



Working Together Since 1967 to Preserve Federalism and Tax Fairness

Current Economic Conditions

Elliott Dubin, MTC Director of Policy Research and Parker Armstrong, MTC Policy Research Intern

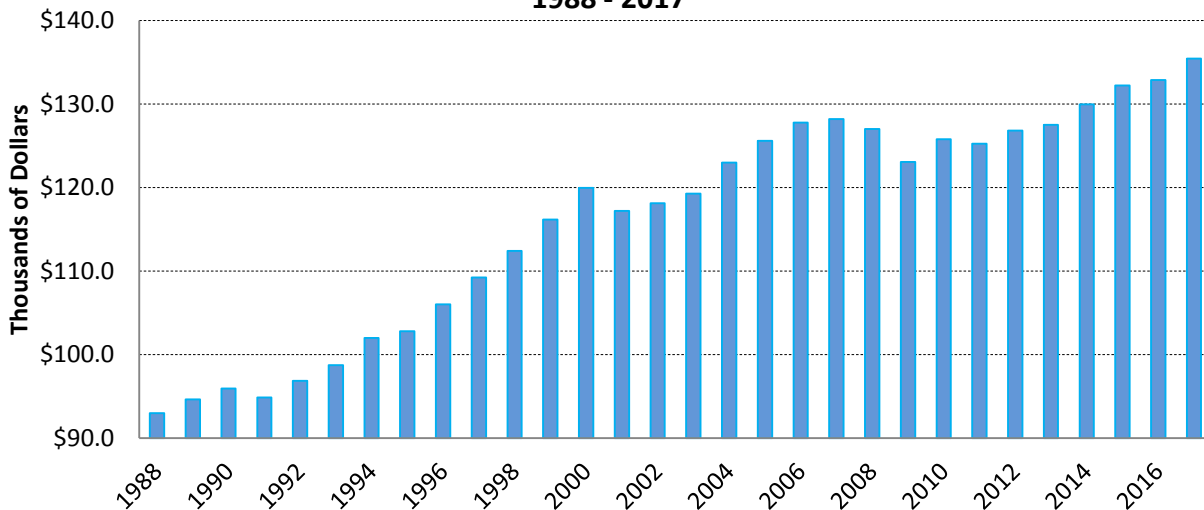
The fiscal conditions of state and local governments are imperfectly correlated with changes, past and projected, in the economic conditions of the nation and of the individual states. This short paper, because of the sheer size and complexity of the US economy, provides a broad view of the economic conditions in the US as a whole; and for individual states. The first section presents economic conditions for the US as a whole and the second section contains projected national economic conditions. The third section presents some data on the economic conditions of the states; and, the last section contains some projections of future conditions.

National Backdrop

Real Gross Domestic Product

The U.S. economy is rapidly growing out of the deep recession that gripped the nation from the end of 2007 through mid-2009. Economic growth, as measured by changes in per household

**Real Gross Domestic Product, Per Household
Chained 2009 Dollars
1988 - 2017**



Source: US Dept. of Commerce, Bureau of Economic Analysis

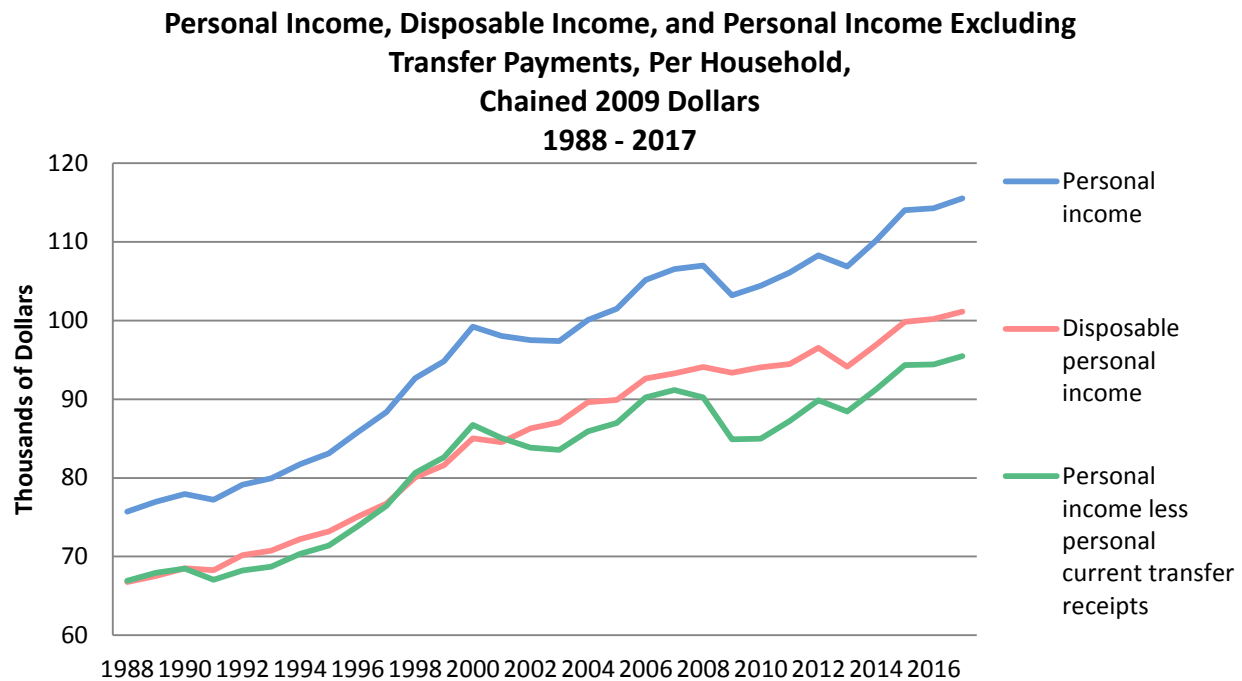
CURRENT ECONOMIC CONDITIONS

Gross Domestic Product (GDP), perhaps the broadest measure of the size of the economy, has been growing at an average annual rate of 1.2 percent from 2009, the nadir of the Great Recession through 2017. However, GDP growth has picked up considerably in the past year. GDP has grown 2.0 percent from 2016 to 2017. For the entire 1988 to 2017 period, real, per household GDP growth has averaged 1.3 percent per year.

Personal Income

The comparative growth rates of aggregate incomes are similar when Personal Income¹ (PI) is used rather than GDP. From 1988 to 2017, the average annual growth of per household PI in 2009 dollars was 1.5 percent. The rate of growth slowed slightly when personal taxes were subtracted from PI – 1.4 percent. Subtracting federal, state, local, and business transfer payments from PI, the rate of growth was 1.2 percent per year. From 2009 to 2017, the rate of growth slowed to slightly more than 1.0 percent per year for all three measures.

The trends in total Personal Income and Personal Income excluding transfer payments began to diverge after 2000. Between 1988 and 2000, transfer payments accounted for less than 12 percent of total Personal Income. From 2000 to 2017, this ratio had climbed to 16.1 percent; between 2009 and 2017, transfer payments averaged 17.4 percent of Personal Income.

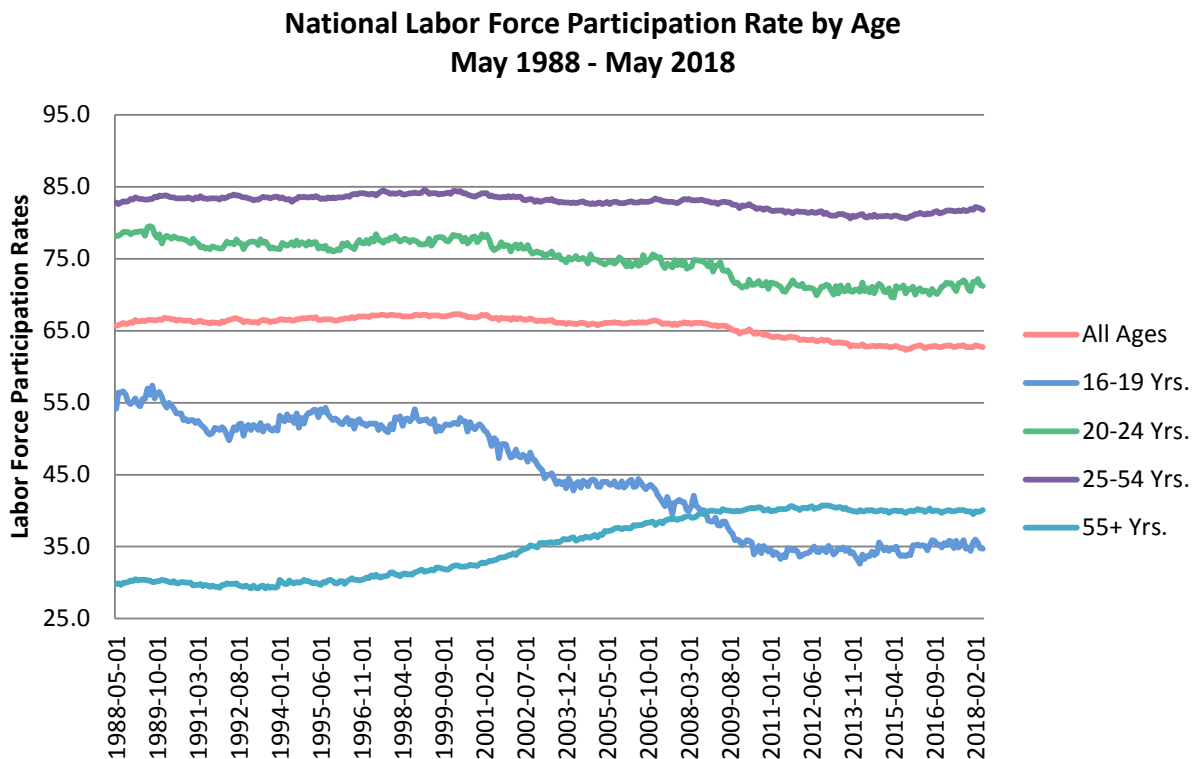


Source: US Dept. of Commerce, Bureau of Economic Analysis

¹ Income received by persons from all sources. It includes income received from participation in production as well as from government and business transfer payments. It is the sum of compensation of employees (received), supplements to wages and salaries, proprietors' income with inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj), rental income of persons with CCAdj, personal income receipts on assets, and personal current transfer receipts, less contributions for government social insurance

Labor Force Participation Rate

Another indicator of the health of the economy is the degree to which people are attached to the labor force. That is, a rising labor force participation rate –the percentage of those working or looking for work as a percent of the civilian population that could be working (retirees, military personnel, and handicapped are examples of those that the BLS does not count as part of the could-be-working population) – indicates a healthy labor market.² Overall, the national Labor Force Participation Rate has remained relatively steady since the Great Recession, hovering around 62%. Prior to the Great Recession, the rate was slightly more than 65 percent.



When broken down by age groups certain trends begin to emerge. Prime age (25 to 54) labor participation rate has started to tick back up to pre-recession norm (approximately 85 percent) after declining to approximately 81 percent during the Great recession. The youngest age groups, 16 to 19 and 20 to 24 year olds have exhibited lessening labor force participation rates during this period; with the 16 to 19 year old showing the greatest decline. For the latter group, higher high school graduation rates and rising college enrollment rates can explain a large portion of the decline. For 20-24 year olds, labor force participation rates have yet to recover from their recession low point, most likely due to students choosing to stay in school; or choosing graduate school over labor force participation. Those 55 years old and older had increased their labor force participation rate from the beginning of the period to 2011, possibly due to the

² US Bureau of Labor Statistics, Current Population Survey, Technical Bulletin, June, 2014

CURRENT ECONOMIC CONDITIONS

postponement of retirement. From 2011 until the last period shown, their participation rate averaged around 37 percent.

Professors Katherine Abraham and Melissa Kearney of the University of Maryland documented changes in trends in employment-to-population ratios from 1999 to 2016.³ Employment to population ratios and labor force participation rates may behave differently and convey different information during cycles; they exhibit similar trends over long periods of time.

As expected, population aging has had a notable effect on the overall employment rate over this period, but within-age-group declines in employment among young and prime age adults have been at least as important. Their review of the evidence concludes that labor demand factors, particularly trade with China and the increasing use of industrial robots into the labor market, are the most important factors in explaining the decline in employment ratios. Labor supply factors, most notably increased participation in disability insurance programs, have played a less important but not inconsequential role. Increases in the real value of the minimum wage and in the share of individuals with prison records also have contributed modestly to the decline in the aggregate employment rate.⁴

Unemployment Rate

The flip side of employment to population ratios and labor force participation rates is unemployment rates. The chart below presents two measures of unemployment, on a monthly basis from January 1994 through May of this year. The first measure is U3, the official unemployment rate released by the Bureau of Labor Statistics. It's an estimate of the percentage of all unemployed people looking for work as part of the total civilian labor force.

The U6 unemployment rate is a broadest measure of unemployment, provided by the Bureau of Labor Statistics. U-6 includes all officially unemployed persons, plus all marginally attached workers,⁵ plus total employed part time for economic reasons but want a full-time job, as a percent of the civilian labor force plus all marginally attached workers.

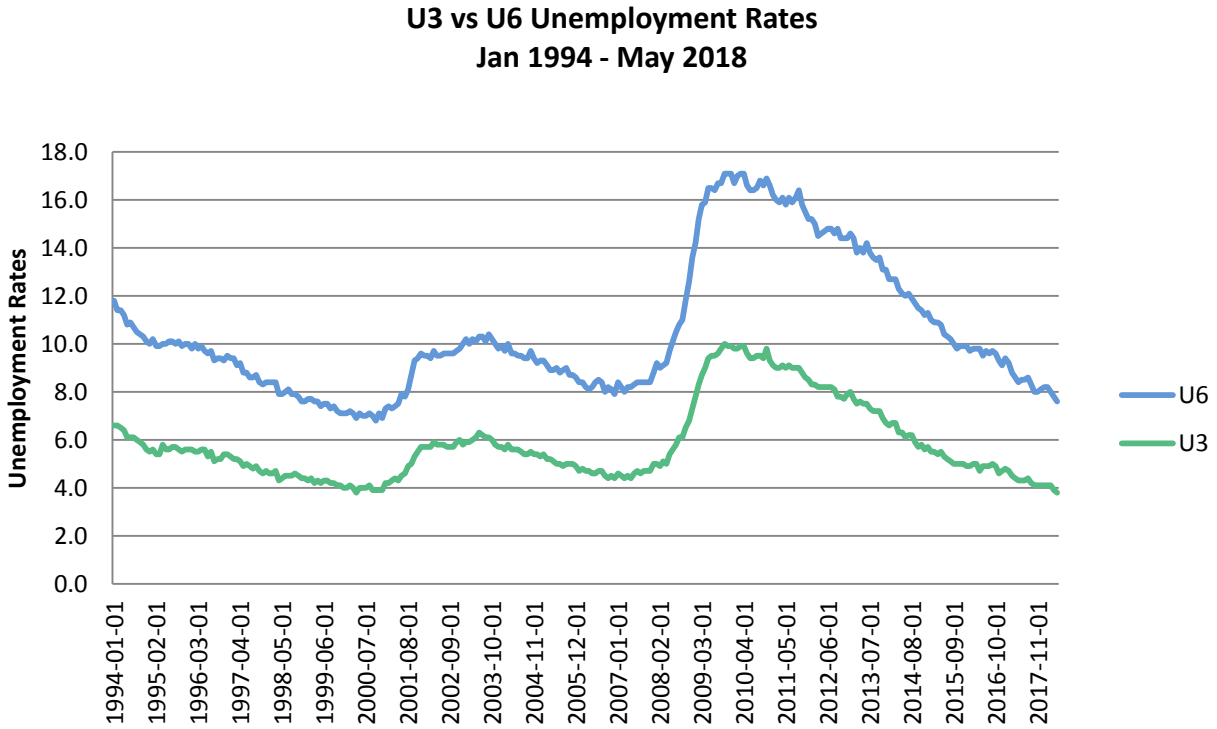
Except for magnitudes, U3 and U6 move almost in tandem over the course of business cycles. This can be seen most vividly during the Great Recession and the aftermath. U3 rose from 4.4 percent in December 2006 to 9.5 percent in July 2009; the corresponding change for U6 was

³ Katherine G. Abraham and Melissa S. Kearney, "Explaining the Decline in the U.S. Employment-to-Population Ratio: a Review of the Evidence," National Bureau of Economic Research Working Paper 24333, February 8, 2018
⁴ *Ibid.* p.62.

⁵ Persons not in the labor force who want and are available for work, and who have looked for a job sometime in the prior 12 months (or since the end of their last job if they held one within the past 12 months), but were not counted as unemployed because they had not searched for work in the 4 weeks preceding the survey. Discouraged workers are a subset of the marginally attached. <https://www.bls.gov/lau/stalt.htm>

CURRENT ECONOMIC CONDITIONS

from 8.0 percent to nearly 17 percent. Currently, U3 stands at 3.8 percent and U6 at slightly less than 8 percent.



Source: Bureau of Labor Statistics, retrieved from FRED

National Projections

Real Gross Domestic Product

	CBO ⁶	Federal Reserve (Median) ⁷
Expected Growth Rates	2018: 3.3% 2019: 2.4% 2020: 1.8% 2021-2022: 1.5% annually 2023-2028: 1.7% annually	2018: 2.8% 2019: 2.4% 2020: 2.0% Long Run: 1.8%

Across the Congressional Budget Office (CBO and Federal Reserve, the United States' GDP is expected to grow quickly in the short term before slowing down in 2019.⁸ Much of this immediate robustness is due to the federal tax reform enacted at the end of 2017, from which real GDP growth should accelerate by 0.3% in 2018 and 0.6% in 2019 according to the CBO.⁹ These projections assume that labor productivity will accelerate past the post-recession average pace, which may occur due to deregulatory encouragement. Increases in investment spending with money that would normally be spent on compliance would promote stronger total factor productivity growth.¹⁰

Neither the CBO nor the Federal Reserve project a significant chance of recession, but expansionary pressures may strain the economy's productive capacity, raising the likelihood that unexpected vulnerabilities, such as higher inflation or unsustainable debt burdens, would develop. Regardless, the CBO stated that if the US economy does fall into a recession, it would be a "soft landing."¹¹ The CBO warned that growth may be weaker than projected should net immigration fall due to a smaller labor force. Furthermore, unanticipated changes to trade agreements or tariff policies could impede aggregate economic activity.¹²

⁶ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

⁷ Economic Projections. Federal Reserve. June 2018.

⁸ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

⁹ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

¹⁰ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

¹¹ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

¹² The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

CURRENT ECONOMIC CONDITIONS

Projected Growth of Real GDP and Its Components

Percent	Actual, 2017	2018	2019	2020	Annual Average	
					2021–2022	2023–2028
Real GDP	2.6	3.3	2.4	1.8	1.5	1.7
Components of Real GDP						
Consumer spending	2.8	2.5	2.7	2.0	2.0	2.0
Business investment	3.9	8.5	2.5	0.8	0.8	2.6
Business fixed investment	6.3	5.9	3.1	1.6	0.9	2.5
Residential investment	2.6	5.0	4.9	4.8	3.0	-0.2
Purchases by federal, state, and local governments	0.7	3.6	1.1	0.4	0.0	0.5
Federal	1.0	6.9	0.9	-0.5	-1.4	0.3
State and local	0.5	1.6	1.3	1.0	0.8	0.6
Exports	5.0	2.9	2.9	2.6	2.5	2.7
Imports	4.7	4.4	3.6	2.1	2.4	2.4
Memorandum:						
Net Exports (Change in billions of 2009 dollars)	-22.8	-63.1	-41.5	-3.6	-13.7	-10.0

Source: Congressional Budget Office.

Earnings

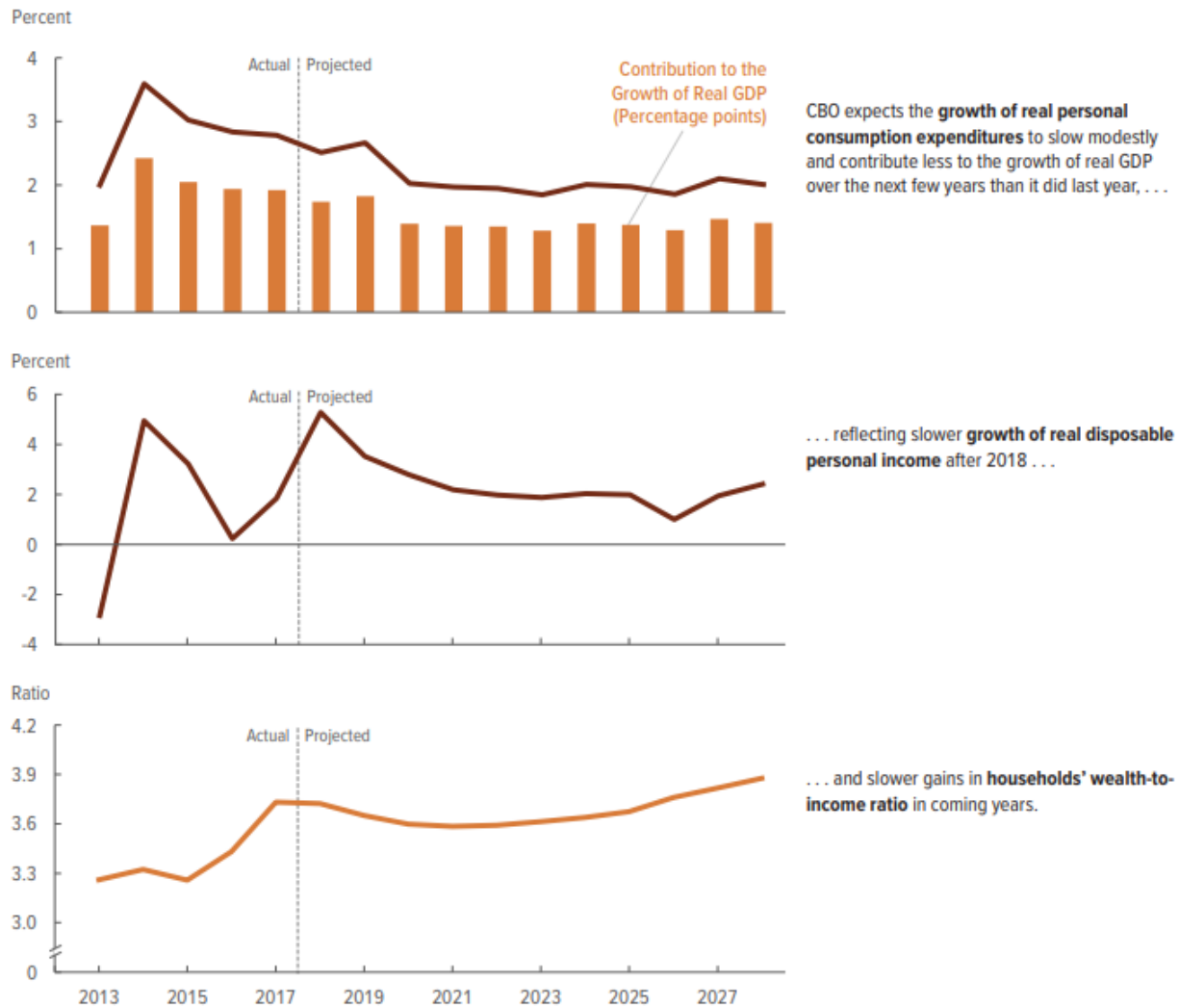
Projections from the CBO forecast that real disposable income growth should boom at 4.4% in 2018 and 2019, much faster than the current 1.0% in 2016 and 2017.¹³ This growth is driven by the individual tax reductions and the tightness of the labor markets. Disposable income is projected to slow down significantly due to the waning effects of the cuts in the individual tax rates and the slower economic growth.¹⁴

¹³ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

¹⁴ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

CURRENT ECONOMIC CONDITIONS

Real Personal Consumption Expenditures



Sources: Congressional Budget Office; Bureau of Economic Analysis; Federal Reserve.

Unemployment Rate

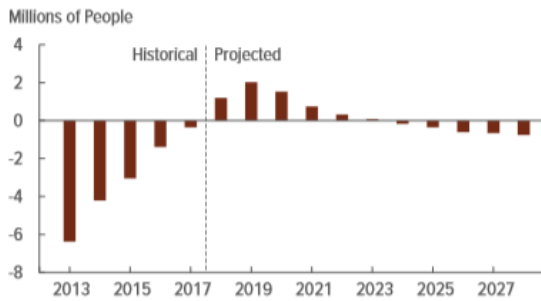
	CBO¹⁵	Federal Reserve (Median)¹⁶
Expected Unemployment Rates	2018: 3.8% 2019: 3.3% 2020: 3.6% 2021-2022: 4.4% 2023-2028: 4.8%	2018: 2.8% 2019: 3.6% 2020: 3.6% Long Run: 4.5%

¹⁵ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018. <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

¹⁶ Economic Projections. Federal Reserve. June 2018.

The Labor Market

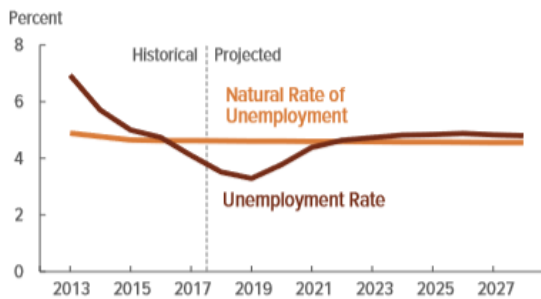
1 In CBO's projections for the near term, output growth boosts the estimated **employment gap**, ...



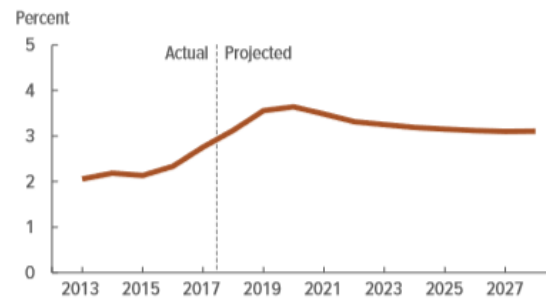
2 ... pushing the **labor force participation rate** above CBO's estimate of the **potential rate** and ...



3 ... driving the **unemployment rate** below CBO's estimate of the **natural rate**.



4 The demand for labor puts upward pressure on **growth in wages**.



Sources: Congressional Budget Office; Bureau of Labor Statistics.

According to the CBO, the unemployment rate is projected to decline down to 3.3% in 2019¹⁷, the lowest unemployment rate since October 1953.¹⁸ According to the CBO, nine out of every ten new jobs will be added to the service sector.¹⁹ Inflationary pressures will likely cause the Federal Reserve to raise interest rates, thus cooling down the economy and bumping up the unemployment rate in the longer run. The CBO and the Federal Reserve forecast the unemployment rate to be between 4% and 5% on average over the next ten years.

The recent federal tax reform should add an additional 900,000 jobs to the baseline over the 2018-2028 period.²⁰

¹⁷ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018.

<https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

¹⁸ Civilian Unemployment Rate. Federal Reserve Bank of St. Louis. May 2018.

<https://fred.stlouisfed.org/series/UNRATE/>

¹⁹ Civilian Unemployment Rate. Federal Reserve Bank of St. Louis. May 2018.

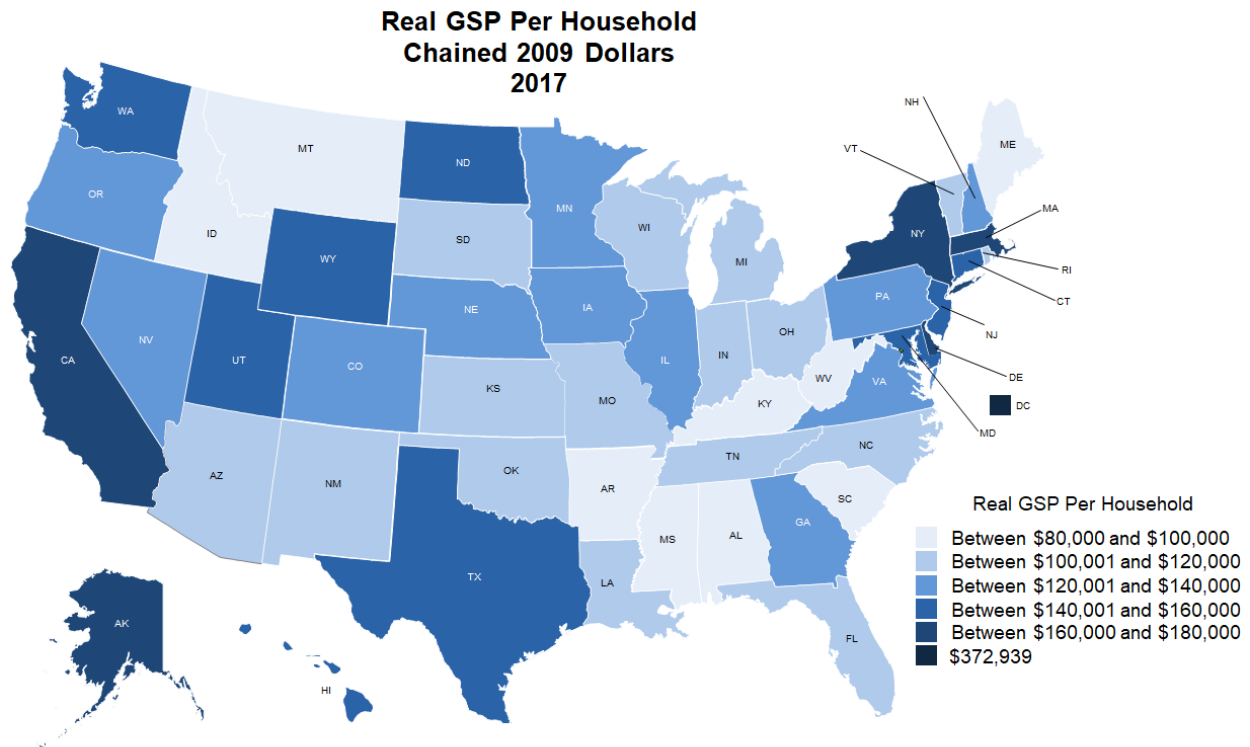
<https://fred.stlouisfed.org/series/UNRATE/>

²⁰ The Budget and Economic Outlook: 2018 to 2028. Congressional Budget Office. April 2018.

<https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53651-outlook.pdf>

State Economic Conditions

Real Gross State Products



Source: Bureau of Economic Analysis

Gross state product (GSP), or gross domestic product (GDP) by state, is a measure of output, specifically the sum of all final goods and services, produced for each state. It is a very broad measure of a state's economic health. The map above measures real gross state product, which adjusts each states' GSP to consider price inflation.

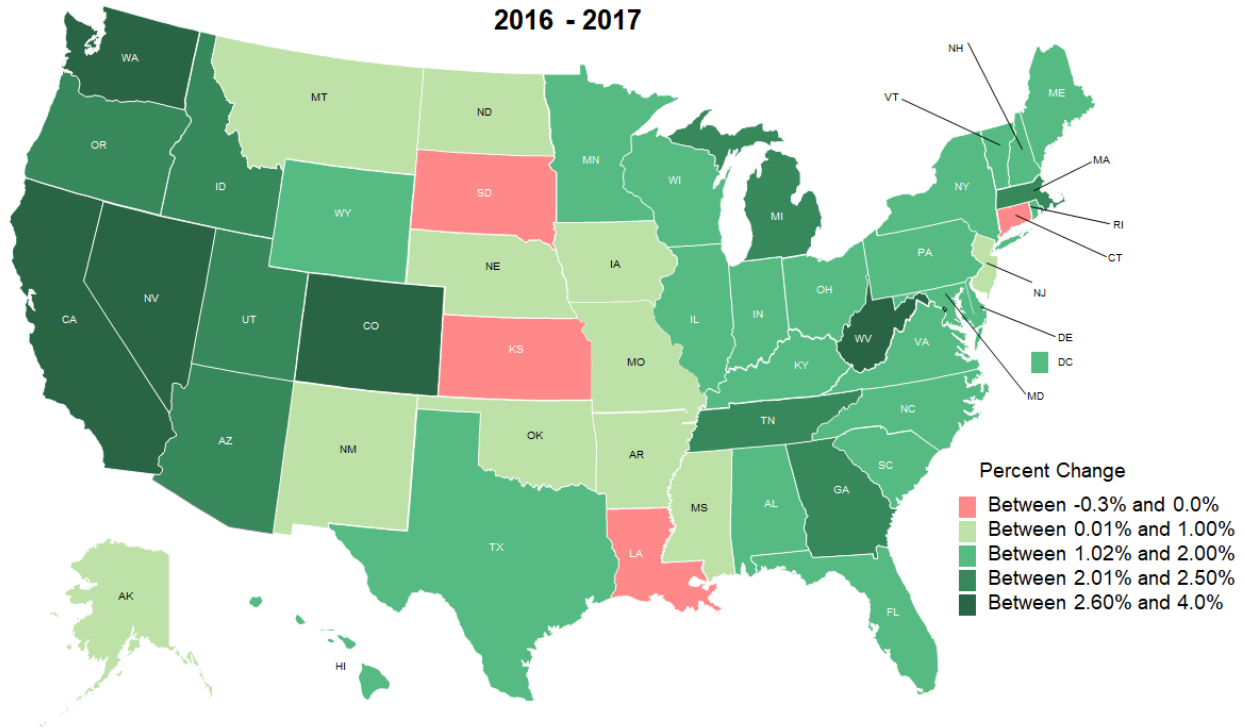
As of 2017, the US average GDP per household rounded to the nearest dollar is \$132,474, with 18 states and the District of Columbia holding higher GSPs per household and 32 states with lower. The District of Columbia has an average GSP per household of \$329,939, followed by Alaska at \$175,593, California at \$173,770, Massachusetts at \$166,245, New York at \$166,162, and Delaware at \$164,926.²¹

At the bottom of the real GSP per household list is Mississippi with \$82,194. West Virginia claims the second smallest real GSP per household at \$85,532, followed by Maine at \$89,335, Arkansas at \$90,114, and Alabama at \$92,112. Forty-two states came in at real GSPs above \$100,000.²²

²¹ Bureau of Economic Analysis.

²² Bureau of Economic Analysis.

**Percent Change in Real Gross State Product, Per Household
Chained 2009 Dollars
2016 - 2017**



Source: Bureau of Economic Analysis

From 2016 to 2017, the average real gross domestic product per household grew at 1.73%. Overall, real estate and rental and leasing, healthcare and social assistance, and durable goods manufacturing promoted growth across the board.²³

Twenty states grew faster than the national average, with Washington leading the charge at 3.91% growth due to a strong performance from their retail trade and information services sectors.²⁴ Colorado and Nevada’s growth, measured at 2.96% and 2.89% respectively, were led by growth in real estate, rental, and leasing sector.²⁵ West Virginia’s real GDP growth, originally strong due to a surge in metallurgical coal prices from a global infrastructure boom, was amplified by a decline in the number of households in the state.²⁶

Four states experienced real GDP per household declines. Agriculture, forestry, fishing, and hunting activities decreased by 1.7% nationally (the fifth consecutive quarter of decline),

²³ Gross Domestic Product by State: Fourth Quarter and Annual 2017. Bureau of Economic Analysis. May 2018. https://bea.gov/newsreleases/regional/gdp_state/2018/qgdpsstate0518.htm

²⁴ Gross Domestic Product by State: Fourth Quarter and Annual 2017. Bureau of Economic Analysis. May 2018. https://bea.gov/newsreleases/regional/gdp_state/2018/qgdpsstate0518.htm

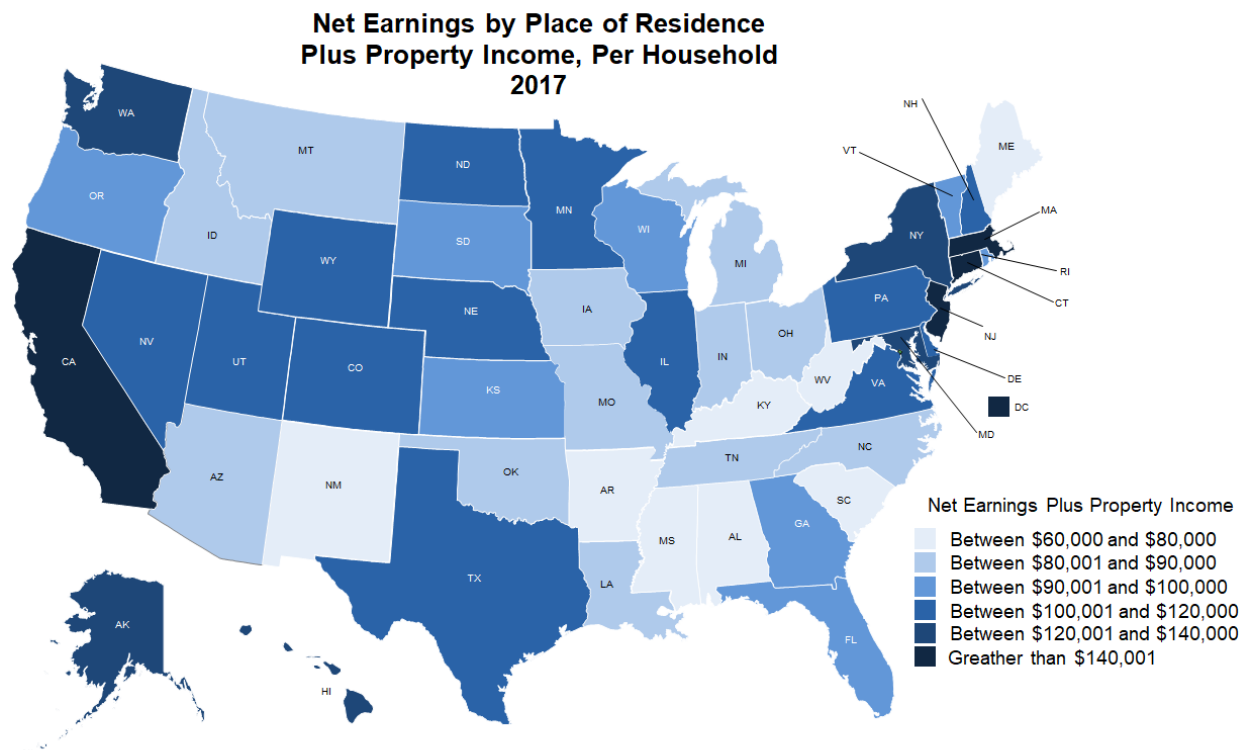
²⁵ Gross Domestic Product by State: Fourth Quarter and Annual 2017. Bureau of Economic Analysis. May 2018. https://bea.gov/newsreleases/regional/gdp_state/2018/qgdpsstate0518.htm

²⁶ “How West Virginia got to 3 percent GDP growth”. The Hill. August 2017. <http://thehill.com/homenews/state-watch/345369-how-west-virginia-got-to-3-percent-gdp-growth>

CURRENT ECONOMIC CONDITIONS

resulting in weakened growth in the Plains states and negative growth in Kansas (-0.22%).²⁷ Connecticut saw the second smallest decline of about -0.23%, caused by declines in finance, insurance, real estate, rental, leasing, government, and government enterprise sectors.²⁸ South Dakota's real GSP per household growth, although positive, was turned to a -0.25% decrease due to faster household growth than GSP growth. Louisiana's decline of 0.30% was the result of a 5.3% decline in its nondurable goods manufacturing sector, the state's largest industry as a percent of its GSP.²⁹

Earnings



Source: Bureau of Economic Analysis

Net earnings by place of residence measures the sum of wages and salaries, supplements to wages and salaries, and proprietors' income, less government social insurance contributions, adjusted to be counted as to where the earner lives. The addition of property income means that the measure also takes into account rental, dividend, royalty, and interest income. Overall, the

²⁷ Gross Domestic Product by State: Fourth Quarter and Annual 2017. Bureau of Economic Analysis. May 2018. https://bea.gov/newsreleases/regional/gdp_state/2018/qgdpstate0518.htm

²⁸ Connecticut. Bureau of Economic Analysis. March 2018. <https://www.bea.gov/regional/bearfacts/pdf.cfm?fips=09000&areatype=STATE&geotype=3>

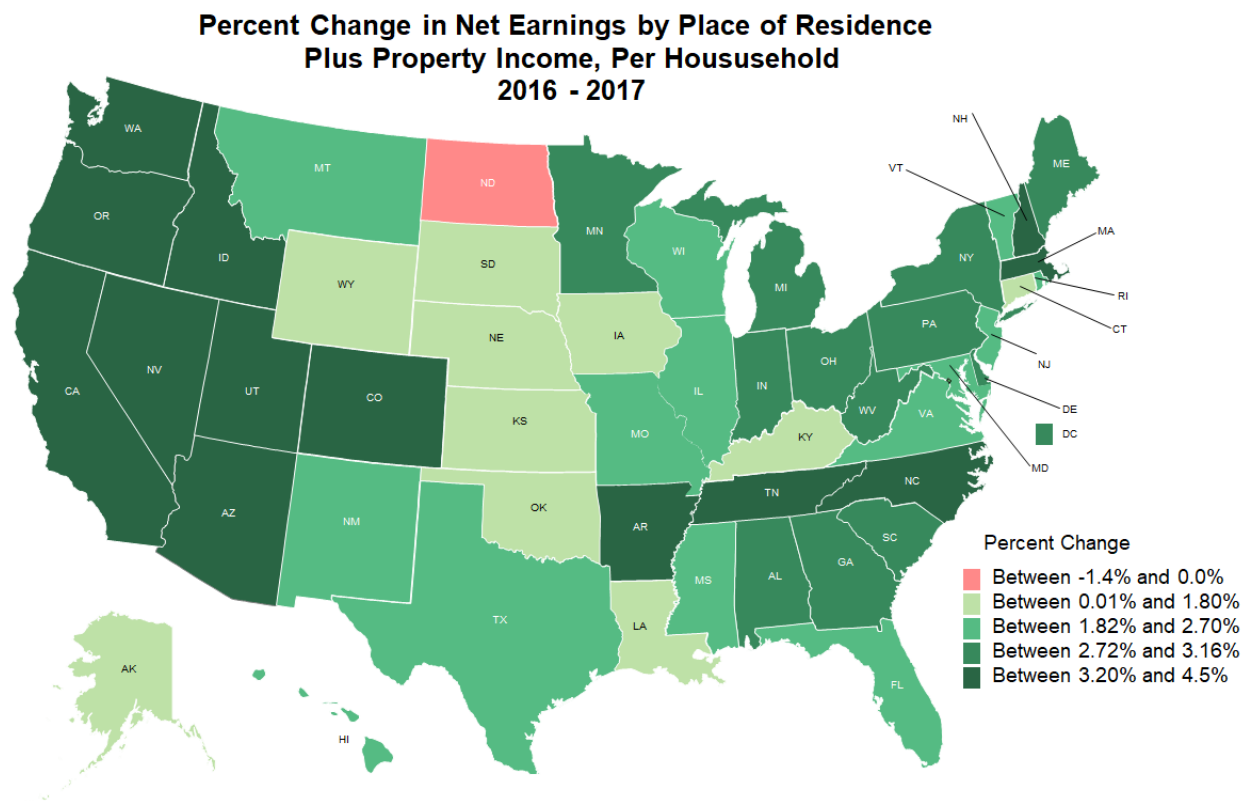
²⁹ Louisiana. Bureau of Economic Analysis. March 2018. <https://www.bea.gov/regional/bearfacts/pdf.cfm?fips=22000&areatype=STATE&geotype=3>

CURRENT ECONOMIC CONDITIONS

US national average, rounded to the nearest dollar, is at \$107,444. Eighteen states plus DC are above, whilst 32 states lay below.³⁰

The states with the highest net earnings, when including property income per household, are the District of Columbia at \$157,388, Connecticut at \$150,100, California at \$142,482, New Jersey at \$140,669, and Massachusetts at \$140,429.³¹

The states with the lowest net earnings and property income per household are West Virginia at \$61,821, Mississippi at \$67,602, Kentucky at \$72,220, New Mexico at \$76,197 and Alabama at \$76,379.³²



Source: Bureau of Economic Analysis

From 2016 to 2017, the US national average net earnings plus property income per household increased by 2.85%, or \$2,972. Across the board, most states are seeing positive growth in net earnings when considering property income. Whilst nineteen states grew faster than the national average, thirty states and DC grew slower with North Dakota being the only state in decline.³³

³⁰ Bureau of Economic Analysis.

³¹ Bureau of Economic Analysis.

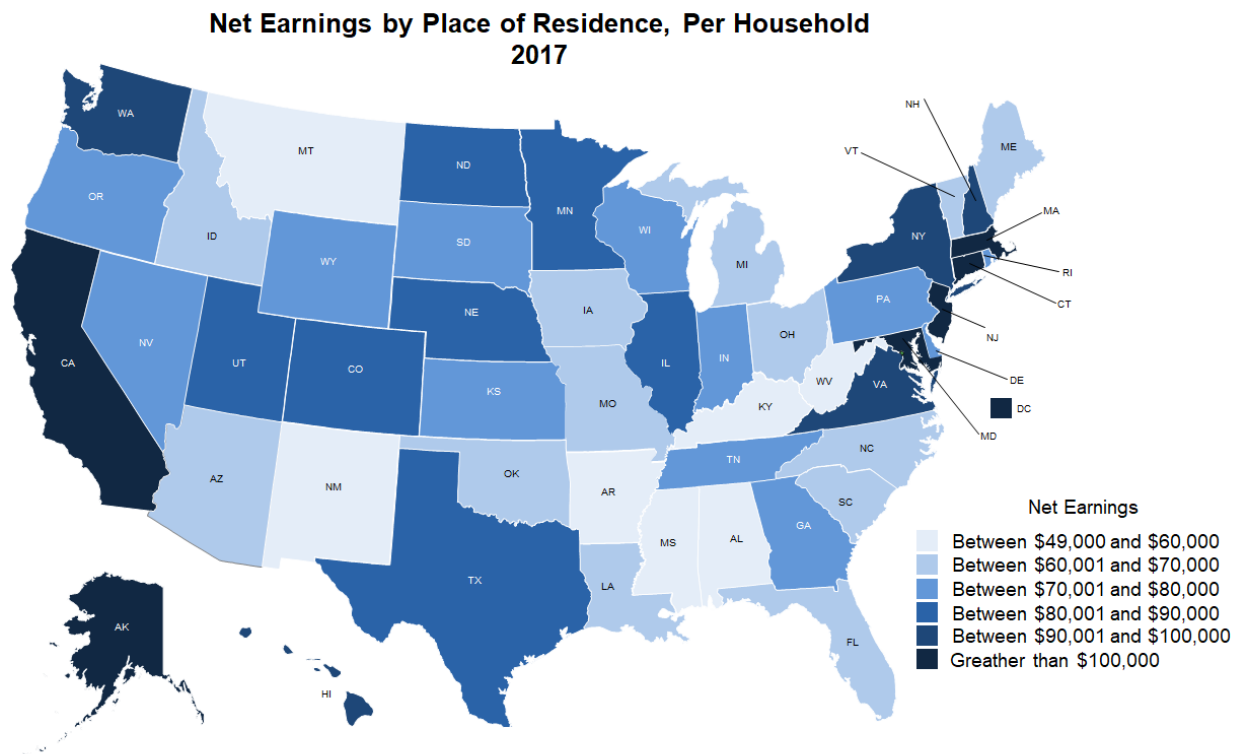
³² Bureau of Economic Analysis.

³³ Bureau of Economic Analysis.

CURRENT ECONOMIC CONDITIONS

The West saw the strongest growth in net earnings plus property income per household, most of which was generated by increases in personal income (especially for Washington, Idaho, Nevada, Utah, and Arizona).³⁴

Across the board, all states saw positive growth in property income. Washington State saw the strongest gain in property income at 4.4%, significantly stronger than the 3.3% national average. The weakest growth was in Kentucky, where property income grew at 2.4%.³⁵



Source: Bureau of Economic Analysis

As stated earlier, net earnings by place of residence measures the sum of wages and salaries, supplements to wages and salaries, and proprietors' income, less government social insurance contributions, adjusted to be counted as to where the earner lives.

The national average net earnings per household for the United States in 2018 was, rounded to the nearest dollar, \$82,246. Sixteen states and the District of Columbia earn above the national average whilst thirty-four states earn below. The largest net earnings per household are in the nation's capital at \$123,923, followed by Connecticut with \$111,841, New Jersey at \$110,400, Massachusetts at \$108,325, and California at \$107,676.³⁶

³⁴ State Personal Income: 2017. Bureau of Economic Analysis. March 2018.

<https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

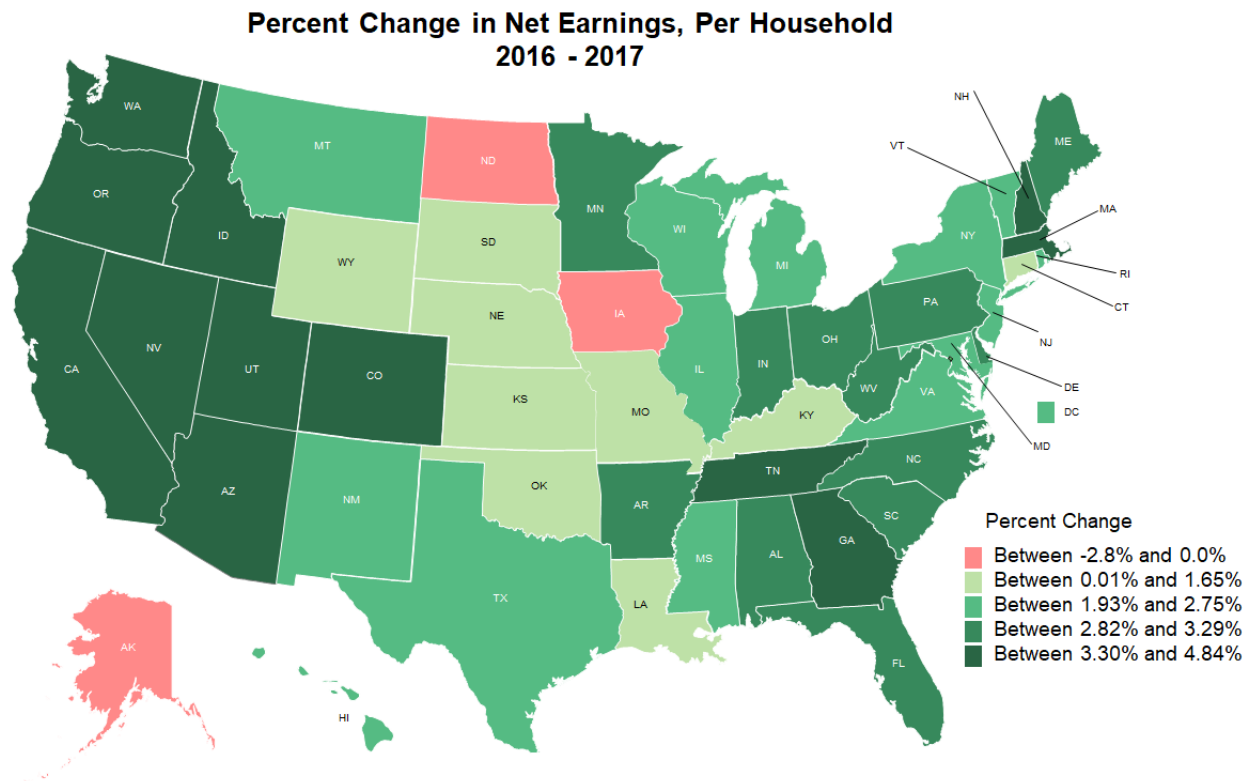
³⁵ State Personal Income: 2017. Bureau of Economic Analysis. March 2018.

<https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

³⁶ Bureau of Economic Analysis.

CURRENT ECONOMIC CONDITIONS

On the other end, the states with the least net earnings per household are West Virginia at \$49,043, Mississippi at \$53,590, Arkansas at \$54,542, Kentucky at \$57,282, and New Mexico at \$57,310.³⁷



Source: Bureau of Economic Analysis

Overall, the US saw an average increase of 2.82% in net earnings per household or approximately \$2,253. Twenty-three states and DC grew faster than the national average with twenty-four states growing slower. Overall, earnings grew thanks to strong personal income growth in healthcare and social assistance; professional, scientific, and technical services; and construction.³⁸ When factoring out property income, Alaska and Iowa joined North Dakota with net earnings per household decay.

The West faced strong net earnings per household growth mostly in part due to strong increases in personal income, especially in Washington, Idaho, Nevada, Utah, and Arizona.³⁹ Idaho's net earnings per household growth was measured at 4.84%, the strongest in the nation. Idaho's gains can be attributed to its growth in durable goods manufacturing, which grew at 9.7% compared to the 2.0% national average for the sector. In Washington, where net earnings per household grew

³⁷ Bureau of Economic Analysis.

³⁸ State Personal Income: 2017. Bureau of Economic Analysis. March 2018.
<https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

³⁹ State Personal Income: 2017. Bureau of Economic Analysis. March 2018.
<https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

CURRENT ECONOMIC CONDITIONS

at 4.71%, retail trade was the leading contributor to earnings. The national average for retail trade was a 2.9% growth, whereas Washington witnessed a stunning 15.3% growth.⁴⁰ Utah's net earnings per household growth was 4.01%, mostly due to a 7.6% rise in earnings in the professional, scientific, and technical services sector compared to the national average of 3.7%. Healthcare was the leading contributor to the earnings increase in Arizona, which saw net earnings per household rise by 4.01%. Healthcare earnings grew at 6.4% in Arizona compared to 4.1% for the nation.⁴¹ In Nevada, construction earnings rose by 13.2%, more than double the national average of 5.2%, lead to a 3.60% increase in the net earnings per household.⁴²

When excluding property income, Alaska and Iowa states slipped into negative net earnings per household growth. Farm earnings decreased by 6.6% across the nation in 2017, bogging down net earnings in the Plains states and decreasing earnings in Iowa and North Dakota (by 0.35% and 2.80% respectively).⁴³ In Alaska, the leading contributor to the 0.78% decrease in net earnings was a 2.7% mining earnings decrease in 2017.⁴⁴

Coincident Indexes

The Coincident Indexes released by the Federal Reserve Bank of Philadelphia combine four state-level indicators to summarize current economic conditions in a single statistic (see the Appendix for specifics).

Overall, all states have seen positive developments in their economic conditions over the past six months. The US national Coincident Index ticked up by 1.24% in the six months leading to May 2018.⁴⁵

From December 2017 to May 2018, New Mexico saw the strongest gain in its Coincident Index, meaning the economic conditions of the state have improved significantly. Delaware, Montana,

⁴⁰ State Personal Income: 2017. Bureau of Economic Analysis. March 2018. <https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

⁴¹ State Personal Income: 2017. Bureau of Economic Analysis. March 2018. <https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

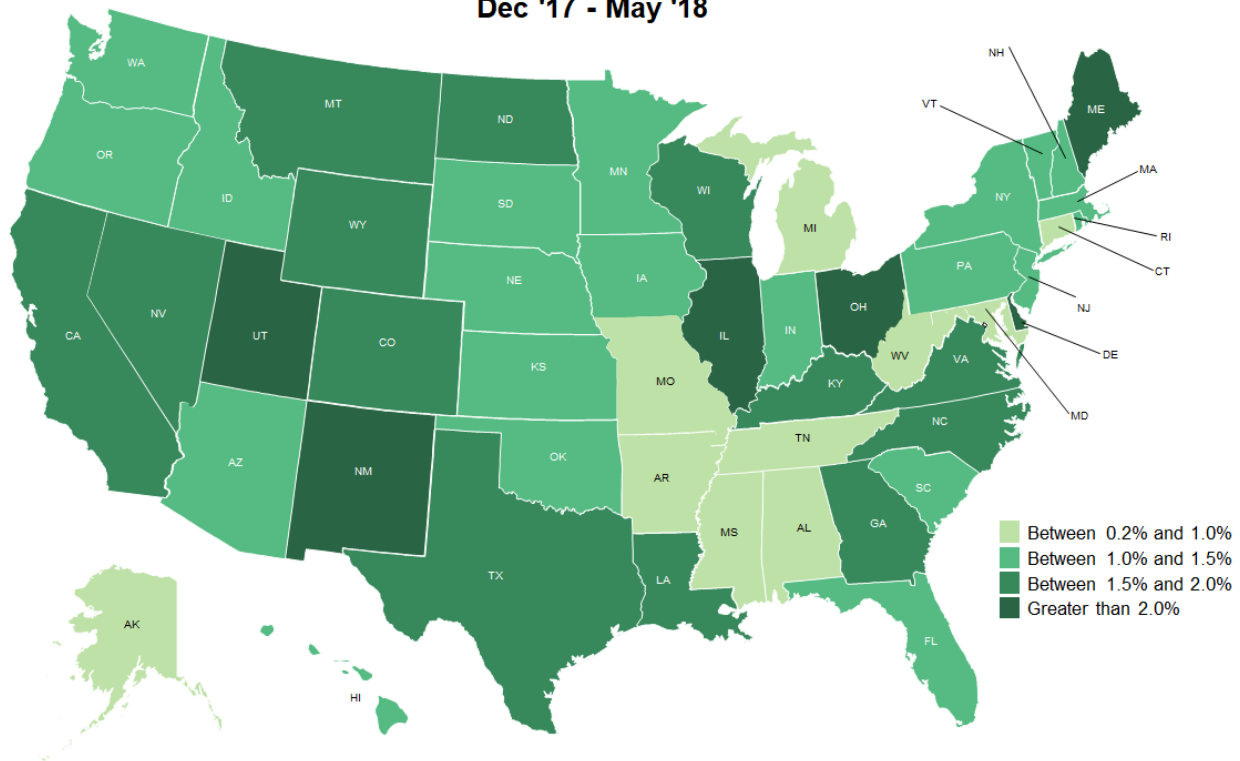
⁴² State Personal Income: 2017. Bureau of Economic Analysis. March 2018. <https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

⁴³ State Personal Income: 2017. Bureau of Economic Analysis. March 2018. <https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

⁴⁴ State Personal Income: 2017. Bureau of Economic Analysis. March 2018. <https://bea.gov/newsreleases/regional/spi/2018/spi0318.htm>

⁴⁵ State Coincident Indexes Current Report. Federal Reserve Bank of Philadelphia. May 2018.

**May 2018 State Coincident Indexes: Six-Month Change
Dec '17 - May '18**



Source: Federal Reserve Bank of Philadelphia

and New Mexico tied for the strongest gain from April to May, about 0.90% in just the one month difference.⁴⁶

The weakest improvement was in Maryland, where the Coincident Index only increased 0.22%, up slightly from the six months leading up to April 2018.⁴⁷

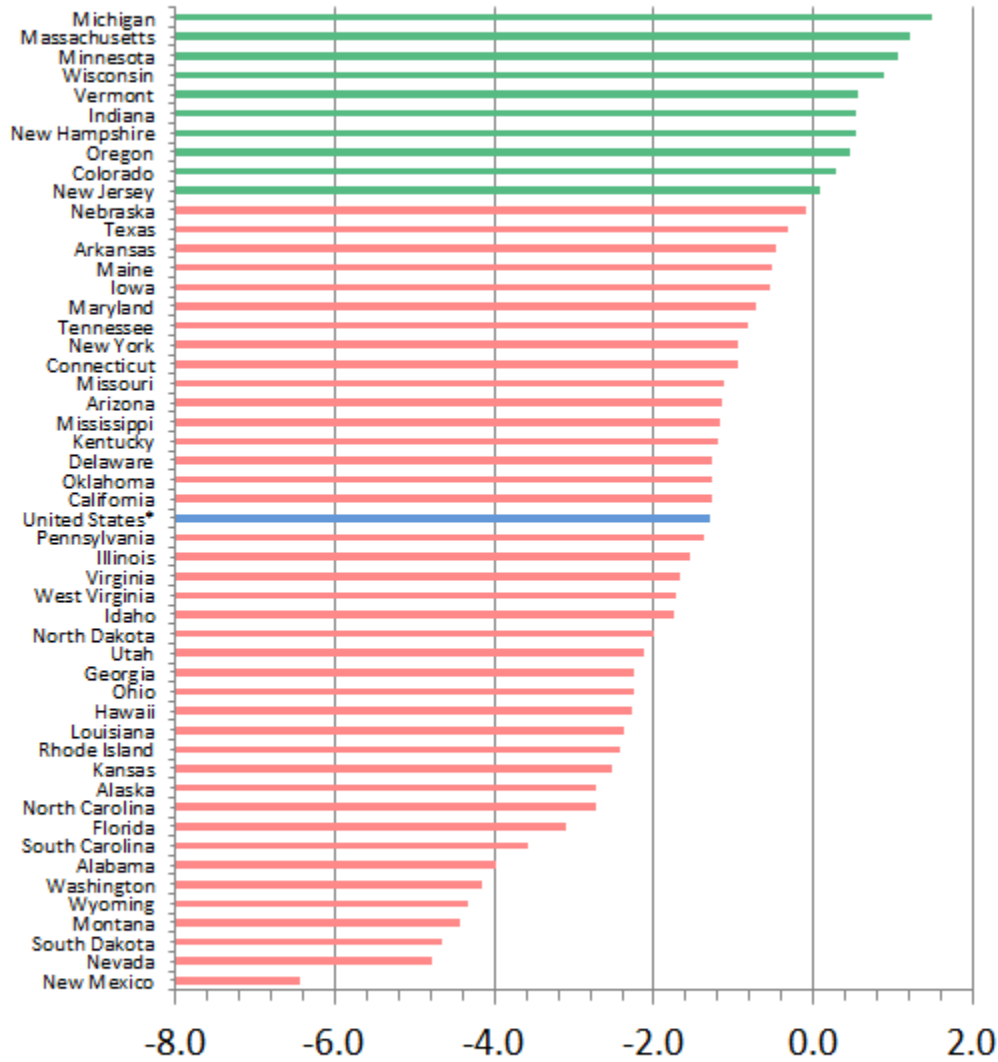
Employment to Population Ratios

The employment-population ratios for each state represent the total persons employed as a percentage of the population that could be employed. It differs from the labor force participation rate by not including those unemployed. Since 2007, 24 states have had faster declines in their employment to population ratio than the US national average. Sixteen states have had slower declines than the US national average. Only ten states saw their employment to population ratios increase, with a concentration of these states in the Northeast (New Hampshire, Massachusetts, New Jersey, Vermont) and the Midwest (Michigan, Wisconsin, Minnesota, Indiana). Oregon and Colorado join the list of states with increasing employment to population ratios.

⁴⁶ State Coincident Indexes Current Report. Federal Reserve Bank of Philadelphia. May 2018.

⁴⁷ State Coincident Indexes Current Report. Federal Reserve Bank of Philadelphia. May 2018.

Percent Change in Employment to Population Ratio¹ Calendar Year 2007 to Calendar Year 2017



¹. Ratio of employment to civilian non-institutionalized population 25 to 54 years old.

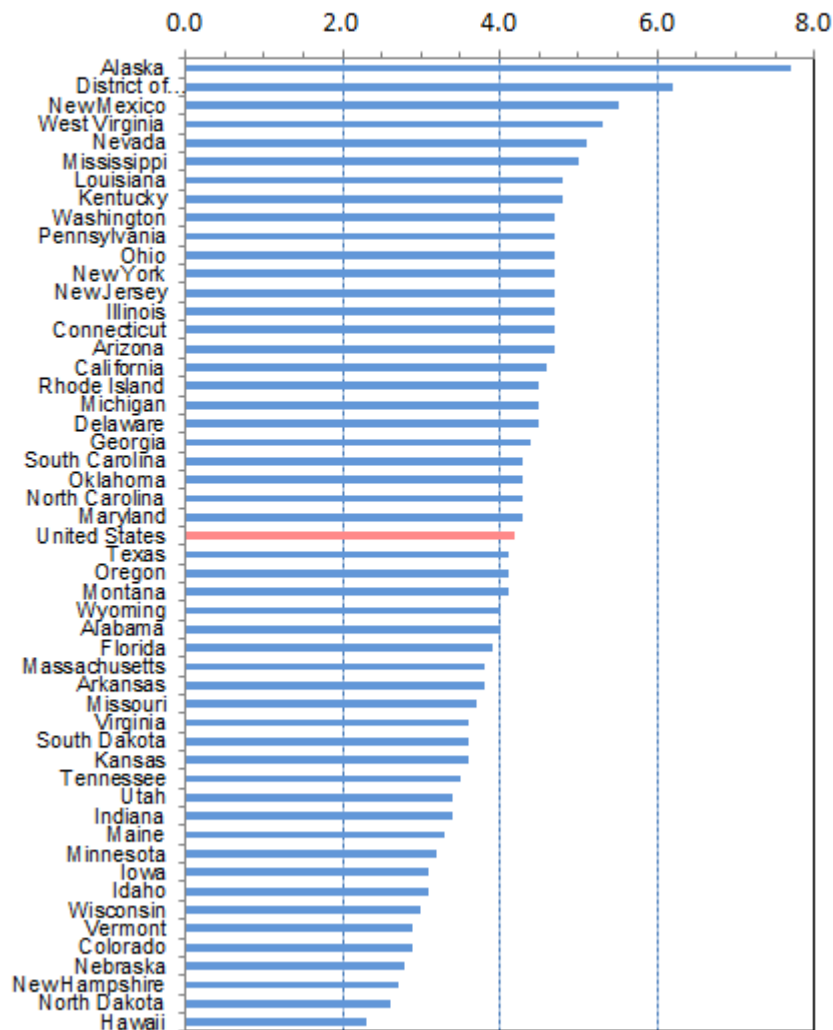
- US total includes District of Columbia.
- Red indicates employment to population ratio decreased since 2007.
- Green indicates employment to population ratio increased since 2007.
- Blue indicates the national average.

Source: Pew Charitable Trusts

Unemployment

Between the second quarter of 2017 and the first quarter of 2018, the US national U3 unemployment rate was 4.2%. This implies that only 4.2% of the civilian labor force is unemployed and looking for work. The U3 unemployment rate was less than the national

Labor underutilization by state, second quarter of 2017 through first quarter of 2018 averages: U3



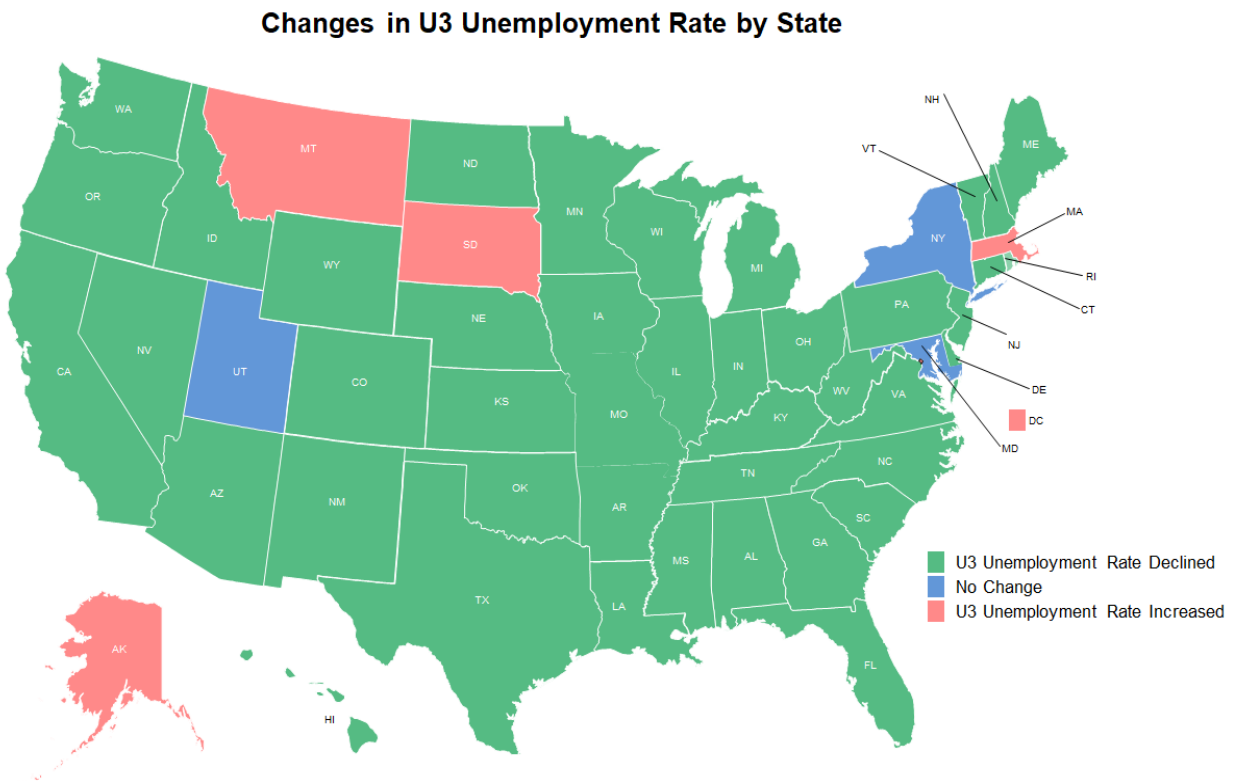
Source: US Bureau of Labor Statistics

average in twenty-six states and higher than the national average in twenty-four states and the District of Columbia.

Alaska’s notably high U3 unemployment rate may be attributed to the state’s recession. Thanks to chronically low oil prices, the state has seen employment losses across all sectors. Economists

CURRENT ECONOMIC CONDITIONS

have estimated that the recession should last through 2019, assuming the fishing, oil, and health care sectors do not falter.⁴⁸



Source: Bureau of Labor Statistics

The Bureau of Labor Statistics provides the average U3 unemployment rate by state from second quarter 2016 to the first quarter of 2017. The changes charted above reflect the change in average U3 unemployment from that time period to the average of the second quarter of 2017 to the first quarter of 2018.

Across the board, most states had declines in their U3 unemployment rates, indicating stronger economic conditions. The largest drop by percentage points were in Alabama by 1.8%, New Mexico by 1.6%, Tennessee by 1.4%, Wyoming by 1.3%, and Louisiana by 1.2%. All other states saw their U3 unemployment rates decline by less than one percent in the same time period.

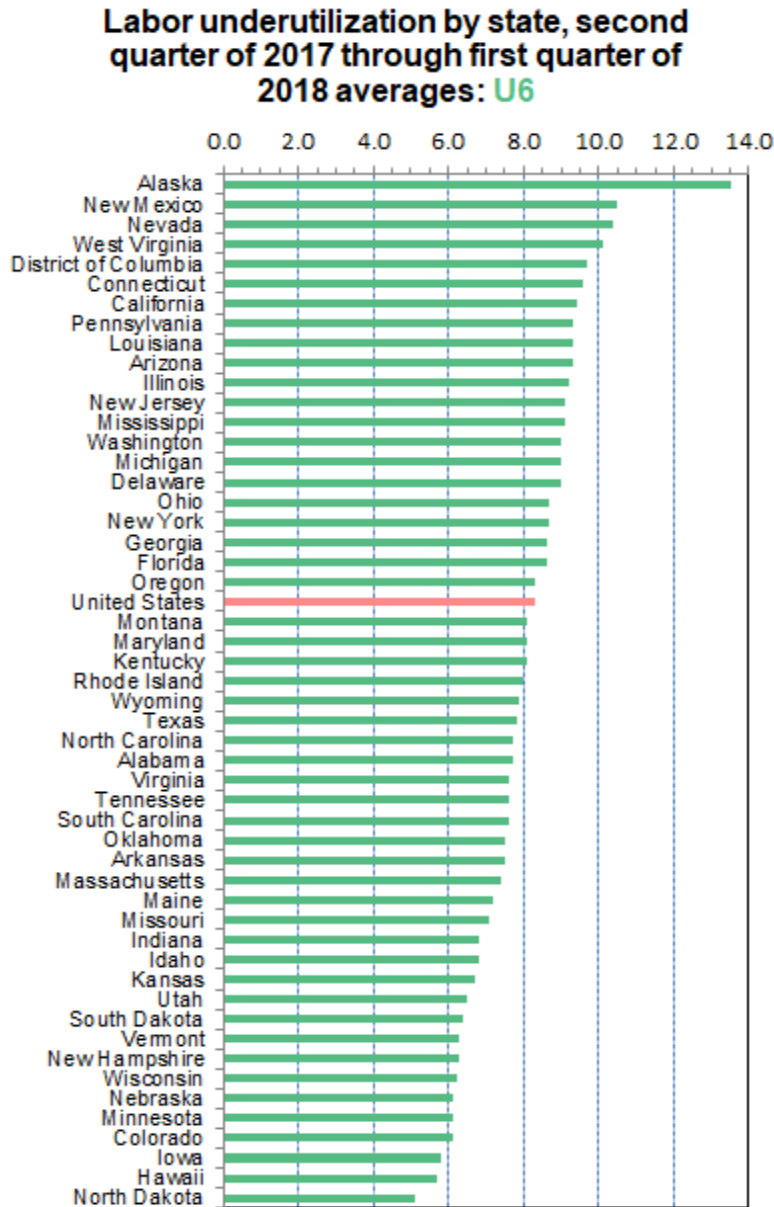
Three states, Maryland, New York, and Utah, had no change in the U3 unemployment rate over the period.

Four states and DC saw their U3 unemployment rate increase. Massachusetts and Montana's slight increase in unemployment rate averages over the period equal 0.1% changes. These upticks are relatively insignificant since their U3 unemployment rates are already low. South

⁴⁸ "Alaska's recession will last through 2019, economists tell legislature". Juneau Empire. January 2017. <http://juneauempire.com/state/2017-01-20/alaska-s-recession-will-last-through-2019-economists-tell-legislature>

CURRENT ECONOMIC CONDITIONS

Dakota’s labor force has grown at a faster rate than unemployment, causing a 0.6% increase in the state’s unemployment rate.⁴⁹ The 0.9% uptick in Alaskan unemployment is attributable to the state’s recession. The unemployment rate in Alaska dropped during the recovery from the Great Recession, bottoming out for the first half of 2015, before rising since October 2015.⁵⁰



Source: US Bureau of Labor Statistics

As stated in the National Backdrop section, the U6 unemployment rate is a broader measure of unemployment, taking into account all unemployed people looking for work, those who took on

⁴⁹ South Dakota Economic and Revenue Update. South Dakota Bureau of Finance & Management. April 2018. <https://bfm.sd.gov/econ/current.pdf>

⁵⁰ Unemployment Rate in Alaska. Federal Reserve Bank of St. Louis. May 2018. <https://fred.stlouisfed.org/series/AKUR>

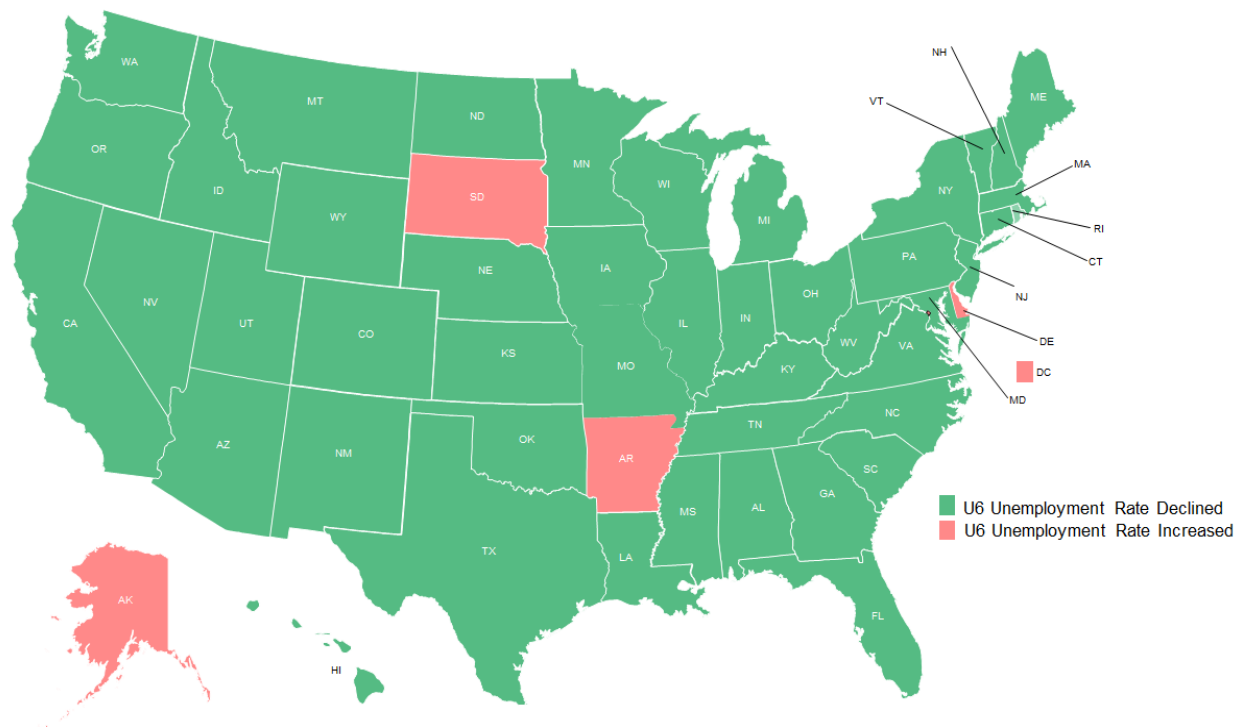
CURRENT ECONOMIC CONDITIONS

part time jobs even though they want full time jobs, and those who have looked for a job within the past year, but not recently.

The average U6 unemployment rate from the second quarter of 2017 through the first quarter of 2018 for the United States is 8.3%. Overall, thirty states have lower U6 unemployment rates than the national average and twenty states plus the District of Columbia have higher than average U6 unemployment rates.

Again, the notably high unemployment rate in Alaska can be attributed to the state's recession.

Changes in U6 Unemployment Rate by State



Source: Bureau of Labor Statistics

The Bureau of Labor Statistics provides the average U6 unemployment rate by state from second quarter 2016 to the first quarter of 2017. The changes charted above reflect the change in average U6 unemployment from that time period to the average of the second quarter of 2017 to the first quarter of 2018.

A majority of the states saw their U6 unemployment rates decline, signifying stronger labor market conditions and expanding economies. The largest declines in the U6 unemployment rates were in New Mexico at 2.5%, Alabama at 2.2%, Tennessee at 1.9% and Wyoming at 1.8%.

Four states and the District of Columbia saw increases in their U6 unemployment rates when comparing to two four-quarter averages. The District of Columbia and Delaware's increase of

CURRENT ECONOMIC CONDITIONS

0.1% and 0.2% are relatively insignificant due to both of their steadily declining unemployment rates over the period of time. Arkansas's 0.3% U6 unemployment rate uptick is due to a small reduction in the size of civilian labor force, increasing the share of those unemployed, employed part time for economic reasons, and marginally attached. Furthermore, the Arkansan unemployment rate slightly crept up in February due to brick-and-mortar layoffs and closures, contractions in telecommunications and data-processing/hosting activities.⁵¹ The Alaskan unemployment rate increase is due to the statewide recession caused by chronically low oil prices. South Dakota's 0.7% increase can be explained by the pace of its labor force growth. South Dakota's labor force has grown at a faster rate than its employment, significantly raising its unemployment rate.⁵²

Interestingly, Arkansas and Delaware saw their U3 unemployment rate decrease while their U6 unemployment rate increases. This means that while the total percentage of unemployed decreased the percentage of marginally attached workers and those employed part time for economic reasons increased (since taking a part time job would technically exclude them from U3 unemployment rate, but not U6 unemployment rate). The length of unemployment may have increased, causing marginally attached workers to be "removed" from U3 unemployment rate and added into U6 unemployment rate.

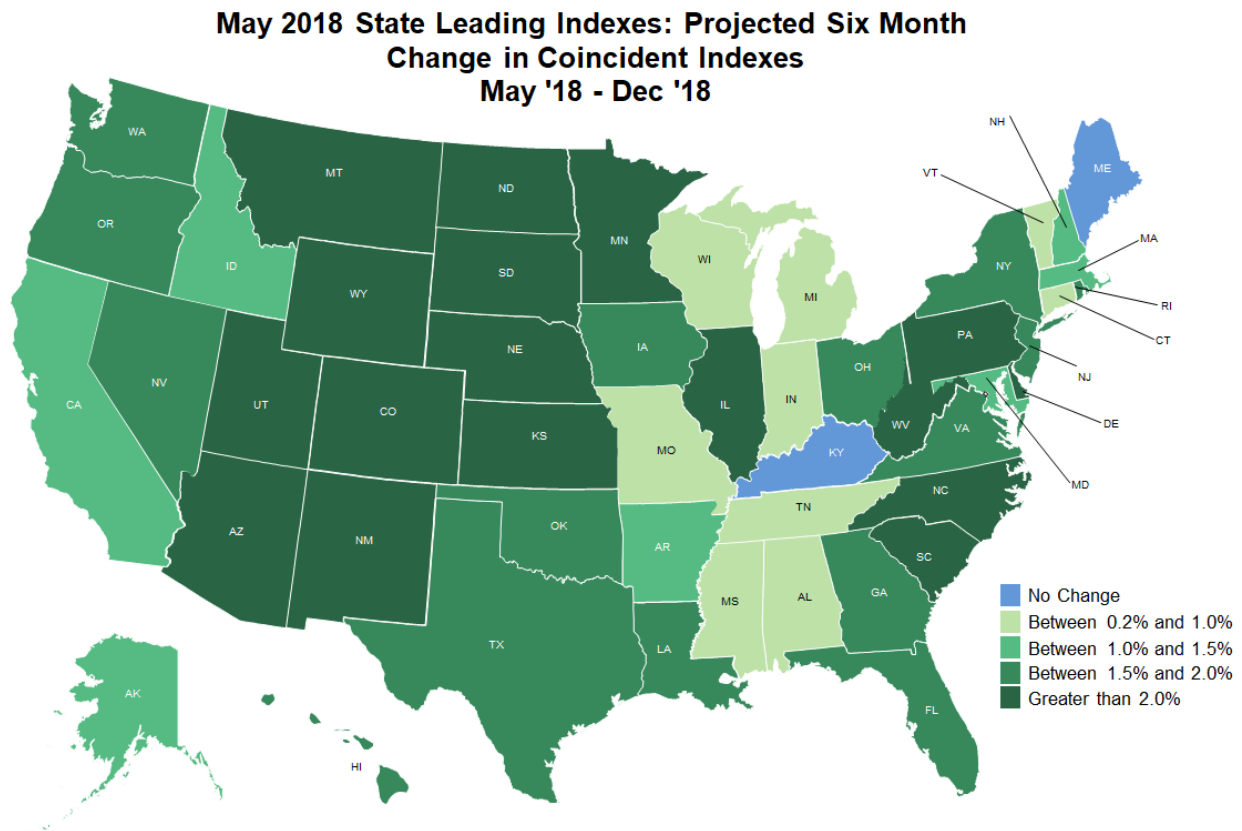
Similarly, Maryland, Massachusetts, Montana, New York, and Utah had steady or increasing U3 unemployment rates, but declining U6 unemployment rates. Thus, the total unemployed increased, but those that were marginally attached to the labor force or employed part time for economic reasons most likely left the labor force at a faster rate (since it is unlikely they found full time employment in a period of rising U3 unemployment).

⁵¹ "Arkansas jobless rate edges up to 3.8%, number of unemployed on the rise." Talk Business. March 2018. <https://talkbusiness.net/2018/03/arkansas-jobless-rate-edges-up-to-3-8-number-of-unemployed-on-the-rise/>

⁵² South Dakota Economic and Revenue Update. Bureau of Finance & Management. April 2018. <https://bfm.sd.gov/econ/current.pdf>

State Future Indicators

Leading Indexes



Source: Federal Reserve Bank of Philadelphia

The Federal Reserve Bank of Philadelphia’s Leading Indexes predicts the six-month growth rate of the state’s coincident index. The forecasts are influenced by four future-oriented indicators (see the Appendix for specifics).

Overall, the US national Leading Index forecasts that it’s Coincident Index will grow by 1.51% from May 2018 to December 2018. During that time, 48 of the states will experience strengthening economic conditions, with New Mexico leading the charge (a Leading Index of 3.90%). The Rocky Mountain region has the strongest growth of any region, with all states’ Coincident Indexes expected to rise by more than 2.0%.⁵³

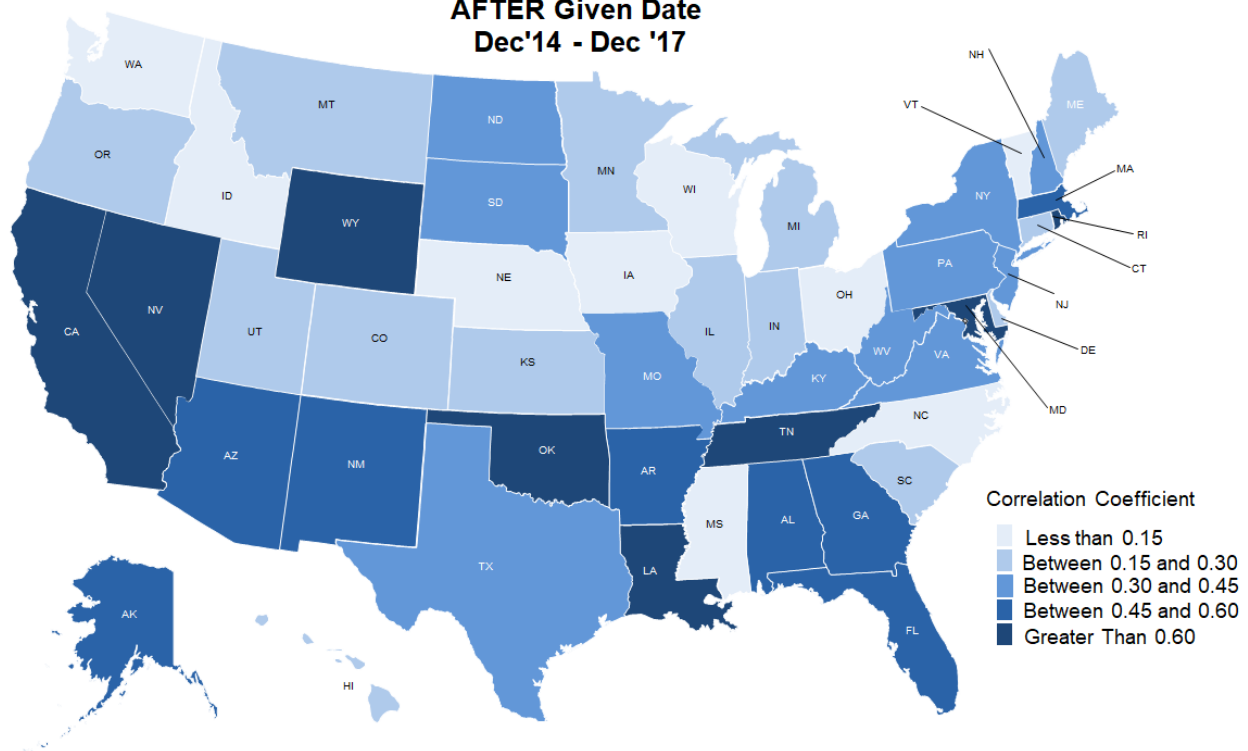
Maine and Kentucky, with Leading Indexes of -0.05 and 0.00 respectively, have been downgraded from April’s Leading Indexes.⁵⁴ Their Coincident Indexes are expected to remain relatively constant over the next six months, indicating economic stability.

⁵³ State Coincident Leading Current Report. Federal Reserve Bank of Philadelphia. May 2018.

⁵⁴ State Coincident Leading Current Report. Federal Reserve Bank of Philadelphia. May 2018.

Strength of Leading Index Projections

**Correlation Coefficients Between PROJECTED vs ACTUAL 6 Month % Change
AFTER Given Date
Dec'14 - Dec '17**



Source: Federal Reserve Bank of Philadelphia

In some states, the leading indicators provided by the Federal Reserve Bank of Philadelphia do a poor job in projecting the six month percent change in coincident indicators. This may be because the indicators do not include the impacts of state and federal legislation and demographic changes amongst other factors that may influence economic growth or decay, amongst other factors that influence economic health.

Overall, the correlation coefficient for the US national average is 0.50, meaning that the Leading Index is decently accurate at predicting changes in the national Coincident Index.

Appendix

Civilian Labor Force – a measure from the Bureau of Labor Statistics that includes all persons over the age of 16 that are employed and unemployed, but looking for work. The measure disregards those who are handicapped, retired, military personnel, employed by the federal government, or agricultural workers.

Coincident Indexes – According to the Federal Reserve Bank of Philadelphia, “the coincident indexes combine four state-level indicators to summarize current economic conditions in a single statistic. The four state-level variables in each coincident index are nonfarm payroll employment, average hours worked in manufacturing by production workers, the unemployment rate, and wage and salary disbursements deflated by the consumer price index (U.S. city average). The trend for each state’s index is set to the trend of its gross domestic product (GDP), so long-term growth in the state’s index matches long-term growth in its GDP.”⁵⁵ The coincident indicators are updated monthly.

Disposable Personal Income – personal income after taxes have been subtracted (see personal income).

Employment to Population Ratio – considers all employed persons as a percent of the civilian noninstitutionalized population (as opposed to the labor force).

Gross Domestic Product - a monetary measure of the total amount of goods and services produced in a period (for our purposes, one year) within the borders of the country.

Gross State Product – a monetary measure of the total amount of goods and services produced in a period (for our purposes, one year) within the borders of the state.

Labor Force Participation Rate – considers the labor force (all persons employed and unemployed as defined by the Bureau of Labor Statistics) as a percent of the total civilian noninstitutionalized population.

Leading Indexes – According to the Federal Reserve Bank of Philadelphia, “the leading index for each state predicts the six-month growth rate of the state’s coincident index. In addition to the coincident index, the models include other variables that lead the economy: state-level housing permits (1 to 4 units), state initial unemployment insurance claims, delivery times from the Institute for Supply Management (ISM) manufacturing survey, and the interest rate spread between the 10-year Treasury bond and the 3-month

⁵⁵ State Coincident Indexes Monthly Report. May 2018. Federal Reserve Bank of Philadelphia <https://www.philadelphiafed.org/research-and-data/regional-economy/indexes/coincident/>

CURRENT ECONOMIC CONDITIONS

Treasury bill.”⁵⁶ The leading indicators are updated monthly and released approximately one week after the related coincident indicators.

Net Earnings by Place of Residence – the sum of earnings by place of work (salaries, wages, and supplements), less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place-of-residence basis.

Personal Income – the income received by all persons from all sources (wages and salary, rent income, interest, dividends, and government transfer payments).

Property Income – interest, dividends, rent, and royalties.

Real Gross Domestic Product – an inflation-adjusted monetary measure of the total amount of goods and services produced in a period (for our purposes, one year) within the borders of the country.

Real Gross State Product – an inflation-adjusted monetary measure of the total amount of goods and services produced in a period (for our purposes, one year) within the borders of the state.

U3 Unemployment Rate – considers the total unemployed as a percent of the civilian labor force. It is commonly known as the official unemployment rate released by the Bureau of Labor Statistics.⁵⁷

U6 Unemployment Rate – considers the total unemployed, plus all persons marginally attached to the labor force, plus total employed part time for economic reason, as a percent of the civilian labor force combined with the persons marginally attached to the labor force.⁵⁸

⁵⁶ State Leading Indexes Monthly Report. May 2018. Federal Reserve Bank of Philadelphia <https://www.philadelphiafed.org/research-and-data/regional-economy/indexes/leading/>

⁵⁷ Alternative Measures of Labor Underutilization. May 2018. Bureau of Labor Statistics <https://www.bls.gov/news.release/empsit.t15.htm>

⁵⁸ Alternative Measures of Labor Underutilization. May 2018. Bureau of Labor Statistics <https://www.bls.gov/news.release/empsit.t15.htm>