Beyond the Numbers:
An Inside Look at BEA's Economic Data

Brian C. Moyer, Director
October 7, 2016

BEA's Statistical Products

National Accounts: Gross Domestic Product (GDP), Personal Income, Corporate Profits

International Accounts: Balance of Payments Accounts, Trade in Goods and Services, Foreign Direct Investment

Industry Accounts: Input-Output Accounts, GDP by Industry, Travel and Tourism Accounts

Regional Accounts: GDP by State Accounts, State and Local Area Personal Income, PCE by State
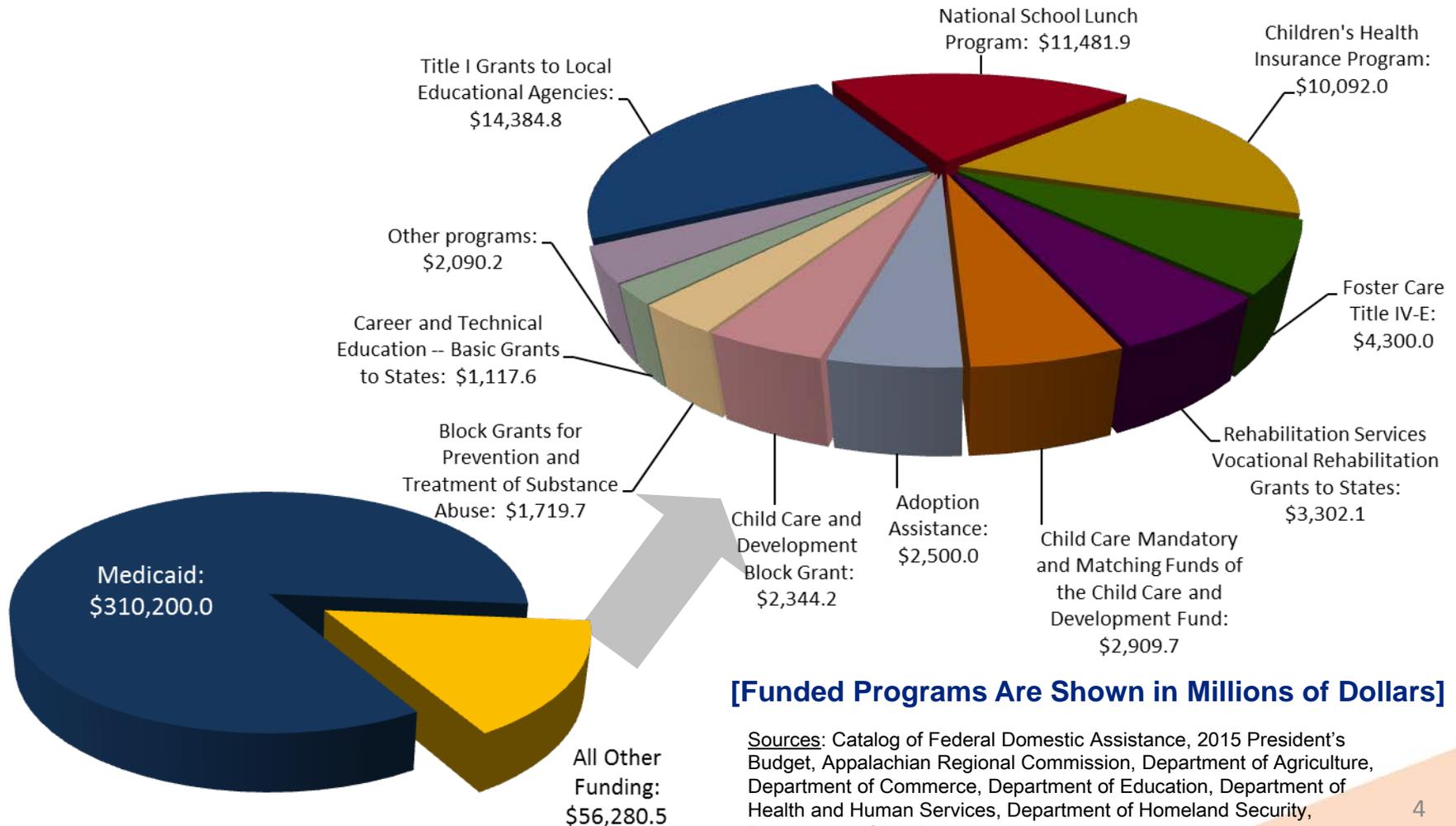
Importance of BEA's Products

- Economic analysis
  - Businesses
  - Households
  - Research
- Monetary policy
- Fiscal policy
- State and local planning and allocation of funds

Uses in Fiscal Policy

BEA Regional Income & Product Account Estimates
Used to Distribute $366.5 Billion in Federal Funds, FY2014

National School Lunch Program: $11,481.9

Children's Health Insurance Program: $10,092.0

Title I Grants to Local Educational Agencies: $14,384.8

Other programs: $2,090.2

Career and Technical Education -- Basic Grants to States: $1,117.6

Block Grants for Prevention and Treatment of Substance Abuse: $1,719.7

Foster Care Title IV-E: $4,300.0

Rehabilitation Services Vocational Rehabilitation Grants to States: $3,302.1

Child Care and Development Block Grant: $2,344.2

Adoption Assistance: $2,500.0

Child Care Mandatory and Matching Funds of the Child Care and Development Fund: $2,909.7

Medicaid: $310,200.0

All Other Funding: $56,280.5

[Funded Programs Are Shown in Millions of Dollars]

Sources: Catalog of Federal Domestic Assistance, 2015 President's Budget, Appalachian Regional Commission, Department of Agriculture, Department of Commerce, Department of Education, Department of Health and Human Services, Department of Homeland Security, Department of Interior.

4

# Trusted, Impartial Producer of Economic Statistics

- BEA produces some of the most closely watched economic indicators that move markets and make headlines.

- Mechanisms for ensuring the integrity of our statistics:

  - Well established security and release procedures

    - GDP Lock-up

  - Transparency of source data and estimation methods

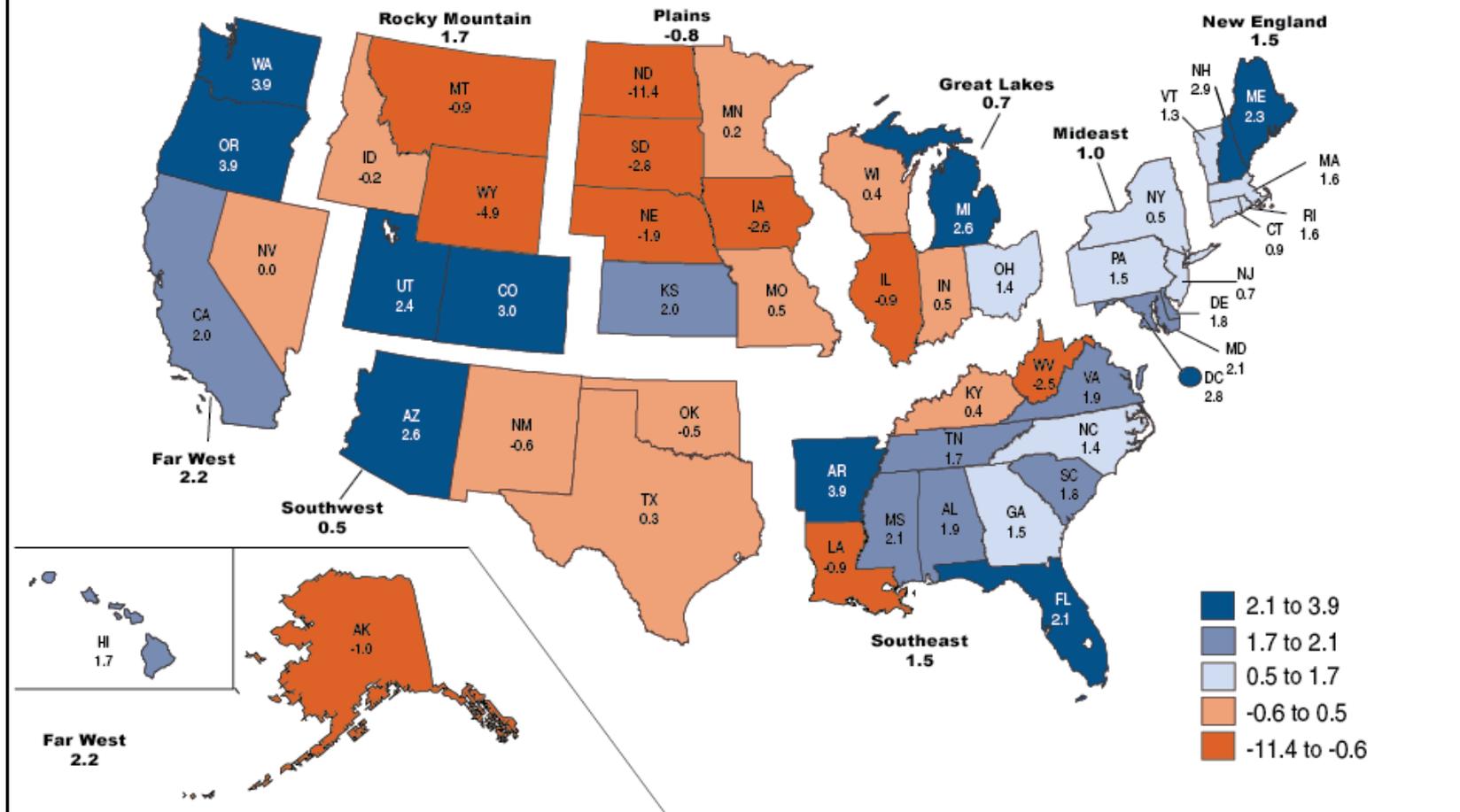 - Regular review of revisions

Quarterly GDP by Industry

Real Value Added for Durable Goods Manufacturing (2007 - 2013)
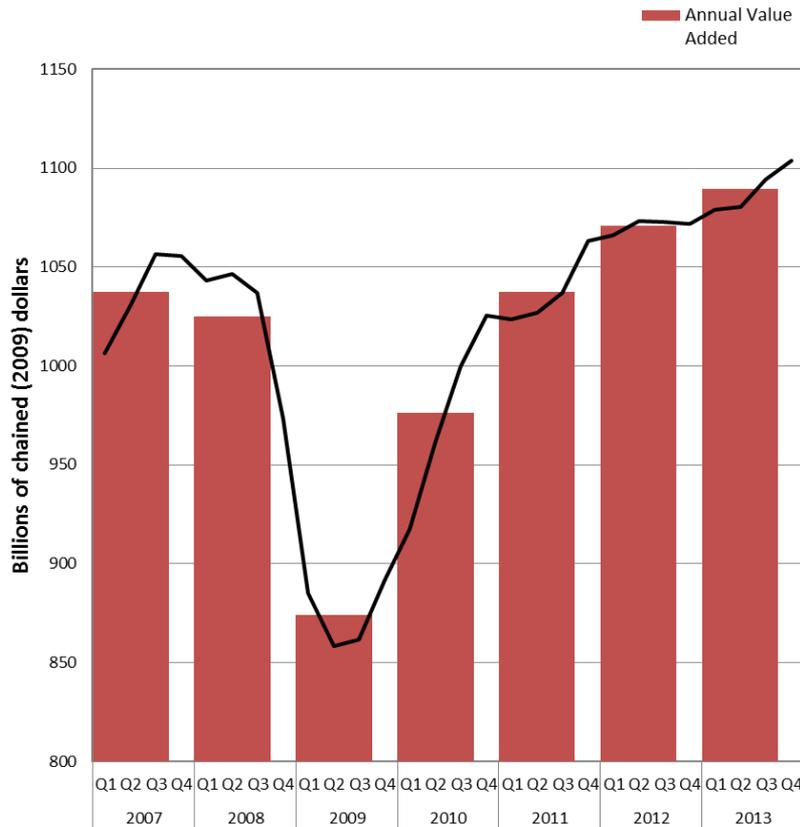
- Quarterly statistics provide a more timely snapshot of how individual industries are faring and contributing to overall U.S. economic growth

- Provide a better barometer for turning points in the U.S. economy

Quarterly GDP by State

Chart 1. Percent Change in Real GDP by State, 2015:IV-2016:I, Seasonally Adjusted at Annual Rates

U.S. Bureau of Economic Analysis

Regional Price Parities

What is the economic value of THE ARTS?

4% of GDP

$698 Billion — What the arts contribute to the U.S. economy

4.7 Million — Number of workers in the arts and cultural sector

$334.9 Billion — Total compensation of arts and culture workers

$105 Billion — Total capital investments in arts and culture

70% — Percentage of investments from entertainment originals, such as movies, TV shows, and books

$869 Billion — Contribution to GDP from copyright-intensive industries

50% is from the arts sector!

62 — Number of additional jobs created for every 100 from new demand for the arts

The arts and culture trade surplus in 2012 was **$25 billion.**

Advanced economies depend on growth. **The arts help the creative economy grow.**

TOP ARTS AND CULTURE INDUSTRIES

- Broadcasting
- Motion Pictures and Video
- Publishing
- Arts/Culture Retail
- Performing Arts and Independent Artists
- Advertising

Source: Arts and Cultural Production Satellite Account (1998-2012), National Endowment for the Arts and U.S. Bureau of Economic Analysis

9

Big Data

- Goal is 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 our statistics

  - Facilitate passive data collection to improve the timelines and accuracy of our source data
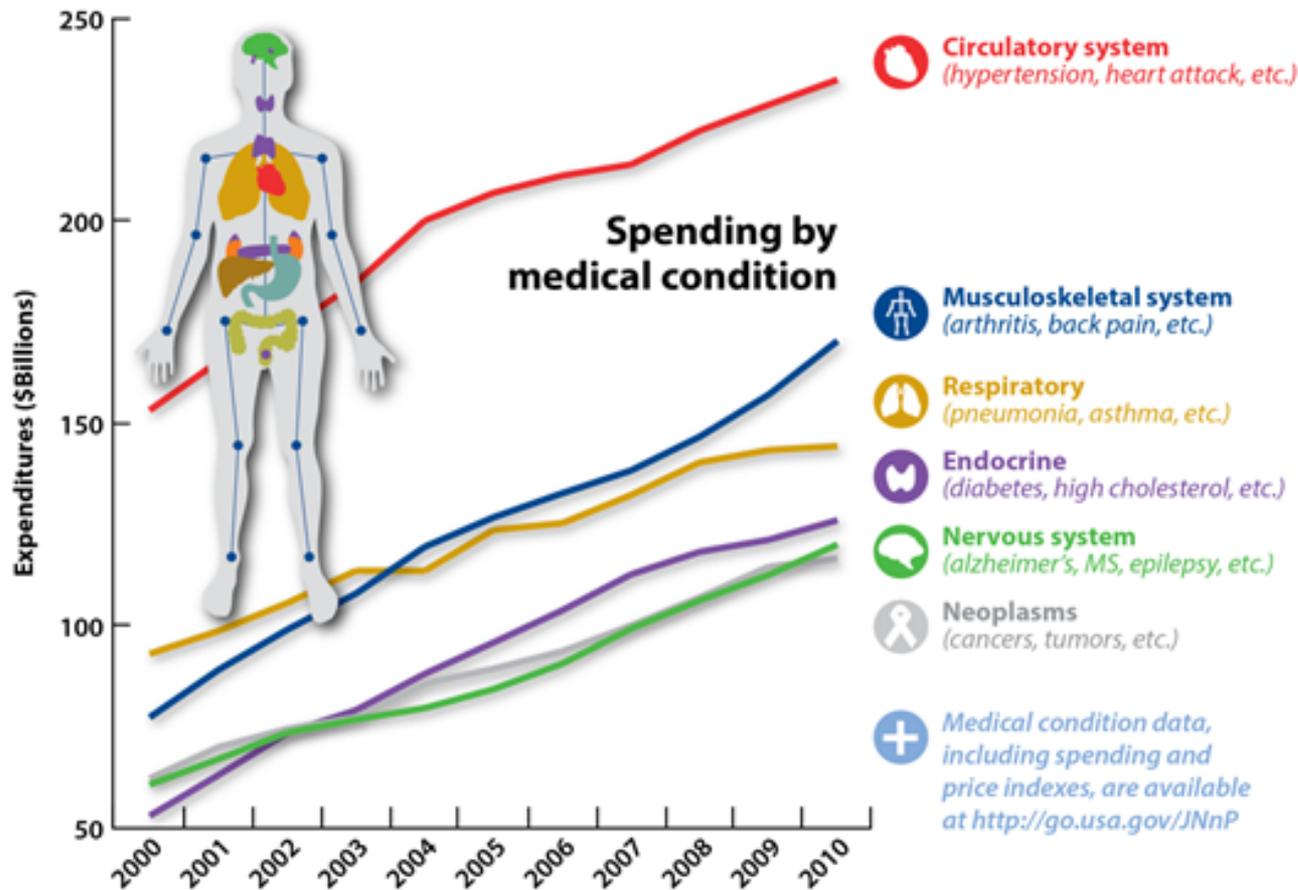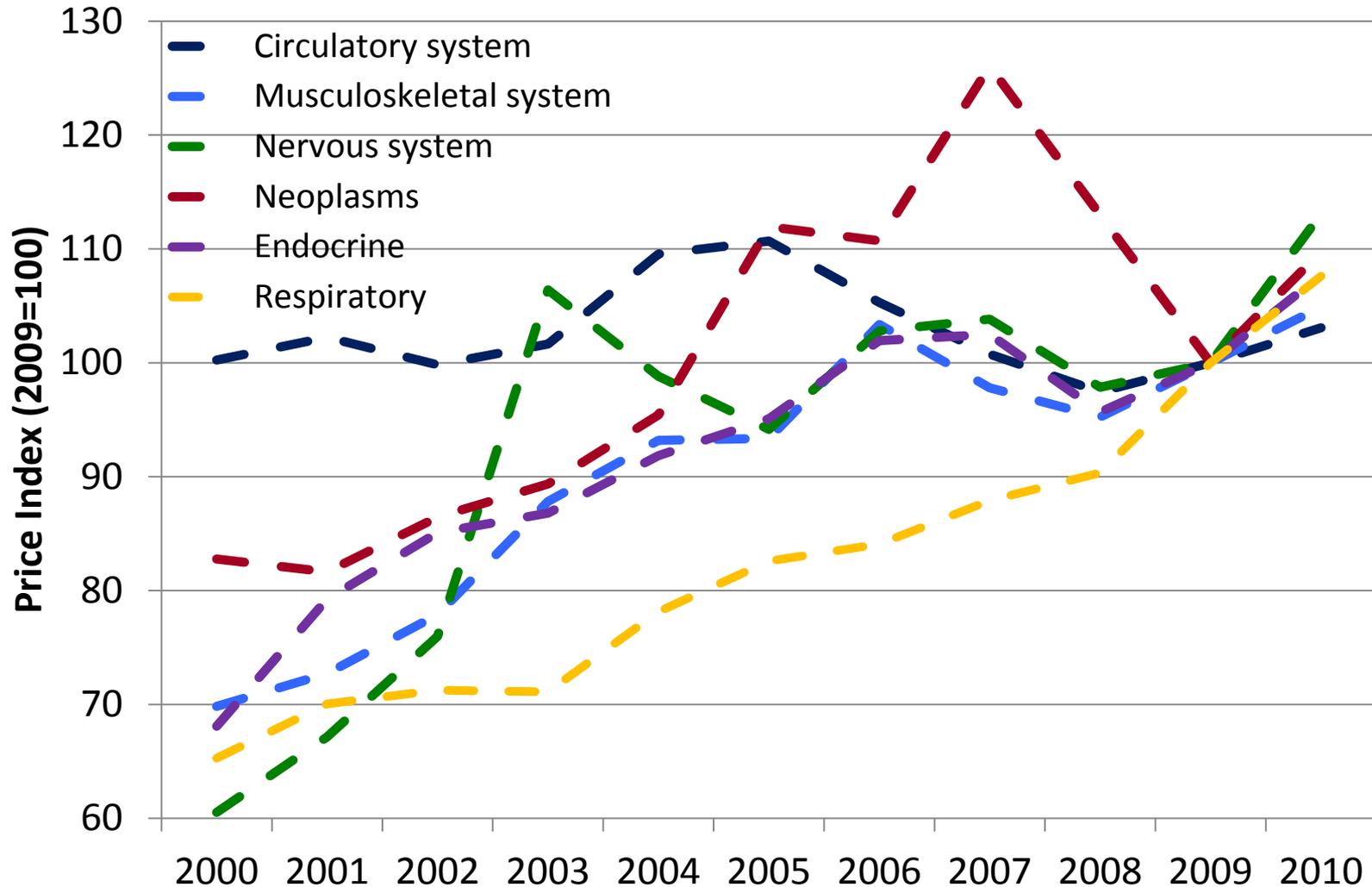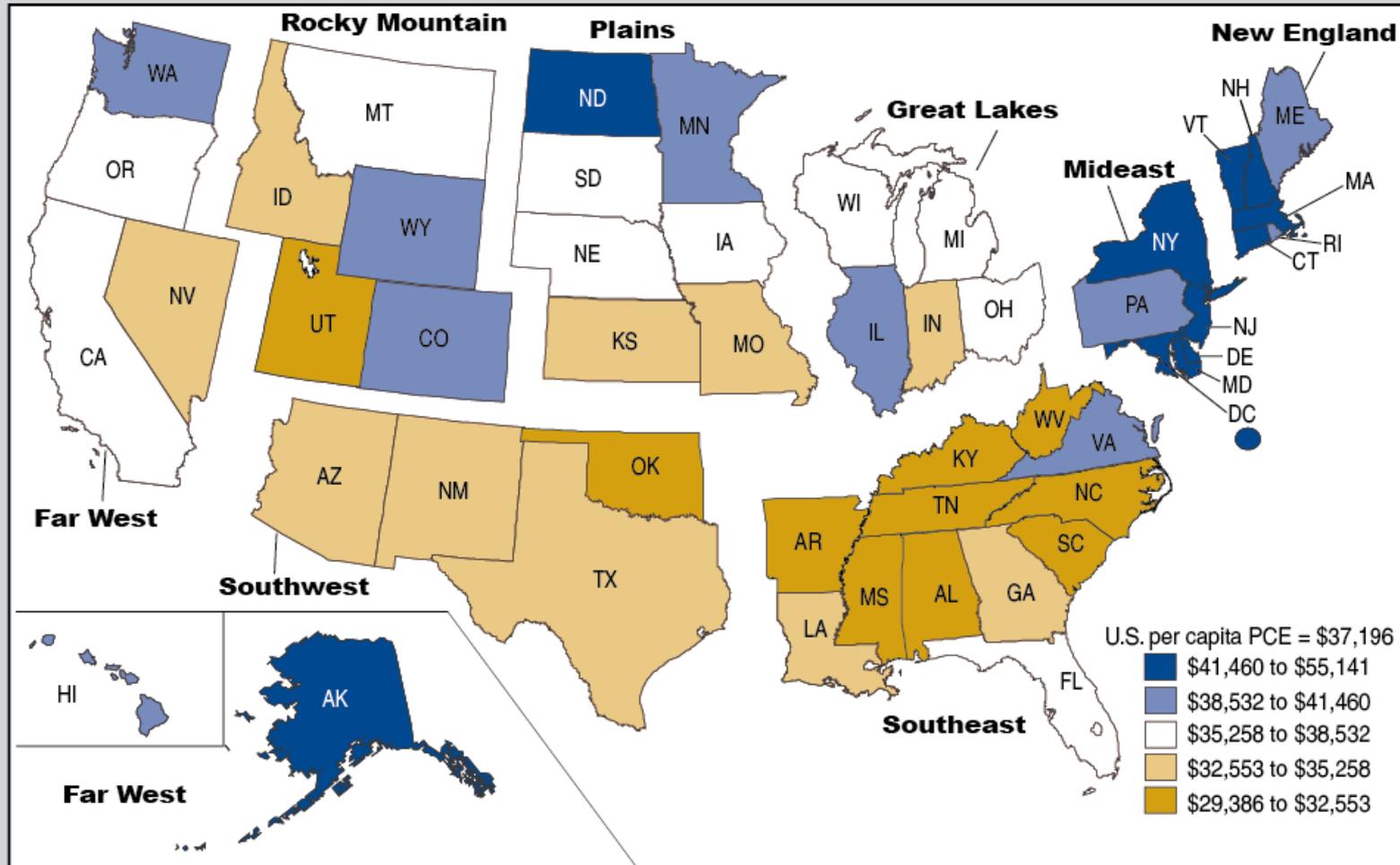
Health Care Survey Data + "Big Data"
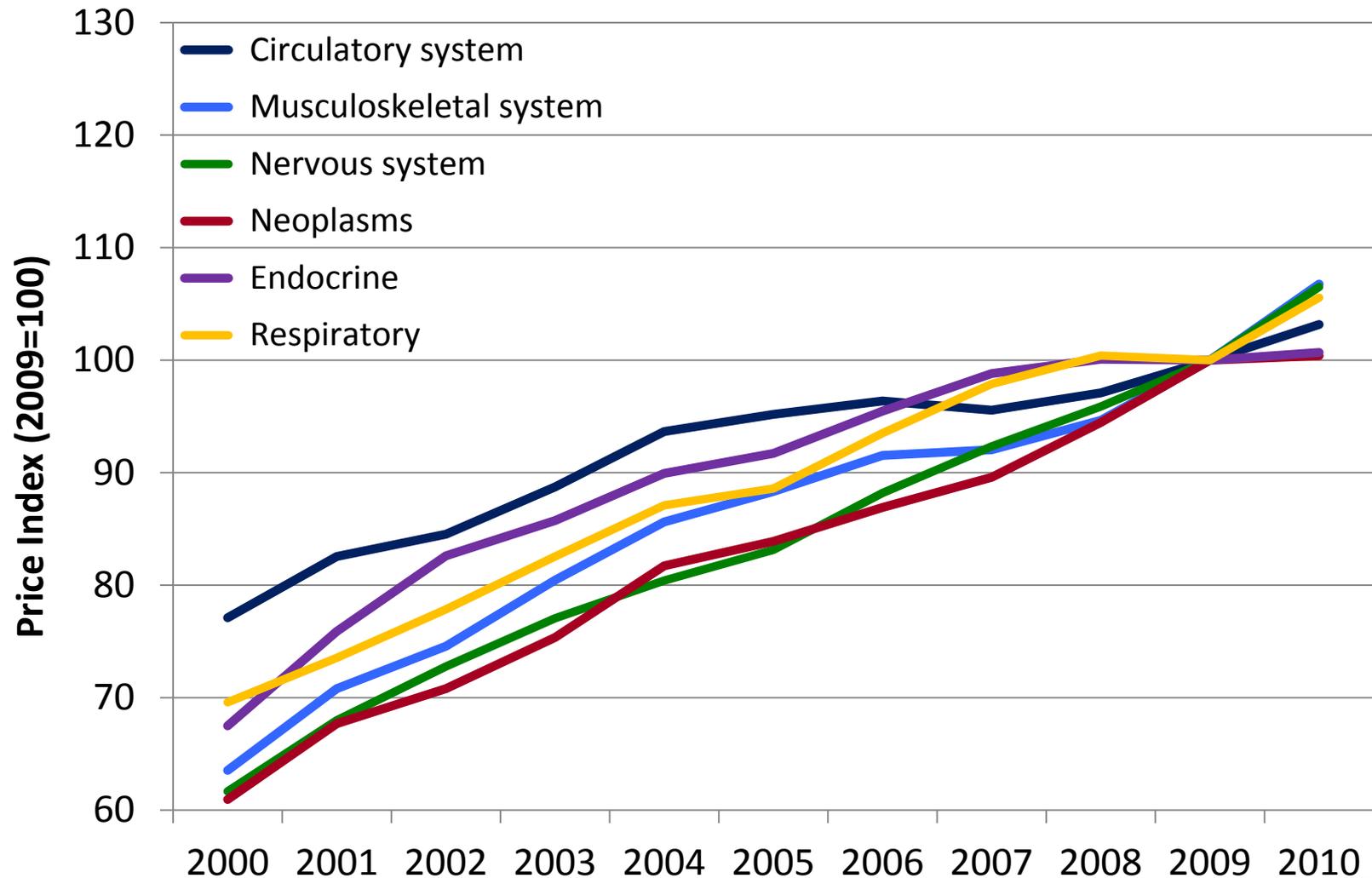
Consumer Spending by State

Per Capita Total Personal Consumption Expenditures by State, 2014

U.S. per capita PCE = $37,196

- $41,460 to $55,141
- $38,532 to $41,460
- $35,258 to $38,532
- $32,553 to $35,258
- $29,386 to $32,553

U.S. Bureau of Economic Analysis

Credit Card Data for Consumer Spending

Data Dissemination
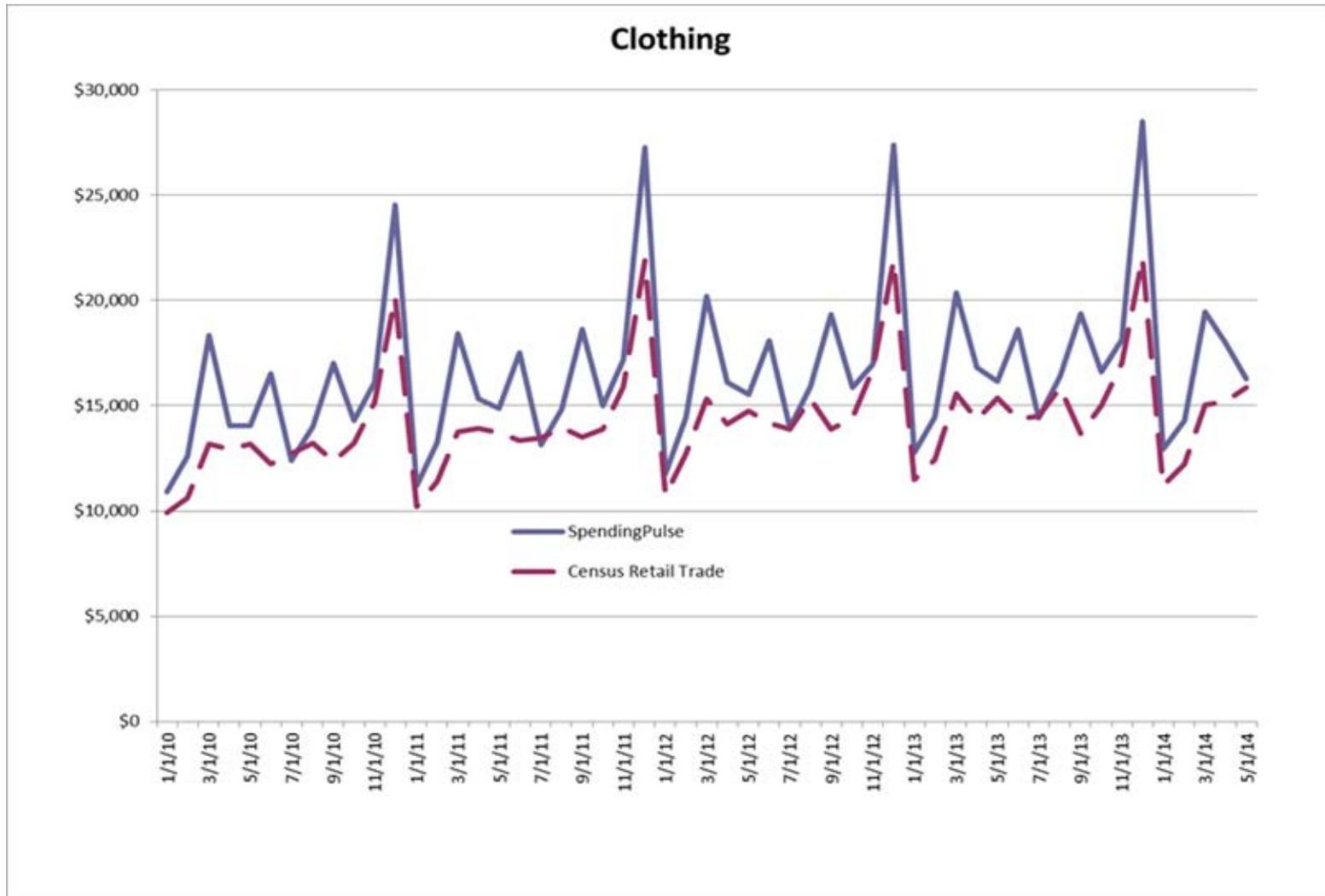
- BEA uses a variety of platforms to disseminate our statistics:
  - News Releases
  - Survey of Current Business
  - FAQs
  - BEA Blog
  - Twitter
  - Interactive Tables
  - Custom Charts
  - Custom Regional data maps

- Including through resources for developers:
  - APIs
  - BeaR

Developer Tools

- BEA supports 12 distinct APIs spanning National / Regional / Industry / and International aspects of the US economy

- Release of beaR Library will help developers more easily navigate our APIs

Coding from scratch

>200
lines of code

>180
minutes to get to intended data

Using **beaR**

< 20
lines of code

< 10
minutes to get intended data