

Economic Measurement at the Census Bureau: Balancing Innovation and Consistency

NABE Webinar: “Revising Economic Indices without Undermining Trust”

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Lucia Foster, Census Bureau

Any opinions and conclusions expressed herein are those of the author and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.

Webinar Motivating Question

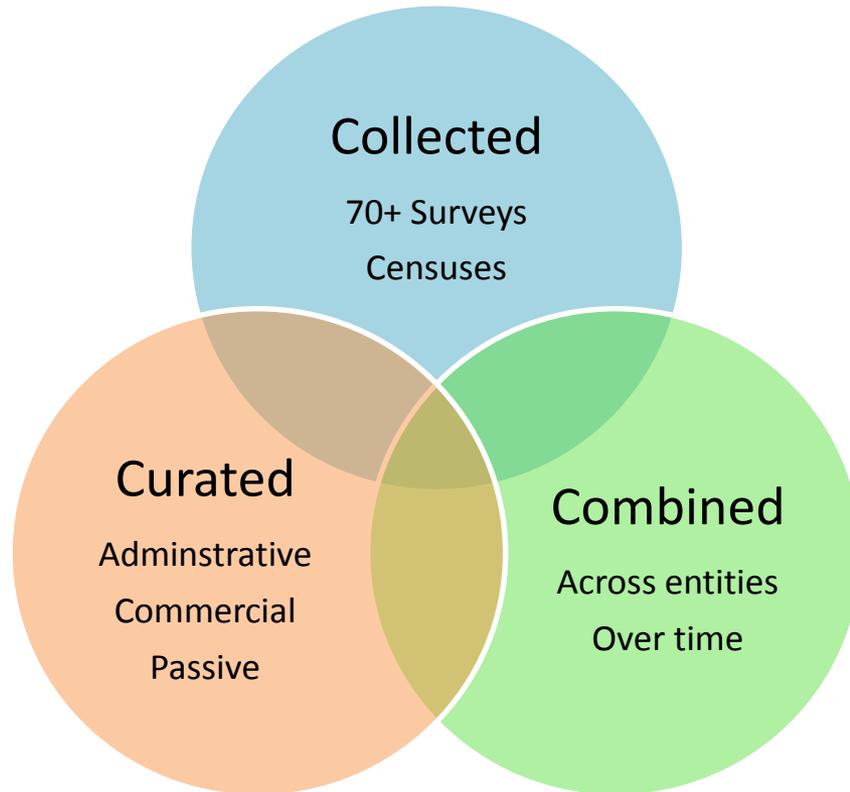
- How do we balance the need to continually innovate (to stay relevant) against the need to have stable data and methodologies (to maintain public trust)?
- This talk:
 - Background on the Census Bureau
 - Building/Maintaining Trust
 - Innovating
 - Three Examples (representing different balances)

Background: Census Bureau

- The Census Bureau is one of 13 Principal Statistical Agencies within the U.S. decentralized statistical system (which spans 125 agencies collecting data and producing statistics).
 - The Center for Economic Studies is an R&D group within Census.
- The Office of Management and Budget (OMB) provides coordination, guidance, and oversight through the Chief Statistician of the U.S.

Background: Economic Measurement at Census

- We use data from



- ...to produce...
- Principal Economic Indicators
 - Example: Advance Monthly Retail Trade
- Benchmark Economic Statistics
 - Example: Economic Census
- Data Products
 - Example: Business Formation Statistics

Building and Maintaining Trust

- Federal Laws and Regulations:
 - For example, Census is bound by U.S. Code Title 13. It is against the law to disclose or publish private information.
- OMB Statistical Policy Directives (SPD)
 - For example, SPD3 requires agencies announce planned changes in data collection, analysis, or estimation methods at least three report cycles (quarterly/monthly) or three months (weekly/annual) in advance.
- Commerce Department: *Value of Government Statistics*: value from being comprehensive, consistent, confidential, credible, relevant, and accessible.
- Census Bureau Statistical Quality Standards.
 - For example, A-1 includes standards for transparency concerning revisions.

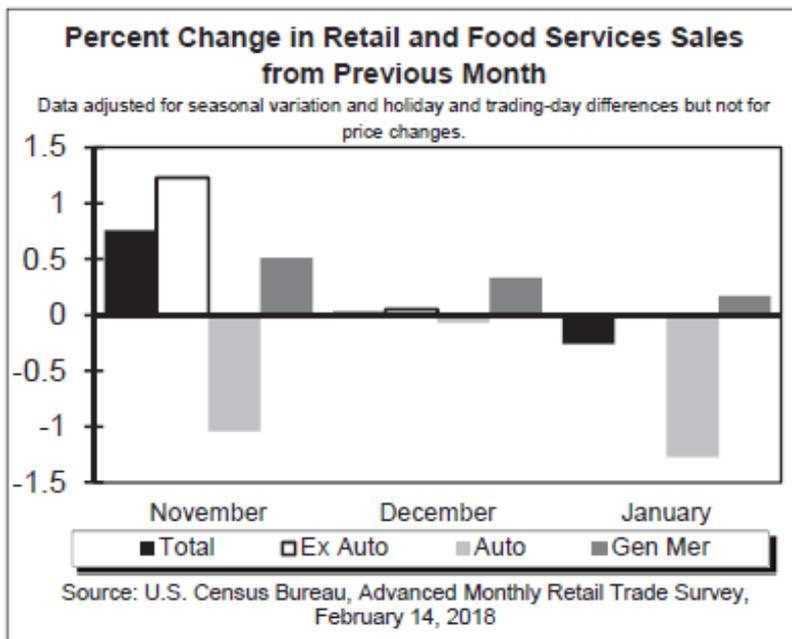
Innovation and Economic Measurement

- Research=> Prototype => Pilot=> Production
- Working papers; peer-reviewed journal
- Presentations at conferences and to Scientific Advisory Committees (CSAC, FESAC)
- Period of beta/experimentation
- Website with detailed documentation
- OMB designation as a Principal Federal Economic Indicator
- Additional Steps for Surveys
- Cognitive testing
- Usability testing
- OMB clearance (includes estimates for respondent burden)
- Federal Register Notice (FRN)
 - Example: Annual Business Survey (ABS) in 2017:
 - August 7
 - October 24
 - December 7

Example 1:

Advance Monthly Retail Trade Survey

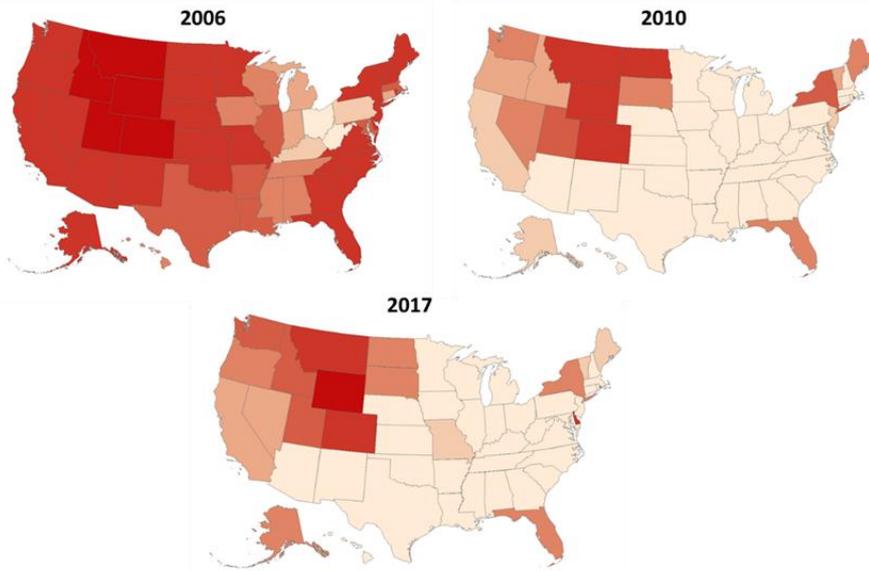
- Principal Federal Economic Indicator
- Predetermined release dates published annually
- Notice of intent to revise is currently on our website



Example 2:

Business Formation Statistics

- Business formations with 4 Quarters, per 1000 people



The number of business formations per 1,000 people:



- A new series released in 'beta' form for the first time February 14.
- Research conducted jointly with the Federal Reserve Board and Banks.
- Presented at academic conferences.
- Blog (see map) and working paper simultaneously released.
- Website includes an address for questions and explicitly notes methodology is evolving.

Example 3: Productivity Distributions

- Dispersion in Dispersion of Labor Productivity



- Research using micro level of productivity revealed large heterogeneity.
- Research community uses beta version in FSRDC.
- Research and develop public use statistic (with Bureau of Labor Statistics).
- Presentations at conferences and Scientific Advisory Committees.
- Working papers (see plot; Cunningham et. al (2018)).
- Working on details now including disclosure avoidance.

Thank you!

- For more information please see Census website (www.census.gov) and the following:
- Slide 5:
 - https://www.census.gov/history/www/reference/privacy_confidentiality/title_13_us_code.html
 - <https://www.whitehouse.gov/omb/information-regulatory-affairs/statistical-programs-standards/>
 - <https://esa.gov/sites/default/files/revisedfosteringinnovationcreatingjobsdrivingbetterdecisions-thevalueofgovernmentdata.pdf>
 - https://www.census.gov/content/dam/Census/about/about-the-bureau/policies_and_notices/quality/statistical-quality-standards/Quality_Standards.pdf
- Slide 7:
 - <https://www.census.gov/retail/index.html>
 - https://www.census.gov/retail/marts/www/marts_current.pdf
- Slide 8
 - <https://www.census.gov/newsroom/blogs/research-matters/2018/02/bfs.html>
 - <https://www.census.gov/programs-surveys/bfs/about.html>
- Slide 9:
 - Syverson, Chad (2004): “Product Substitutability and Productivity Dispersion.” *The Review of Economics and Statistics*, 86(2), 534-550.
 - Cunningham et. al (2018) “Dispersion in Dispersion: Measuring Establishment-Level Differences in Productivity,” CES Working Paper (forthcoming).
- **Contact me: Lucia.S.Foster@census.gov**