



“In Order That They Might Rest Their  
Arguments on Facts”:  
The Vital Role of Government-Collected Data

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“If gentlemen have any doubts with respect to [this information’s] utility, I cannot satisfy them in a better manner, than by referring them to the debates which took place upon the bills intended collaterally to benefit the agricultural, commercial, and manufacturing parts of the community. Did they not wish then to know the relative proportion of each, and the exact number of every division, **in order that they might rest their arguments on facts**, instead of assertions and conjectures?”

- James Madison, speaking on February 2, 1790

# Government data collection

- Rigorous, carefully crafted procedures
- Political independence
- Security and confidentiality

# Overview

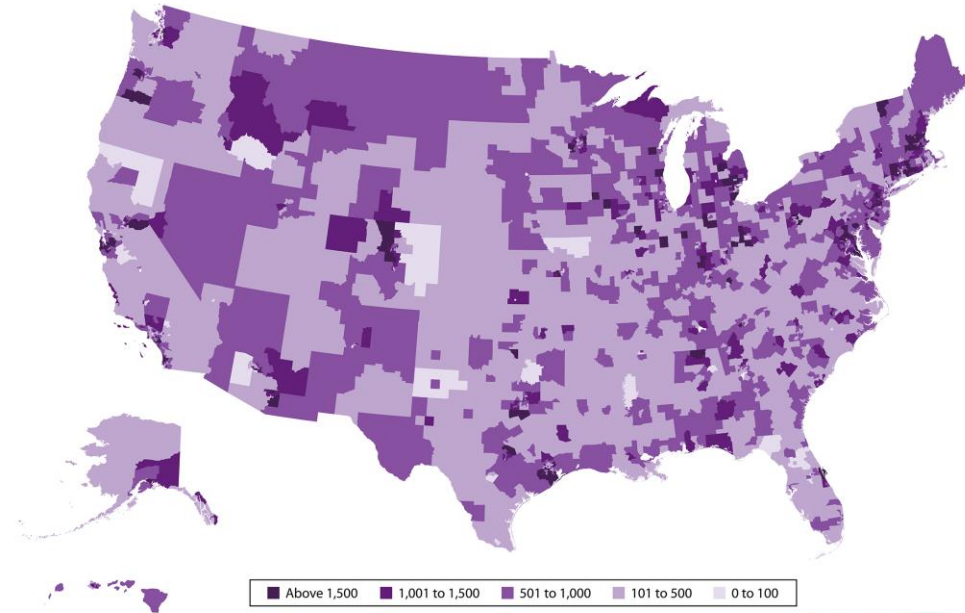
Importance of government-collected data for:

- Businesses
- Policy Makers
- Families

# Businesses

# American Community Survey

FIGURE 1.  
Number of Engineers

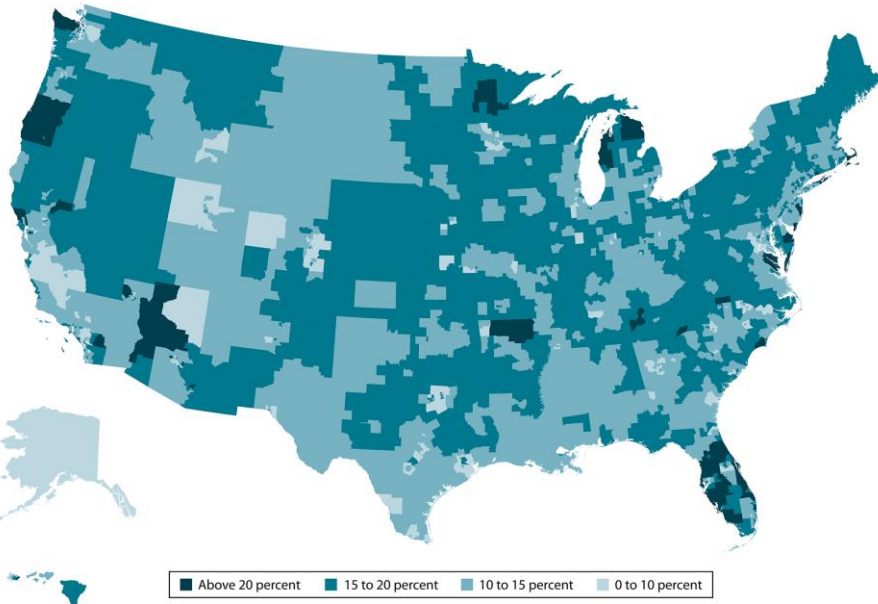


- High-quality local data can be difficult to obtain
- The American Community Survey fills this gap
- Firms deciding on locations, product mix, and advertising draw on ACS information

Sources: American Community Survey 2010–14; Authors' calculations.

# American Community Survey

FIGURE 2.  
Elderly Share of Population



- High-quality local data can be difficult to obtain
- The American Community Survey fills this gap
- Firms deciding on locations, product mix, and advertising draw on ACS information

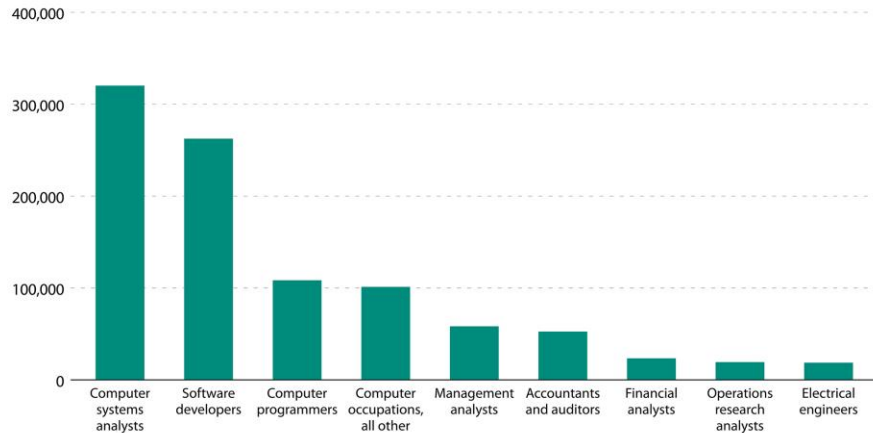
Sources: American Community Survey 2010-14; Authors' calculations.  
Note: The elderly population is defined as those age 65 and over.



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# H-1B visas

FIGURE 3.  
Number of H-1B Visas, by Top Occupation



Source: Employment and Training Administration 2016.



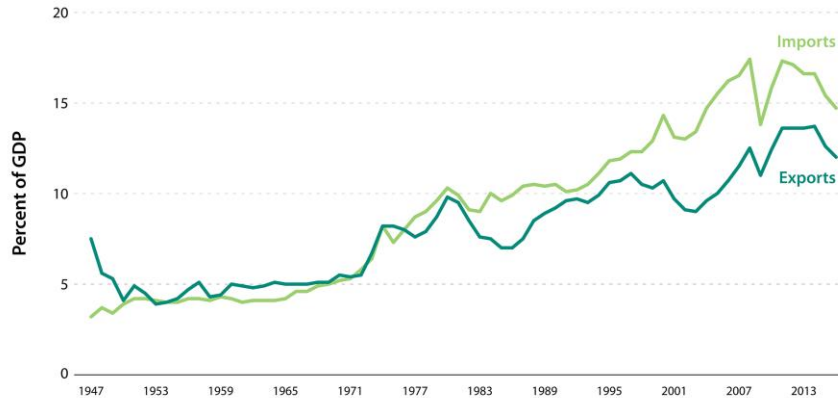
- U.S. participates in a global market for both goods and labor
- H-1B visas are an important tool for firms that seek skilled labor that is difficult or impossible to find in the U.S.
- Computer systems analysts and software developers are particularly sought after

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# International trade

FIGURE 4.  
U.S. Imports and Exports, 1947–2016



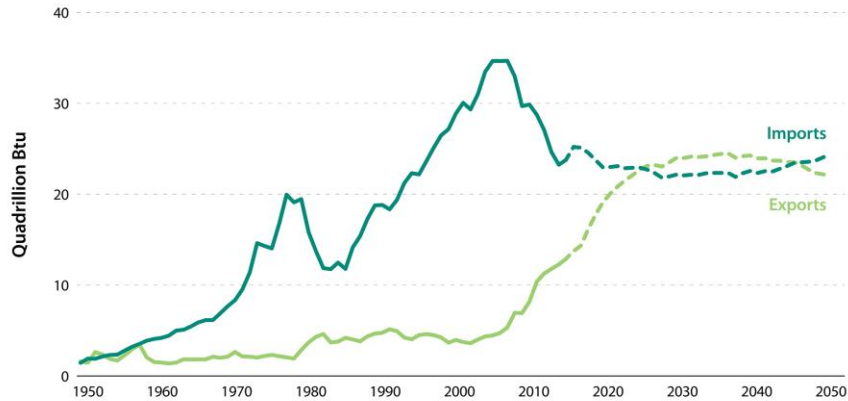
Sources: Bureau of Economic Analysis 1947–2016.



- Role of trade in U.S. economy has increased
- Indicator of health of economy for businesses
- Helpful to firms seeking to understand the international environment in specific sectors

# Energy economics

FIGURE 5.  
U.S. Energy Imports and Exports, 1949–2050 (projected)



Source: Energy Information Administration 2017a, 2017b.  
Note: Dashed lines indicate projections for 2016 to 2050 using the reference case.

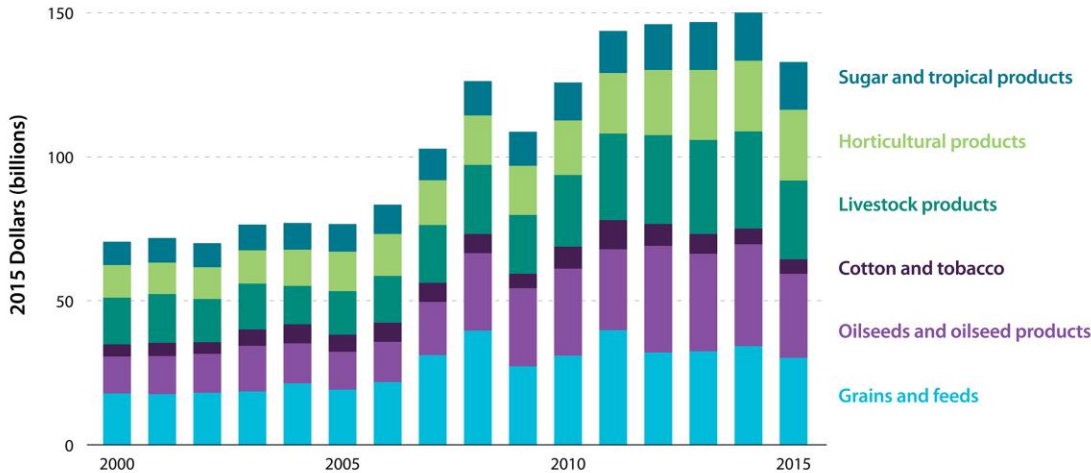


- Energy Information Administration provides important energy data and projections
- Recent innovations have narrowed U.S. energy trade deficit
- Energy companies use EIA market data regularly

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# The agricultural economy

FIGURE 6.  
U.S. Agricultural Exports, 2000–15



- USDA's Economic Research Service collects valuable agricultural data
- Agriculture production continues to rise
- Many U.S. firms produce or rely on agricultural products

Sources: Economic Research Service (USDA) 2000–15 using data from the Department of Commerce, Census Bureau, Foreign Trade Database.

# Policy Makers

# The labor market

FIGURE 7A.  
Unemployment and U-6 Rates



Sources: Bureau of Labor Statistics 1948–2016.

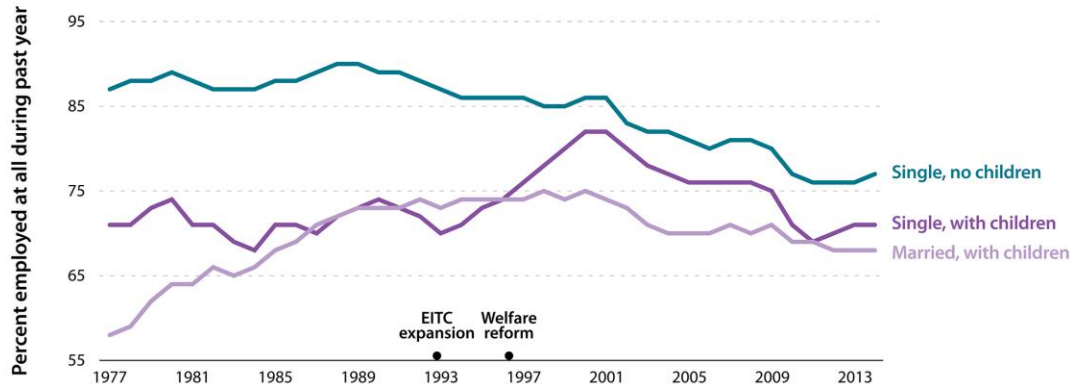


- Current Population Survey provides measures of unemployment
- BLS explores under-employment through a variety of related measures
- State governments, researchers, and businesses rely heavily on the CPS
  - Return to education
  - Well-being of military veterans
  - Rate of occupational licensure

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# Policy evaluation

FIGURE 8.  
Employment Rates of Women by Marital Status and Children



Sources: Current Population Survey Annual Social and Economic Supplement 1977–2014; Nichols and Rothstein 2016.

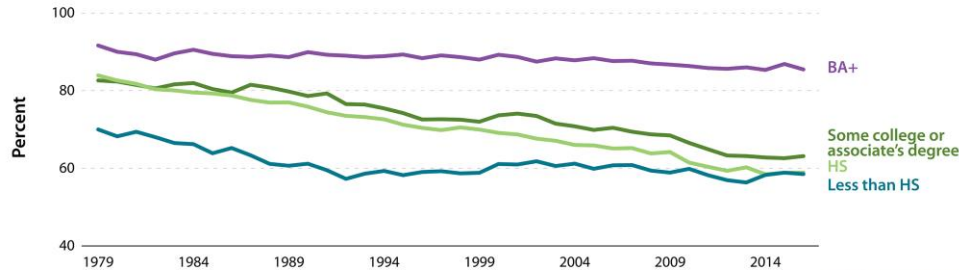


- Current Population Survey also allows researchers to study impact of policy changes
- March Supplement provides valuable data on family characteristics
- Pairing CPS data with administrative data improves accuracy

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# Marriage

FIGURE 9.  
Share of Children in Households with Married Parents, by Mother's Education Level



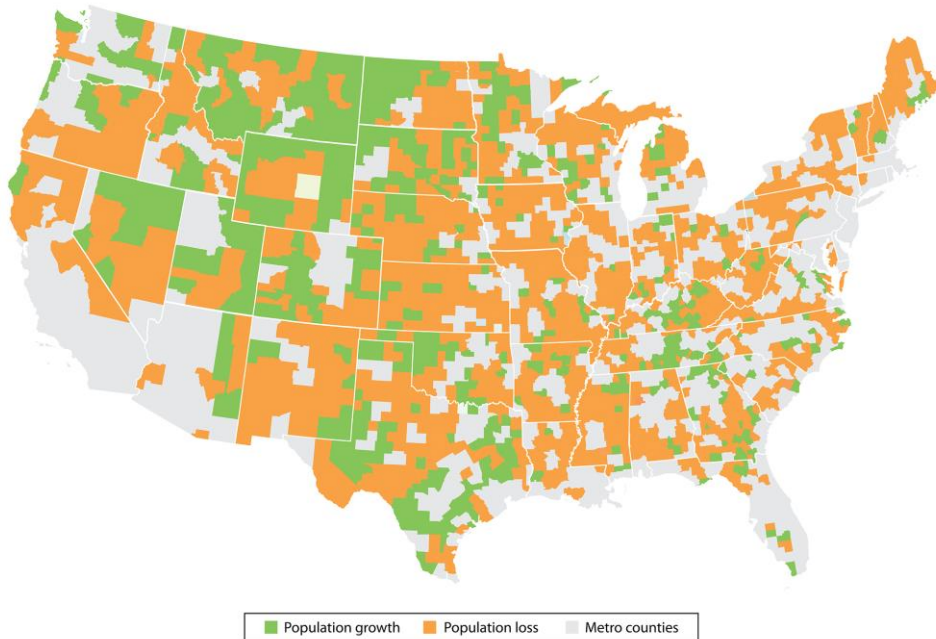
Sources: Current Population Survey Annual Social and Economic Supplement 1979–2016; Authors' calculations.



- CPS March supplement also allows researchers to study social trends in detail
- Declining share of children growing up in a married-parent household unique to less-educated
- Important policy implications for education and poverty

# Rural population

FIGURE 12.  
Change in Rural Population, 2010–15



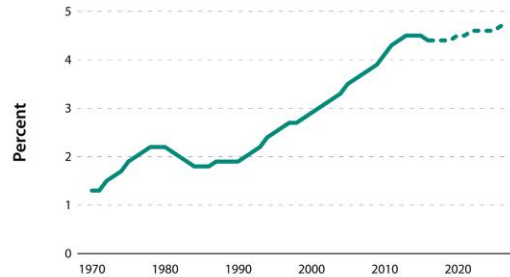
Source: Economic Research Service 2010–15.  
Note: Rural areas are defined as nonmetro areas using 2013 rural-urban continuum codes.

- Detailed migration data at local level
- Effects of migration and productivity in rural areas
- Implications for state and local policy



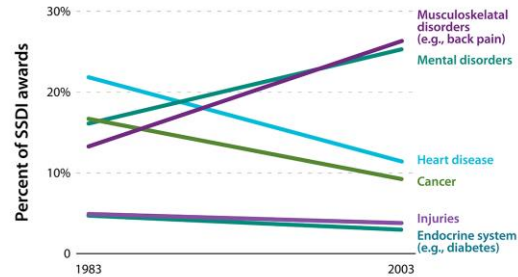
# Disability insurance

FIGURE 13A.  
Disabled Beneficiaries as Share of Working-Age Population



Sources: Congressional Budget Office (CBO) 2016; Social Security Administration 1970–2016.  
Note: The dashed line indicates projections for 2017 to 2026.

FIGURE 13B.  
Social Security Disability Insurance Awards by Diagnostic Group



Sources: Autor and Duggan 2006; Social Security Administration 2003.



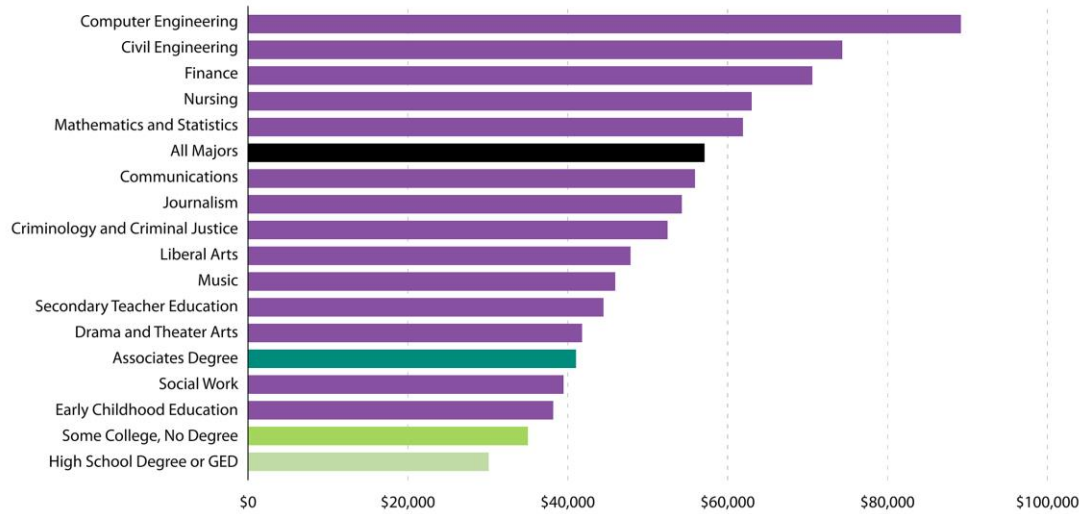
- Administrative government data play an increasingly important role
  - Useful for evaluating performance of government programs
  - Complementary to survey data
- The Social Security Office of the Actuary provides data on disability insurance receipt, by type of diagnosis
- Loosening of the eligibility criteria led to increases in the DI rolls

# Families

# Earnings by college major

FIGURE 15.

Median Salary in 10th Year of Career, by Major



Sources: American Community Survey 2009–12; The Hamilton Project n.d.

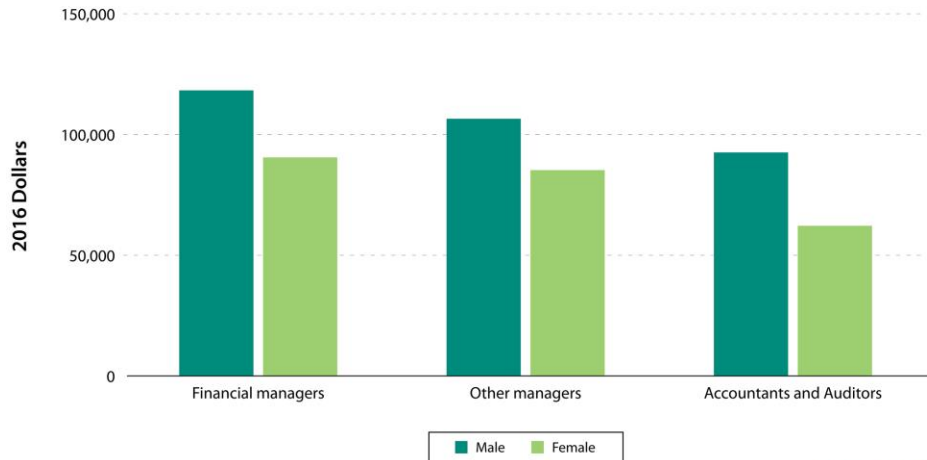


- Families consult tools based on government data to make decisions about college
- Computer engineering majors earn more than twice what drama and theater arts majors earn at 10 years after graduation
- Large sample size provides detailed data

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# Earnings differences across occupations

FIGURE 16.  
Earnings of Finance Majors Aged 35–44, by Gender



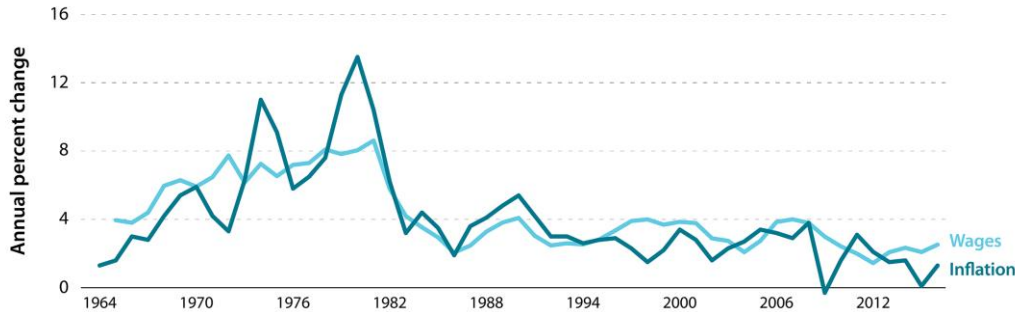
Sources: American Community Survey 2011–13; Authors' calculations.  
Note: Occupations shown are among those that represent at least 3% of finance majors.



- User-friendly career tools draw on ACS data
- Large samples allow fine-grained analysis
- Differences by occupation and gender

# Inflation and wages

FIGURE 17.  
Wages and Inflation, 1964–2016



Sources: Bureau of Labor Statistics 1964–2016.  
Note: Wages are presented as average hourly nominal wages for production and nonsupervisory employees.  
Inflation is shown as the annual percent change in the CPI-U.



- Consumer Price Index is continuously studied and improved
- Families feel the effects of cost-of-living increases relative to wages
- Implications for retirement benefits and wage contracts

# Moving forward

## Opportunities to strengthen data:

- Coverage of more topics
- Linked survey and administrative data
- Data synchronization

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