ICPSR

Role of Federal Statistical Research Data Centers in Promoting Transparency and Reproducibility in Federal Statistics

Margaret Levenstein

Director

Michigan FSRDC and ICPSR: The Data Consortium

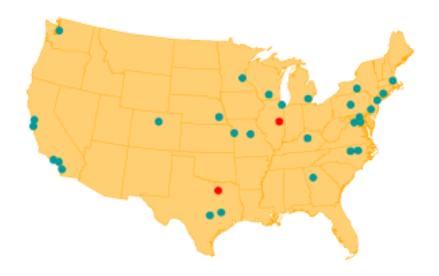




What are the FSRDCs?

Joint projects between universities and federal statistical agencies to provide support and secure locations for researchers who need access to restricted data

30 FSRDCs across the country





Participating agencies

Agency for Healthcare Research & Quality

Bureau of Economic Analysis

Bureau of Labor Statistics

Census Bureau

National Center for Health Statistics

National Center for Science and Engineering Statistics

Data from BJS, BTS, EIA, EPA, ERS, HUD, IRS, SSA



FSRDC network

Each FSRDC has

Executive Director

University professor

RDC Administrator

Census employee

Physical Data Enclave

Secure link to U.S. Census Bureau computing

Daily management: Project Management Office

Meet weekly with Directors and Admins

Governance: Executive Committee

Co-chairs: Chief Statistician and RDC Director

Members: Rotating reps of statistical agencies and RDC

directors



FSRDC Network

Vibrant network that has created and supported specific human capital

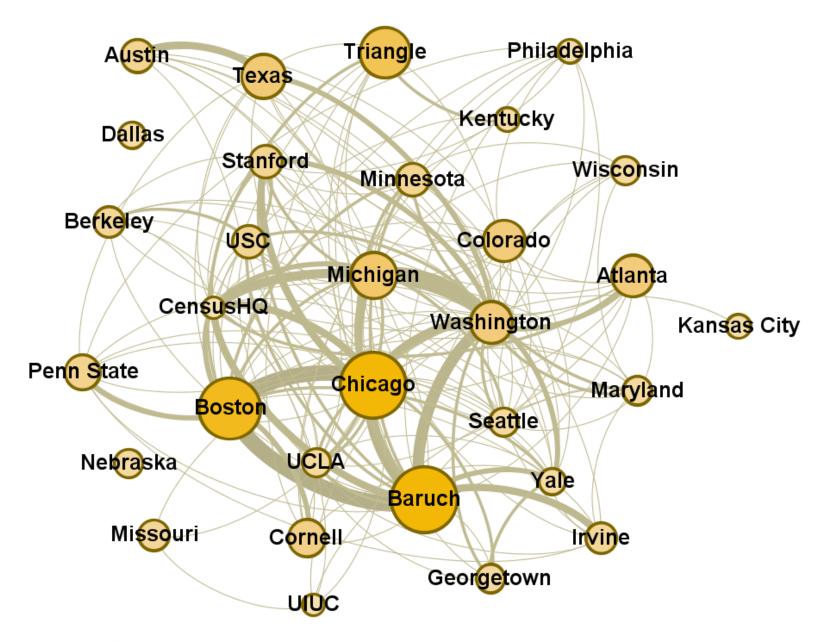
374 active projects

855 researchers

Lots of tacit and embedded knowledge

Network has expanded access to that knowledge, but it is still not perfectly transparent Increasingly open network supports collaboration







Legal basis drives impact on transparency

Started in 1994 to facilitate access to Census's business microdata, for which there is no public use product

All projects accessing Census data must benefit the Census Bureau

Projects evaluate the quality of the data and the data generation process

Often business data use combination of survey and administrative data, so the "data generation" process is not simply the processed survey instrument



FSRDC network and transparency of federal statistics

Thousands of researchers have done significant analyses of data quality, as part of a quid pro quo for access to data for research

Improved understanding of public use data products Increased interrogation of methods used to produce public use data products

Imputation, disclosure avoidance

Challenge: use and sharing of this knowledge, even within a statistical agency

Because everything is locked down

Because agencies don't have absorptive capacity



Reproducibility and the FSRDCs

Reproducibility of federal statistics

Enabled by availability of underlying raw data

Limited by lack of code, detailed methods

documentation

Reproducibility of analyses using FSRDC data

Everything is archived

Principled commitment to allowing replication projects

Plan to create replication project In practice, very challenging



Two initiatives to increase FSRDC transparency

Virtual Data Enclave pilot

Initiated in anticipation of increased need for RDC access with increased concern about protecting confidentiality of public use micro data

Single Portal

Impetus from Evidence Based Policy Act Inventory, single point of entry to federal data



Virtual Data Enclave pilot

Leveraging Michigan governance and Census VDI

Institutional contracts

Census employee WFH technology

Based at Michigan FSRDC

Originally limited to ten projects

Expanded rapidly because of pandemic

All RDCs closed in March, about 1/3 have re-opened

38 projects

All but one are Census projects

61 researchers

Evaluation underway



Virtual Pilot: What have we learned:

Researchers are elated that this is an option

Questions as we got off the ground

Who is in charge of what?

What's allowed and what isn't?

Can you talk on the phone? No

Do you have to work at home? Yes

Beta version of instant messaging inside FSRDCs to facilitate collaborative communication



Virtual Pilot: Process logistics

Drop in security checks

Turn on camera and show inspector the set up

New online training

Revised agreement between researcher's institutions and University of Michigan, representing Michigan FSRDC

Complement agreement between Census and researcher

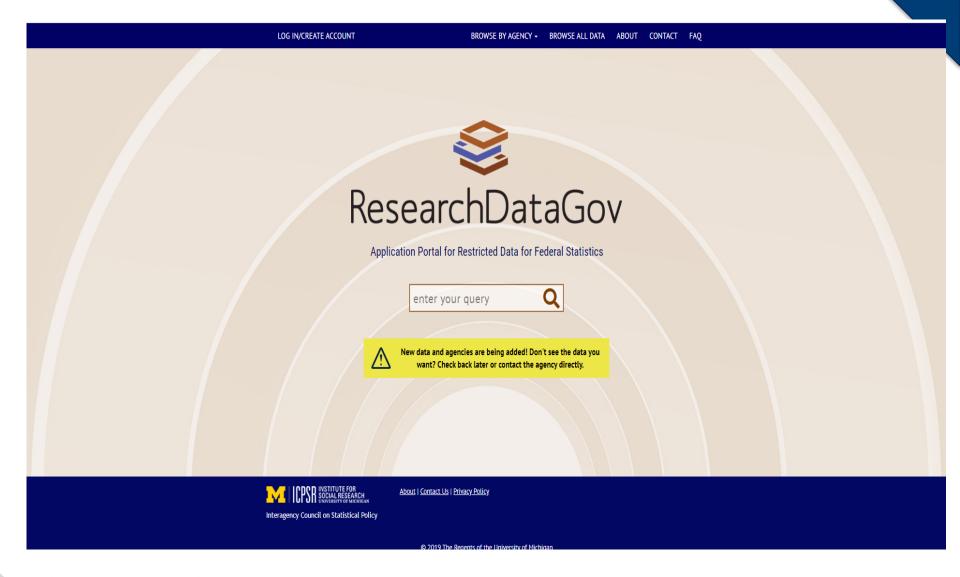
Streamlined processes over time

Who needs to be notified, approve to make each step happen

New processes as more agencies participate



Single Portal: Research Data Gov





Research Data Gov increases transparency

Metadata for all FSRDC statistical agencies

And BJS

181 data sets, easily searchable, easy to add documentation, citations to publications and projects

On-line application form

Communication to agency and FSRDC

Review and approval by agency

Increases transparency

Available data

Process for access

Sheds light on some of that tacit knowledge



Single Portal: a work in progress

Missing metadata from some agencies
Harmonization of application processes
Easy, but then again not
Expansion to include non-FSRDC agencies
Funding, control



FSRDCs, Transparency and Reproducibility

Over almost 30 years, FSRDCs have increased transparency

Allowing researchers to see inside the sausage factory → Increased transparency of federal statistics themselves

Creating a human, and increasingly an online, resource describing data resources and application process → Increased transparency to data access FSRDCs have been key institutions in realizing, and creating capacity to further, the goals of the EBP Act and the National Secure Data Service





Data Jeff will take your questions

