Several BLS programs rely on Census data

- This includes...
  - Producer Price Index
  - Employment Projections
  - Productivity

- Majority of Census surveys to be combined into the AIES are currently used by BLS
  - ASM, ARTS, AWTS, SAS, ACES
How does BLS use Census data?
PPI Weights and Census Data

- PPI is calculated using Modified Laspeyres formula
- Modified Laspeyres formula
  - Fixed weights over a given time period
- PPI Weights
  - Based on Economic Census Data
  - Updated every 5 years
  - Currently based on 2012 Census
  - In process of updating to be based on 2017 Census
  - Weights are relatively old by the time of update
PPI Weights and Census Data

- PPI uses Annual Retail Trade Survey data in deriving weights
  - PPI Retail trade indexes are based on margin revenue
  - PPI ‘margins’ the reported sales revenue to create index weights
    -- PPI uses Annual gross margin data from the Annual Retail Trade Survey to calculate margin ratios by industry
    -- Margin ratios applied to sales revenue to create index weights
PPI Weights and Census Data

- Could PPI use annual Census data to more frequently update weights?
- PPI plans to explore this option in the future
- Possible issues
  - Annual Census data is less detailed than Economic Census data
  - PPI uses very detailed Census data
    - Possible solution is to update at 6-digit level annually and benchmark every 5 years to the Economic Census
  - Currently weight update process is labor intensive
    - Systems changes likely needed to make process feasible annually
Productivity and Census Data

- Labor productivity measures compare trends in output and hours worked.
- Output revenue for detailed industries comes primarily from Census surveys:
  - Manufacturing – ASM
  - Services – SAS
  - Trade – ARTS/AWTS

\[
\text{Labor productivity} = \frac{\text{Output}}{\text{Hours worked}}
\]

\[
\text{Multifactor productivity} = \frac{\text{Output}}{\text{Combined inputs}}
\]
Productivity and Census Data

- Additional series used from Census annual surveys
  - Inventories
  - Cost of materials
  - Cost of electricity and fuels
  - Capital investment
  - Detailed product data
  - Selected expenses
  - And more...
Changes that impact BEA affect BLS

- The BLS productivity program relies heavily on BEA data. Census changes that impact BEA will also impact BLS productivity measures.
Thoughts on AIES
Integrated annual survey is a great idea

- Improved efficiency and consistency
- Just makes sense
More consistent annual manufacturing data

- The Annual Survey of Manufactures is not collected during Economic Census years and doesn’t come out at the same time each year. This is a challenge for data users.
- Will the new survey report manufacturing activity every year on a consistent schedule? This would be fantastic.
Are time series doomed?

- BLS and others build time series from Census data. We are concerned with how we will link data from the old surveys to the new integrated survey.
- Changes in collection procedures could make comparisons between current surveys and new integrated survey difficult.
The switch to NAPCS products was a significant change for both Census and data users.

Does Census expect NAPCS collection codes to change significantly with the new survey?
How much will be published?

- Is there an expectation of whether there will be more, fewer, or about the same number of undisclosed values in the new survey?
- Additional detail is great in theory but can fall short when publication standards aren’t met.
Continue to keep stakeholders in the loop

- Census has done a good job of this so far.
  - Annual content review
  - Presentations to agencies
  - Presentations to advisory committees

- Thank you!
Contact Information

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