## Texas Federal Statistical Research Data Center (TXRDC)

## **Opportunities for Research Using Restricted Data**

## **Graduate Student Information** Session

Mary Campbell, PhD Karin Johnson, PhD

Director, TXRDC

Texas A&M University

Administrator,

**TXRDC** 

**US Census Bureau** 

Welcome everyone!



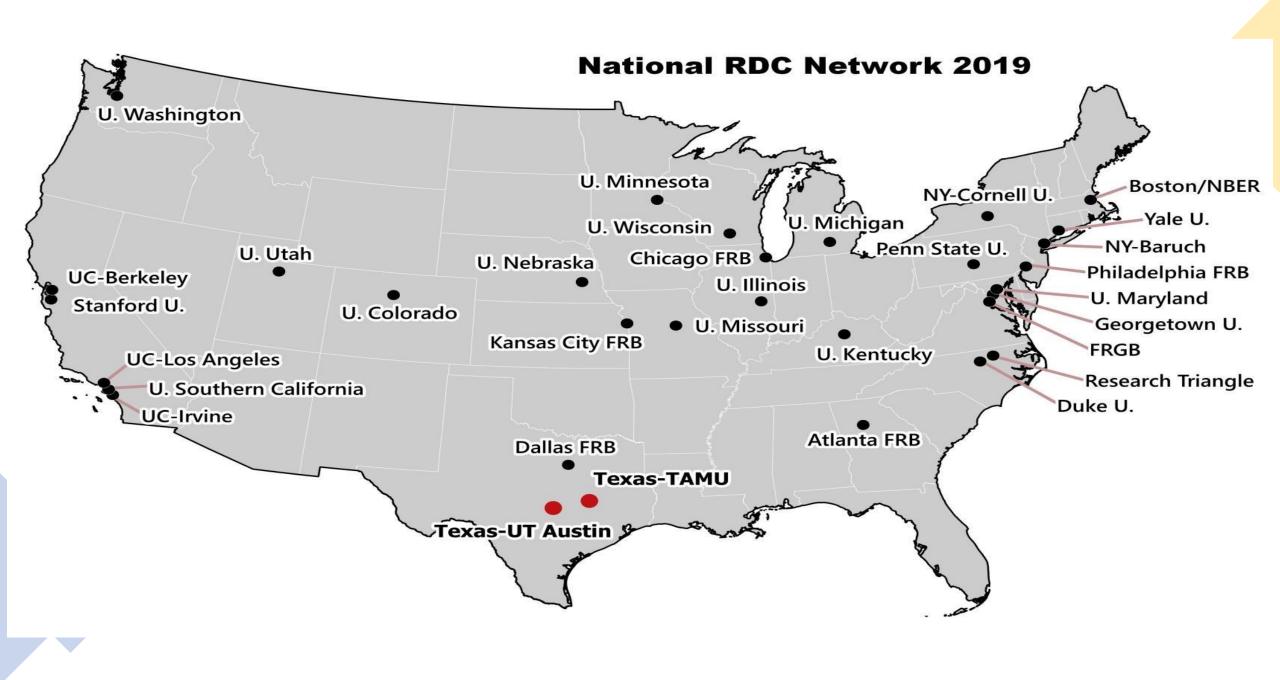
• FSRDCs (or RDCs) are research facilities

Federal Statistical Research Data Centers (FSRDCs)

 Collaboration among the Census Bureau, other federal statistical agencies, and universities to provide researchers with approved projects access to restricted-use data

## What do RDCs offer?

- Secure computing lab
- Joint Statistical Partnerships (JSP)
- Managed by the Center for Enterprise
   Dissemination (CED) at Census Headquarters
- Locally run by an on-site Census Bureau employee, the RDC Administrator



## What is the **Texas Consortium?**

- RDCs are similar to research libraries and labs
- These universities are members, providing researcher access to valuable resources
- Talk to me (Mary) about how to access the TXRDC if you're from another institution!

#### **Administrative Home**



#### **Texas RDC Consortium Institutions**















- Federal laws and regulations protect data confidentiality
- Federal employees and contractors access restricted data only under strict guidelines
- → FSRDC network is important for research analyzing restricted statistical data to benefit society

# Why we need RDCs

# Advantages of RDC Access to Researchers

- Restricted microdata
- Key variables not in public versions of datasets, or detailed versions of variables
- Full counts and/or larger samples
- Original responses
- Ability to link data

## RDC-Based Research is Common in Many Fields

- Business, Trade, Finance, and Management
- Crime and Crime Victimization
- Demography and Population Studies
- Economics, Labor Markets, Entrepreneurship, Employment and Industry
- Education and Education Policy
- Hazard Reduction, Environmental Impact Assessment, Pollution Abatement
- Health and Wellbeing, Health Insurance, and Health Policy
- Housing, Housing Markets, and Residential Patterns

## Research Communities RDCs Serve Best

### **RDCs Serve Well ...**

- Discipline-based substantive research
- Research plans with long time horizons

### RDCs Serve Less Well ...

- Research with short time horizons
- Research producing special tabulations and maps
- Projects producing data products for public distribution



## "What kind of project could I do in the RDC?"

- Race/ethnicity, segregation
  - Decennials, Current Population Survey (CPS), Amer. Comm. Surveys (ACSs)
- Social demography (e.g., migration patterns, education)
  - Master Address File (MAF), Survey of Doctoral Recipients
- Criminology
  - National Crime Victimization Survey
- Institutions, workplaces, production
  - Long. Business Database, Long. Employer-Household Dynamics (LEHD),
     Census of Mining, Manufactures
- Public policy
  - SNAP, SIPP (Survey of Income & Program Participation), American Housing Survey (AHS)
- Health, mortality
  - National Longitudinal Mortality Study

#### More Detailed Geography

Decennial Census	Block
American Community Survey (ACS)	Block
Survey of Income and Program Participation (SIPP)	Tract
Current Population Survey* (CPS) – March Supplement & Food Supplement	Tract
American Housing Survey (AHS)	Tract
National Longitudinal Survey (NLS) – Young/Mature Women	Lat/Lon Block Group
National Longitudinal Survey (NLS) – Young/Old Men	County

## Example 1 of Data Availability – Census Bureau Data

- Demographic Data
  - household or individual level
  - more detailed geography
  - less top-coding/censoring
  - additional variables
  - occupation codes
  - possibly bigger samples
  - metadata
- Combined Employer/Employee
   Data
  - Longitudinal Employer-Household Dynamics (LEHD)

## Example 2 of Data Availability – Census Bureau Data

Economic Data: Establishment, firm, transaction level

#### **Establishment Surveys**

#### Data Set

Annual Survey of Manufacturers (ASM)

**Current Industrial Reports (CIR)** 

Manufacturing Energy Consumption Survey (MECS)

Medical Expenditure Panel Survey – Insurance Component (MEPS-IC)

Component (IVIEPS-IC)

National Employer Survey (NES)

Quarterly Survey of Plant Capacity Utilization (QPC)

Survey of Manufacturing Technology (SMT)

Survey of Plant Capacity Utilization (PCU)

Survey of Pollution Abatement Costs and Expenditures (PACE)

#### **Economic Census**

#### **Data Set**

Compustat-SSEL Bridge (CSB)

Form 5500 Bridge File

Integrated Longitudinal Business Database (ILBD)

Longitudinal Business Database (LBD)

Ownership Change Database (OCD)

Standard Statistical Establishment List / Business Register (SSEL)

#### **Business Register Data**

#### **Data Set**

Census of Auxiliaries (AUX)

Census of Construction Industries (CCN)

Census of Finance, Insurance, Real Estate (CFI)

Census of Manufacturers (CMF)

Census of Mining (CMI)

Census of Retail Trade (CRT)

Census of Services (CSR)

Census of Transportation, Communications, Utilities (CUT)

Census of Wholesale Trade (CWH)

#### **Transactions Data**

#### **Data Set**

Commodity Flow Survey (CFS)

Foreign Trade Data - Export (EXP)

Foreign Trade Data - Import (IMP)

Longitudinal Foreign Trade Transactions Data (LFTTD)

#### **NCHS Data Sets**

- National Health and Nutrition Examination Survey (NHANES)
- National Health Care Surveys
  - National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS)
  - National Hospital Discharge Survey (NHDS)
  - National Nursing Home Survey (NNHS) and National Nursing Assistant Survey (NNAS)
  - National Home and Hospice Care Survey (NHHCS) and National Home Health Aide Survey (NHHAS)
- National Health Interview Survey (NHIS)
- National Survey of Family Growth (NSFG)
- State and Local Area Integrated Telephone Survey (SLAITS)
- NCHS Data Linkage Activities
  - Linked Mortality Data Products
  - Linked Medicare Enrollment and Claims Files Data
  - Linked Social Security Benefit History Data
  - Linked Air Quality Data
- National Vital Statistics System (NVSS)

## Example 3 of Data Availability – Health Data

## National Center for Health Statistics (NCHS)

- Restricted Variables
- Geographic Variables
- Linked Data Products
- Temporal Variables
   e.g. dates of birth, death, exams
- Detailed Race/Ethnicity Variables
- Sensitive Variables (e.g. youth sexual behavior, mental health)
- Long Term Health Care Survey
   Merging Variables

## New Datasets Frequently Become Available

#### See Census FSRDC web links for compilations

- FSRDC Available Data
- Participating Agencies Data Sets
- Census CES Restricted Data Notes

#### **National Center for Health Statistics (NCHS)**

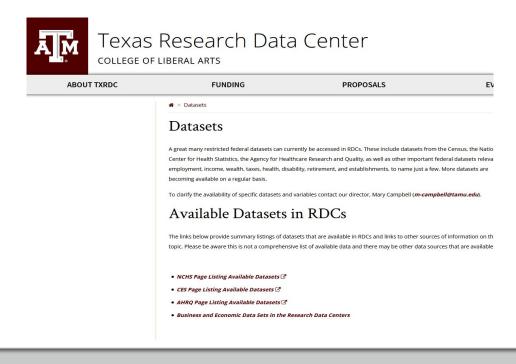
NCHS Restricted Data Sets & Information

## Agency for Healthcare Research and Quality (AHRQ)

AHRQ Restricted Data Sets & Information

## Consult with the RDC Administrator to inquire about available datasets

#### New Datasets are added regularly!



https://liberalarts.tamu.edu/txrdc/datasets/

## What you need



### **Skill Sets**

- Need to be comfortable, conscientious with using software to manage, organize, analyze data
- Must develop excellent habits of documenting workflow
- Must be comfortable diving into codebooks and being a detective about data issues

# Important Practical Issues to Consider

#### **Project Approval by Agency and Researcher Security Approval**

- Agency review and approval
- Demonstrated "benefits" to federal agencies
- Special Sworn Status (3-year residency requirement for non-citizens)

#### The RDC Computing Environment – Software and Hardware

- Computing is conducted in-person in the secure lab
- Census Bureau workstation hardware/software limitations

#### **Releasing Research Results Involves a Review Process**

- Access, analysis, and disclosure of results follow strict protocols
- Sworn confidentiality for life

## Other Important Practical Issues to Consider

Have a very clear vision of the project

Have support from your committee chair and members

- Extended timeline <u>Assume at least 1 extra year</u>
- Inability to make major changes to the project once started
- Inability to preview "preliminary" results
- Need to obtain Special Sworn Status (SSS)

#### **Absolutely no-nonsense!**

- Cannot game this system
- "Full-on" professional commitment



# Stage of Graduate Studies and Planning RDC Research

**Pro** - the potential for performing cutting edge research

**Con** – the time investments associated with first projects and the extended timeline to completed research projects

# Benefits to you!

#### **Job Market Considerations**

- Papers at meetings will be more complicated
- Getting results for job talks will be more complicated
- Results can be spectacular

#### **Future Career Considerations**

- Potentially transportable to other locations
- Your future research program can be more ambitious
- Your path to tenure can be enhanced

## Census Mentorship Opportunity!

- Center for Economic Studies seeks candidates for its Dissertation Mentorship Program.
- WHO: Doctoral candidates using Census Bureau microdata at a Research Data Center.
- WHAT: One or more researchers are assigned as mentors and advise the participant on the use of Census Bureau microdata.
- WHEN: Now!
- U.S. citizenship is required.
- Students from TAMU and Univ. of Houston have participated in the program. Contact us for more info!

## Is RDC Research Right for You?

#### If you answer YES to these questions:

- Are you organized and have the right skill set?
- Is your project path clear?
- Is the benefit of RDC data substantial to your project?
- Can you work independently? Are you self-reliant?
- Are you patient and can you respect protocols (even when they are frustrating)?







EXAMPLE OF GRADUATE STUDENT WORK



WHY THE RDC? VIDEO

#### **TXRDC Administrator – Karin Johnson**

- Direct liaison to Census Bureau
- Assists with proposal development & project planning
- Oversees disclosure review
- Manages the secure computing lab

## We are here to help you!

#### **Director – Mary Campbell**

- Oversees contracts with U.S. Census Bureau
- Promotes awareness, shares information, and encourages and assists with proposal development
- Nurtures/grows the TXRDC consortium
- Approves lab access for projects
- Coordinates with the RDC Admin to oversee the facility

## I am Interested – What is Next?





**Contact TXRDC** 



Do not delay





Obtain Census Bureau approval



Start as Soon As Possible

## AM

#### Texas Research Data Center

**COLLEGE OF LIBERAL ARTS** 

ABOUT TXRDC

About Us

FAQs

Consortium

National RDC Network

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FUNDING

On Campus Directions

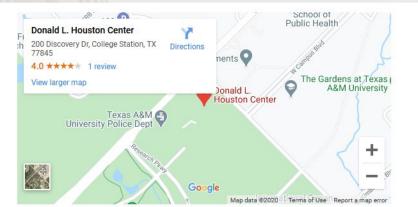
Off Campus Directions

Parking and On Campus Buses

**Contact Us** 

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Welcome to the Texas Research Data Center, which operates in close collaboration with the U.S. Census Bureau to enable research that expands basic scientific knowledge and provides benefits to the federal statistical system. Learn more . . .

**PROPOSALS** 

TXRDC Contact Information

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TXRDC website: <a href="https://txrdc.tamu.edu">https://txrdc.tamu.edu</a>

## THANK YOU!

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