



Using National Surveys on Energy and Environment (NSEE) Data in your Classroom

Sarah Mills, PhD

June 8, 2016

Presentation Outline

- What topics have we covered?
- Using NSEE data:
 - No statistics required
 - Guided analysis
 - Advanced analysis with the dataset

Finding NSEE Topics

...

Using CLOSUP's website

Topic-finding aids

- [Browse](#) by Topic
- [Search](#) question text



No statistics required
...

No statistics required

- Pre-run data [tables](#)
 - Overall frequencies
 - Margin-of-error at top of page

- NSEE [reports](#)
 - Graphics
 - Some break-downs by demographics
 - Commentary

Example

Environmental policy memo

- Standard background, options, recommendation
- +
- “Present and discuss opinion data related to either your specific environmental problem or the policy solution that you recommend”
 - Familiarity with issue
 - Federalism
 - Alternate policy approaches

Guided analysis

...

Lynette

Advanced analysis

...

Using the datasets

Advanced analysis

- Single-survey [datasets](#)
 - Open access
 - Multiple formats: SPSS, STATA, CSV
 - Minimal masking
- Longitudinal [dataset](#)
 - ICPSR members

Example

Environmental policy research

- Research paper
 - Constituencies of support or opposition (e.g. CPP building blocks)
 - Pre- and post-policy opinion
 - Relationship between state climate policies and belief in climate change

Questions most welcome

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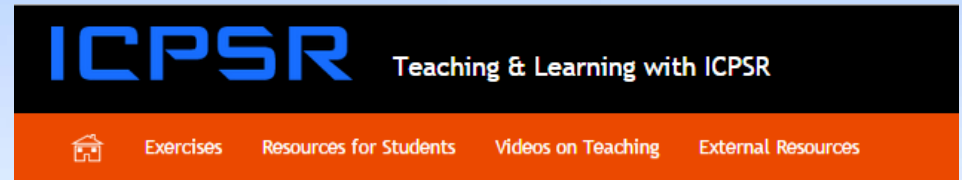
CLOSUP in the Classroom: ICPSR Style

AESS Pre-conference Workshop

June 8, 2016

Lynette Hoelter, Dir. Instructional Resources, ICPSR

Presentation Outline:



- Why use data?
- Brief intro to ICPSR
- Studies with environmental content
- Specific teaching resources
 - Data-driven learning guide
 - NSEE exercise
- Features of ICPSR site useful in teaching
 - Online analysis package
 - Bibliography
 - Search/Compare variables tool
- Finding and evaluating data

Why Use Data?

- Content becomes relevant, memorable
- Quantitative reasoning skills always need work
 - Get students thinking about numbers they see in media: Who was interviewed? What was asked? Who asked? Why?
- Show students how scientists work

What is ICPSR?

- One of world's oldest and largest social science data archives
 - Curate, preserve, and disseminate data
- Membership organization (~770 members)
- Primarily survey and administrative data, but acquiring more content and data types, including GIS data

Currently...



[Find data](#) ▾

[Share data](#) ▾

[Institutional repositories](#) ▾

[Login](#)

[Browse Data](#) > [National Surveys on Energy and Environment \[United States\]](#)

National Surveys on Energy and Environment [United States]

Principal Investigator(s) : Rabe, Barry (University of Michigan.); Borick, Christopher (Muhlenberg College);

Title	Date Entered	File Type
 nsee-longitudinal-crosswalk Rabe, Barry; Borick, Christopher	2016-05-05 9:04 PM	.xls
 Fall 2008 NSEE Rabe, Barry; Borick, Christopher	2016-05-05 9:04 PM	
 Fall 2009 NSEE Rabe, Barry; Borick, Christopher	2016-05-05 9:04 PM	
 Spring 2015 NSEE Rabe, Barry; Borick, Christopher	2016-05-25 6:07 PM	
 Fall 2015 NSEE Rabe, Barry; Borick, Christopher	2016-05-05 9:05 PM	

[Get citation / DOI for this item.](#)

[Download this project](#)

[Report a Problem](#)

Found a serious problem with the data, such as disclosure risk or copyrighted content? Let us know.

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openICPSR data are distributed exactly as they arrived from the

...but soon...

- Curated version in ICPSR's Member Archive
- Downloadable in SPSS, SAS, Stata, and R (plus ASCII and setups)
- Searching by name or NSEE will find it in OpenICPSR and "real" ICPSR (study #36368)

Example Studies with Environmental Content

- Attitudes:
 - News polls (ABC, CBS, NY Times, Washington Post)
 - “Barometer” surveys
- Behaviors:
 - Planned Behavior, Environmental Values, and Domestic Water Conservation in the Truckee River Watershed, 1998, 2000
- Policy:
 - Improving Deliberative Environmental Management Under Uncertainty
- Environmental characteristics:
 - Chitwan Valley Family Study (flora, fauna, land use in Nepal)
 - Coming soon: archive for data for city of Flint, MI

Resources for Teaching

The screenshot shows the ICPSR homepage. On the left, there is a vertical sidebar with several links: 'Find & Analyze Data', 'Membership in ICPSR', 'Deposit Data', 'ICPSR Summer Program', 'Teaching & Learning with ICPSR', and 'Data Management & Curation'. An orange arrow points to the 'Teaching & Learning with ICPSR' link. The main content area includes a search bar, a 'Mission' section, a 'News' section with links to 'New Releases through 2016-04-10', 'Championship data tools and navigation on the new NCAA Student-Athlete Experiences Data Archive website!', and 'Explore NCAA Men's and Women's Academic Progress and Graduation Rates', and a 'Website Search' section.

This screenshot shows the 'Find & Analyze Data' page. At the top, there is a navigation bar with 'Find Data', 'Search/Compare Variables', 'Find Publications', 'Resources for Students', and 'Get Help'. Below this is a 'Find Data' section with a search bar and a 'GO' button. On the right side, there is a 'Log In/Create Account' link and a dropdown menu for 'ICPSR Sites'. The dropdown menu lists: 'Find & Analyze Data', 'Membership in ICPSR', 'Deposit Data', 'ICPSR Summer Program', 'Teaching & Learning with ICPSR', and 'Data Management & Curation'. An orange arrow points to the 'Teaching & Learning with ICPSR' link in the dropdown menu.

Data-driven Learning Guide

- News poll data used to explore [attitudes about global warming](#)
- Ideal for lower-division courses
- Pre-specified analyses – all students looking at the same things
- Standard format models good research practice, includes interpretation guide

Attitudes about Global Warming in the United States: A Data-Driven Learning Guide

[Go to Resource](#)

Summary

There has been much discussion in the media over the condition of the natural environment and what can be done to decrease pollution and preserve natural resources. Activists have adopted an approach that appeals toward educating the general public and pressuring national governments and policymakers to act in ways that demonstrate a greater concern for the quality of the natural environment. Much of the discussion in the media over the past two decades has centered upon global warming.

The goal of this module is to explore some of the factors that might be associated with an individual's level of concern about the environment and global warming. Crosstabulations, frequency distributions, and bar charts will be used.

Subject Term(s): [Sociology](#), [Environment](#), [Attitudes](#), [Descriptive](#)
Analysis Type(s): [Crosstabulation](#)
Publisher: Inter-university Consortium for Political and Social Research
Pub. Date: 2011-06-30

Related Studies

This publication is related to the following dataset(s):


- [ABC News/Stanford University/Time Magazine Environment Poll #1, March 2006](#)

Access Notes

This resource is available because your institution is an ICPSR member.

Crosstab Assignment Builder (CAB)

- Instructor limits variables and students can build their own tables
- **ONLY** available when going through Teaching & Learning with ICPSR page

 Classroom Exercises
Resources for Students
Resources for Teachers

study: [National Science Foundation Surveys of Public Attitudes Toward and Understanding of Science and Technology, 1979-2001: \[United States\]](#) >

National Science Foundation Surveys of Public Attitudes Toward and Understanding of Science and Technology, 1979-2001: [United States] (ICPSR 4029)


Principal Investigator(s): Miller, Jon D., Northwestern University Medical School. Center for Biomedical Communications; Kimmel, Linda, Northwestern University Medical School. Center for Biomedical Communications; ORC Macro

Summary:

The National Science Foundation (NSF) Surveys of Public Attitudes monitored the general public's attitudes toward and interest in science and technology. In addition, the survey assessed levels of literacy and understanding of scientific and environmental concepts and constructs, how scientific knowledge and information were acquired, attentiveness to public policy issues, and computer access and usage. Since 1979, the survey was administered at regular intervals (occurring every two or three years), producing 11 cross-sectional surveys th... [\(more info\)](#)
[View full study description](#)

Dataset(s)

- DS0: Study-Level Files**
Documentation: [Codebook.pdf](#)
- DS1: Survey of Public Attitudes Multiple Wave Data**
Analyze Online: [SDA](#) [Build a Crosstab Assignment](#)
- DS2: General Social Survey Subsample Data**
Analyze Online: [SDA](#) [Build a Crosstab Assignment](#)



CAB Demo

<http://www.icpsr.umich.edu/icpsrweb/instructors/tables/view/2721>

Instructor's View

Save & Review Clear

Table Name: AESS Demo

Description: This is created as a demonstration table for the ggs-conference workshop on using NSEE data in the classroom.
(optional, HTML tag allowed, 1000 characters maximum)

Include Chart: Yes No

Percentaging: Column Row Total

Weight: WEIGHTING VARIABLE

N of cases to display: Unweighted Weighted

Recode Syntax [Add Recode Syntax](#)

Name	Label	Row	Column	Control
IDENTIFICATION				
ANALYSIS WEIGHT				
DEMOGRAPHICS				
LEVEL OF EDUCATION				
REDUC4	RESPONDENT EDUCATION - 4 CATEGORIES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DEGLEV4	FOUR DEGREE LEVELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EDUCTYPE	TYPE OF EDUCATION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Student View

Resources for Students Resources for Teachers

View Table -- The National Science Foundation Surveys of Public Attitudes Toward and Understanding of Science and Technology, 1979-2001. Part 1: Survey of Public Attitudes Multiple Wave Data

AESS Demo

Share this URL: www.icpsr.umich.edu/icpsrweb/instructors/tables/view/2721

Variables

	Name	Label	Question Text
Row	REDUC4	RESPONDENT EDUCATION - 4 CATEGORIES	What is the highest level of education you completed?
Column	INTSCI	INTEREST - NEW SCIENTIFIC DISCOVERIES	Issues about new scientific discoveries. Are you very interested, moderately interested, or not at all interested?

Weight: WEIGHTING VARIABLE

Frequency Distribution

Cells contain: -Column percent -Row percent -Weighted N	INTSCI 1: VERY INTERESTED	INTSCI 2: MODERATELY INTERESTED	INTSCI 3: NOT AT ALL INTERESTED	ROW TOTAL
REDUC4 1: LT HS	17.6% 32.3% 1,642	22.1% 43.2% 2,193	45.6% 24.5% 1,242	23.1% 100.0% 5,077
REDUC4 2: HS GRAD	58.9% 42.6% 5,479	60.9% 47.0% 6,052	49.2% 10.4% 1,340	58.6% 100.0% 12,872
REDUC4 3: BACC	14.8% 53.1%	11.3% 43.0%	3.7% 3.8%	11.8% 100.0%

NSEE Module

- Uses data from 2008 and 2015 fall surveys
- Explores attitude formation and certainty
- Also introduces research concepts such as hypotheses, independent and dependent variables, and operationalization

Tools doing double duty for teaching

- Features of ICPSR Website that can be easily incorporated into the classroom
 - Online analysis capability (SDA)
 - Bibliography of data-related literature
 - Search/compare variables tool

Online Analysis Package

- Explore data
- Use for in-class demonstrations
- Simple Crosstab Tool
- Student research without need for licensed software or teaching syntax
- NSEE will be released with SDA

Find & Analyze Data
Membership in ICPSR
Deposit Data
ICPSR Summer Program
Resources for Instructors
Data Management & Curation

ICPSR
Find & Analyze Data

Find Data
Search/Compare Variables
Find Publications
Resources for Students
Get Help

Public Opinion About Nuclear Energy in the Context of Local Public Hearings About the Expansion of the V.C. Summer Nuclear Station, South Carolina, 2008-2009 (ICPSR 34871)

Principal Investigator(s): Besley, John, University of South Carolina

Summary:

This study is provided by [ICPSR](#). ICPSR provides leadership and training in data access, curation, and methods of analysis for a diverse and expanding social science research community.

SDA 3.5: Tables

Public Opinion About Nuclear Energy in the Context of Local Public Hearings About the Expansion of the V.C. Summer Nuclear Station, South Carolina, 2008-2009

Jun 07, 2016 (Tue 06:57 PM EDT)

Variables					
Role	Name	Label	Range	MD	Dataset
Row	Q10	HOW CONCERNED ABOUT CLIMATE CHANGE	1-4	5,6	1
Column	Q11	HOW CONCERNED ABOUT OBTAINING ENERGY INDEPENDENCE	1-4	5,6	1

Frequency Distribution						
Cells contain: -Column percent -N of cases		Q11				ROW TOTAL
		1 VERY CONCERNED	2 SOMEWHAT CONCERNED	3 NOT TOO CONCERNED	4 NOT AT ALL CONCERNED	
Q10	1: VERY CONCERNED	48.6 225	33.6 37	15.8 3	28.6 2	44.6 267
	2: SOMEWHAT CONCERNED	30.0 139	46.4 51	15.8 3	28.6 2	32.6 195
	3: NOT TOO CONCERNED	13.6 63	13.6 15	42.1 8	14.3 1	14.5 87
	4: NOT AT ALL CONCERNED	7.8 36	6.4 7	26.3 5	28.6 2	8.3 50
COL TOTAL		100.0 463	100.0 110	100.0 19	100.0 7	100.0 599

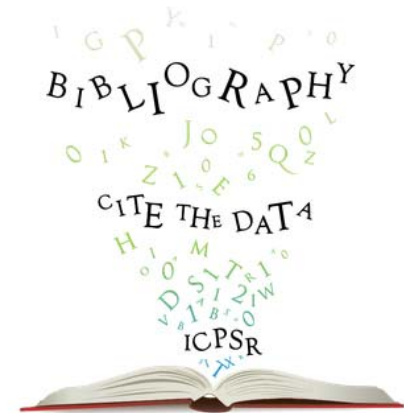
Bibliography of Data-related Literature

- Ideas about what can be studied, which data to use
- Entry point into data for student projects
- Full-text when available

Find publications using the **ICPSR BIBLIOGRAPHY** OF DATA-RELATED LITERATURE

The *ICPSR Bibliography of Data-related Literature* is a continuously-updated database of thousands of citations of works using data held in the ICPSR archive. The works include journal articles, books, book chapters, government and agency reports, working papers, dissertations, conference papers, meeting presentations, unpublished manuscripts, magazine and newspaper articles, and audiovisual materials.

- [View all citations](#)
- [Browse by author](#)
- [Browse by journal](#)
- [Browse by study](#)



Search/Compare Variables Tool

- Any Class:
 - Compare class answers to those in survey
 - Show social trends by looking at surveys collected at different points in time
- Research Methods:
 - Teach operationalization
 - Create class survey
 - Demonstrate effects of differences in samples, time frame, question wording on results

Research Methods

- Compare the effects of samples and wording on responses
- Operationalize variables

Compare Variables

Compare (3) Clear All (3) Back to search results

<input checked="" type="checkbox"/> T44	<input checked="" type="checkbox"/> Q5_6_2	<input checked="" type="checkbox"/> Q9																																																												
Longitudinal Study of American Youth, 1987-1994, 2007-2011: LSAY Merged Cohort File (Base File)	Global Views 2008: American Public Opinion and Foreign Policy: July 2008 Survey	CBS News/60 Minutes/Vanity Fair National Survey, March #3, 2013																																																												
LEVEL OF CONCERN ABOUT CLIMATE CHANGE	Climate Change	Climate Change Impact																																																												
<p>Question</p> <p>How concerned are you about global climate change? Please use the following zero to 10 scale, with zero meaning that you are not at all concerned about climate change and 10 meaning that you are very concerned about climate change?</p>	<p>Question</p> <p>BASE: All Respondents Q5 (1-11): Below is a list of possible threats to the vital United States in the next 10 years. For each one, please see this as a critical threat, an important but not critical important threat at all: 5/6. Global warming [Half sample with ?climate change?]</p>	<p>Question</p> <p>Do you think climate change is an environmental problem that is causing a serious impact now, or do you think the impact of climate change won't happen until sometime in the future, or do you think climate change won't have a serious impact at all?</p>																																																												
<p>Responses</p> <table border="1"> <thead> <tr> <th>VALUE</th> <th>LABEL</th> <th>UNWEIGHTED FREQUENCIES</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Not at all concerned</td> <td>326</td> <td>5.5</td> </tr> <tr> <td>1</td> <td>-</td> <td>169</td> <td>2.8</td> </tr> <tr> <td>2</td> <td>-</td> <td>233</td> <td>3.9</td> </tr> <tr> <td>3</td> <td>-</td> <td>281</td> <td>4.7</td> </tr> <tr> <td>4</td> <td>-</td> <td>200</td> <td>3.4</td> </tr> </tbody> </table>	VALUE	LABEL	UNWEIGHTED FREQUENCIES	%	0	Not at all concerned	326	5.5	1	-	169	2.8	2	-	233	3.9	3	-	281	4.7	4	-	200	3.4	<p>Responses</p> <table border="1"> <thead> <tr> <th>VALUE</th> <th>LABEL</th> <th>UNWEIGHTED FREQUENCIES</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Critical threat</td> <td>286</td> <td>19.0%</td> </tr> <tr> <td>2</td> <td>Important but not critical threat</td> <td>289</td> <td>19.2%</td> </tr> <tr> <td>3</td> <td>Not an important threat</td> <td>161</td> <td>10.7%</td> </tr> </tbody> </table>	VALUE	LABEL	UNWEIGHTED FREQUENCIES	%	1	Critical threat	286	19.0%	2	Important but not critical threat	289	19.2%	3	Not an important threat	161	10.7%	<p>Responses</p> <table border="1"> <thead> <tr> <th>VALUE</th> <th>LABEL</th> <th>UNWEIGHTED FREQUENCIES</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Impact now</td> <td>236</td> <td>24.2</td> </tr> <tr> <td>2</td> <td>In the future</td> <td>143</td> <td>14.6</td> </tr> <tr> <td>3</td> <td>No serious impact</td> <td>75</td> <td>7.7</td> </tr> <tr> <td>9</td> <td>Don't know/No answer</td> <td>21</td> <td>2.1</td> </tr> </tbody> </table>	VALUE	LABEL	UNWEIGHTED FREQUENCIES	%	1	Impact now	236	24.2	2	In the future	143	14.6	3	No serious impact	75	7.7	9	Don't know/No answer	21	2.1
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How Can Data be Incorporated?

- Tie course content to survey results
- Begin class with “Data in the News”
- Extra credit on exams
- Require evidence-based arguments
- Content examples in methods/stats

Finding ICPSR Data for Classroom Use

- Start with bibliography (also Web of Science links)
- Start with list of SDA studies
- Search studies or variables (ICPSR search ≠ “smart” search)

Search Results

Use the search box below to revise your search, or [start a new search](#).

Studies **Variables** **Publications (4)**

Your query returned 4 citations.

Sort by:

	Pub. Year	Citation
1. <input type="checkbox"/>	2011	Inter-university Consortium for Political and Social Research . Attitudes about Global Warming in the United States: A Data-Driven Learning Guide . Inter-university Consortium for Political and Social Research. Full Text Options: DOI Export Options: RIS EndNote XML
2. <input type="checkbox"/>	2003	Rotton, James, Cohn, Ellen G. Global warming and U. S. crime rates: An application of routine activity theory . <i>Environment and Behavior</i> . 35, (6), 802-825. Full Text Options: DOI Worldcat Google Scholar Export Options: RIS EndNote XML
3. <input type="checkbox"/>	2013	Shao, Wanyun, Keim, Barry D., Garand, James C., Hamilton, Lawrence C. Weather, climate, and the economy: Explaining risk perceptions of global warming, 2001-2010 . Full Text Options: DOI Worldcat Google Scholar Export Options: RIS EndNote XML
4. <input type="checkbox"/>	2003	Caviglia-Harris, Jill L., Kahn, James R. Carbon annuities and their potential to preserve tropical forests and slow global warming: An application for small-scale farmers . <i>International Journal of Sustainable Development</i> . 6, (3), 328-344. Full Text Options: DOI Worldcat Google Scholar Export Options: RIS EndNote XML

Results 1 - 4

Evaluating Data for Class Use

- Study Homepage
 - Brief description
 - Subject tags
 - Access notes
 - Methodological information
- Accompanying documentation
 - Codebook, User Guide
 - Questionnaire when available
 - SDA

Opportunities for Students

ICPSR Summer Program in Quantitative Methods of Social Research

ICPSR Sites

About Courses Faculty Schedule Registration Financial Support Visitors FAQ

The ICPSR Summer Program in Quantitative Methods of Social Research

The ICPSR Summer Program in Quantitative Methods of Social Research is recognized throughout the world of methodologies and sciences. Our courses theoretical and practical and supportive social exchange of ideas abound. Founded in 1963 to address the needs of students within the social sciences, the program has grown in size and scope. Today

Program Announcements

New Three- to Five-day Workshops in 2016

- **Distance Training in Qualitative and Mixed Methods Research** | Mar 14-20 | Ann Arbor, MI | Ann Arbor, MI | Ann Arbor, MI

[Explanatory](#)

Summer Undergraduate Internship Program

The ICPSR summer internship program provides undergraduate students with a unique and expansive research experience that introduces all aspects of social science research and includes supported exploration of a research query from start to finish, data management training, and focused methodological education in quantitative research. This prepares interns for capstone or senior thesis projects, graduate school, and/or research-based employment opportunities. The students, under the supervision of faculty mentors, develop a research question, perform a literature search and review, complete data analysis, and report findings in a poster; learn good data management processes and research practices with a research process mentor; and attend classes at the ICPSR Summer Program in Quantitative Methods.



Additionally, regularly planned luncheon meetings focus on research projects within ICPSR/ISR, ethics in research and data management, and life in graduate school or in a research career obtainable with a Bachelor's degree in the social sciences. In the

Volume XXXV, No. 3
Special Edition 2015

ICPSR BULLETIN

2015 ICPSR Undergraduate Research Paper Competition First-Place Winner

Social Information Processing Mediates the Relationship between Effortful Control and Peer Success in First Graders

Tiffany Foster, Ryan Honomichl (advisor), Hiram College (Ohio) . . . p. 3

- Summer Program in Quantitative Methods of Social Research
- Summer Undergraduate Internship Program
- Paper competitions (BA, MA)

A Few Other Sources of Data

The Roper Center collection contains public opinion data on an extremely wide range of topics. Topics of the Close offers users prepared iPOLL and dataset searches, issue briefs, featured dataset descriptions, and charts and graphics on several areas.

Explore iPOLL ques



iPOLL ques

Interpretive analy



Energy Solution or A
The Public and Nucle

The meltdown at the Fuku

PewResearchCenter

U.S. POLITICS MEDIA & NEWS SOCIAL T
PUBLICATIONS TOPICS DATA

APRIL 18, 2016

What the world think change in 7 charts

BY RICHARD WIKE | 38 COMMENTS

On April 22, leaders and representatives from more than 190 countries gathered in Paris, France, to sign the global climate change agreement. Pew Research Center's spring 2015 survey found that 70% of Americans are concerned about climate change and want their government to take action. Here are seven key findings from the poll:

1 Majorities in all 40 nations polled say climate change is a serious problem and a global median of 54% believe it is a

intensity of concern varies substantially across regions and nations. Latin Americans and

www.usalivestats.com

energy

7,677,947,452	energy consumed in the U.S. this year (boe) of which:	info ▾
2,820,566,027	- oil consumed (barrels)	info ▾
1,931,975,778	- natural gas	info ▾
1,632,351,641	- coal	info ▾
661,902,199	- nuclear power	info ▾
631,151,807	- renewable energy	info ▾
5,885,158,384	energy produced in the U.S. this year (boe), of which:	info ▾
915,016,368	- oil pumped (barrels)	
1,943,191,435	- natural gas	
1,731,151,005	- coal	
661,902,199	- nuclear power	
633,897,377	- renewable energy	
1,905,549,659	oil imported this year (barrels)	info ▾
10,862,263,270	oil reserves in the U.S.	info ▾

ICPSR

Inter-university Consortium for Political and Social Research

Questions? Comments?

Lynette Hoelter

lhoelter@umich.edu