Innovative Data Projects: Keeping BEA’s Statistics Relevant

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The Challenge

Keeping official statistics relevant, timely, and accurate given the changing global economy and the rapidly evolving needs of customers.
New GDP by County Statistics

- Prototype statistics released December 2018
- New statistics for the nation’s 3000+ counties provide a richer picture of the geographic distribution of economic activity
  - Nominal and inflation-adjusted annual GDP data available for 2012–2015
  - Data further broken down by goods industries, services industries, and government
- Key for assessing local economic performance, evaluating resource allocations, and informing local area economic development decision making
- Collecting user feedback for further refinements – see bea.gov
- Goal for 2019: Official statistics released and start of regular production
GDP by County, 2015
Faster Releases of Quarterly GDP Data

Long-term goal is near-simultaneous release of quarterly national, industry, and state GDP data

Currently conducting internal testing of coincident release of national and industry release of GDP

Goal: Accelerated GDP by Industry and GDP by State statistics in late 2020
Increasing Timeliness of GDP Statistics

Timeliness: Simultaneous Quarterly Releases

National: GDP & GDI
30–90 days

Industry: GDP
110 days

State: GDP
120 days

ACCELERATE
Outdoor Recreation Statistics

• Outdoor Recreation Jobs and Economic Impact Act of 2016

  “Conduct an assessment and analysis of the outdoor recreation economy of the United States and the effects attributable to such economy on the overall economy of the United States...
  May consider employment, sales, and contributions to travel and tourism, and such other contributing components of the outdoor recreation economy.”

• Collaborated with seven federal agency partners, BEA released the first-of-its-kind Outdoor Recreation Satellite Account

• Received permanent funding in FY2019 budget

• Goal for 2019: Release state by state statistics by the Fall
$412 billion of U.S. GDP in 2016
or 2.2% of the economy

Employed
4.5 million people

$38.2 billion
Boating/Fishing

$30.8 billion
RVing

$19.5 billion
Motorcycling/ATVing

Outdoor recreation GDP measures the value of production within the United States.

Activities are measured by gross output, essentially sales or receipts.
New State & Local FDI Data

• Joint initiative between BEA and the U.S. Bureau of Labor Statistics to combine data to produce new research statistics on foreign direct investment in the states, metro areas, and counties of the United States.

• Result: New information about each state or local area’s employment at companies that are foreign-owned located in the U.S., including:
  – average employment and wages,
  – types of occupations,
  – comparisons of pay at foreign-owned companies versus domestic companies.

• Currently considering future extensions and periodic updates to this research.
Harnessing “Big Data”

• Goal: To integrate nontraditional, near-real-time data to enhance BEA’s statistics

• Looking to big data to:
  • Fill data gaps
  • Expand the geographic detail of statistics
  • Facilitate passive data collection to improve the timelines and accuracy of source data
Credit Card Data & Machine Learning Techniques to Inform Early GDP Estimate Assumptions

(1) Physician Offices

(2) Software Publishers

(3) Motor Vehicle Repair and Maintenance

(4) Medical Labs
Increasing Accuracy of GDP Statistics

Accuracy: Comparison of Revisions to PCE Health Care Services

Source: Bureau of Economic Analysis
Improving Statistics for Puerto Rico

• Puerto Rico’s financial crisis and Hurricane Maria heightened the need for more accurate economic data
• Various stakeholders recommended that BEA calculate GDP for Puerto Rico
• Began laying the groundwork for producing new GDP statistics late last year
• Because Puerto Rico is not included in full slate of Federal data collections, BEA will depend on local data collected in full cooperation and partnership with the Commonwealth
• Goal for 2019: Develop and publish nominal and inflation-adjusted annual estimates of select GDP components for 2012–2017
Federal Statistical Research Data Centers (FSRDC)

- Partnership between federal statistical agencies and leading research institutions
- Secure facilities providing authorized access to restricted-use microdata for statistical purposes only
  - 29 locations across the U.S. (previously only available at statistical agency headquarters)
  - Access to computing capacity to handle large datasets and complex calculations
  - Opportunity for collaboration with other FFRDC researchers across the U.S. through the secure RDC computing environment
- Researchers must meet certain security criteria to participate
- Fee based to defray cost to agencies to participate