Measures, measures, everywhere – we have to stop and think

Julia Lane
New York University

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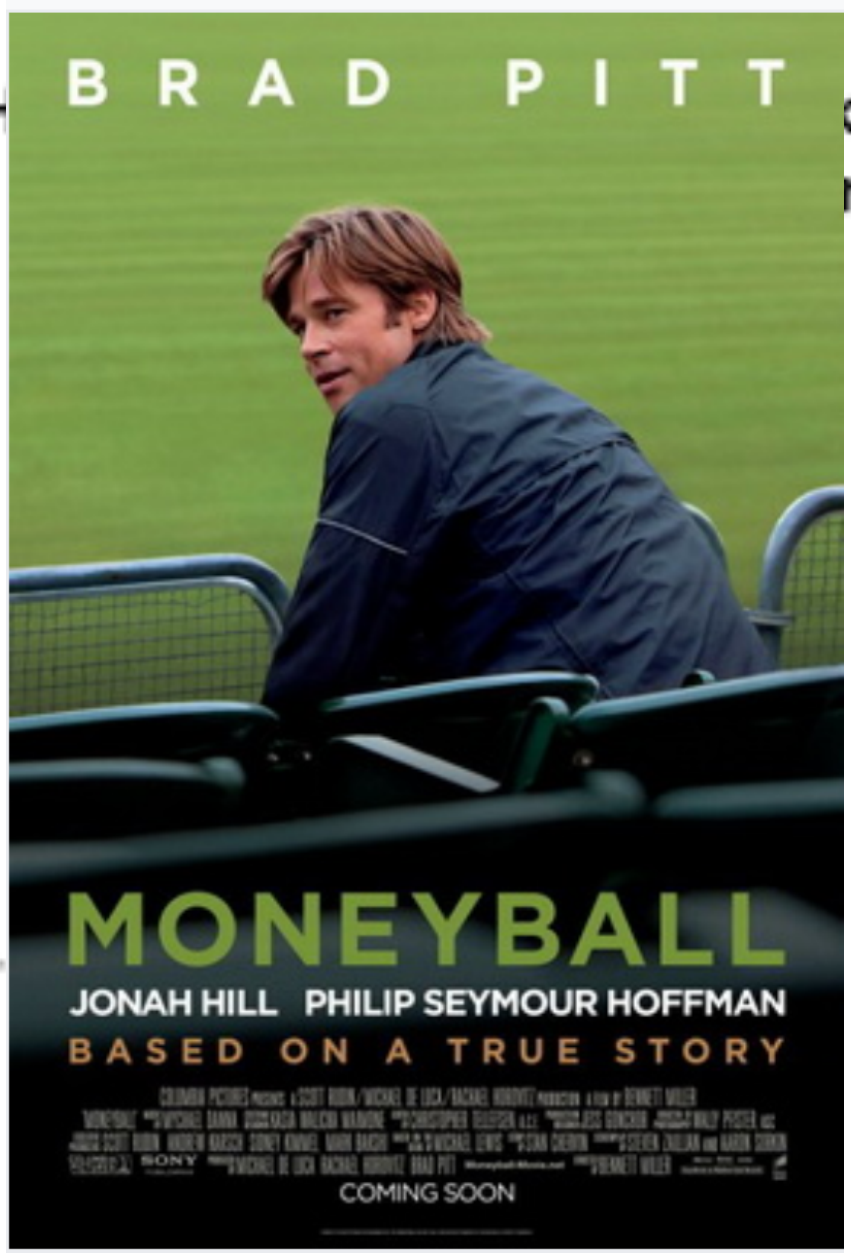

Outline

Rethinking measurement

Operationalizing

A possible approach

- Human
- Technical

New Measures

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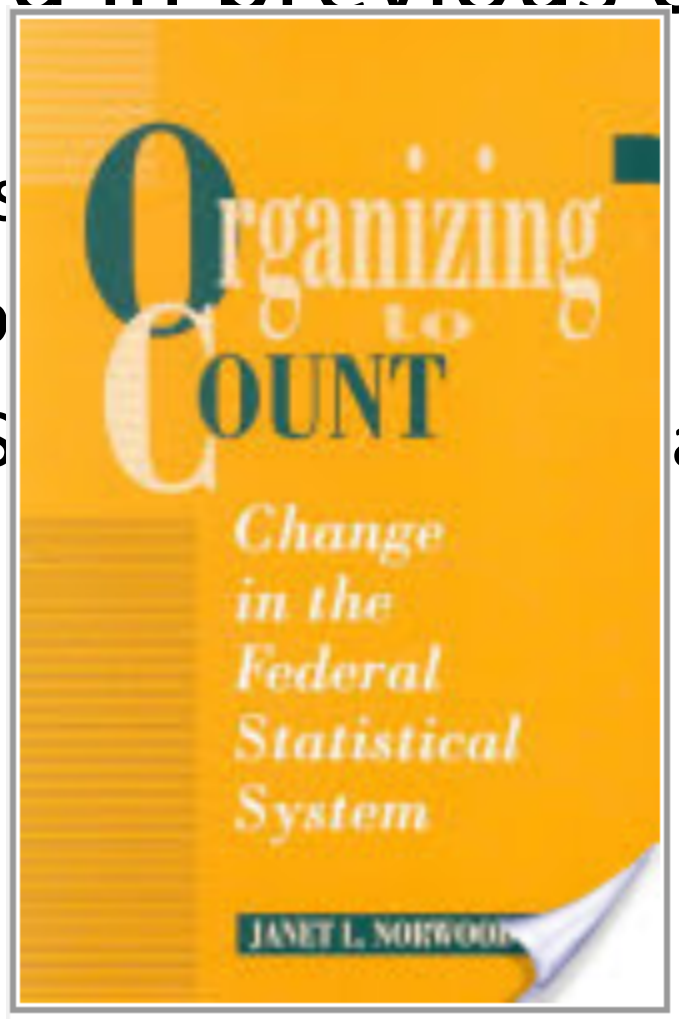
New Measures

Demand in previous century

- Great Depres
- Wartime eco
- Colin Clark, S ard Stone



Demand now

- Economic activity?
  - GDP
  - Resiliency
  - Sustainability
  - Mobility
- Units?
  - Networks
  - Neighborhood
  - Country

Transform **Data Use**

A Locally Based Initiative to Support People and Communities by Transformative Use of Data

SHARE

JULIA LANE, DAVID C. KENDRICK, DAVID T. ELLWOOD

The data revolution is transforming how executives manage operations and businesses deliver goods and services. Yet when it comes to helping people escape poverty, the revolution has barely begun.

DOWNLOAD THIS PAPER

Full Idea Paper

Summary >

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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.

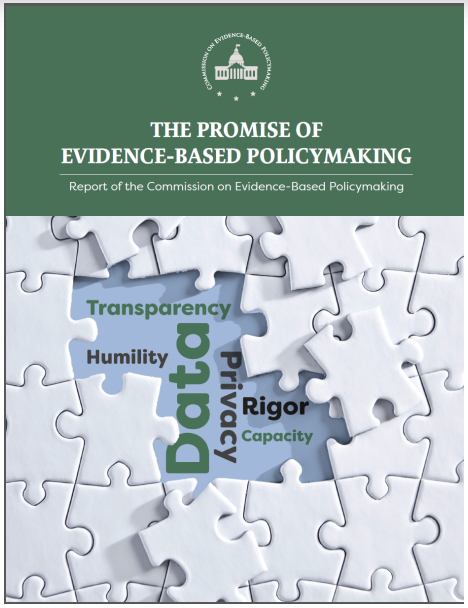
Law: Pub.L. 114-140

Sponsor:

Paul Ryan
Representative for Wisconsin's 1st congressional district
Republican

Text:

Read Text »
Last Updated: Mar 18, 2016
Length: 5 pages



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Management Priorities | Agencies | About | News

- Overview
- Key Performance Indicators
- **Key Drivers of Transformation**
  - IT Modernization
  - **Data, Accountability and Transparency**
  - People - Workforce for the 21st Century
- Cross-Cutting Priority Areas
  - Improving Customer Experience
  - Sharing Quality Services
  - Shifting From Low-Value to High-Value Work
- Functional Priority Areas
  - Category Management
  - Results-Oriented Accountability for Grants
  - Getting Payments Right
  - Federal IT Spending

Leveraging Data as a Strategic Asset

Goal Leaders

Pradeep Belur, Chief of Staff, Small Business Administration

Karen Dunn Kelley, Under Secretary of Economic Affairs and Acting Deputy Secretary, Department of Commerce

Jack Wilmer, Senior Advisor for Cybersecurity and IT Modernization, Office of

Goal Statement

Leverage data as a strategic asset to grow the economy, increase the effectiveness of the Federal Government, facilitate oversight, and promote transparency.

The Challenge

The use of data is transforming society, business, and the economy. Data provided by the Federal Government have a unique place in society and maintaining trust in Federal data is pivotal to a democratic process. The Federal Government needs a robust, integrated approach to using data to deliver on mission, serve customers, and steward resources while respecting privacy and confidentiality.

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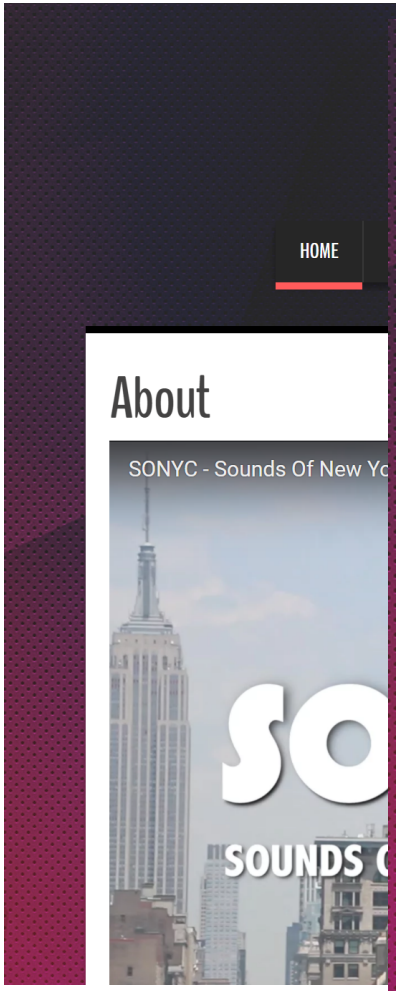
Data collection



Resources

Companion websites for publications

- Seeing Sound: Investigating the Effects of Visualizations and Complexity on Crowdsourced Audio Annotations

Data

- Urbansound Dataset – A dataset containing 1302 labeled sound recordings. Each recording is labeled with the start and end times of sound events from 10 classes
- Urbansound8k Dataset – A dataset containing 8732 labeled sound excerpts (<=4s) of urban sounds from 10 classes
- URBAN-SED Dataset – A dataset of 10,000 synthesized soundscapes with sound event annotations generated using Scaper
- Seeing Sound Dataset – A dataset of 5400 crowdsourced audio annotations of 60 synthesized soundscapes

Code

- Scaper – A Python library for soundscape synthesis and augmentation
- Audio-Annotator – A Javascript web interface for annotating audio data
- Raster Join
- Urban Pulse

What is needed?

- Timeliness?
- Closeness to core measure?
- Coverage?
- Geographic detail
- Longitudinal Consistency

How do we trade off?

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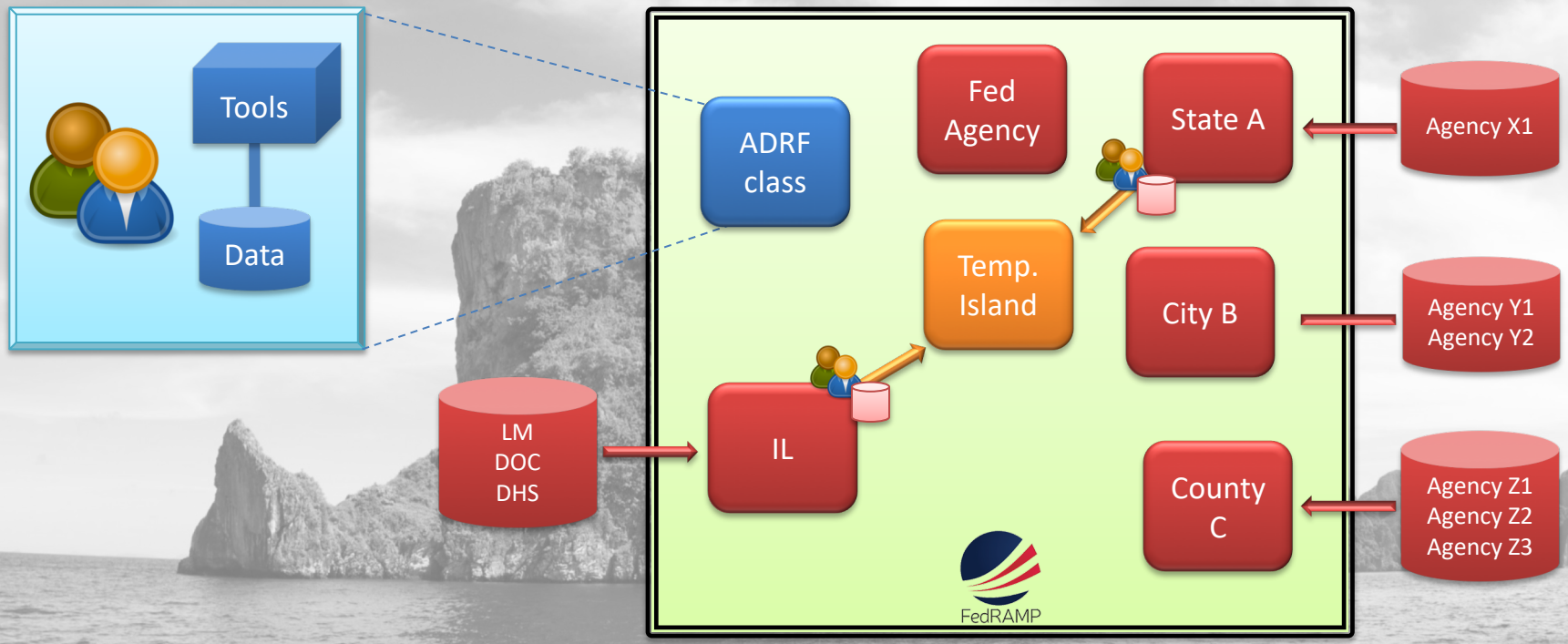
Achieving the goals

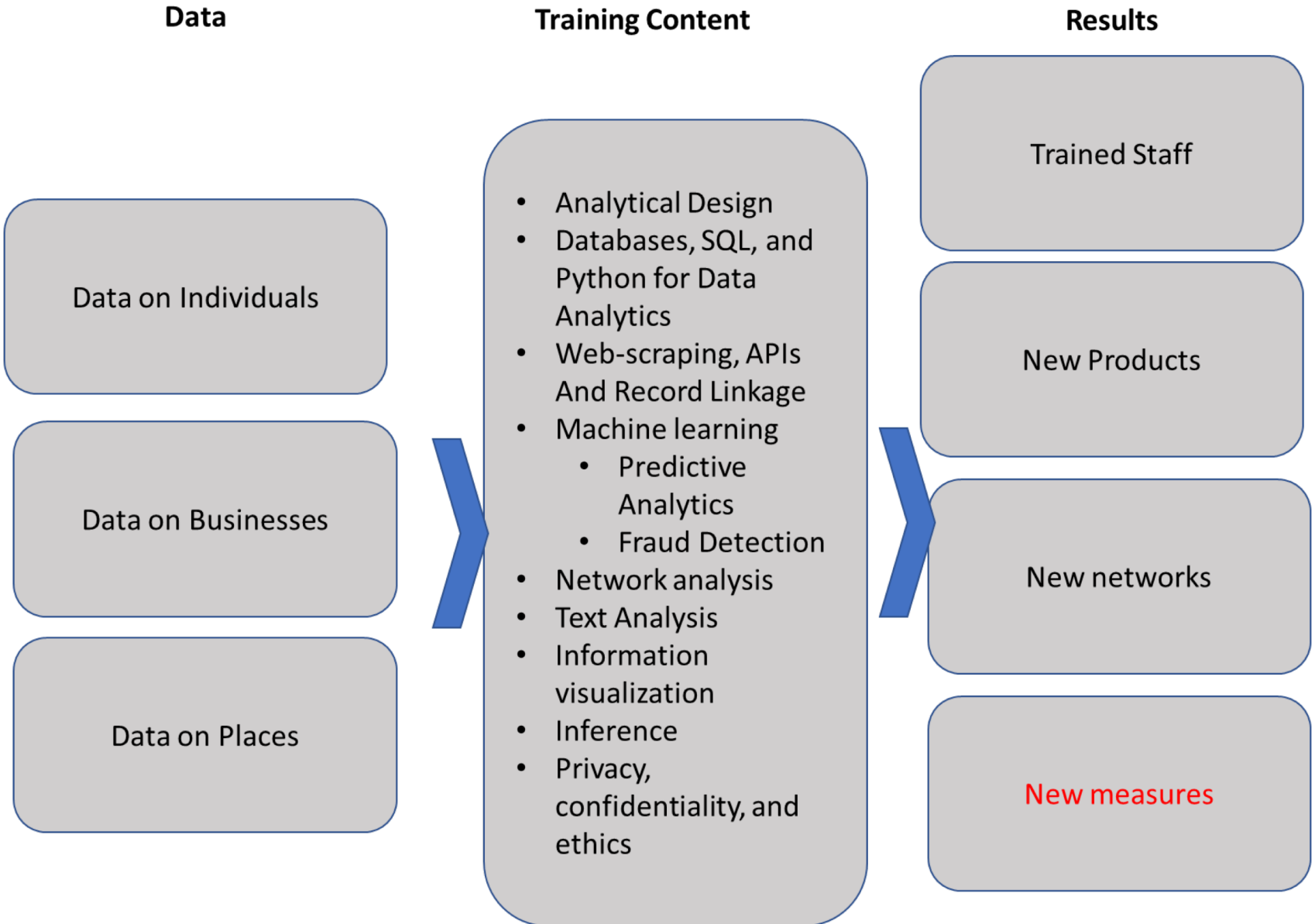
Technical Approach

Human Approach

Specifics: Technical Approach



Specifics: Human Approach



Networks: >90 govt agencies; >200 participants

Q4 - How has your participation in the program changed your work in the last year?

Are there skills that could be added to the course? If so, which skills?
Surprisingly (to me), it was the networking within the class that had the most impact. My organization is currently involved in a project with two other classmates (from two separate organizations), and getting to know them in the class environment was very helpful. We also hired a third classmate into our agency based upon her performance in class; she has had a noticeable impact on our project.
Understanding of techniques and programs that I previously had no visibility on.
It's something that I said before, but hearing the topics in the class taught by experts felt as though a veil was lifted.
I can speak more eloquently about data science, but haven't changed my day to day use of SPSS. I do hope in the next year I'll be able to merge some new data we just collected with other public datasets using the skills learned in this class.
I have been trying to shift my work from sinmple reporting to more complex analytics to provide better insights, propose solutions, and help improve organizational performance.

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Products: Corrections and Employment

Table 1 summarizes the median time spent in different states for each cluster.

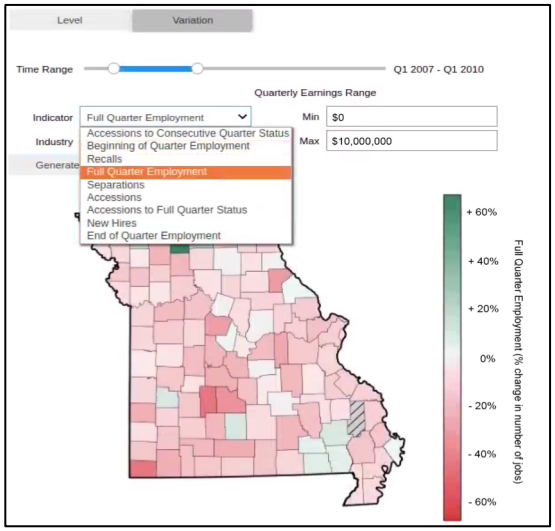
Table 4. Recidivism Rates by Cluster

	At least one incident of recidivism	At least one technical violation	Technical violations as a percent of recidivism
Full cohort	53%	31%	60%
Primarily incarcerated	41%	26%	65%
Intermittent employment	66%	39%	58%
Unemployed after initial incarceration	23%	14%	61%
Intermittent incarceration	99%	66%	67%
Working after incarceration	43%	21%	49%

Figure 2 Cluster Analysis: Five clusters were identified from the trajectories.

Source: Chapin Hall

Tailored and Customizable Metrics



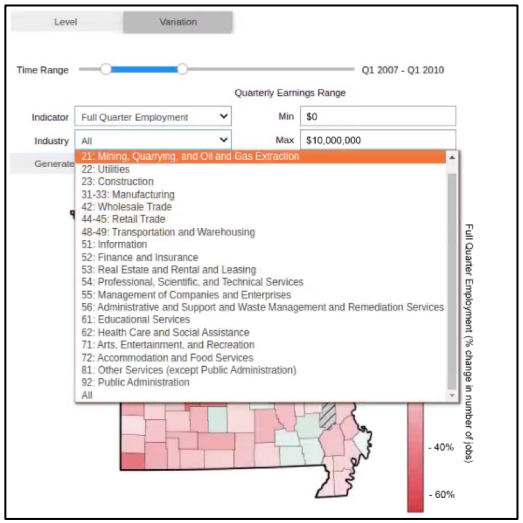


Fig. 2: Dashboard metrics (left) and industry subsets (right)

The dashboard can visualize different metrics (left) – including QWI metrics developed in in the context of the Census LEHD program –, subsetting the data by different industries (right).

Comparing Employment Dynamics Across Borders

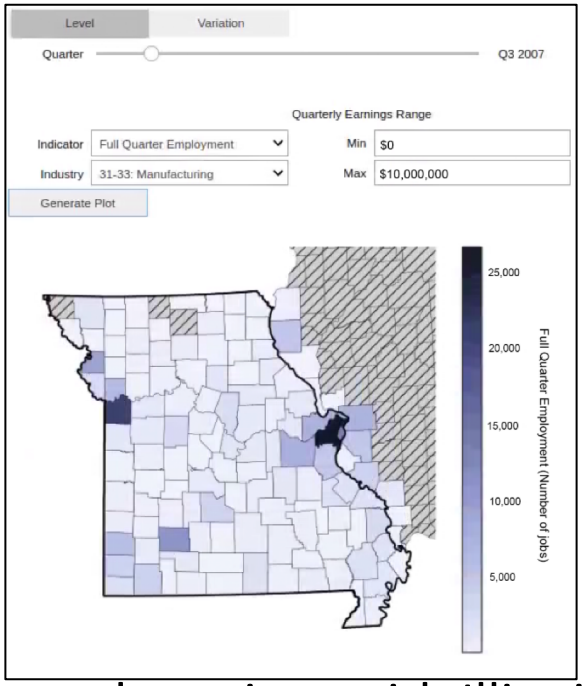


Fig. 3: Comparing total earnings with Illinois border counties

The dashboard can include border counties from the states that provide data to the ADRF.

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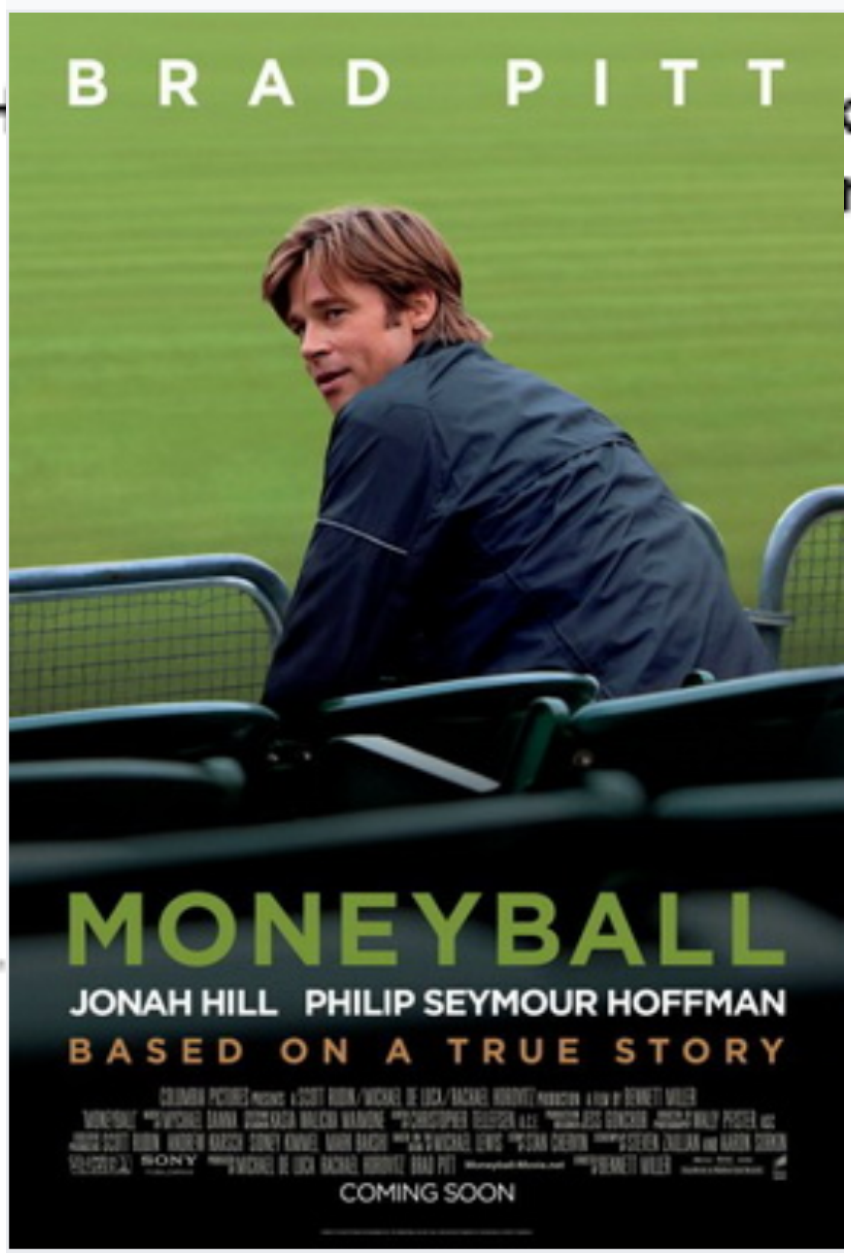

Comments welcome

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