

Prototype Domestic Product by County Statistics

December 13, 2018



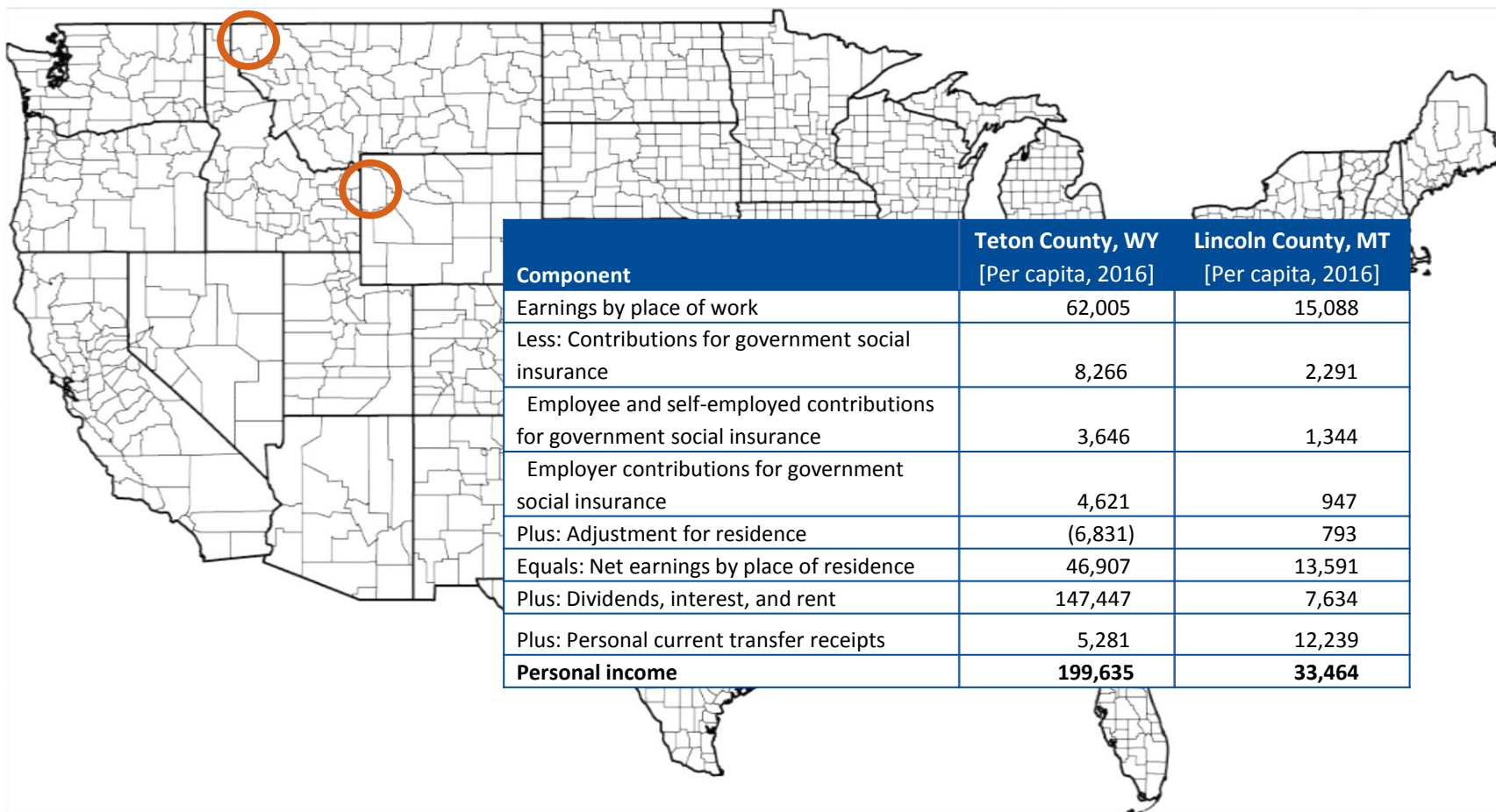
- Background and motivation
- Source data and methodology
- Overview of prototype statistics
- Analysis
- Next steps

- 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
- On December 12, 2018, BEA released prototype GDP by county statistics

Relation of Personal Income to GDP

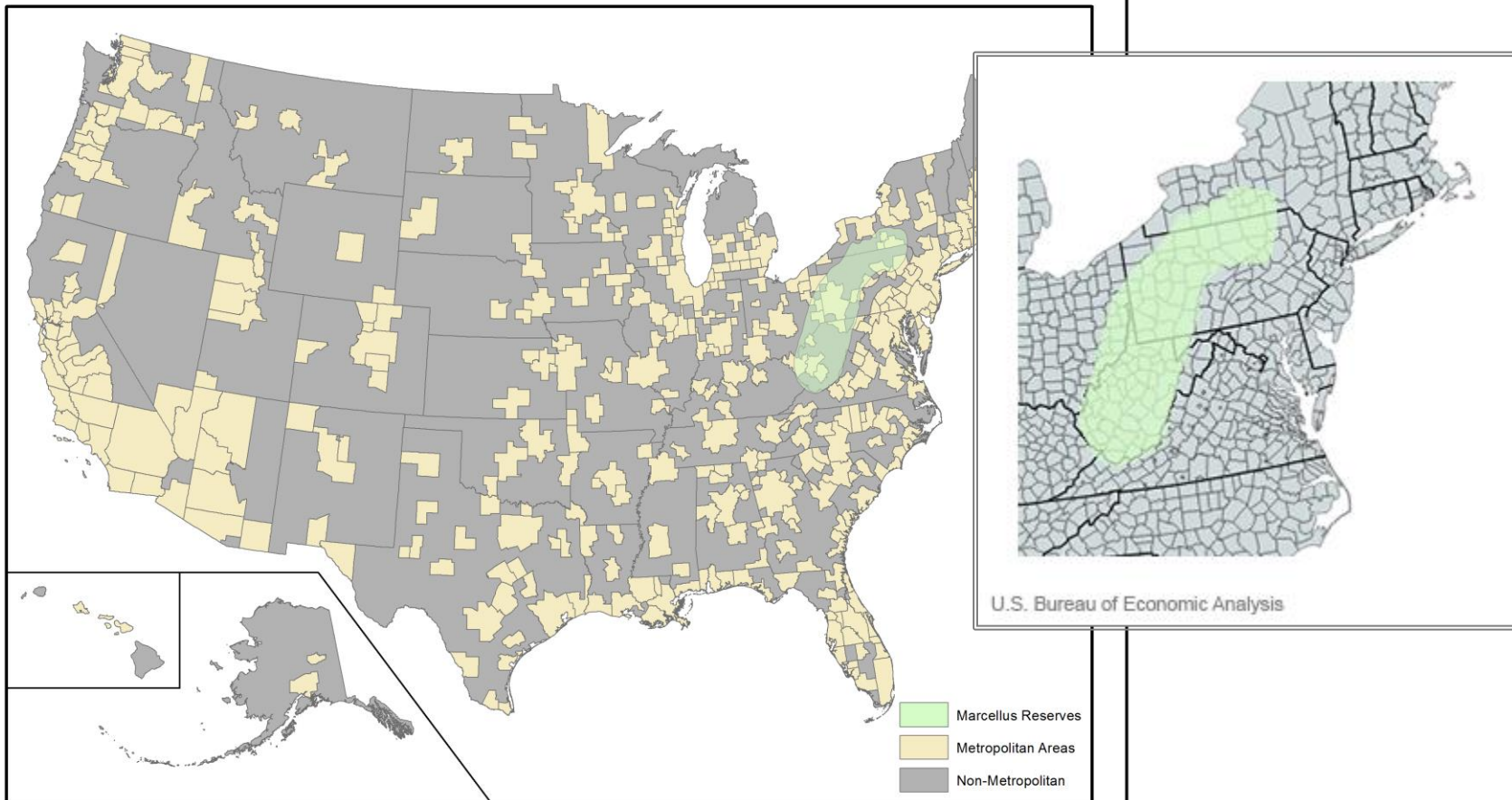
	GDP	Personal Income
Wages and salaries	✓	✓
Proprietors' income	✓	✓
Employer contributions for employee pension and insurance funds	✓	✓
Contributions for government social insurance	✓	✓
Corporate income	✓	
Taxes on production and imports less subsidies	✓	
Receipts on assets (dividends, interest)		✓
Transfer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

County Personal Income



Oil Reserves

The Marcellus Oil Reserves



U.S. Bureau of Economic Analysis

- What is the size of a local area's economy?
- Is it growing or declining? What has been its growth trend over time?
- What industries are driving growth?
- How does its growth compare to growth in other local areas, with the state, with the Nation?

- 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

- Release date: December 12, 2018
- Data series: Annual current- and inflation-adjusted GDP statistics for all counties (3,113)
- Industry detail:
 - All industry total
 - Private goods-producing industries
 - Private services-producing industries
 - Government
- Period: 2012-2015

- GDP by state:

$$GDP = COMP + GOS + (TOPI - SUB)$$

- In the current methodology for GDP by metropolitan area:

$$Allocator_{i,cty} = f(earnings_{i,cty})$$

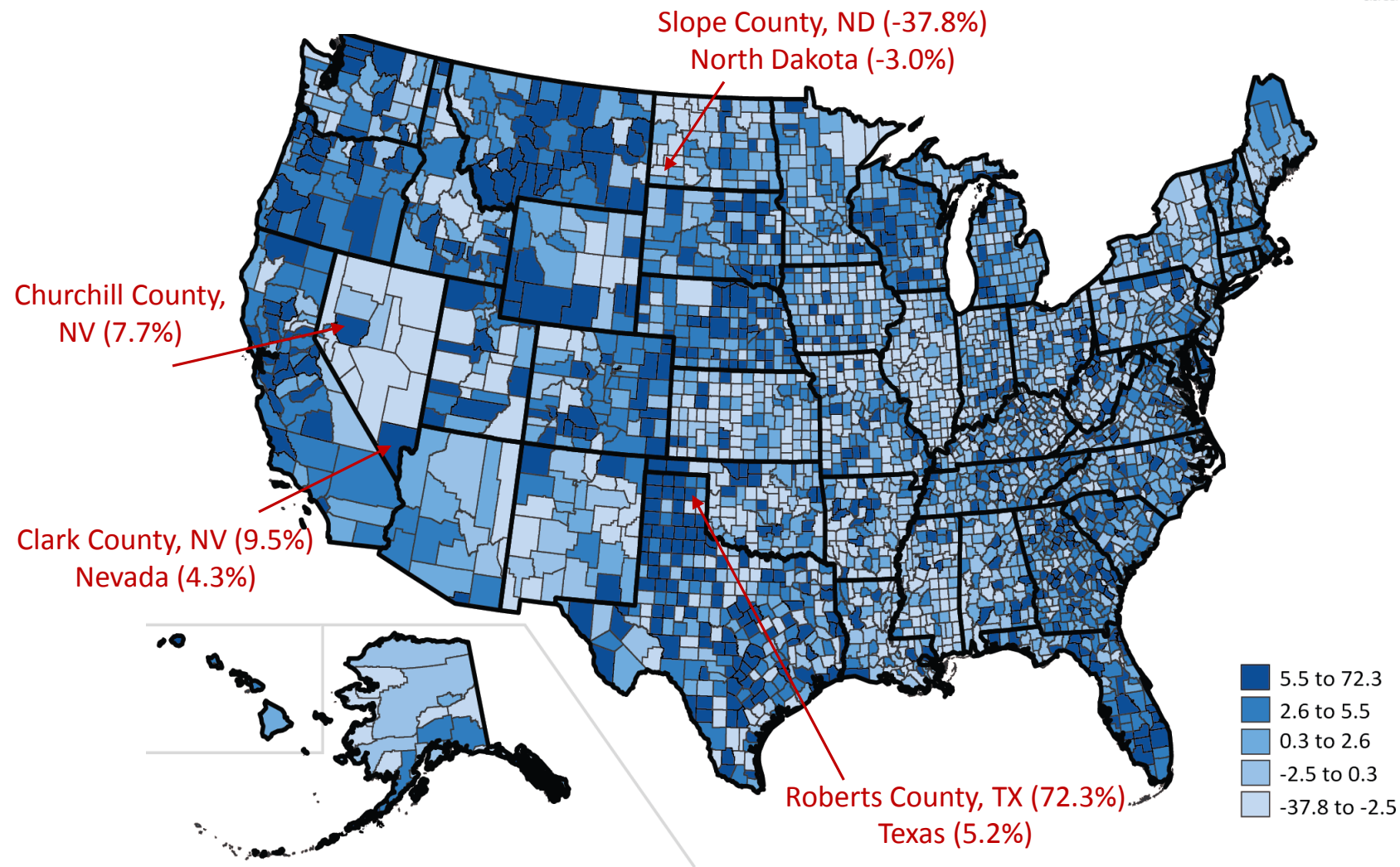
- In the proposed methodology for GDP by county:

$$Allocator_{i,cty} = f\left((earnings_{i,cty}), (other\ source\ data_{i,cty})\right)$$

- GDP by state
- County earnings by industry
 - Quarterly Census of Employment and Wages (QCEW)
 - Statistics of Income (SOI)
- Economic Census
- National Establishment Time-Series (NETS) Database
- Farm: U.S. Department of Agriculture (USDA)
- Banking: Federal Deposit Insurance Corporation (FDIC)
- Utilities: Energy Information Administration (EIA)

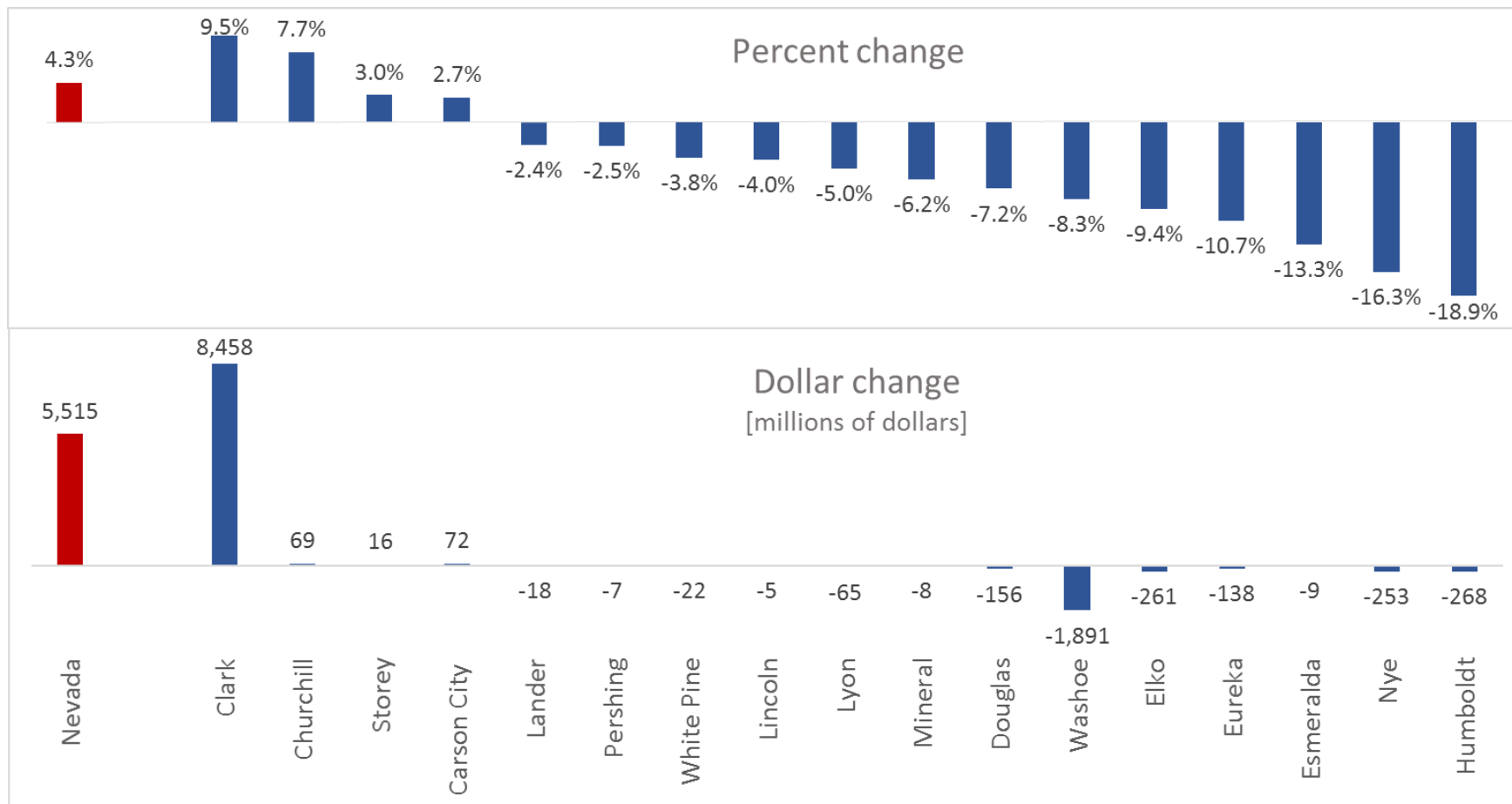
- NETS database
- IncentivesMonitor.com Database
- The State Business Incentives Database
- The State Development Program Expenditures Database
- Conway Data's New Plant Database
- Mining: Energy Information Administration (EIA), Drilling Edge

Percent Change in Real GDP by County, 2014-2015



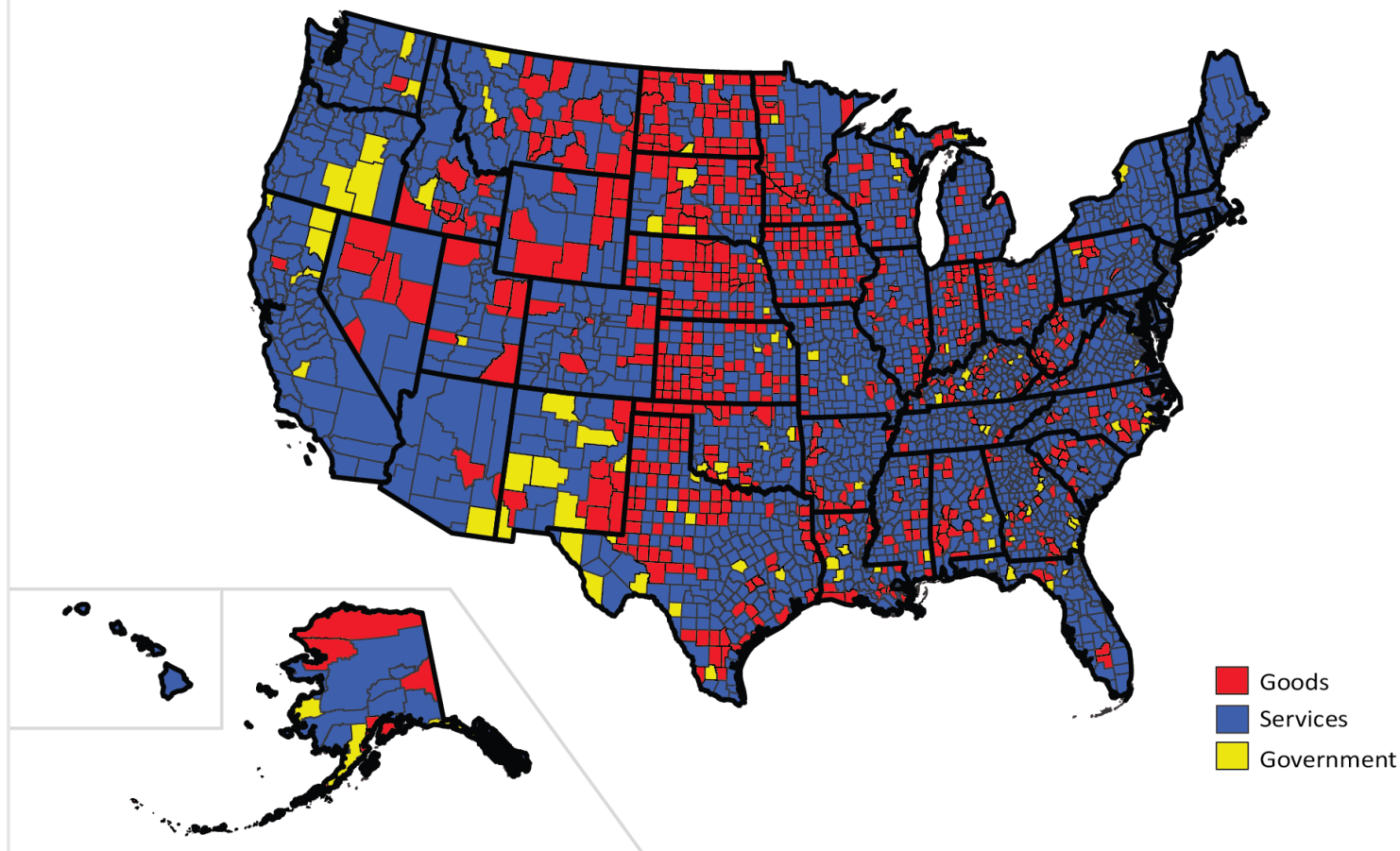
J.S. Bureau of Economic Analysis

Real GDP by County Growth in Nevada, 2014-2015



Industry Composition

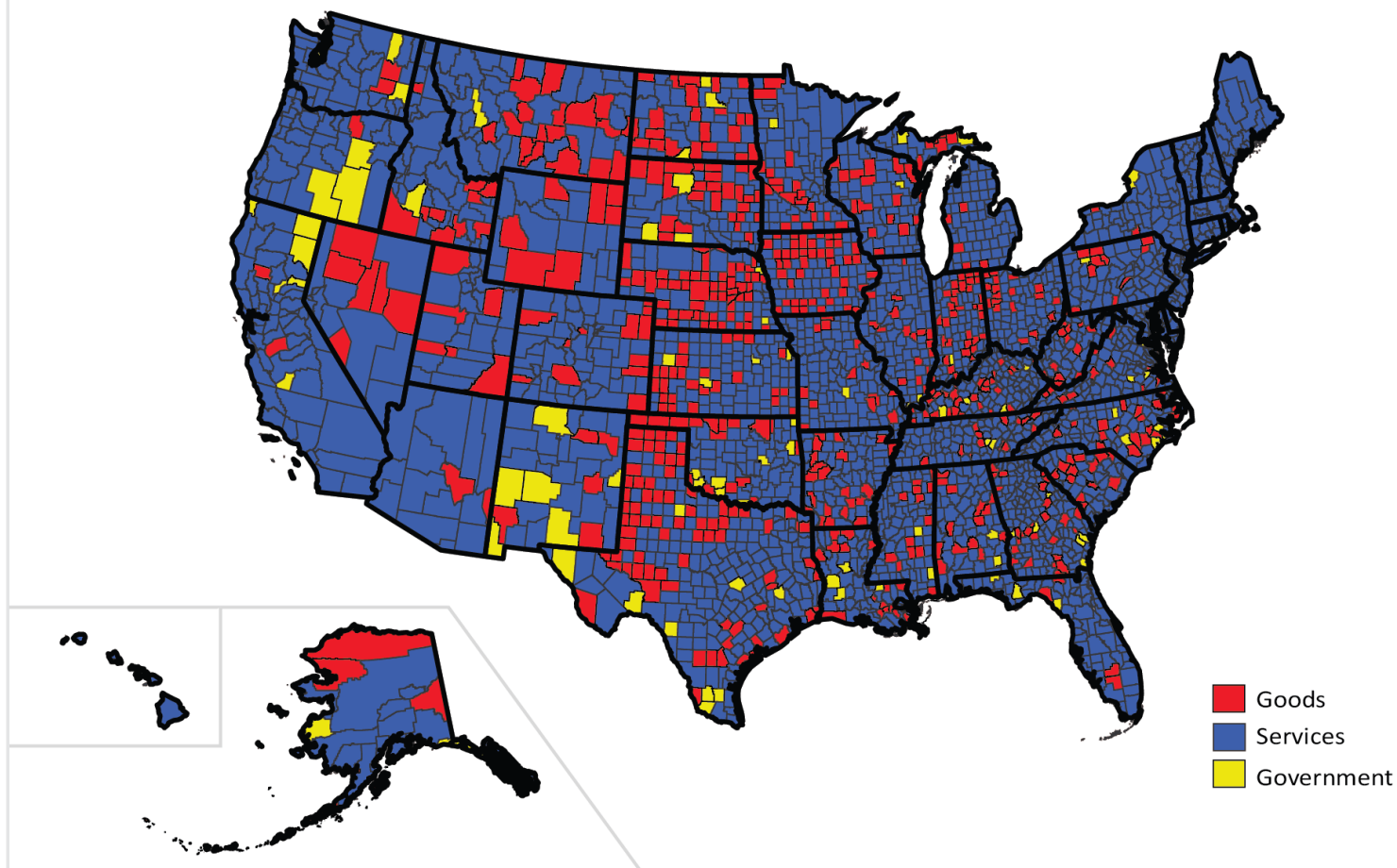
Largest Industry for Counties, 2012



U.S. Bureau of Economic Analysis

Industry Composition

Largest Industry for Counties, 2015



U.S. Bureau of Economic Analysis

GDP by Metropolitan Area

Mean Absolute Percent Difference (MAPD) Prototype vs Earnings-Based Estimates (2012-2015)

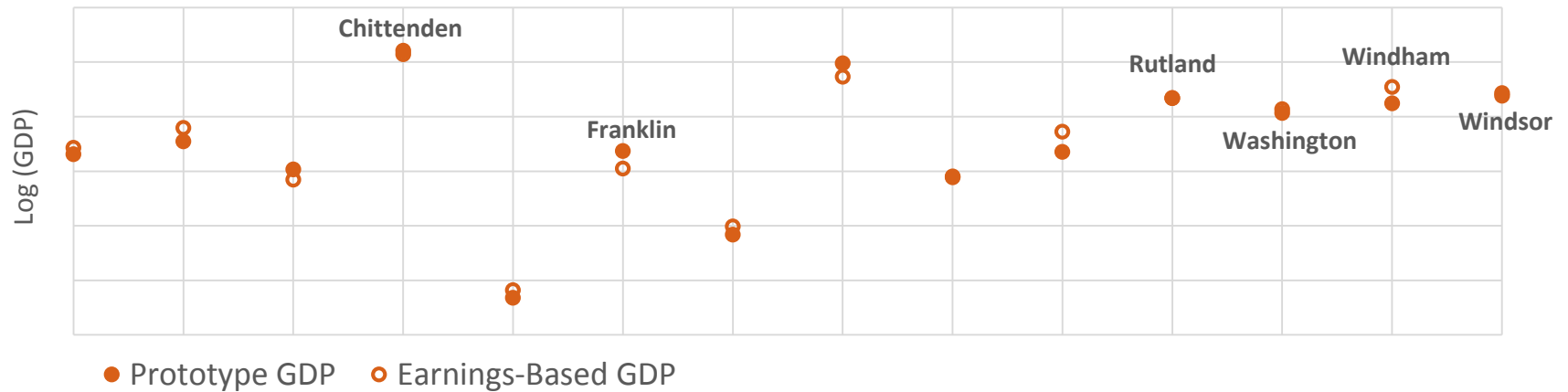
Leading Industry	# of Metropolitan Areas	MAPD of Total GDP
Goods-producing industries	10	14.9%
Services-producing industries	361	4.3%
Government	12	3.4%
Total	383	4.6%

Size of Metro Area	Total GDP	Goods-producing industries	Services-producing industries	Government
Large	1.4%	4.0%	2.0%	0.0%
Medium	3.5%	5.7%	4.4%	0.0%
Small	5.3%	10.5%	6.5%	0.0%

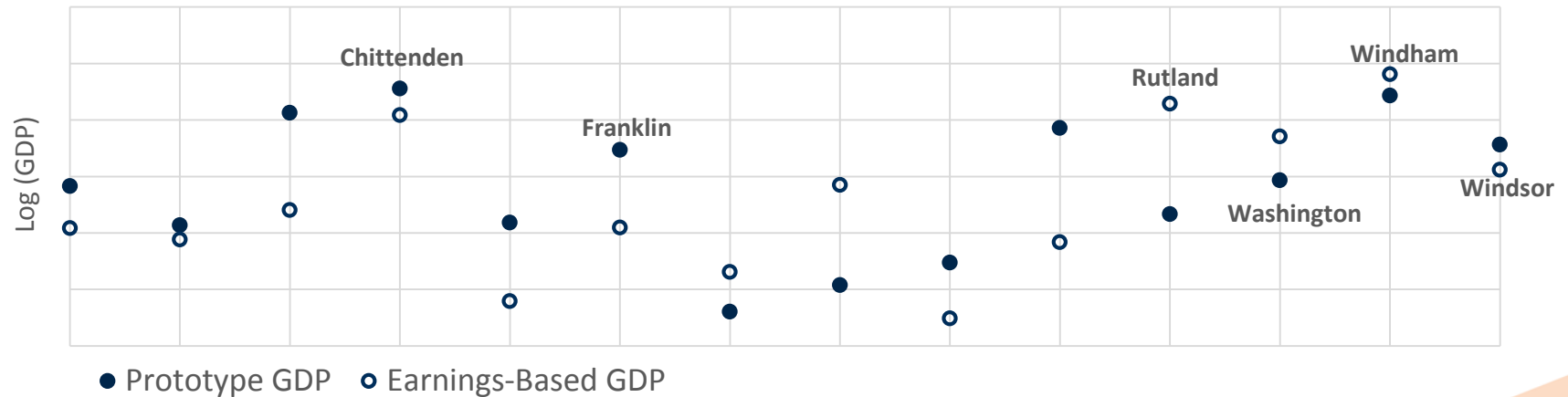
- More accurate geographic allocation of industry output, particularly for capital intensive industries
- More accurate identification of economic turning points
- Lower suppression rates

Vermont Counties, 2015

Accommodations and Food Services

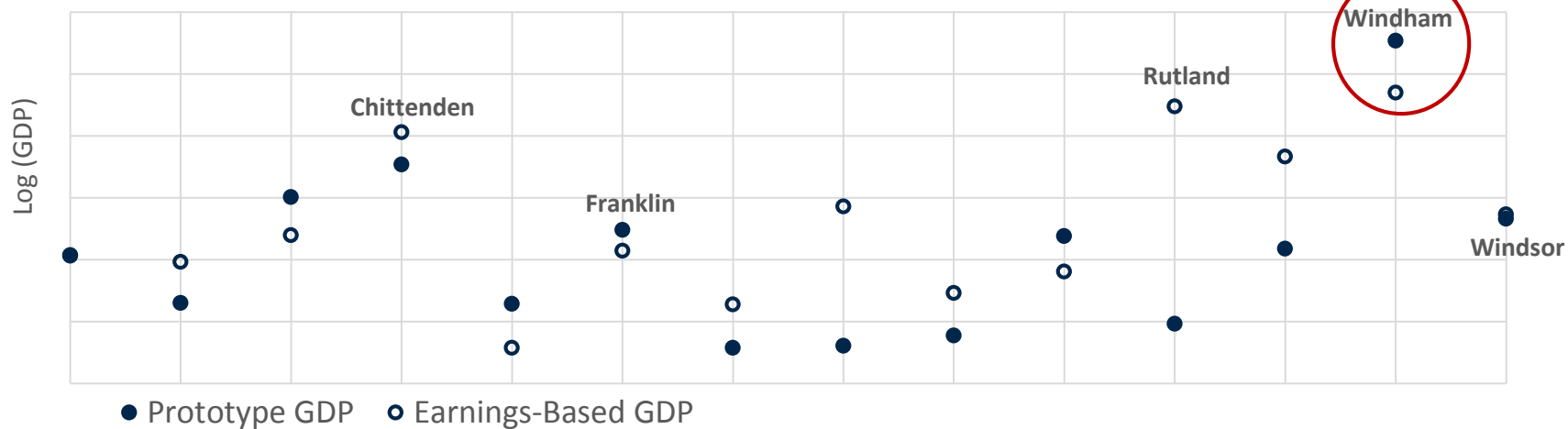


Utilities

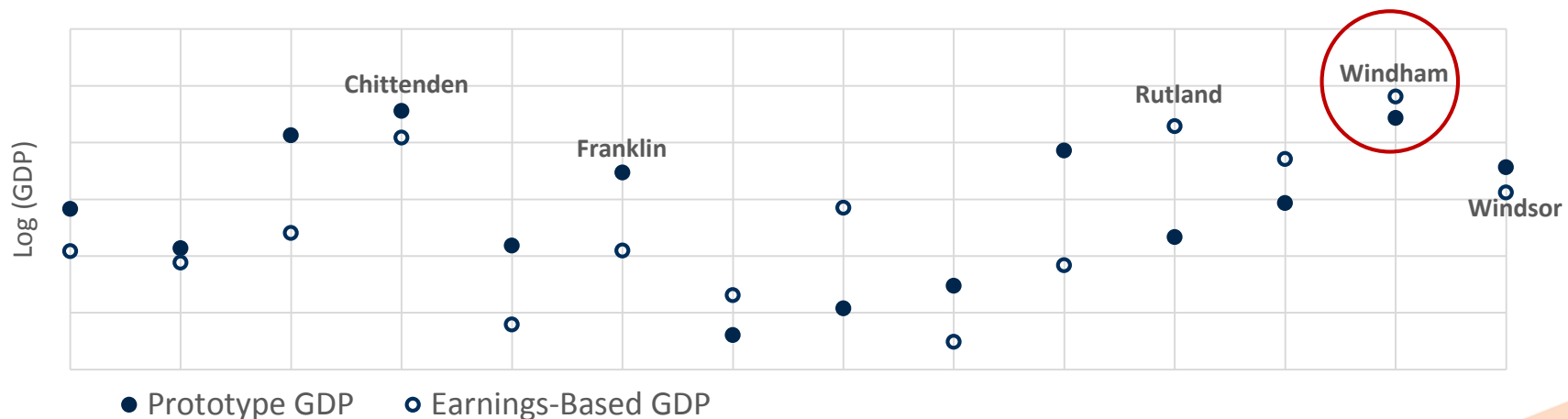


Vermont Counties, Utilities

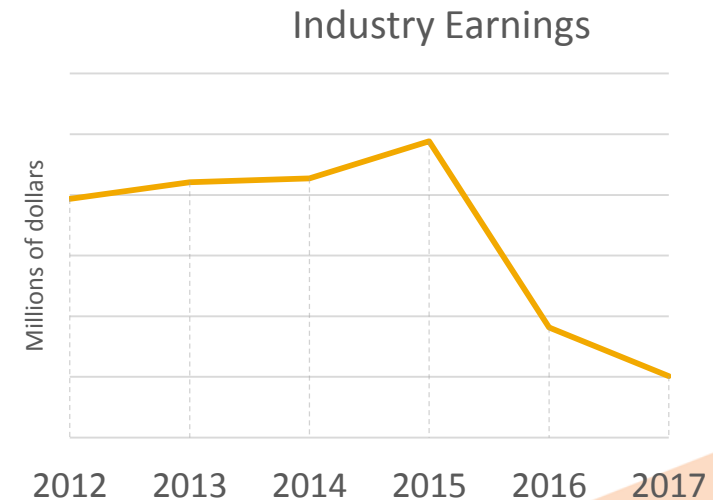
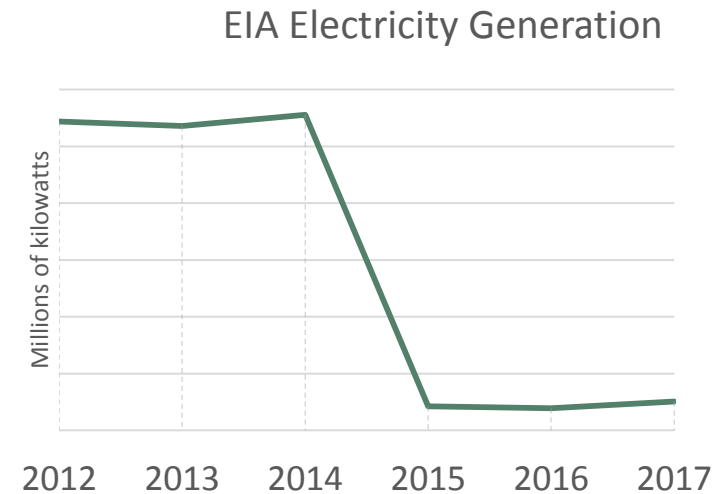
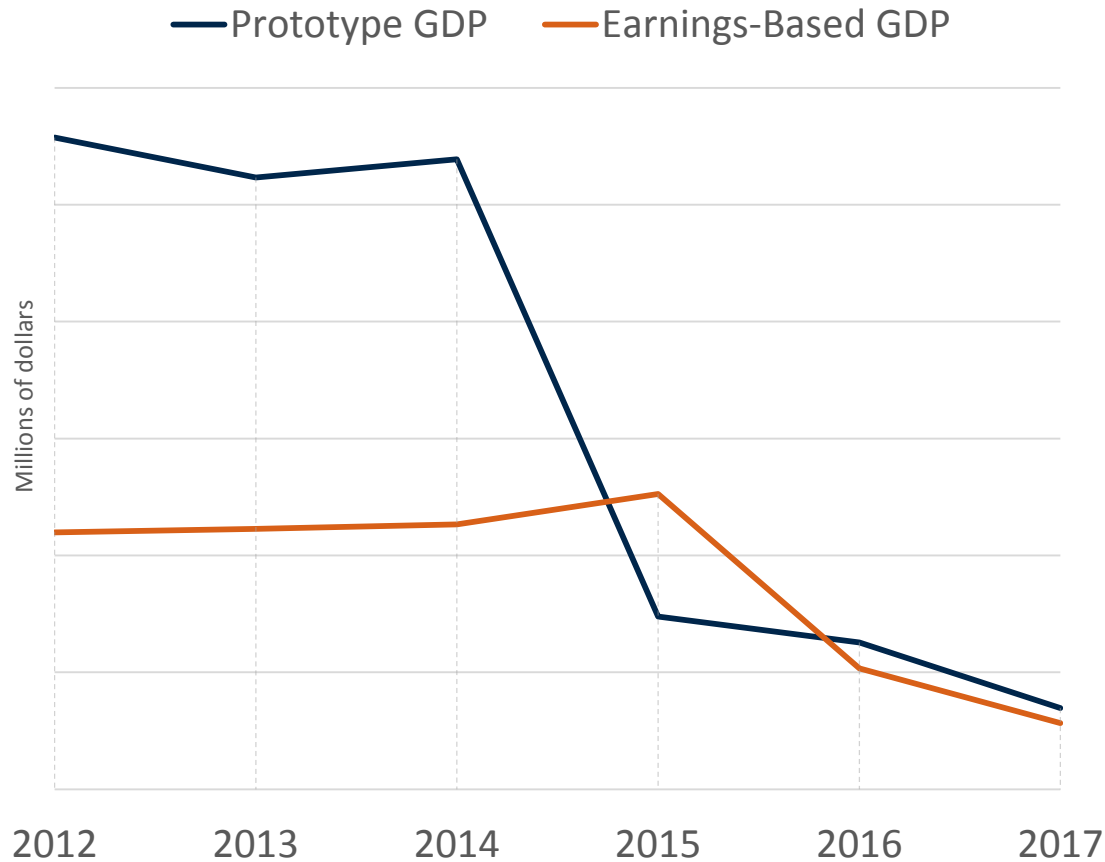
2013



2015

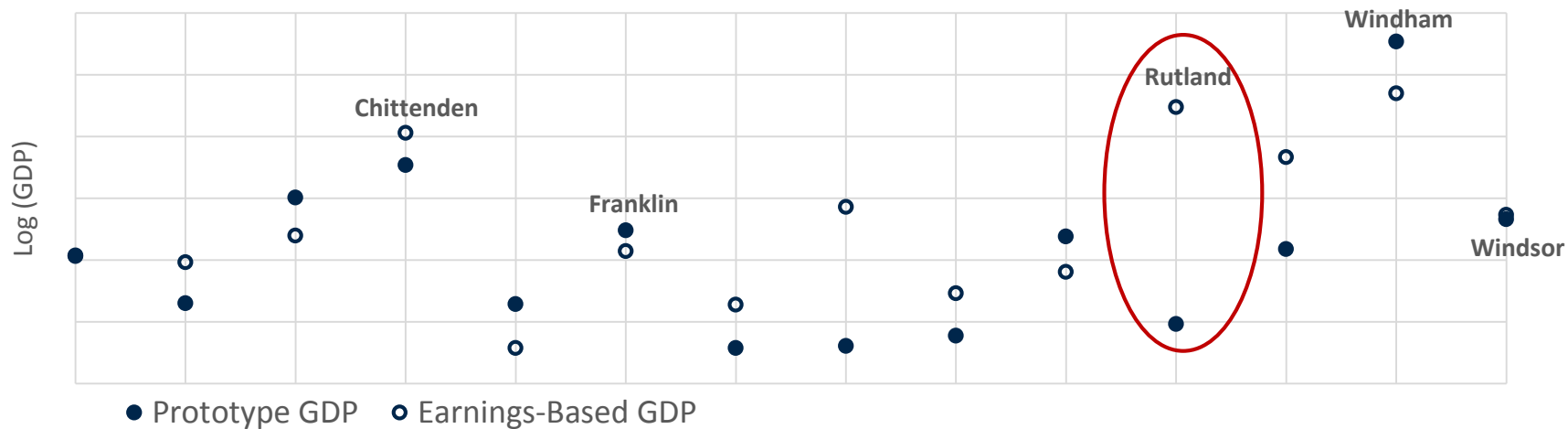


Windham, VT: Utilities

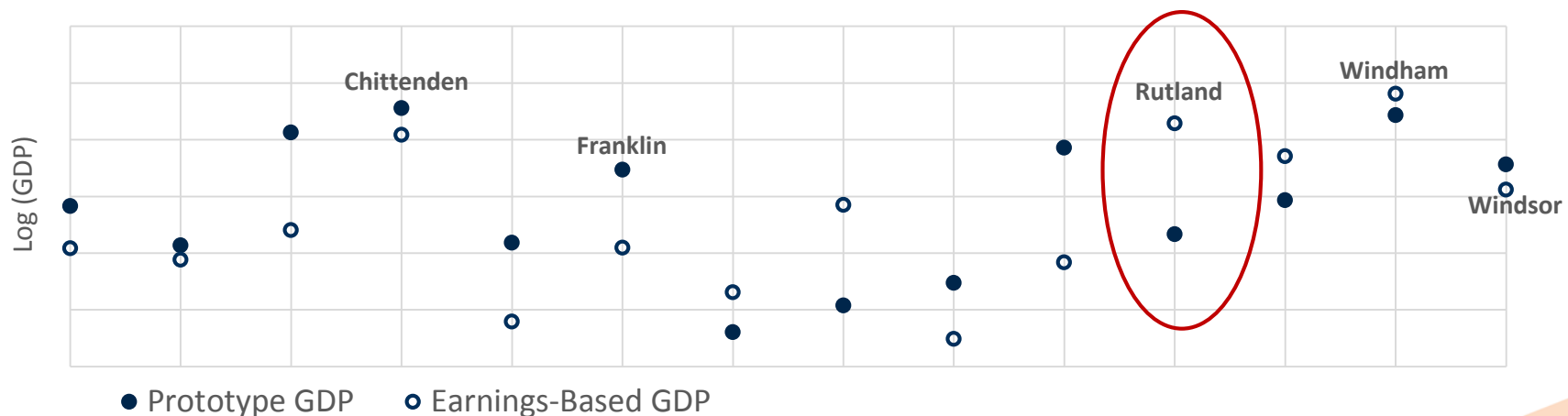


Vermont Counties, Utilities

2013

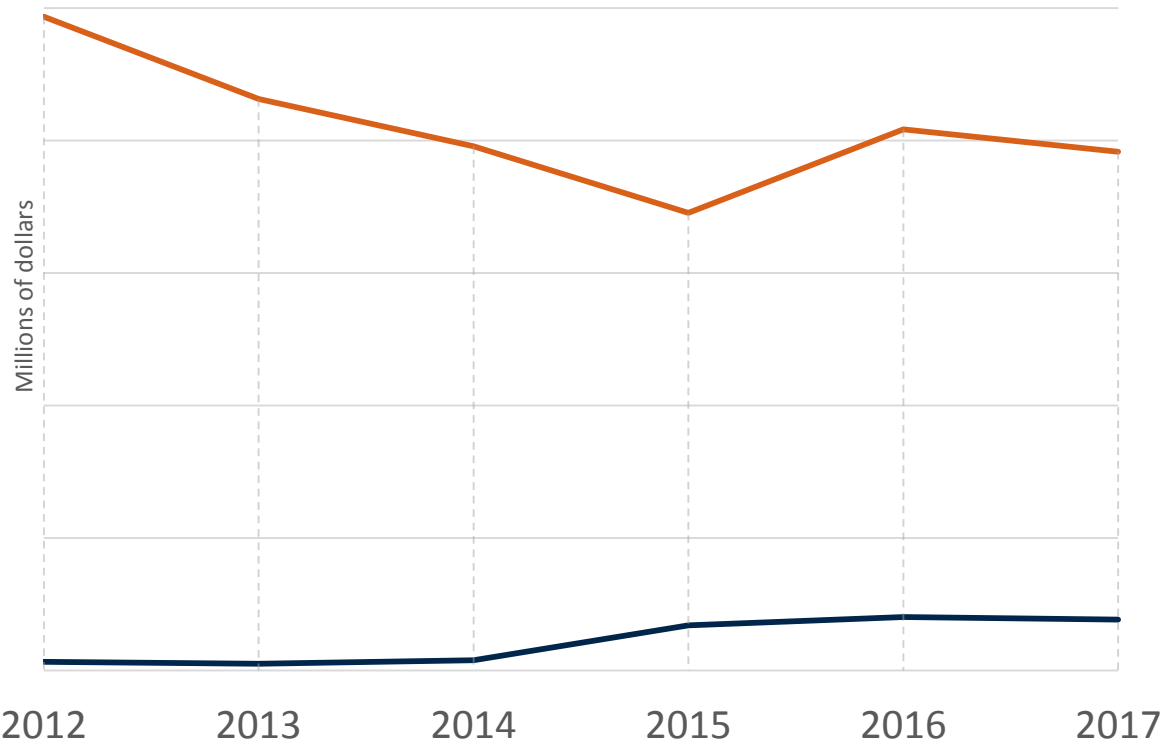


2015

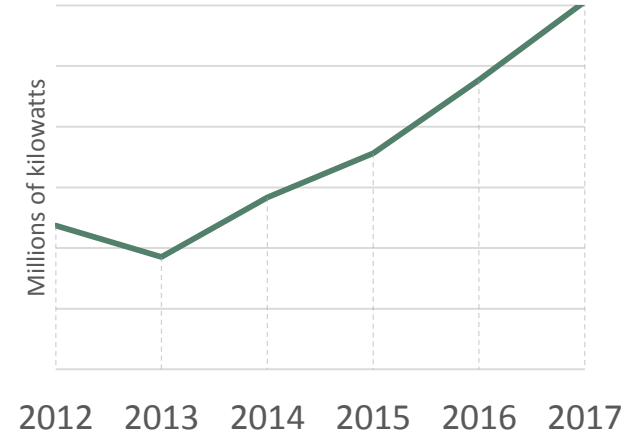


Rutland, VT: Utilities

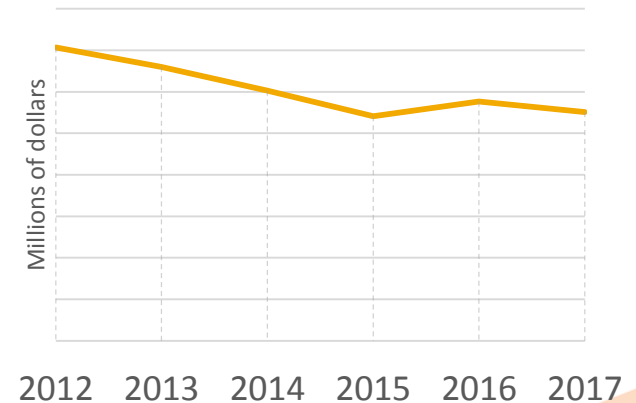
— Prototype GDP — Earnings-Based GDP



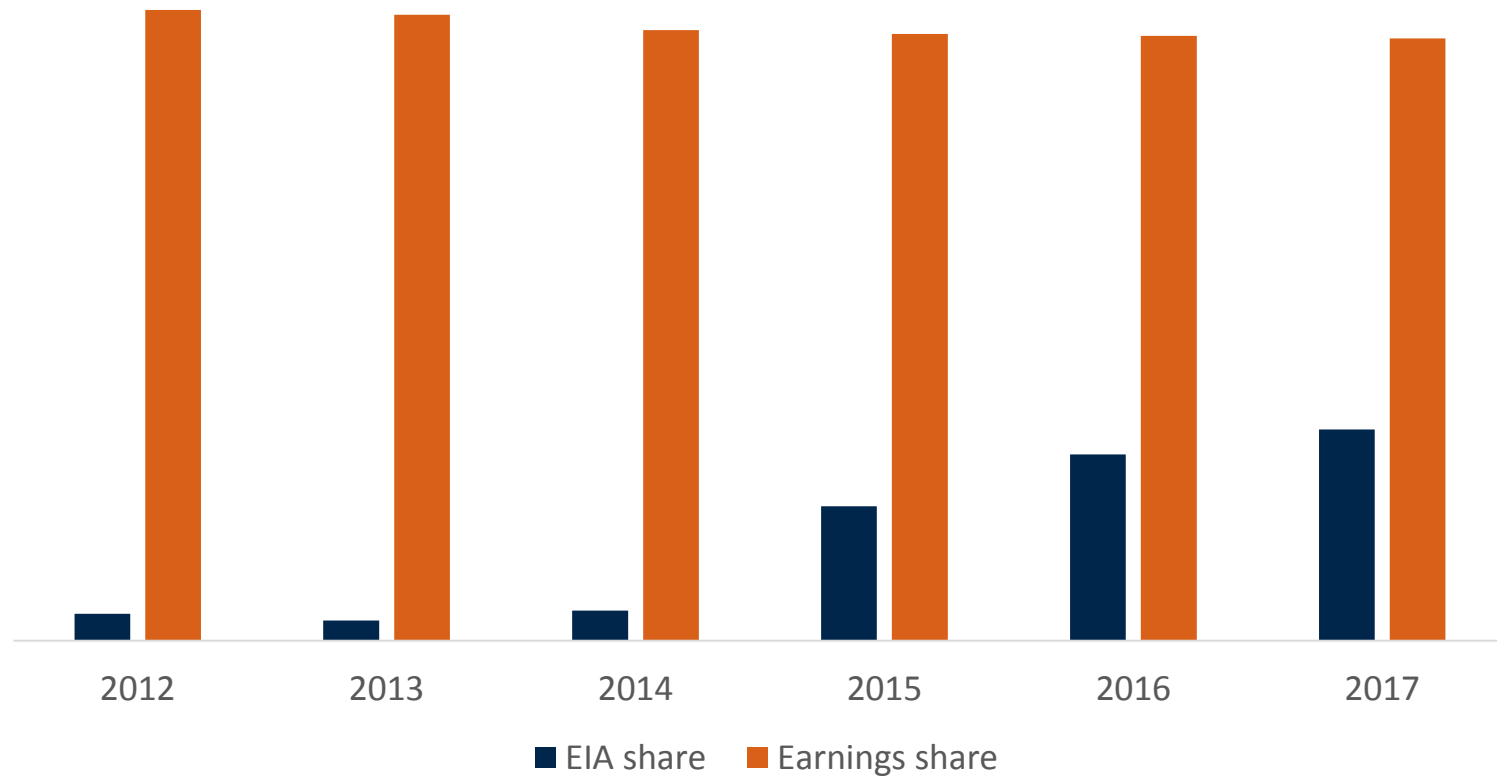
EIA Electricity Generation



Industry Earnings



Rutland's Share of Vermont Utilities Industry



- Develop further improvements and refinements to the prototype statistics
 - Construction: Dodge Data and Analytics
 - Transportation: Bureau of Transportation Statistics (BTS)
 - Mining: Energy Information Administration (EIA), Drilling Edge
 - County Business Patterns
 - LEHD Quarterly Workforce Indicators (QWI)
- Analyze suppression patterns and determine the level of industry detail for official release
- Continue to solicit and incorporate data user feedback
- Official release on December 12, 2019