Transitioning to usable NO$_2$ column/NO$_x$ emissions relationships for North America

*David Streets (PI), Bryan Duncan, Tracey Holloway, Dan Cohan, Ben de Foy, Greg Carmichael, ....*

Objective: To be able to use satellite retrievals to verify, correct, or supplement (spatially, temporally) emission estimates that are in current inventories like the NEI

- **Holloway:** mobile sources
- **Carmichael:** WRF-Chem NO$_2$ columns
- **de Foy:** oversampling, surface monitoring
- **Streets:** urban areas
- **Cohan:** soil NO$_x$
- **Duncan:** power plants

*NEI 1999 NO$_x$ emissions*

*Freight Truck Volumes*

*Average Trucks per Day (2002)*

*GOME-2: 2007-2009*

*GOME-2: 2010-2012*