

Supplemental Data for the 2001 NHTS

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Energy Information Administration

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Acknowledgements

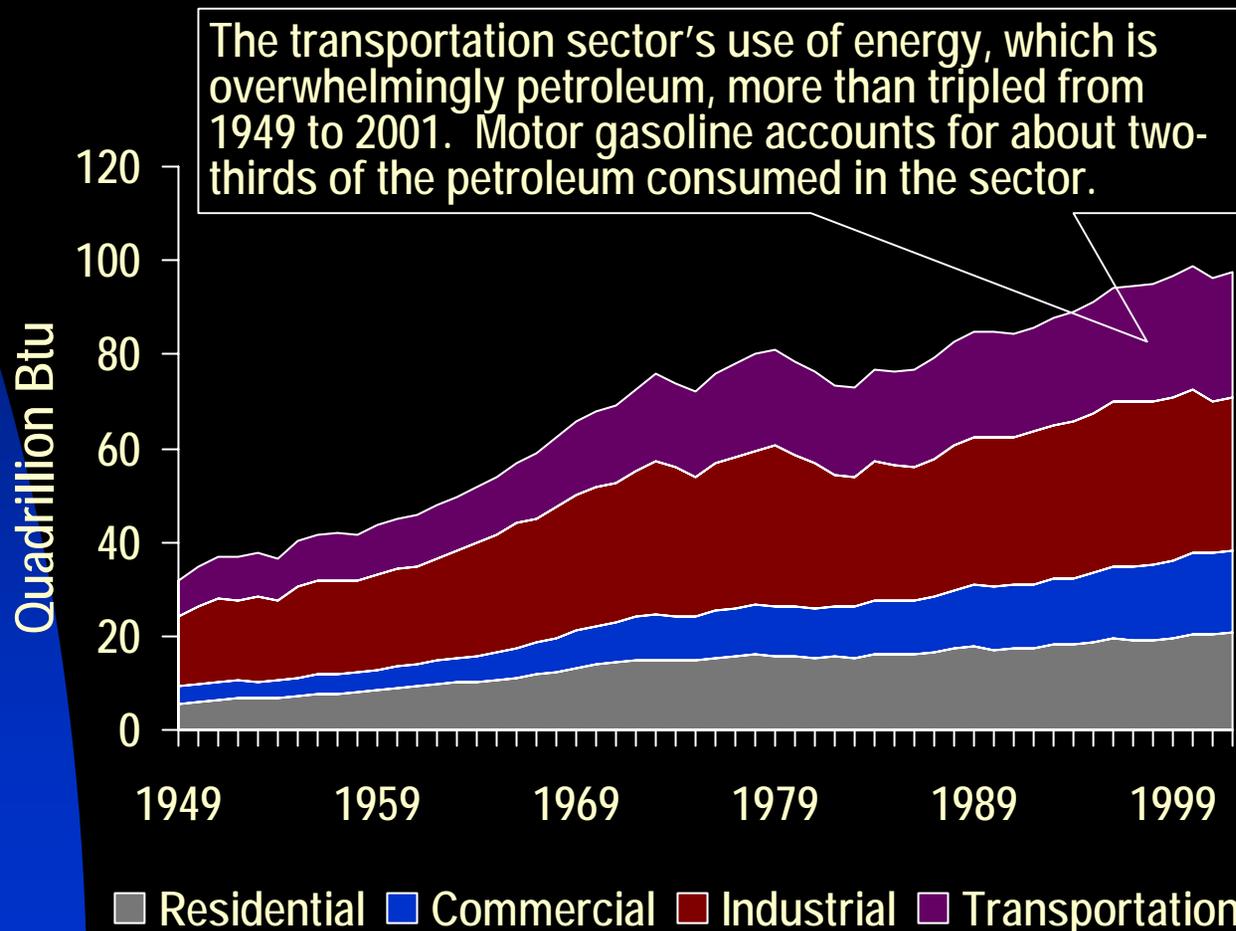
- Federal Highway Administration, US Department of Transportation
- National Highway Traffic Safety Administration, US Department of Transportation
- Bureau of Transportation Statistics
- Oak Ridge National Laboratory, Center for Transportation Analysis, US Department of Energy (ORNL)



Mission

The Energy Information Administration (EIA) is the statutorily chartered statistical and analytical agency within the U.S. Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the use of the Department of Energy, other Government agencies, the U.S. Congress, and the public. We produce data and analysis reports that are meant to help policy makers determine energy policy.

Energy Use



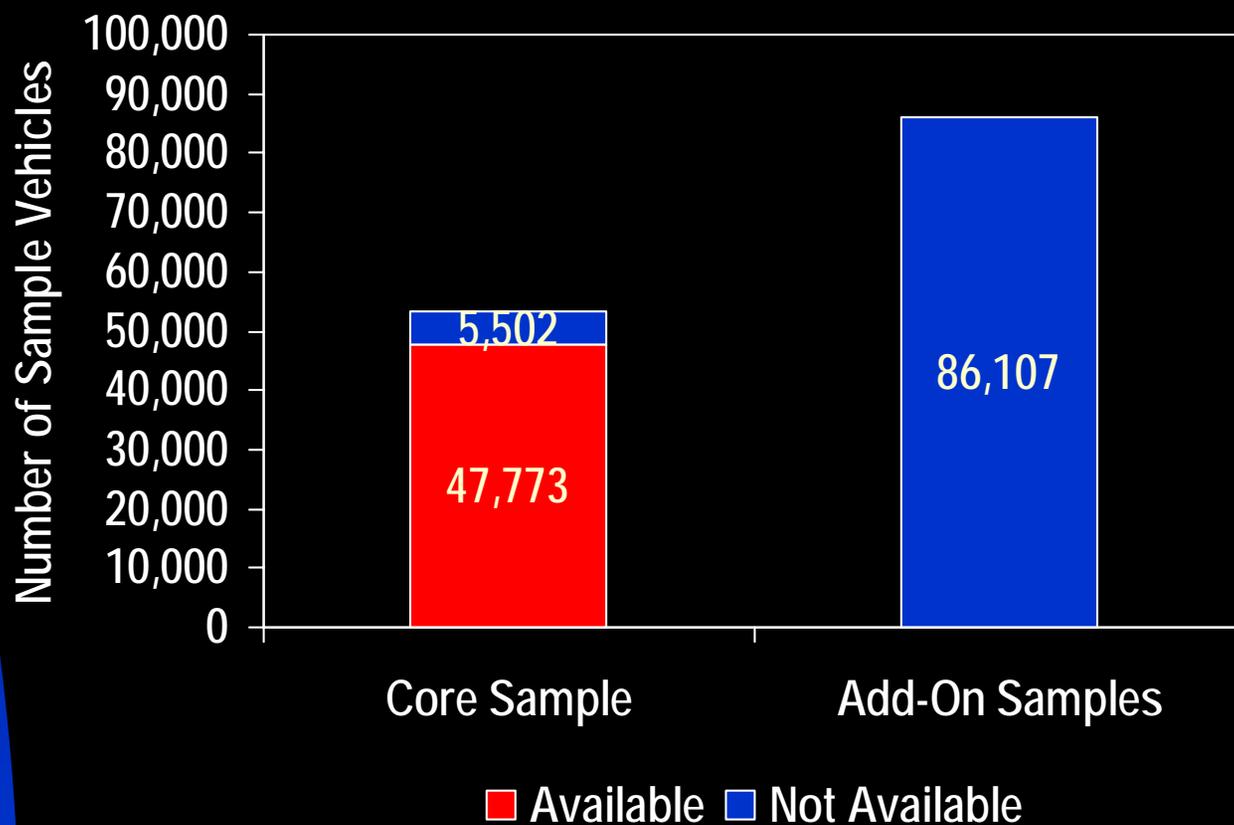
Introduction

- EIA's Energy Consumption Division
 - ◆ Demand-Side of the Energy Equation – Residential Buildings, Manufacturing Plants, Commercial Buildings
- Residential Transportation (RTECS) was conducted in 1983, 1985, 1988, 1991, and 1994 then discontinued
- Investigate using 2001 National Household Travel Survey as a replacement for discontinued survey

Enhanced 2001 Data

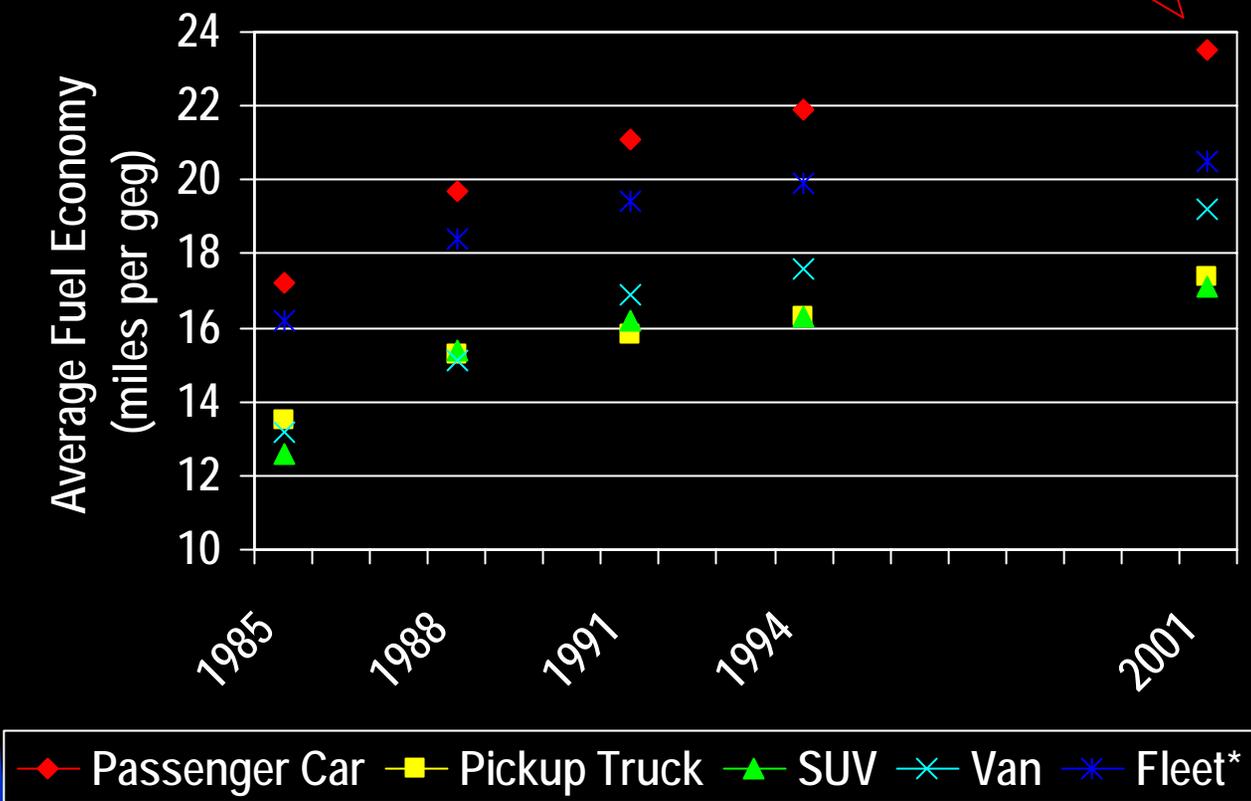
- Vehicle-Level Data
 - ◆ Fuel Economy (mpg)
 - ◆ Fuel Type
 - ◆ Energy Consumption (geg)
 - ◆ Energy Price (cents per geg)
 - ◆ Energy Cost (\$ per year)
- Energy Consumption
 - ◆ EIA “On-Road, In-Use” $\text{mpg}^{-1} \times \text{vmt}$

Energy Data Availability



Fuel Economy by Survey Year

Imputed



Adjusted Fuel Economy

- On-Road, In-Use Fuel Economies Differ from EPA's Unadjusted 45/55 Combined Estimates
 - ◆ Adjust for On-Road Shortfall (Hellman and Murrell, 1985)
 - ◆ Adjust for In-Use (Crawford, 1983)
- Details may be found on EIA's Transportation Website (www.eia.doe.gov)

Data Sources

- Fuel Economy
 - ◆ NHTSA Corporate Average Fuel Economy (CAFE) program
 - ◆ EIA data/experts on pre-78 model years
- Fuel Prices
 - ◆ EIA Monthly Supplier Survey
 - ★ Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales report," and
 - ★ Form EIA-782B, "Resellers'/Retailers' Monthly Petroleum Product Sales Report."

Fusing MPG Data

- NHTS Core Sample (53,275)
 - ◆ Make (348)
 - ◆ Model (2,482)
 - ◆ Model Year (76)
 - ◆ Vehicle Type (8)
- CAFE data have mpg and sales values classified by manufacturer, nameplate, model year, vehicle class and type.

Lesson Learned

- Know your data
 - ◆ CAFE program has unique procedures for re-estimating mpg
 - ◆ Fuel price data may exclude taxes
- Set and communicate achievable goals/deliverables early to all, while being flexible on project planning because priorities will change.

Lessons Learned (cont.)

- Minimize Imputation Errors
 - ◆ Collect additional vehicle characteristics – fuel type, number of cylinders, Vehicle Identification Number (VIN) for characteristics
- Verification of EIA's Adjustments
 - ◆ Fuel purchase and travel diaries
- Capture Vehicle Disposition Data
- CIPSEA ensures confidentiality

Use of Energy Data

- Petroleum Demand
 - ◆ In 2002, EIA reports that the transportation sector consumed 13.1 million barrels per day, roughly two-thirds of petro consumption.
- Air Emissions

Potential Enhancements

- Link more characteristics to NHTS
 - ◆ Vehicle Weight(s)
 - ◆ Vehicle Horsepower
- Include vehicles in Add-On samples, depending on resources and priorities

For Updates

www.eia.doe.gov/emeu/rtecs/contents.html

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