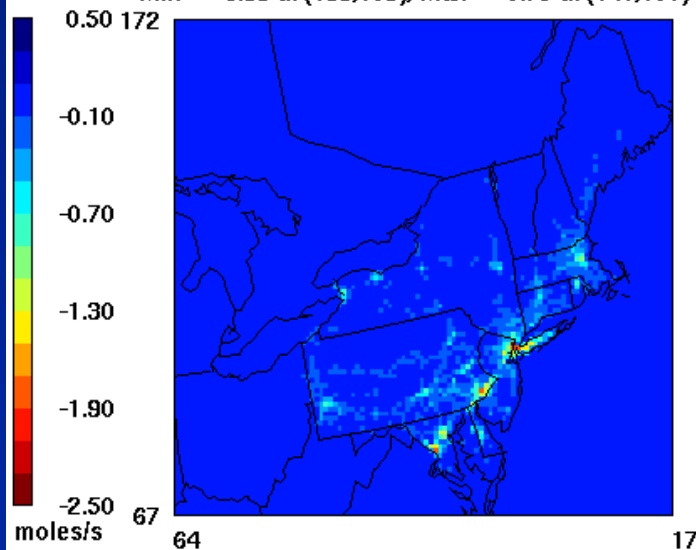
August 1, 2002 17:00:00
Min= -1.85 at (138,102), Max= 0.99 at (131,84)

Y2002

Y2012-
Y2009



August 1, 2002 17:00:00
Min= -6.89 at (138,103), Max= 0.75 at (141,101)



August 1, 2002 17:00:00
Min= -2.41 at (138,103), Max= 0.00 at (64,67)

Y2009-
Y2002

Y2018-
Y2012

LA