

Data as a Strategic National Asset

Julia Lane, NYU
And many colleagues

Brief Introduction

The screenshot shows the homepage of the LEHD website. At the top, there's a navigation bar with links for Main, Applications, Data, Learn More, Research, State Partners, and LED in Action. Below the navigation, a large section is titled "Longitudinal Employer-Household Dynamics". It features a chart titled "Veteran Employment Outcomes Explorer" showing employment rates for different demographic groups. The chart has several bars representing different categories, with values ranging from approximately 60% to 80%. Below the chart, there's a section for "Veteran Outcomes Experimental Data Released" with a brief description and a link to "View VEO Data". On the left side, there's a sidebar with links for Applications (e.g., LEHD Explorer, LEHD Reference Tool, OnTheMap for Emergency Management, LEHD Explorer, GWH Explorer, VEO Explorer), Useful Links (e.g., Service for Economic Studies, LEHD Data, LOESS Data, IPEDS Data, GWH Data), and a "Data Enclave" section.

The screenshot shows the homepage of the IRIS website. At the top, there's a navigation bar with links for About, Membership, Research, Training, News & Events, and Member Portal. A main headline reads "IRIS is... a consortium of research universities using big administrative data to understand, explain, and improve higher education and research." Below the headline, there's a section titled "Women are Credited Less in Science than Their Male Counterparts" with a sub-headline about research published in Nature magazine. To the right, there's a section titled "Happening @ IRIS" with news about Wayne State University joining IRIS and researchers at Ohio State University using IRIS data. There's also a "Read the article" button next to a thumbnail of the Nature magazine cover.

The screenshot shows the homepage of the Urban Institute. At the top, there's a navigation bar with links for Home, Training, ADIR, Projects & Research, and Democratizing Data. The main header is "URBAN INSTITUTE". Below the header, there's a section titled "Better Data for Better Policy" with a sub-headline about ADA Training Programs. A "Click Here" button is present. On the left, there's a sidebar with a "WHO WE ARE" section and a "DEMOCRATIZING DATA" section featuring a dark background with a starry sky and mountains.

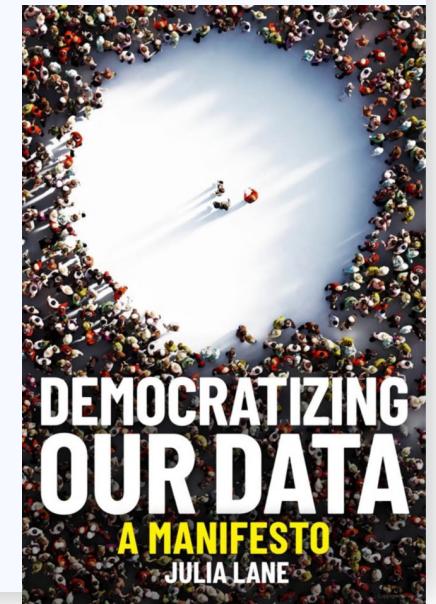
The screenshot shows the homepage of the NORC Data Enclave. At the top, there's a navigation bar with links for About, Research, Services & Solutions, Projects, NORC Labs, Experts, News & Library, Engage Us, and Careers. Below the navigation, there's a section titled "NORC Data Enclave" with a brief description of what it is. The main content area features a large image of a world map with a grid pattern. At the bottom, there's a "PatentsView" section with a search bar for "Patent Search" and a "Learn More About Inventor Demographic Attribution: Symposia Recordings Now Online" section.

The screenshot shows the homepage of the Stats NZ IDI. At the top, there's a navigation bar with links for Statistics, Tools, Services and Support, Integrated Data, Census, Wellbeing Indicators, and About Us. Below the navigation, there's a section titled "Integrated Data Infrastructure" with a brief description of what it is. The main content area features a "Patent Search" form and a "How the IDI is being used" section with a sub-section titled "How the IDI is being used".



TL; DR – Pocket Guide to Building Data Infrastructures

1. Use Data to Create Clear Value
2. Create Researcher/Agency Partnerships
3. Deliver Product from Data Quickly
4. Create a Data Community



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<u>Online Tool</u>	<u>Data/ Availability</u>	<u>Description</u>
<u>J2J Explorer</u>	J2J: Quarterly, 2000- Latest	A web-based tool for analyzing new statistics on job flows. Multiple interactive visualizations trace worker movements through industries, geographic labor markets, and to/from employment.
<u>QWI Explorer</u>	QWI: Quarterly, 1990- Latest	Provides charts, maps, and interactive tables for users to compare, rank, and aggregate QWIs across firm and worker characteristics.
<u>OnTheMap</u>	LODES: Annual, 2002- Latest	Maps, charts, and reports on demographic characteristics and commute patterns of workers/jobs covering 50 states plus D.C.
<u>OnTheMap for Emergency Management</u>	LODES: Annual, Latest	Shows potential impact on jobs/workers and population for hurricanes, fires, floods, winter storms, and disaster declaration areas. Real-time disaster events are automatically updated. Selected variables from ACS and Decennial data are also available.
<u>PSEO Explorer</u>	PSEO: Annual, 2001- Latest	Interactive tool allows for comparisons of earnings and employment outcomes for recent graduates.
<u>VEO Explorer</u>	VEO: Annual, 2001- Latest	Interactive tool allows for comparisons of earnings and employment outcomes for Army veterans.
<u>LED Extraction Tool</u>	QWI: 1990- Latest J2J: 2000- Latest	Easy access to raw data extracts from the QWI and J2J datasets through a simple query-building interface.

Go to <lehd.ces.census.gov>. For more information, contact <CES.Local.Employment.Dynamics@census.gov>

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Resea

This was the '90s, remember. Turbulence was everywhere you looked. Integrated steel mills were closing but mini-mills were opening. The minicomputer industry was shrinking but the software industry was growing by leaps and bounds. Downtowns were collapsing and big box stores sprouting like mushrooms along the highways. Lane had dinner one night with a friend, Nancy Gordon, then the Associate Director of the Demographic Directorate at the Census Bureau.

"Census leadership was concerned about the gap in data integration between two of their major directorates, Demographics, which collects detailed data on households and workers, and Economic, which collects detailed data on firms, but little about the workers in those firms. There was no way in which the two data-collection activities were synchronized. The household employment survey was measuring employment one way, and the establishment data were measuring employment another way. Census knew that the workforce affected firm outcomes and that firms affect worker outcomes, but there was no way of linking the two. A survey would be incredibly expensive – about \$1,000 a record. I had the opposite problem with my unemployment insurance wage-record data. I could see the links between firms and workers, but I had no information about the characteristics of either. So I said, I could figure out how to create the link."

LEHD State Workshop Agenda 25, 2001

Actions and Welcomes

Status Report
results and cross-state comparisons
of RDC's
protocols

Break

Technical Report
entity procedures
record editing
ssor/Predecessor Firms

Role of Research: Aging Issues

Discussion

Break

State breakouts

<http://www.economicprincipals.com/issues/2010.12.13/1209.html>

 An official website of the United States government [Here's how you know](#)

United StatesTM
Census
Bureau

Work Area Profile Analysis

enter your own subtitle

▼ Display Settings

Characteristic Filter

Year ? 2019

▼ Map Controls 

Color Key

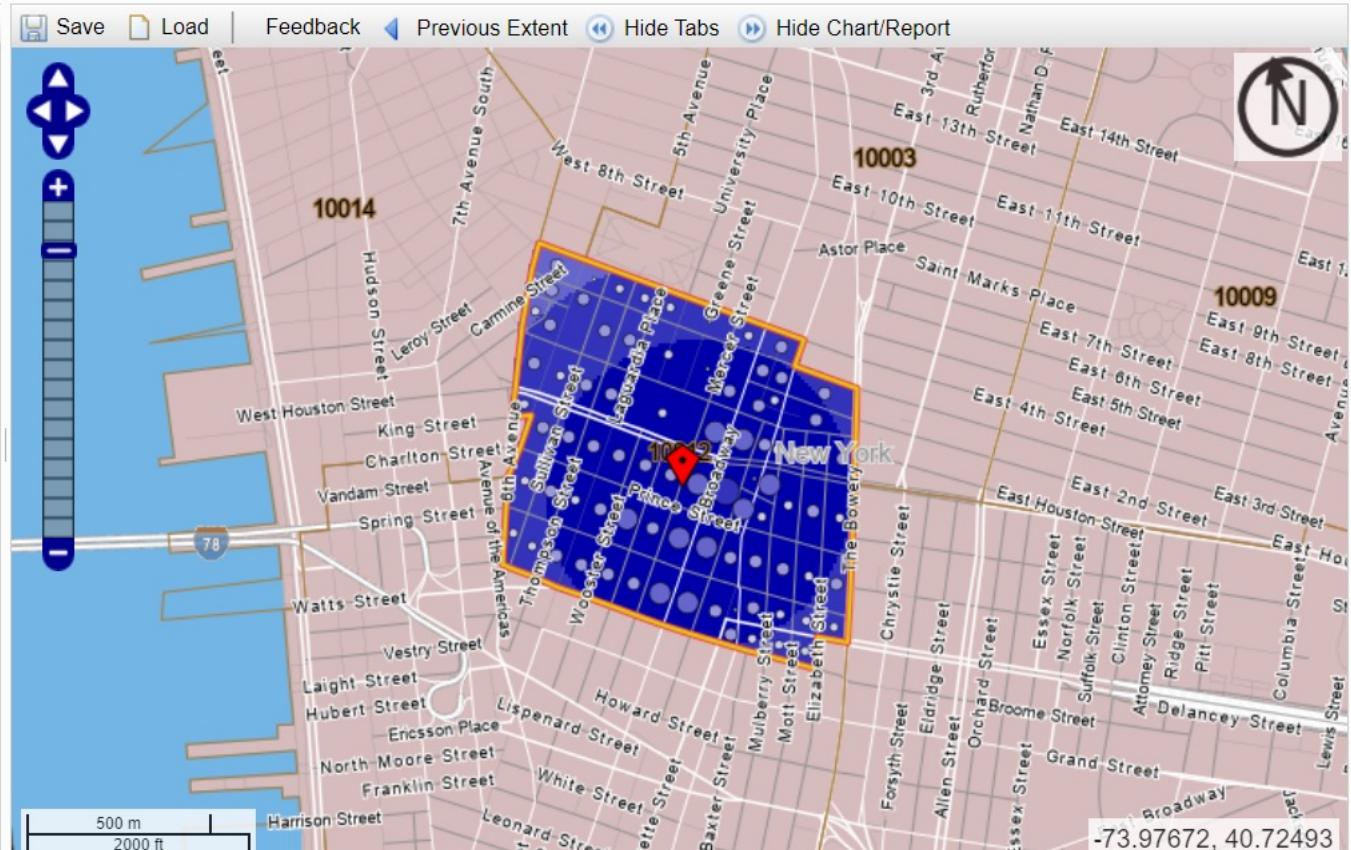
Thermal Overlay

Point Overlay

Selection Outline

Selection

▼ Report/Map Outputs 



[LEHD Home](#) [Help and Documentation](#) [Reload](#) [Text-Only](#)

view as Bar Chart ▾

<input type="checkbox"/> \$1,250 per month or less	5,806	13.7%
<input checked="" type="checkbox"/> \$1,251 to \$3,333 per month	10,267	24.3%
<input checked="" type="checkbox"/> More than \$3,333 per month	26,256	62.0%

NAICS Industry Sector

		2019
	Count	Share
Agriculture, Forestry, Fishing and Hunting	4	0.0%
Mining, Quarrying, and Oil and Gas Extraction	2	0.0%
Utilities	39	0.1%
Construction	253	0.6%
Manufacturing	453	1.1%
Wholesale Trade	1,524	3.6%
Retail Trade	8,373	19.8%
Transportation and Warehousing	137	0.3%
Information	6,803	16.1%
Finance and Insurance	1,566	3.7%
Real Estate and Rental and Leasing	926	2.2%
Professional, Scientific, and Technical Services	6,192	14.6%
Management of Companies and Enterprises	832	2.0%

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Build Community

Annual LED Workshop

The Census Bureau convenes an annual workshop with state partners, federal agencies, and public and private organizations with shared interest every calendar year. The purpose of the annual workshop is to review progress, showcase use of data and analyses, solicit input and ideas, explore new concepts and uses, and discuss research and development directions for the coming years.

The Census Bureau conducts training for workforce investment boards (WIBs) to help them use the Local Employment Dynamics information they need for decision-making.

Workshop material are organized by year below.

<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2019</u>
<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>
<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
<u>2001</u>	<u>2000</u>		

Create Value: e.g. impact

EDITORIAL

Wanted: Better Benchmarks

How much should a nation spend on science? What kind of science? How much from private versus public sectors? Does demand for funding by potential science performers imply a shortage of funding or a surfeit of performers? These and related science policy questions tend to be asked and answered today in a highly visualized manner that makes assumptions that are deserving of closer scrutiny. A new "science of science policy" is emerging, and it may offer more compelling guidance for policy decisions and for more credible advocacy.

All developed and many developing nations today have accepted the need to support technical education and research as keys to future economic strength. Studies from the 1990s show that U.S. investment in R&D development led to greater economic productivity, and that information technology, in particular, has been a major factor in sustaining U.S. productivity growth. The question is not whether R&D investments are important, but what investment strategies are most effective in the rapidly changing global environment for science. Here, ideas diverge.

The issue is not just how to spend. Sharp differences exist in the production of U.S. scientists to meet possible impending shortages.* The differences turn on the interpretation of "benchmark" data regarding the numbers of degree holders produced in the United States and other countries, particularly China and India. In the latter countries, the rates of growth in the numbers of scientists

are high, although actual numbers are small relative to those in the United States. Advocates for increased production of U.S. scientists point to our low graduation rates, whereas critics emphasize limited short-term job opportunities for graduates and argue that there is little understanding of socioeconomic factors in a majority of nations that would allow us to assign probabilities to different future scenarios. Optimal strategies for large mature economies such as that of the United States will doubtless differ from those for smaller or developing economies. Here, as elsewhere in policy debates, the benchmarks do not speak for themselves.

Recovery Act

OVERVIEW OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (RECOVERY ACT)

The American Recovery and Reinvestment Act of 2009 (Recovery Act) was signed into law by President Obama on February 17th, 2009. It is an unprecedented effort to jumpstart our economy, create or save millions of jobs, and put a down payment on addressing long-neglected challenges so our country can thrive in the 21st century. The Act is an extraordinary response to a crisis unlike any since the Great Depression, and includes measures to modernize our nation's infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need.

ACCELERATION OF ARRA EXPENDITURES



D on jobs or science diversity

NSB News Release



NSB passes resolutions to address Missing Millions & deliver research benefits across America

March 4, 2021

NSB's *Vision 2030* emphasizes the urgent need for greater participation of women and other underrepresented groups in the U.S. science and engineering enterprise and ensuring that research benefits reach all Americans. Last week, the National Science Board (NSB) passed two resolutions to advance both goals. One resolution aims to address unconscious biases and improve the preparedness of proposal reviewers. The second seeks to increase the potential of proposals' Broader Impacts (BI) to benefit society.

"The Board is committed to working with NSF to find new ways to advance our shared goals that are essential to building America's workforce and ensuring its innovation leadership. These two resolutions are an important step," said NSB Chair Ellen Ochoa. "We trust in Director Panchanathan and his creative staff to find the best way to implement the policies we outline in the resolutions and look forward to getting an update on their impact."

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2022 DATA RELEASE

Files in This Collection

Documentation

- Summary Documentation for IRIS UMETRICS 2022 Data Release
- Full Documentation for IRIS UMETRICS 2022 Data Release*
- IRIS UMETRICS 2022 Data Dictionary

Dataset

- IRIS UMETRICS 2022 Core Files*
- IRIS UMETRICS 2022 Auxiliary Files*
- IRIS UMETRICS 2022 Linkage Files*
- IRIS UMETRICS 2022 Supplemental Release: Medline-UMETRICS Crosswalk*
(forthcoming)

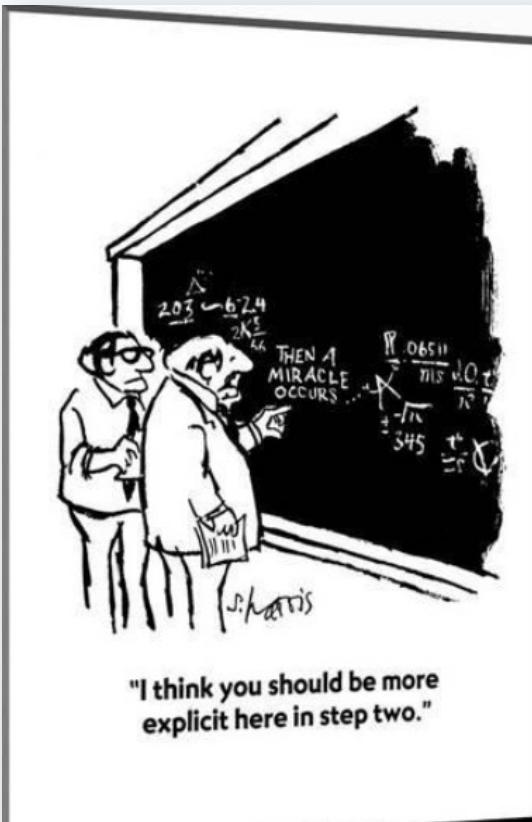
**Access Note: Files in this collection have special restrictions. You can apply for access to the restricted-use documentation and data.*

New Features

IRIS is pleased to announce new features to this year's annual release. Highlights



Deliver Product: Diversity Information



nature

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[nature](#) > [articles](#) > article

Article | Open Access | Published: 22 June 2022

Women are credited less in science than men

Matthew B. Ross, Britta M. Glennon, Raviv Murciano-Goroff, Enrico G. Berkes, Bruce A. Weinberg & Julia I. Lane [✉](#)

[Nature](#) 608, 135–145 (2022) | [Cite this article](#)

66k Accesses | 15 Citations | 2410 Altmetric | [Metrics](#)

Abstract

There is a well-documented gap between the observed number of works produced by women and by men in science, with clear consequences for the retention and promotion of women¹. The gap might be a result of productivity differences^{2,3,4,5}, or it might be owing to women's contributions not being acknowledged^{6,7}. Here we find that at least part of this gap is the result of unacknowledged contributions: women in research teams are significantly less likely than men to be credited with authorship. The findings are consistent across three very

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IRIS is a national consortium of research institutions focused on creating new, independent statistical evidence about the economic impact of research. Our reports help member institutions document the economic impact of their investments in scientific research, manage their research portfolios, and inform outreach to federal and state stakeholders.

VENDOR PROFILE
REPORT: measuring
the economic
development
impacts of
sponsored research**EMPLOYEE**
REPORT: tracking
the careers of
research-funded
employees**SPENDING REPORT:**
showing the
spending and
employment
patterns of
sponsored research**LEGISLATIVE**
REPORTS: viewing
research spending
by legislative
district**IMPACT FINDER:**
map-based browser
for finding stories of
research impact**KL2 IMPACT**
REPORT: tracking
the career
progression of
research scientists

Our legislative fact sheets break out university research spending and its impact on local economies and communities by legislative district. These reports are meant to help with communications with state and federal lawmakers in discussions around the economic impact of research investments.



Context

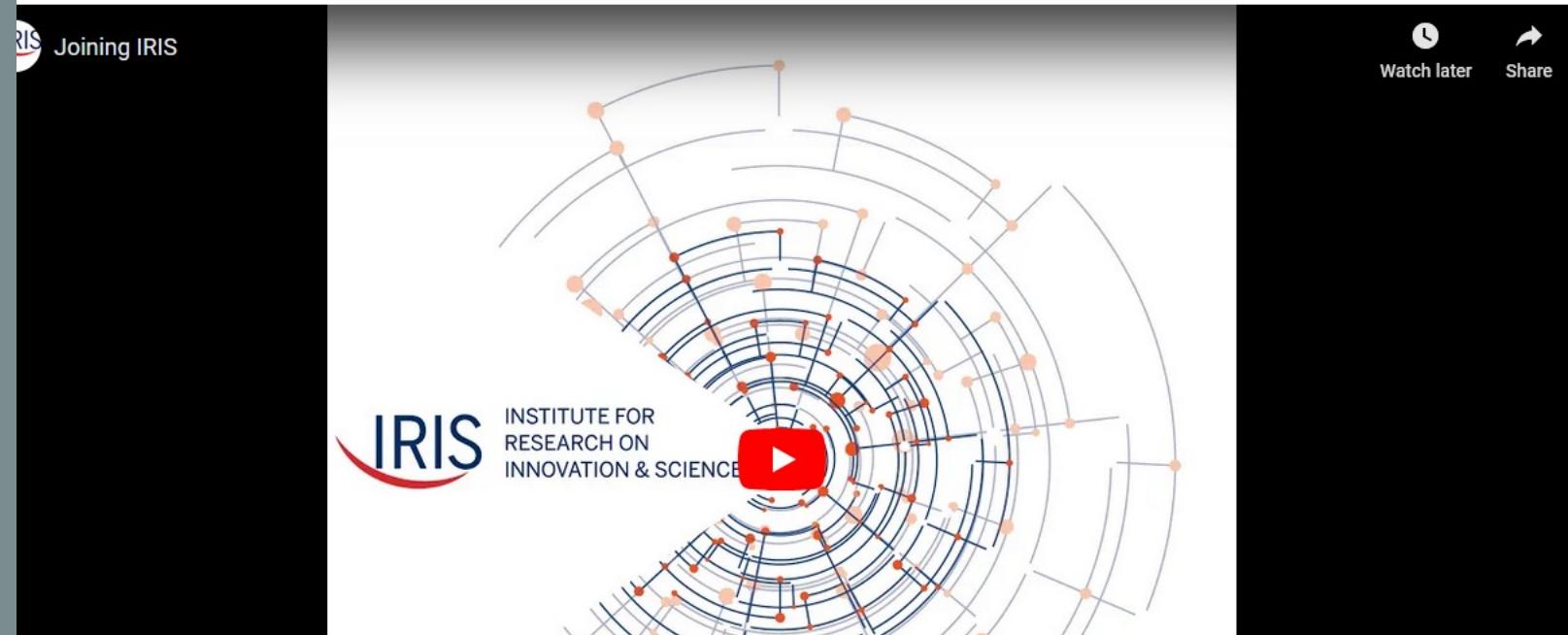
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IRIS is... a consortium of research universities using big administrative data to understand, explain, and improve higher education and research.

Joining IRIS: In this video, Executive Director Jason Owen-Smith outlines the benefits of membership



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Happening @ IRIS

Nature article on bias in scientific publishing uses IRIS-UMETRICS data

Women are less likely to be credited with authorship on scientific publications than men, according to recent research published in *Nature* magazine. The authors relied on IRIS-UMETRICS dataset in their analysis.

- [Read article...](#)
- [View webinar with the authors...](#)

Wayne State University joins IRIS

IRIS is pleased to welcome Wayne State University as the newest member of the consortium. Wayne State's sponsored research volume has grown 70% since 2015, totaling \$320 million in Fiscal Year 2020. [Read more...](#)

Research Update: Nearly 75 researchers are active in the IRIS data enclave

Approximately 75 researchers have active accounts in the IRIS data enclave in order to access the IRIS research dataset as of fall 2022. In all, nearly 500 researchers have accessed the dataset since its creation in 2017. [Read more...](#)

Creat

H.R. 1831: Evidence-Based Policymaking Commission Act of 2016

Introduced: Apr 16, 2015
114th Congress, 2015–2017

Status: Enacted — Signed by the President on Mar 30, 2016
This bill was enacted after being signed by the President on March 30, 2016.

Law: Pub.L. 114-140

Sponsor:



Paul Ryan

Representative for Wisconsin's 1st congressional district
Republican

Text:

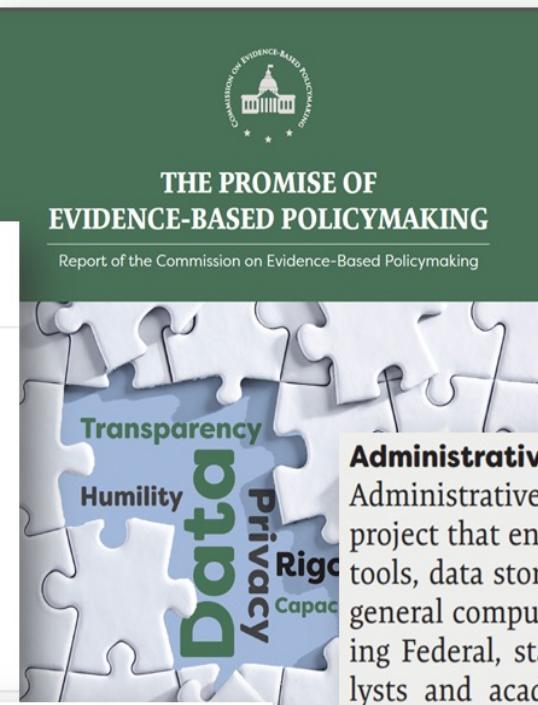


[Read Text »](#)

Last Updated: Mar 18, 2016
Length: 5 pages

FY 2016 Significant Investments

- **2020 Census (\$663M):** We have the potential to save \$5 billion with the new 2020 Census design, however, we now have to build operations and systems for the 2020 Census, based on the new design.
- **CEDCaP (\$78M):** Smarter-IT Delivery Built on a Shared-Services Model.
- **American Community Survey (\$257M):** We must maintain the quality of the data while continuing our efforts to reduce respondent burden.
- **Geographic Support (\$81M):** We must make use of technology and partnerships to deliver smarter geographic solutions to our surveys and censuses.
- **Administrative Records Clearinghouse (\$10M):** Will expedite the acquisition of federal and federally sponsored administrative data sources, improve data documentation and linkage techniques, and leverage and extend existing systems for governance, privacy protection, and secure access to these data.
- **Economic & Government Censuses (\$144M):** Data products drive economic activity and are relevant to the needs businesses, policymakers, and the public. \$10.1 million increase



Transparency
Humility
Data
Privacy
Rigorous
Capacity

Administrative Data Research Facility: The Administrative Data Research Facility is a pilot project that enables secure access to analytical tools, data storage and discovery services, and general computing resources for users, including Federal, state, and local government analysts and academic researchers. The Census Bureau and academic partners developed the project as part of the collaborative Training Program in Applied Data Analytics sponsored by the University of Chicago, New York University, and the University of Maryland.¹ It is currently operating as a pilot with users accessing the Facility as part of the training program. The Facility operates as a cloud-based computing environment, with Federal security approvals, which currently hosts selected confidential data from the U.S. Department of Housing and Urban Development and the Census Bureau, as well as state, city, and county agencies, and an array of public use data.

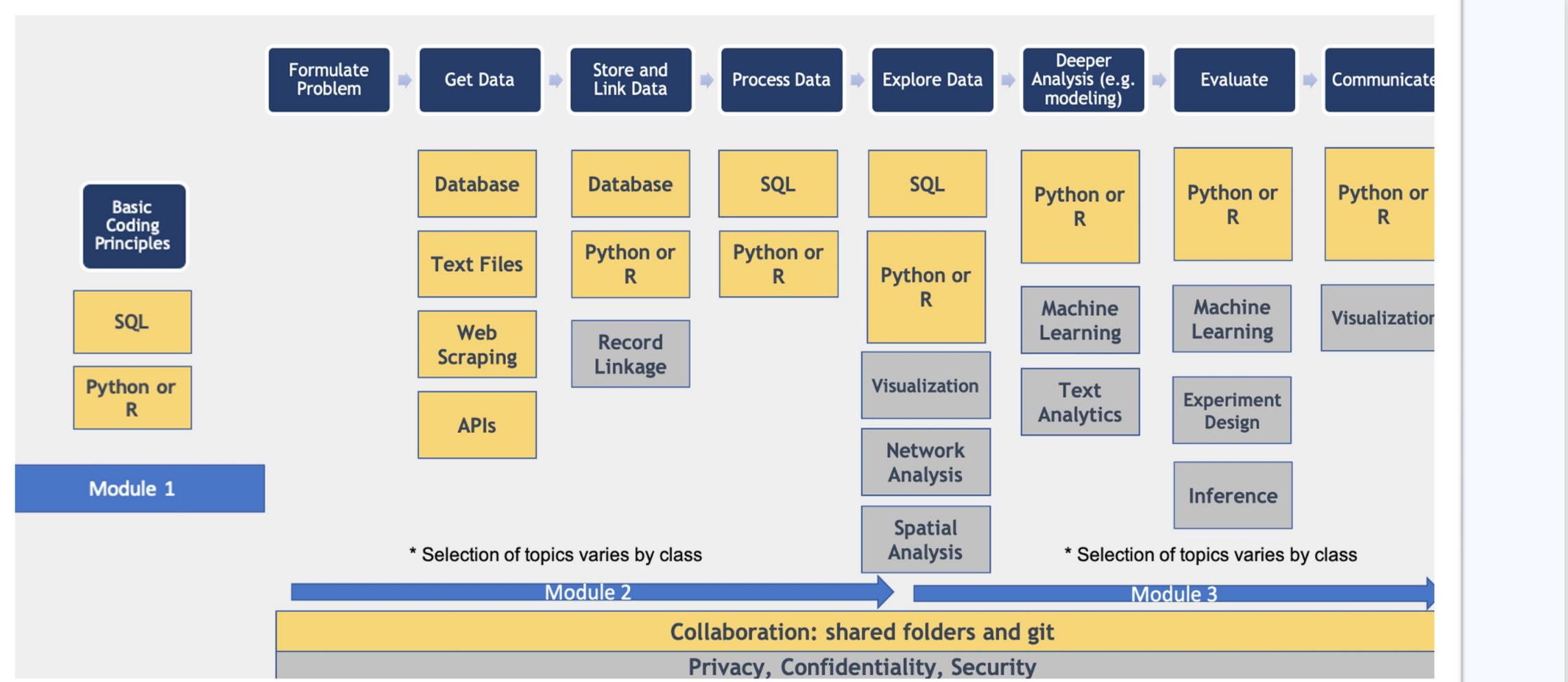
Context

Example 1

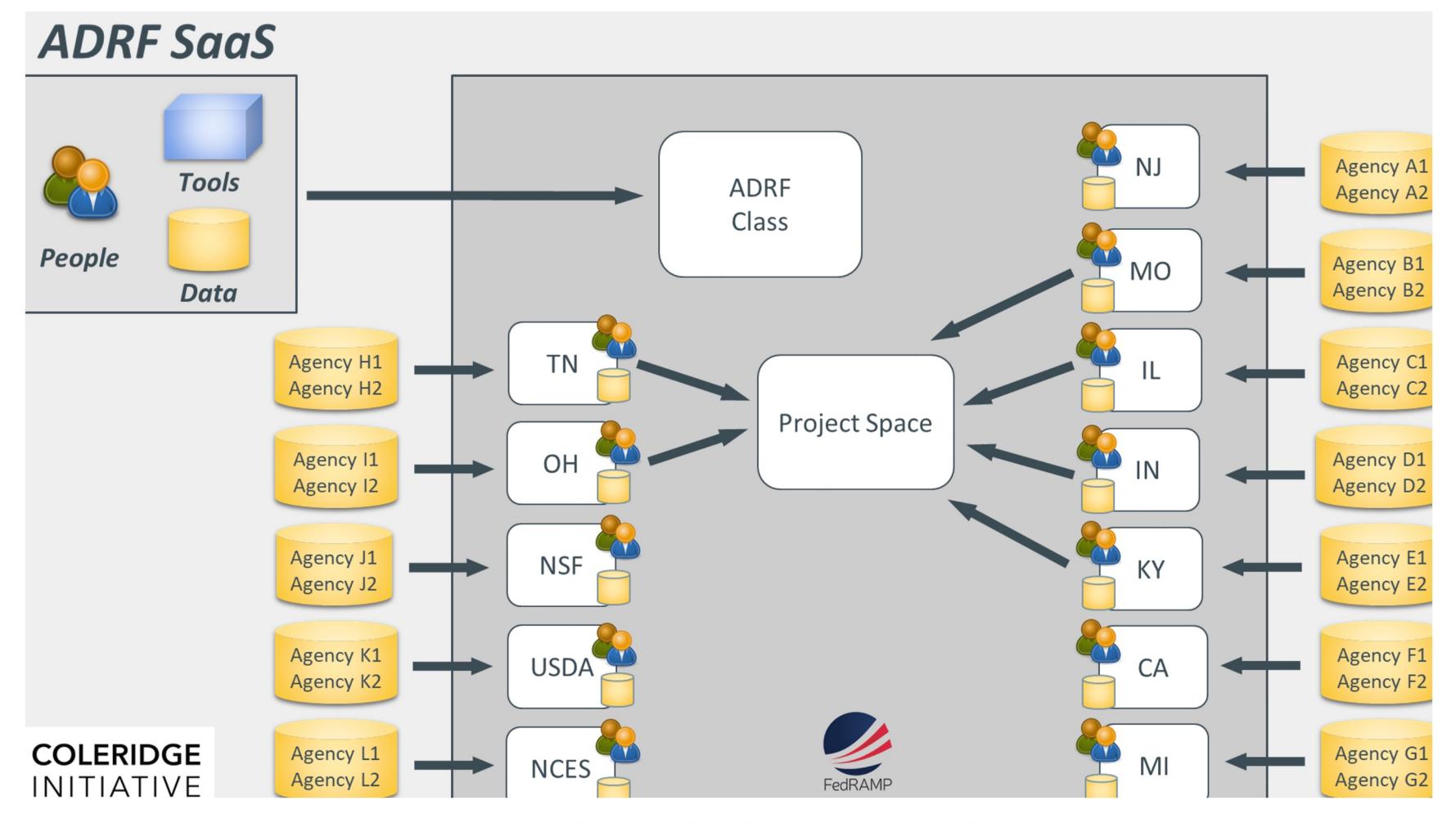
Example 2

Example 3

Administrative Data Research Facility



Deli



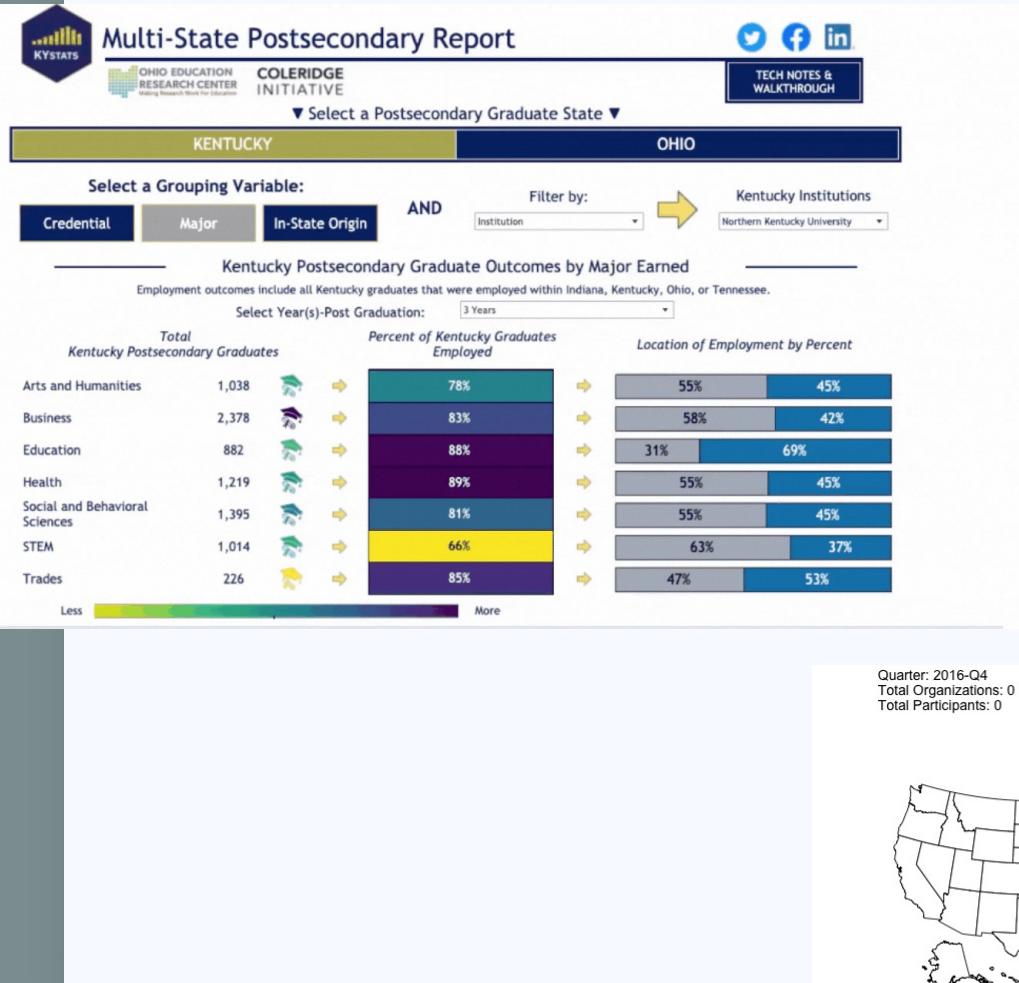
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Deliver Product: Data Literacy and New Policy



Context

https://coleridgeinitiative.org/democratizing-our-data-challenge/project-summaries/#education-to-workforce

EDUCATION TO WORKFORCE TRANSITIONS

- + Teacher Brain Drain among Kentucky Graduates
- + Employment and Earnings Outcomes of Health Care and STEM Graduates in Kentucky
- + Analyzing Brain Drain Among Kentucky STEM Graduates
- + The Impact of Credential Level on Earnings and Mobility for Trades Students in Kentucky Community and Technical Colleges
- + Following the Money: Patterns in Kentucky Graduates' Employment Outcomes
- + Only the ADRF Knows: Which Programs of Study at Ohio Community Colleges Result in a Better Labor Market Outcome?
- + Assessing the Value of In-Demand Majors
- + Employment Prospects of Welding Students: A Comparison by Course Completion Status
- + Multidimensional Look into Graduate Debt
- + PhD Recipients: Who was Funded and What Are Their Career Plans?
- + Debt Hurts, Debt Scars: Evaluating Impact of Funding on Doctoral Recipient Completion

HBCU Impact on Black/African American PhDs in the Life Sciences

Example 2

Example 3

Cr



Multi-state Data Collaboratives: From Projects to Products to Practice

March 30-31, 2022 (Virtual)

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[Projects](#)

[Products](#)

[Practice](#)

[Day 1 Recording – Morning](#)

[Day 1 Recording – Afternoon](#)

[Day 1 Slides](#)

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[Convening Report](#)

[Convening Summary](#)

About the Convening

Join leaders from across the country for the **Multi-state Data Collaboratives: From Projects to Products to Practice**. This year's convening is a response to the success of the First Annual National Convening in March 2021, the overwhelmingly positive response to the Democratizing our Data Challenge, and the rapid expansion of multi-state data collaboratives.

Why? There is an urgent need for timely, locally relevant, data and evidence that can be used to respond to the changes in the pandemic economy, particularly for low-income learners and workers, at-risk youth, underrepresented minorities, immigrants, and formerly incarcerated individuals. New information can inform policies about investments in education and training, student debt, as well as welfare and corrections programs.

Context

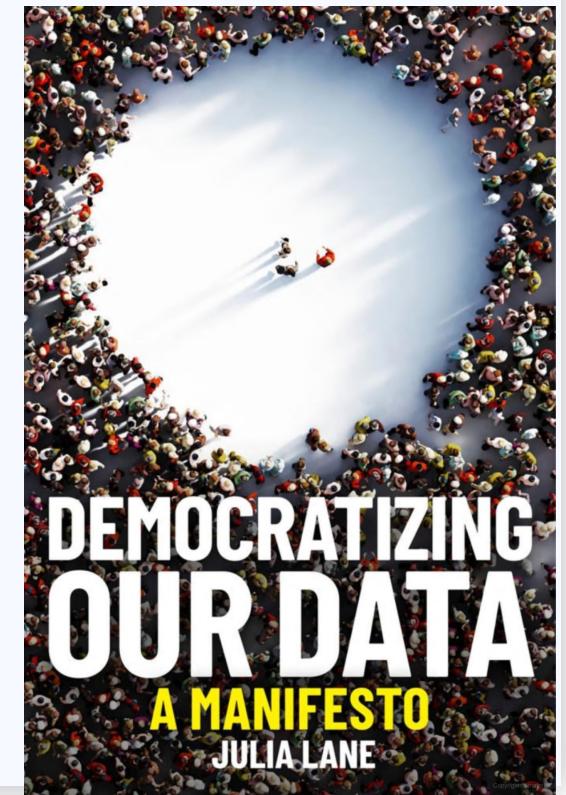
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TL; DR – Pocket Guide to Building Data Infrastructures

1. Use Data to Create Clear Value
2. Create Researcher/Agency Partnerships
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Questions?

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