

Health Care and Private Sector Data

The role of private sector data in the health care sector

CNSTAT: Towards a Vision for a New Data Infrastructure for
Federal Statistics and Social and Economic Research in the
21st Century

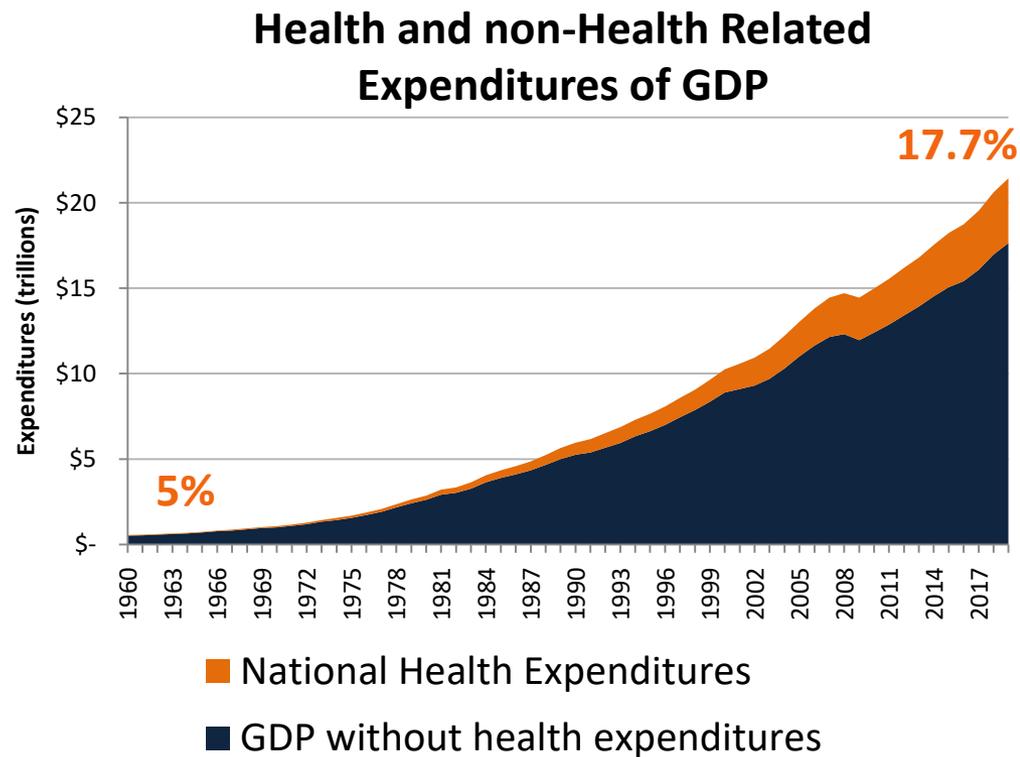
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- Motivation for BEA's Health Care Satellite Account
- Role of private data
- Next steps
- Lessons learned



Motivation for Health Care Satellite Account (HCSA)

- HCSA's goal: improve understanding of health care spending in the United States
- Redefine health expenditure into more meaningful units
 - Output is the treatment of a condition (e.g., diabetes) not individual goods and services (e.g., prescription drug or doctor's office visit)
- Example
 - Output = number of patients treated for diabetes
 - Expenditures = spending on the treatment of diabetes
 - Price = average spending per treated patient for diabetes

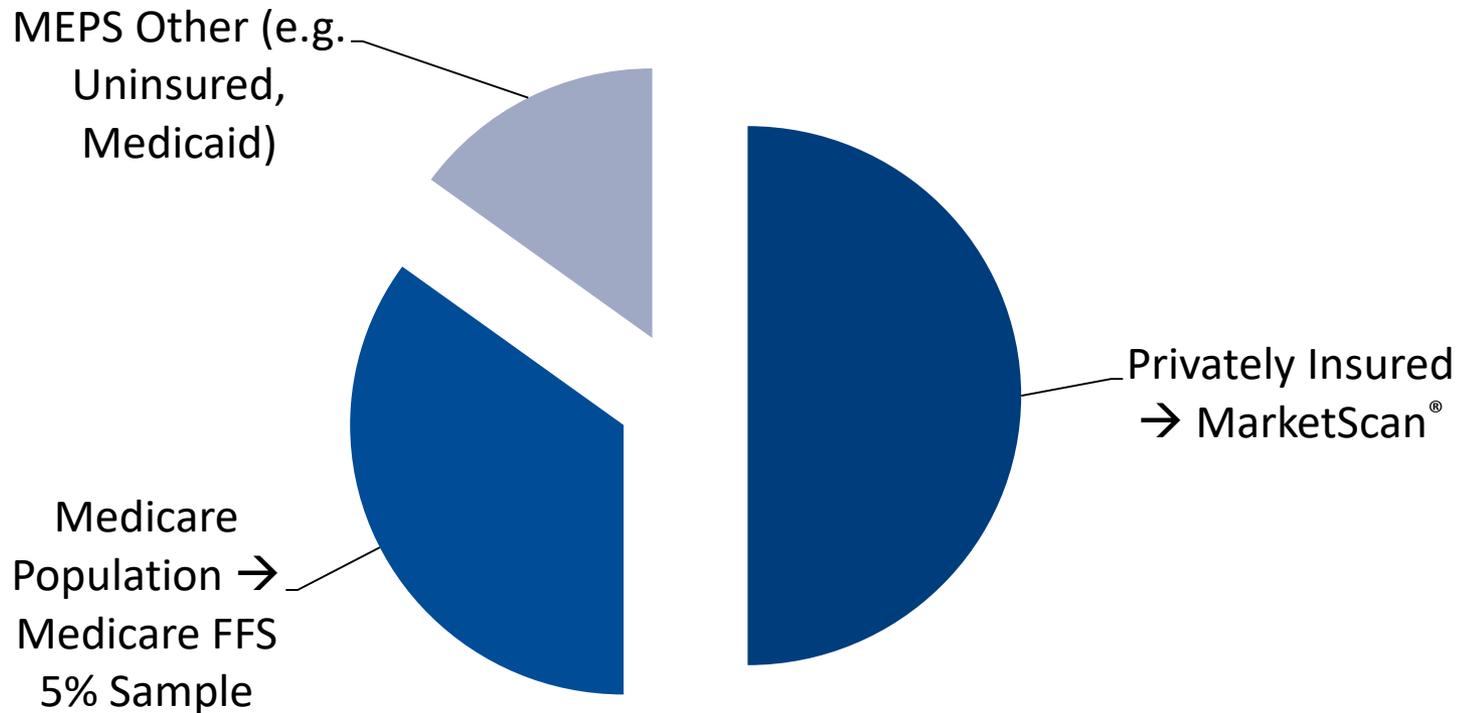
HCSA provides 2 versions (currently covering 2000-2018)

1. “MEPS Account” – using Medical Expenditure Panel Survey (MEPS)
 - Publicly available survey with around 30 thousand individuals annually

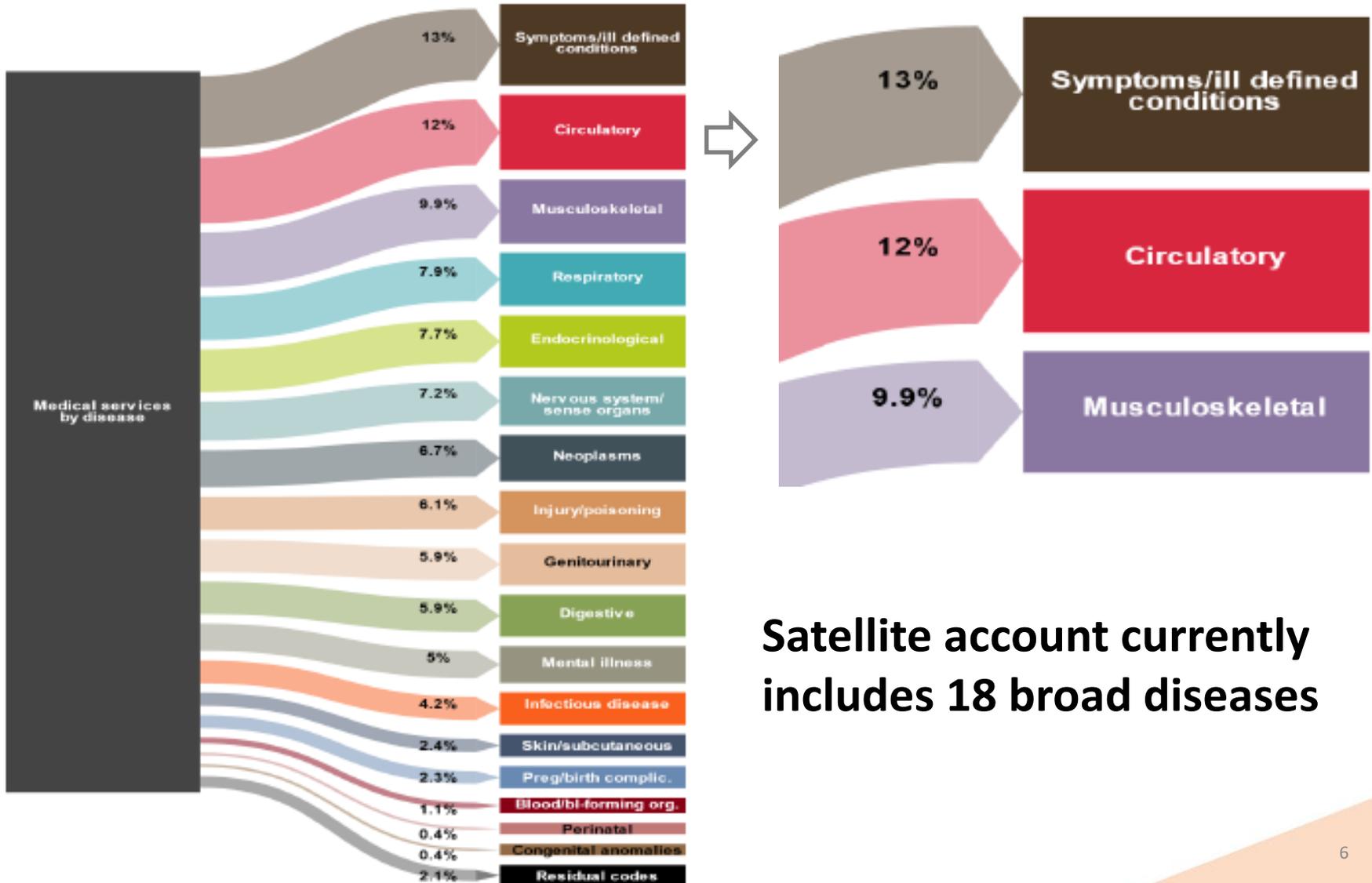
2. “Blended Account” – MEPS, MarketScan[®] claims data, and Medicare claims data
 - Incorporates millions of enrollees and billions of claims for Medicare population and private insurer claims

Construction of Blended Account

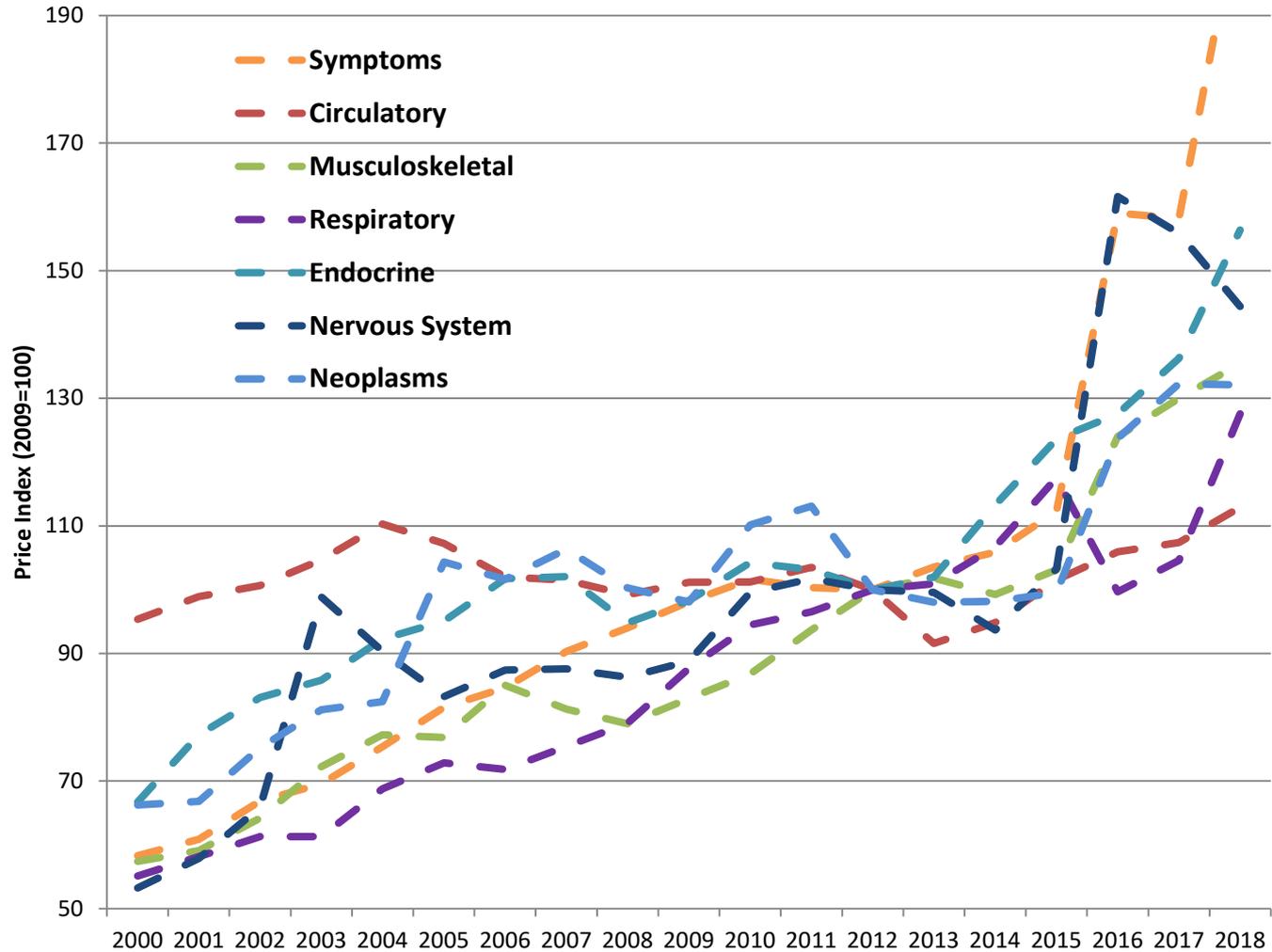
Use population weights from MEPS to fold in data from different sources



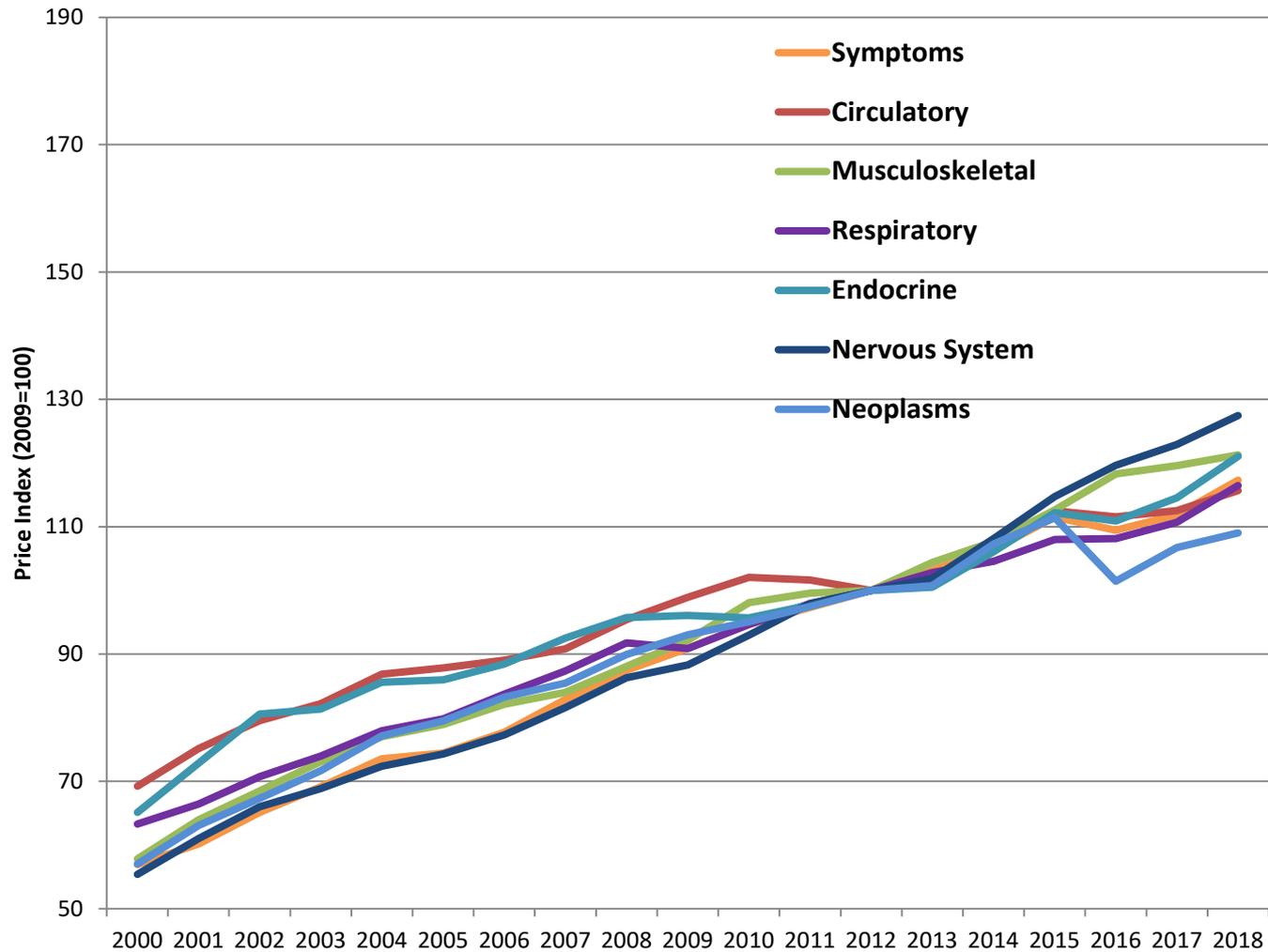
Health Care Satellite Account, MEPS



Volatile trends in disease-based price indexes using the MEPS account index



Less volatile disease-based price indexes using the Blended account index

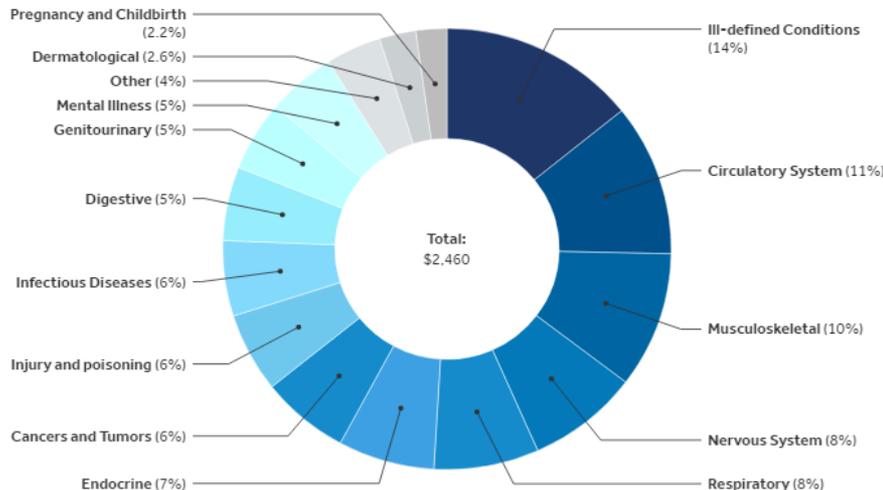


THE WALL STREET JOURNAL

The Diseases We Spend Our Health Dollars On

But there is good news for those who want to understand more. The [Bureau of Economic Analysis](#) (BEA) has made a real contribution to making health spending more comprehensible by analyzing health spending and price growth by common diseases and diagnoses such as cancer, heart disease, diabetes, and even the common cold.

Distribution of total medical services expenditures (US \$, billions), by medical condition, 2018



Source: KFF analysis of BEA Health Care Satellite Account (Blended Account) • Get the data • PNG

Peterson-KFF
Health System Tracker



At Last: The Data To Routinely Discuss Health Spending By Medical Condition

- Continued improvement in the timeliness of data releases
- Improving coverage, e.g., HMOs, Medicaid
- Research focus on improving quality adjustment in health care sector. Published papers:
 - Alternative methods that may be applied to quality adjustment for claims data; focus on 3 medical conditions
 - Health care productivity for 8 medical conditions
 - Leveraging thousands of medical studies to estimate quality-adjusted price indexes
- Part of broader economics research literature
 - Recent NBER paper developed a complete set of accounts for the Medicare population

Challenges using private sector data

- Representativeness

- Blended account draws on weights from MEPS survey data

- Scope

- Private claims data sources typically lack treatment outcome information

- Timeliness

- High quality claims data only available with lags of several months because of the adjudication process
- Private sector data often timelier than survey data (e.g., card transaction data used by BEA for early service sector estimates)

- Documentation

- Private data not originally created with the goal of sharing with a statistical agency; this requires resources to assess and document data

- Availability

- Access to private sector claims data depends on vendors willing to sell data on an ongoing basis.
- Have seen availability and vendors shift for health care and other private data

- Cost of data and storage

- In a recent ICSP survey, cost was the number one obstacle among respondents in using private data. Not just the cost of purchasing data, but the computing power required to analyze it and the storage costs.

- Design a flexible contract including multiple option years and potential to expand coverage (e.g., higher frequency, more sectors or products)
- Plan early for staffing expertise, data acquisition, and IT costs
- Assess and manage data quality to quickly uncover and start solving data challenges
 - Test alternative datasets prior to acquisition
 - Early, rapid prototyping upon acquisition
- Collaboration across federal agencies to help assess large datasets, sharing resources and findings