

Research and Development of Prototype Gross Domestic Product by County Statistics

BEA Advisory Committee Meeting

May 18, 2018



Outline



- Background and motivation
- Source data and methodological considerations
- Project plan for release of prototype statistics
- Texas case study
- Feedback

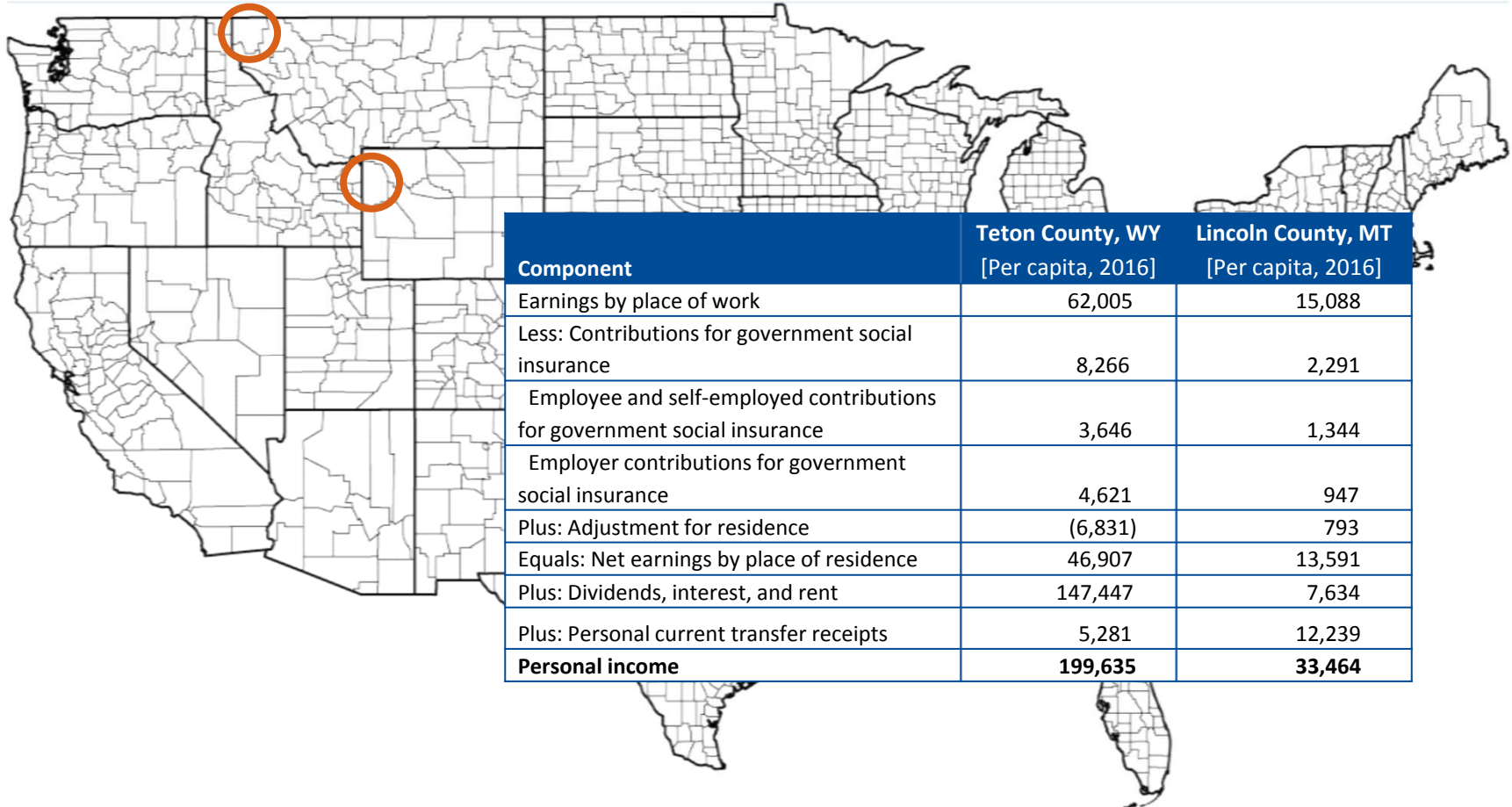
- BEA publishes personal income statistics for the nation, states, metropolitan areas, and counties. Statistics available at the county level:
 - Annual frequency, 1969 - forward
 - By component and industry
- BEA also publishes GDP statistics for the nation, states, and metropolitan areas
- GDP by county statistics are the logical extension to providing output statistics at increasingly finer levels of geographic detail

Relation of Personal Income to GDP



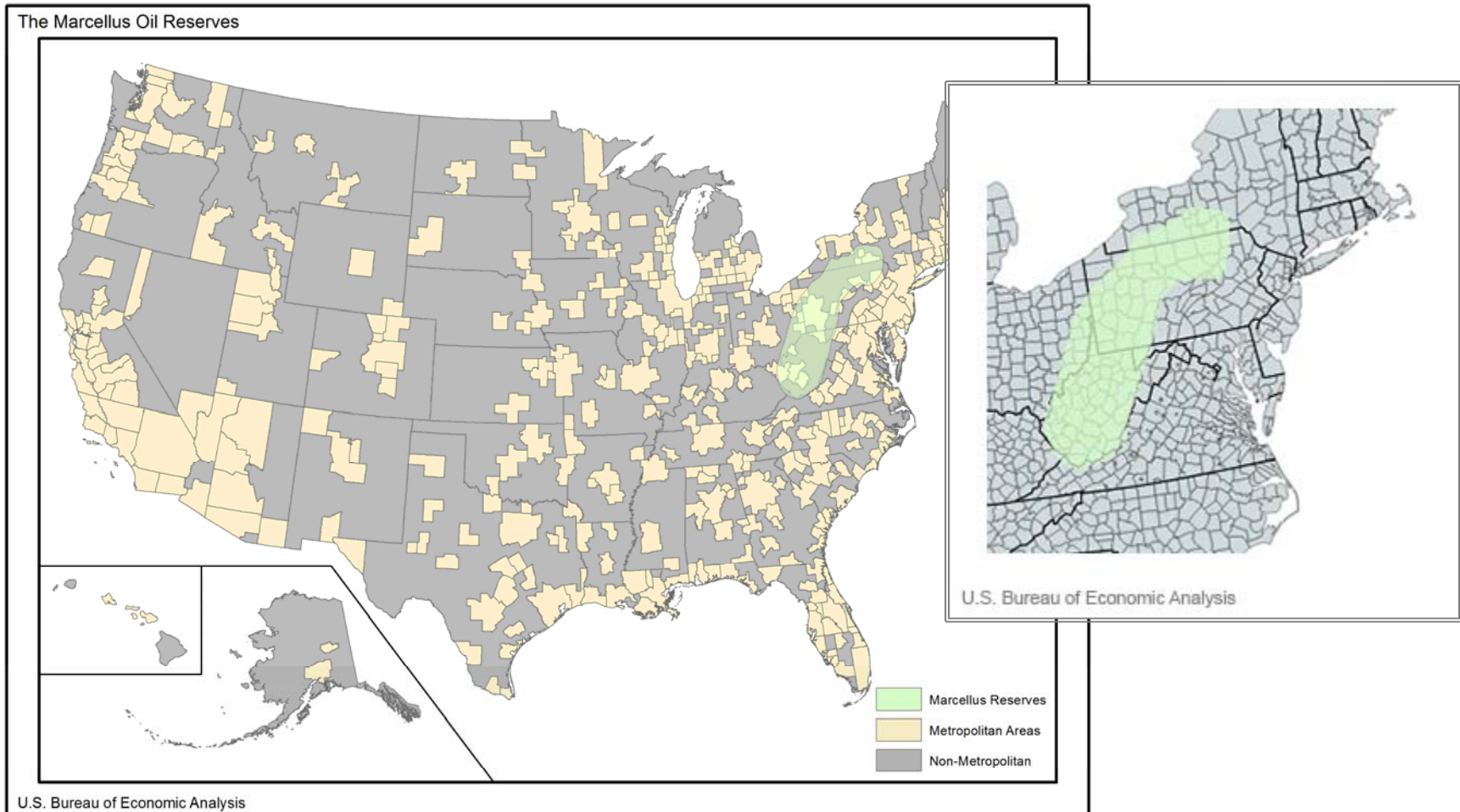
	GDP	Personal Income
Wages and salaries	✓	✓
Proprietors' income	✓	✓
Employer contributions for employee pension and insurance funds	✓	✓
Contributions for government social insurance	✓	✓
Corporate income	✓	
Taxes on production and imports less subsidies	✓	
Receipts on assets (dividends, interest)		✓
Transfer receipts (Social Security benefits, Medicare, Medicaid)		✓
Place of work	✓	
Place of residence		✓
Accrual basis	✓	✓
Disbursement basis		✓

County Personal Income



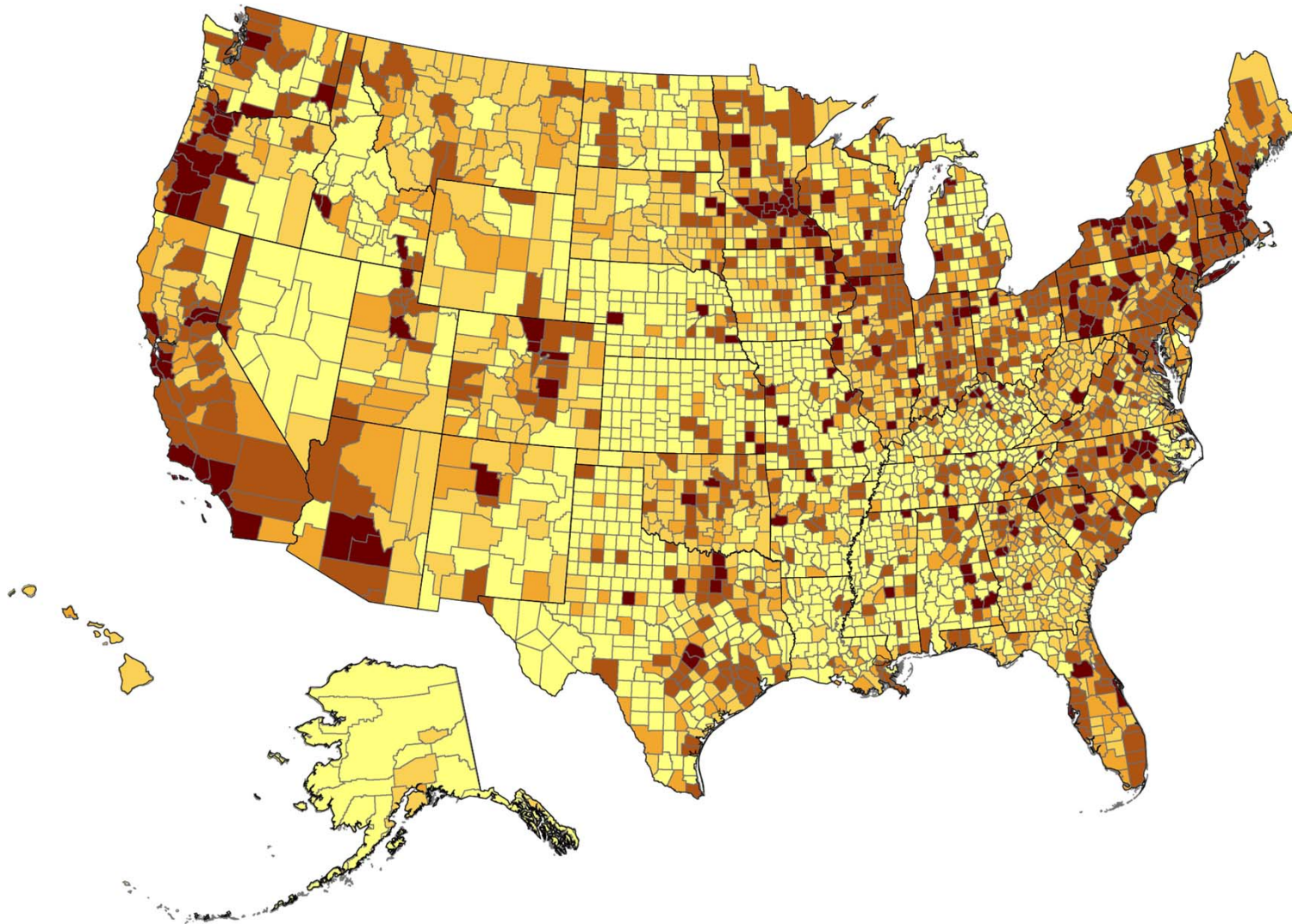
- Provide a much richer picture of the geographic distribution of the nation's economic activity
 - Assist analysts in the assessment of local economic performance
 - Inform resource allocation decisions
 - Assist planners and policymakers in the development of strategies that promote economic growth and in the assessment of strategies over the long run
- Inform and lead to improvements of GDP by metropolitan area statistics and GDP by state statistics

Oil Reserves



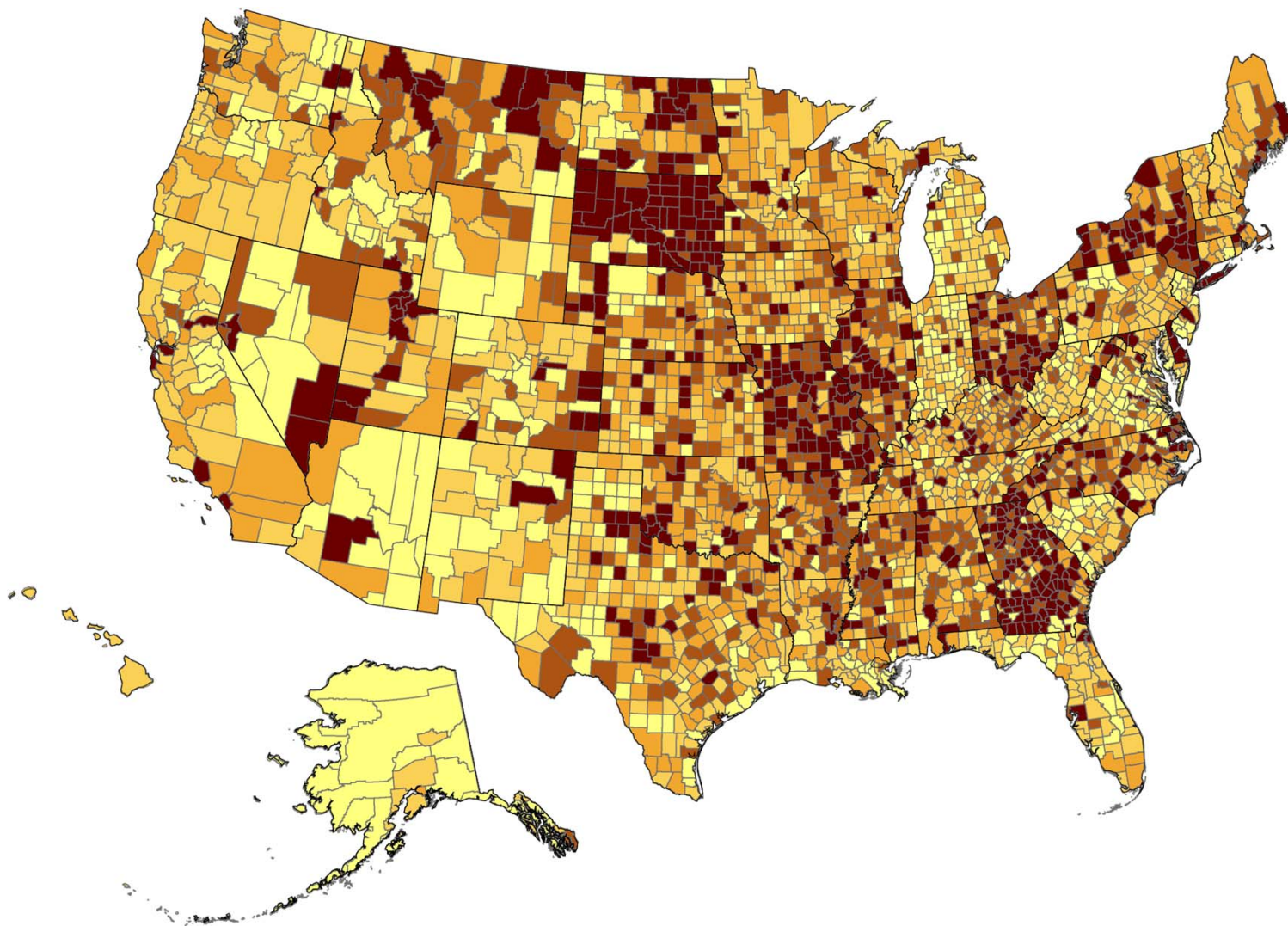
Computer and Electronic Products Manufacturing

Industry Specialization Index (Location Quotient)



Federal Reserve Banks, Credit Intermediation, and Related Services

Industry Specialization Index (Location Quotient)



- GDP by county is a measure of the value of production that occurs within the geographic boundaries of a county
- Develop county-by-industry measures that properly capture the distribution of output by industry at the county level
 - County earnings by industry provide a sensible approximation to the distribution of county output by industry for labor intensive industries
 - For capital intensive industries, the distribution of county output is better captured by combining Economic Census and other government data with industry data
- Considerations of data quality and data confidentiality

Proposed Source Data



- Economic Census
- County Business Patterns
- LEHD Quarterly Workforce Indicators (QWI)
- County earnings by industry
 - Quarterly Census of Employment and Wages (QCEW)
 - Statistics of Income (SOI)
- National Establishment Time-Series (NETS) Database
- GDP by state

- Other sources
 - Farm: US Department of Agriculture (USDA)
 - Mining: Energy Information Administration (EIA), Drilling Edge
 - Construction: Dodge Data and Analytics
 - Transportation: Bureau of Transportation Statistics (BTS)
 - Banking: Federal Deposit Insurance Corporation (FDIC)

- Corroboration sources
 - NETS database
 - IncentivesMonitor.com Database
 - The State Business Incentives Database
 - The State Development Program Expenditures Database
 - Conway Data's New Plant Database

Proposal for Prototype Release of GDP by County



- Industry detail: All-industry total GDP for all counties; possibly highly aggregate industry detail
- Data series: Annual current- and inflation-adjusted GDP statistics
- Period: 2012-2015
- Release timeframe: Late September – early November 2018

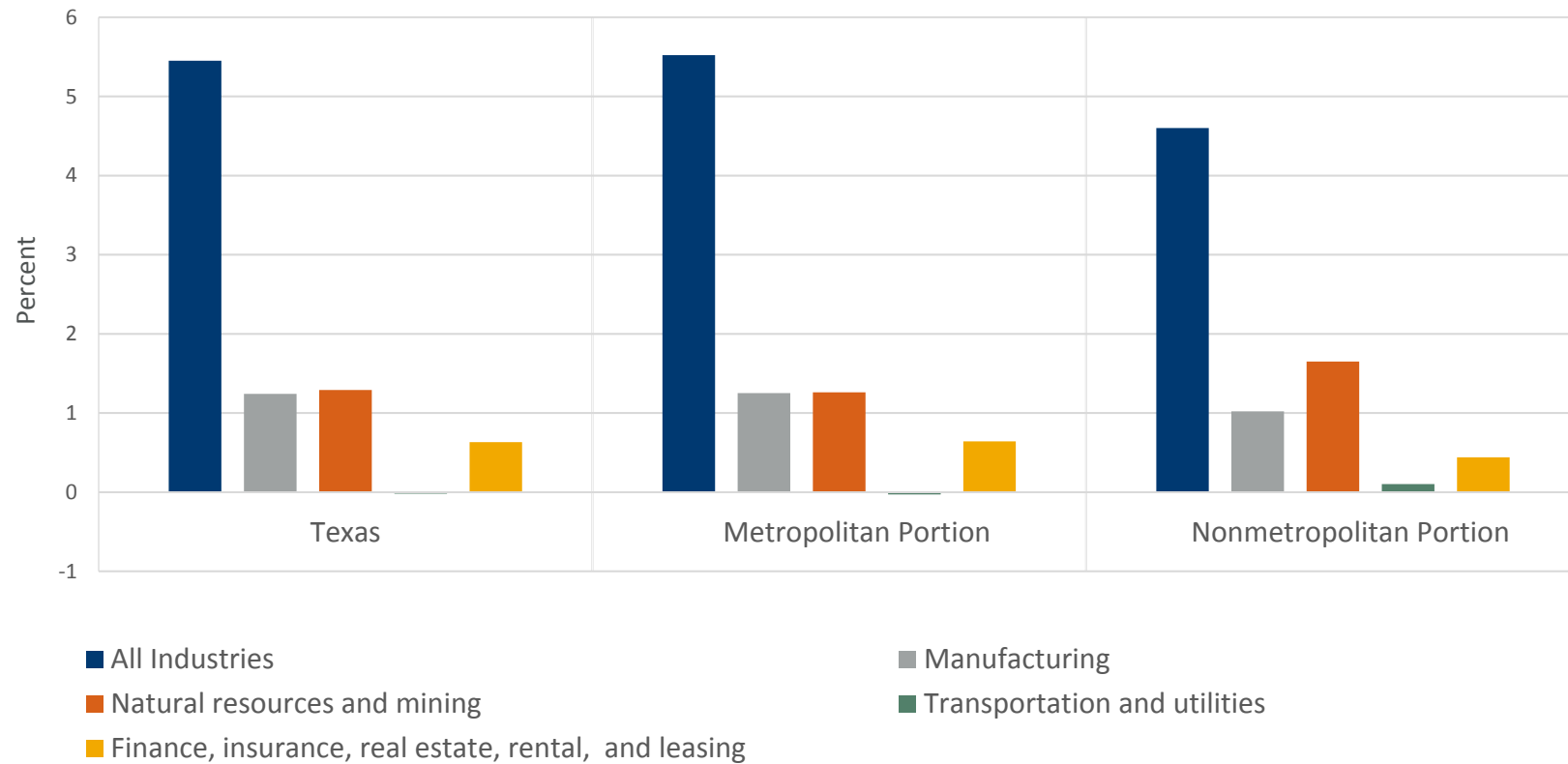
Progress Update



- ✓ Data sources identified
- ✓ Available data sources processed
- ✗ New data sources acquired
- ✓ Methodologies developed for most industries
- ✓ Program estimation software
- ✗ Review draft statistics
- ✗ Evaluate and refine methodology
- ✗ Apply suppressions
- ✗ Final review of statistics
- ✗ Recommend publishable detail

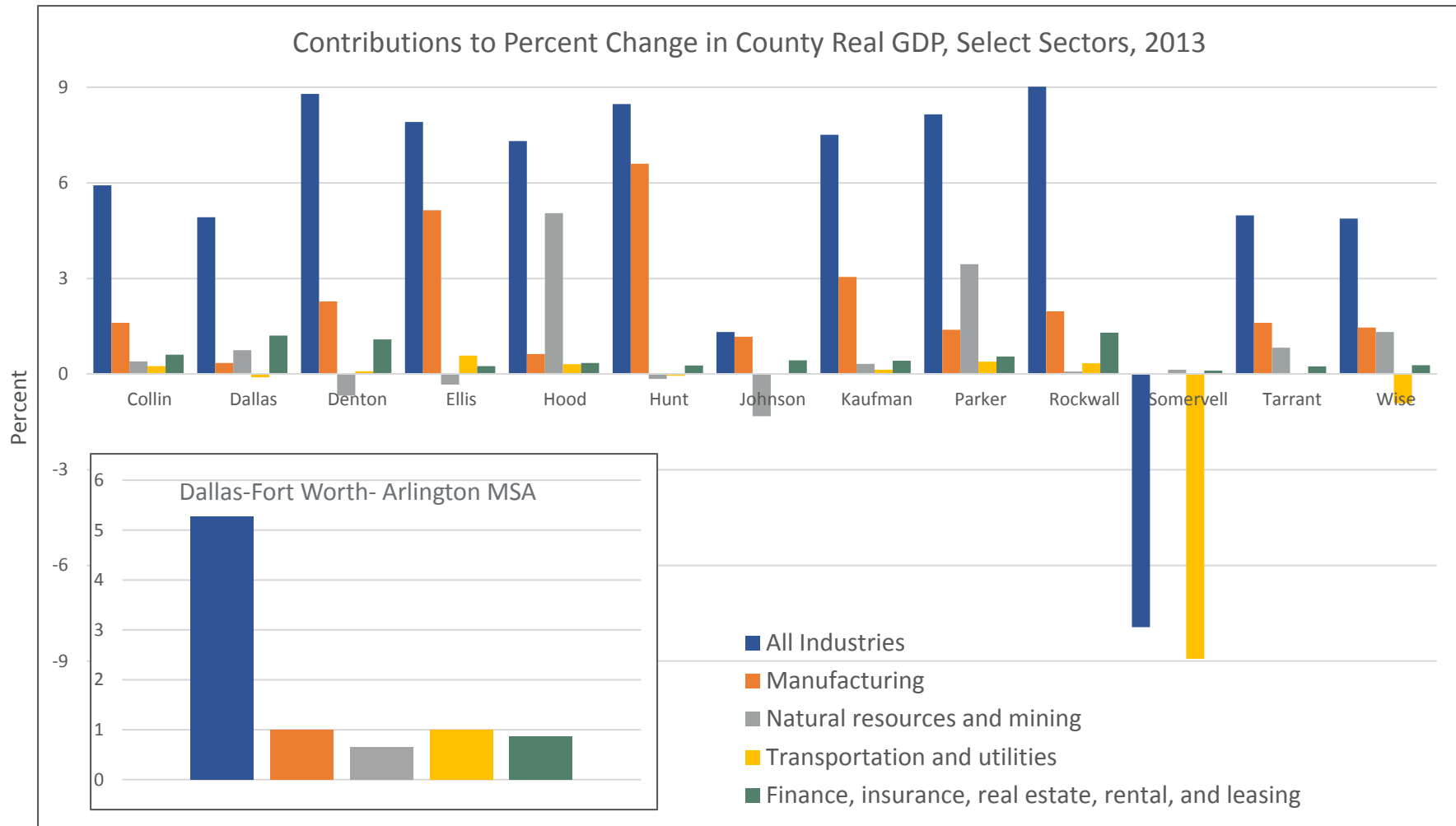
Texas Case Study

Contributions to Percent Change in Real GDP, Select Sectors, 2013



Texas Case Study

Dallas-Fort Worth-Arlington Metropolitan Area and Component Counties

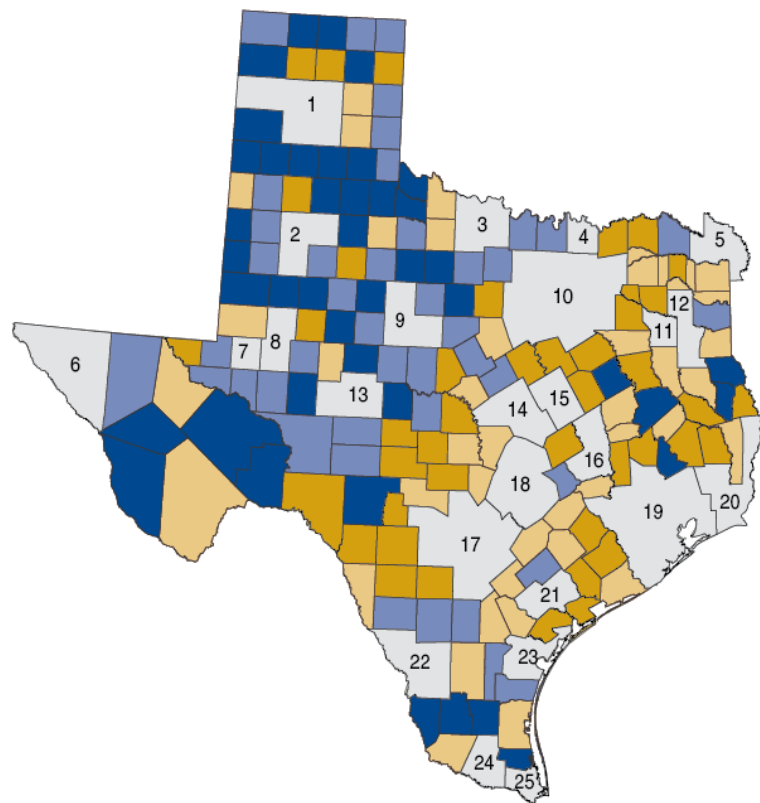


Texas Case Study

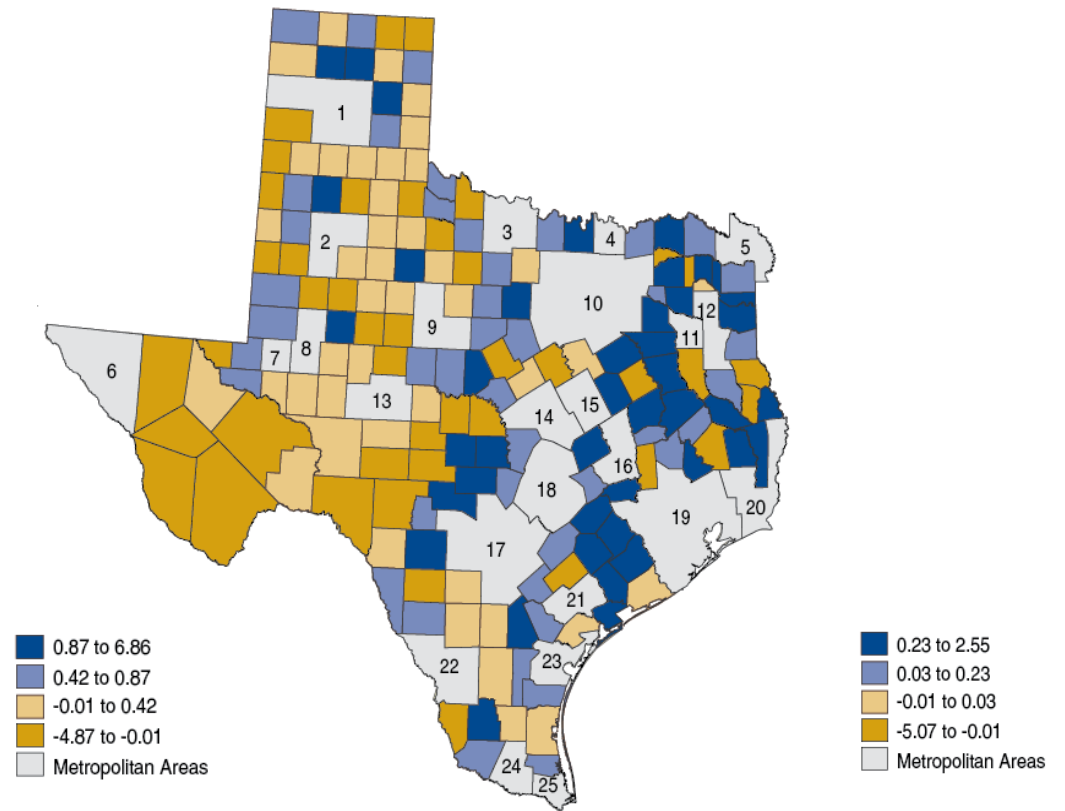
Sector Contribution to County GDP Growth, Nonmetropolitan Counties, 2013



Natural Resources and Mining



Manufacturing



Conclusion



- This presentation provided a progress update on the county GDP project
- Outlined BEA's plan towards producing prototype GDP by county statistics in 2018
- In the process of acquiring source data and seeking stakeholders' feedback on the proposal's outline and scope