

Critical Review of Mobile Source Inventory Data in EPA 2016v1 and 2016v2 Modeling Platforms

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MARAMA MJO MOVES call
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Emission and MOVES Versions (in Chronological Order)

- 2015 -- 2016: **2014NEI** in development
- 2018 -- 2019: **non-NEI** 2016 platform began (beta version)
- 2018 August: MOVES2014b released (a minor update to MOVES2014a)
- 2018 -- 2019: **2017NEI** in development
- 2020: **2016v1 continued, 2016v2 in development**
- 2020 November: MOVES3 released (a major update to MOVES2014b)
- 2021 March: MOVES3.0.1 (a patch to MOVES3)
- 2021 September: MOVES3.0.2 (another patch)
- 2021 -- 2022: **2020NEI** in development

Major difference between 2016v1 and 2016v2 is MOVES version (from MOVES2014b to MOVES3)

Discussion Points

- **Representative county In SMOKE-MOVES**
- **Fuel month in SMOKE-MOVES**
- **2009 recession in age distributions (BY and FY)**
- **Age distributions for all vehicle types by state**
- **Five accumulative activities (VMT, VPOP, Starts, Hoteling, ONI)**
- **Growth Factors**
- **Extended idling**
- **Temporal profiles (CRC and traffic counters)**
- **MOVES and SMOKE portions of SMOKE-MOVES**

To be discussed on future MARAMA MJO MOVES calls

PA Passenger Truck (31) – 2016v2 versus 2023

$$\sum \text{fraction}_i = 1 \text{ (i=0 to 30)}$$

- 42003:ALLEGHENY
- 42007:BEAVER
- 42019:BUTLER
- 42039:CRAWFORD
- 42049:ERIE
- 42051:FAYETTE
- 42055:FRANKLIN
- 42057:FULTON
- 42071:LANCASTER
- 42089:MONROE
- 42091:MONTGOMERY
- 42101:PHILADELPHIA

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2016v2 (solid lines) and 2023 (dash lines) age distributions have different meaning

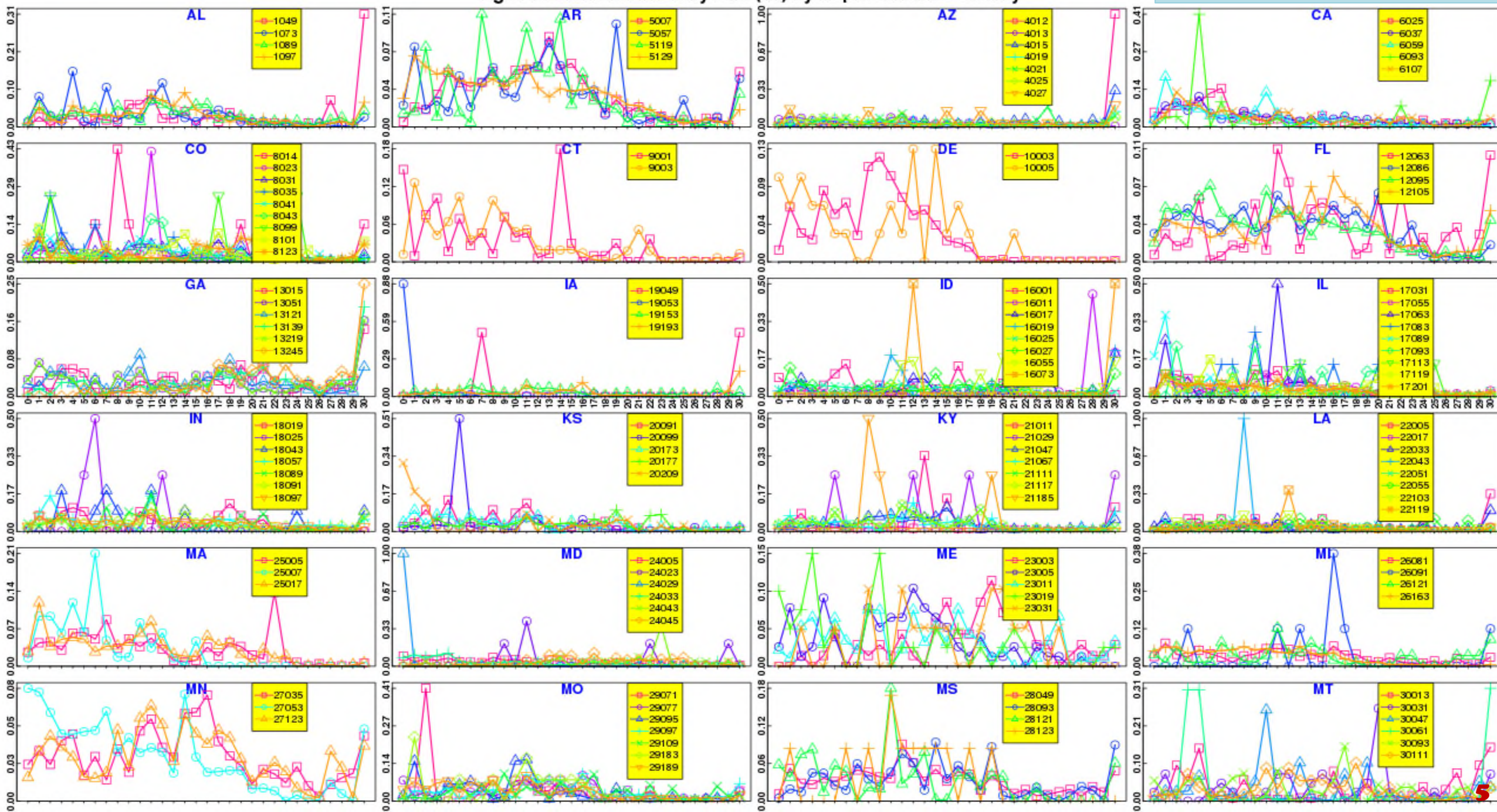
-- 2016v2 may have been states-supplied or IHS data, but 2023 data is projected;
-- Age 0 means 2016 or 2023 vehicle model year

2009 recession wrt 2016

2009 cars will be 14 years old in 2023

Age Fractions for Intercity Bus (41) by Representative County

2026, 41 fraction, CONUS1



FHWA Traffic Counters in CONUS States



