Energy Data Transparency at the United States Energy Information Administration (EIA)

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Presented by Tom Leckey
Assistant Administrator for Energy Statistics, U.S. Energy Information Administration
Topics

• EIA Mission and Organization

• Authority, Trust, and Transparency

• Best Practices in EIA Data Collection

• Putting it together: administrative data and survey data
Mission: EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.

EIA is the Nation’s premier source of energy information. By law, its data and analyses do not require approval by any other officer or employee of the United States Government.
Legal rights to collect

* Federal Energy Administration Act of 1974 (Public Law 93-275)
* Department of Energy (DOE) Organization Act of 1977 (Public Law 95-91)
* Other legal mandates

Legal obligations to protect

* Confidential Information Protection and Statistical Efficiency Act (CIPSEA), Title V of the E-Government Act of 2002 (Public Law 107-347)
* Freedom of Information Act, 5 USC. 552, exemptions 3, 4, and 6
* Paperwork Reduction Act, 44 U.S.C. 3501
* Information Quality Act, P.L. No. 106-554; H.R. 5658, Section 515(a)

Trust
Amicable relationship with data suppliers

Maximizing public access to information while maintaining confidentiality

Integrity & transparency

* Transparency with data users about data sources and survey methods
* Transparency with data suppliers on use and purpose for collecting the information and how the data will be protected
What Actions Contribute to Transparency?

• **Effective Survey Methods**
  - Survey Instructions
  - Help features
  - Training for collection staff
  - Orientation for respondents
  - Uniform communications and methods

• **Effective Editing**
  - Expected mean edits
  - Bands using historical data
  - Graphical edits
  - Consistency and logic checks

• **Labels for Data Quality**
  - Preliminary and final data indicators
  - Reporting of relative standard errors
  - Labeling imputed values
Even with extensive collection authority, EIA often uses administrative data...

- To reduce reporting lags
- To fill data gaps
- To review the quality of survey results
- To provide inputs to models
- EIA uses at least 62 administrative datasets for data publications and models
In 2015, EIA Implemented Direct Collection from Oil and Gas Producers. EIA…

- Collects data from oil producers
- Updates samples on a monthly basis to capture entry and exit
- Supports expanded data collection through an automated data collection system
- Uses automated edits and improved quality tools to report accurate data quickly

U.S. field production of crude oil (1940-2015)

- 1940
- 1950
- 1960
- 1970
- 1980
- 1990
- 2000
- 2010

- 2015: 9.42 million b/d

0 2 4 6 8 10 12


Million barrels per day
Then, EIA Used Administrative Data to Improve Estimates of U.S. Crude Exports

Monthly U.S. Exports of Crude Oil (Jan 2012-June 2017) (thousand barrels per day)

- Exports to all other countries
- Exports to Canada

Dec 2015: restrictions on exports lifted