# **Local Area Personal Income for 2015**

## By David G. Lenze

**P** ERSONAL INCOME grew substantially faster in the metropolitan portion of the United States (4.7 percent) than in the nonmetropolitan portion (2.7 percent) in 2015.<sup>1</sup> The percent change across counties ranged widely, from -30.3 percent in Sully County, South Dakota, to 35.0 percent in Loving County, Texas.<sup>2</sup> However, more than three-fourths of the metropolitan counties and more than one-half of the nonmetropolitan counties grew at rates between 1.1 percent and 6.0 percent (chart 1).<sup>3</sup> Inflation, as mea-

3. BEA prepares estimates of personal income for 3,113 of the counties in the United States. Some small counties (mostly in Virginia but also in Hawaii) are combined with a larger, nearby county so that geographic coverage is complete (for details see the appendix to the *Local Area Personal Income Methodology* on BEA's Web site). For statistical purposes, nonmetropolitan counties are those counties that remain after MSAs have been delineated by the Office of Management and Budget (OMB). According to the OMB, an MSA has at least one urbanized area of 50,000 or more residents plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties. MSAs are defined in terms of whole counties. Of the counties for which BEA prepares personal income estimates, 1,147 are metropolitan and 1,966 are nonmetropolitan.

sured by the national price index for personal consumption expenditures, was 0.3 percent in 2015.

A striking feature of the distribution of the nonmetropolitan growth rates was the relatively large number of extreme values. Personal income declined 2.0 percent or more in 331 nonmetropolitan counties, and personal income increased 9.1 percent or more in 58 nonmetropolitan counties. The corresponding tail frequencies for metropolitan counties were 16 and 10. Farming accounted for most of the extreme values in nonmetropolitan counties. The distribution of nonfarm personal income growth in nonmetropolitan had many fewer counties with extreme declines (chart 2).<sup>4</sup>

The local area personal income estimates presented in this article continue the successively more detailed series of data releases from the Bureau of Economic Analysis (BEA) that depict the geographic distribution of the nation's personal income for 2015. National estimates of personal income for 2015 were released in January 2016, followed by preliminary state personal income estimates in March. The local area personal income estimates provide the first glimpse of personal



# Chart 1. Distribution of Personal Income Growth Rates, 2015

### Chart 2. Distribution of Nonfarm Personal Income Growth Rates, 2015



<sup>1.</sup> Personal income, which is measured in current dollars, is the sum of net earnings by place of residence, property income, and personal current transfer receipts.

<sup>2.</sup> Both Sully and Loving counties are nonmetropolitan. Personal income growth rates for metropolitan counties ranged from -16.3 percent in Wyandotte County, Kansas (in the Kansas City metropolitan statistical area (MSA)) to 28.5 percent in Turner County, South Dakota (in the Sioux Falls MSA).

<sup>4.</sup> There were 90 nonmetropolitan counties with nonfarm personal income declines of 2.0 percent or more and 37 with increases of 9.1 percent or more.

income for 2015 in counties and metropolitan statistical areas (MSAs). The geographic picture will be completed with the release of real personal income for states and metropolitan areas in July 2017.

The estimates discussed in this article incorporate the results of the annual updates of the national income and product accounts (NIPAs) and state personal income accounts, which were released in July and September 2016, respectively.

## Metropolitan and Nonmetropolitan Contrasts

With 14 percent of the U.S. population and 12 percent of the wage and salary employment, the nonmetropolitan portion of the country accounted for 9 percent of the nation's earnings (by place of work) in 2015.5 However, reflecting the rural affinity of much mining and farming, the nonmetropolitan portion of the United States accounted for 33 percent of national earnings in the natural resource industries (table A). The nonmetropolitan area also accounted for 15 percent of manufacturing and utilities earnings. In contrast, the

5. The nonmetropolitan portion accounted for 10 percent of net earnings by place of residence.

Table A. Industrial Structure of Metropolitan and Nonmetropolitan Portions of the United States for 2015

	place of	ngs by of work of dollars)	Industry's area's tota (pere	Nonmetro- politan share of national	
	Metro- politan	Nonmetro- politan	Metro- politan	Nonmetro- politan	earnings (percent)
Natural resources <sup>1</sup> Construction	192.1 570.0 970.3 1,107.8 353.9 362.2 721.9 240.6 1,801.5 1,283.0 819.8 1,618.0 861.4	95.0 70.3 172.0 109.0 45.1 10.0 28.8 15.3 71.2 115.7 85.0 216.4 131.6	1.9 5.7 9.7 11.0 3.5 3.6 7.2 2.4 17.9 12.8 8.2 16.1 8.6	9.2 6.8 16.6 10.5 4.4 1.0 2.8 1.5 6.9 11.2 8.2 20.9 12.7	33.1 11.0 15.1 9.0 11.3 2.7 3.8 6.0 3.8 8.3 9.4 11.8 13.2
Total	10,041.1	1,033.6	100.0	100.0	9.3

Consists of farm; forestry, fishing, and related activities; and mining, quarrying, and oil and gas extraction.
 Consists of professional, scientific, and technical services; management of companies and enterprises; and administrative and support and waste management and remediation services.
 Consists of arts, entertainment and recetation; accommodation and food services; and other services

(except public administration).

information industry accounted for just 2.7 percent of earnings in nonmetropolitan counties.

Personal income growth in the metropolitan portion slowed to 4.7 percent in 2015 from 5.5 percent in 2014 (table B). The slowdown was attributable to property income (dividends, interest, and rent), which grew 2.8 percent in 2015, down from 8.3 percent. Personal income growth in the nonmetropolitan portion of the United States also slowed. A slowdown in net earnings growth to 1.6 percent from 1.9 percent reinforced the slowdown in property income.

Population in the metropolitan portion of the United States grew 0.9 percent in 2015, the same as in 2014 (table C). Wage and salary employment increased 2.2 percent in 2015 after increasing 2.1 percent in 2014. Employment growth in the nonmetropolitan portion of the United States slowed to 0.5 percent in 2015 from 1.0 percent in 2014, growing at less than half the pace than of the metropolitan portion in both years. Nonmetropolitan population was unchanged in 2015 after falling 0.1 percent in 2014.

Teton County, Wyoming, had the highest per capita personal income in 2015, \$194,861, more than four times the national average of \$48,112 (chart 3). The next three counties with the highest per capita personal incomes were New York, New York (\$156,708); Shackelford, Texas (\$132,989); and Pitkin, Colorado (\$126,137). The major sources of personal income of these counties differ substantially (table D):

- More than three-fourths of the personal income in Teton County was in the form of dividends, interest, and rent.
- Pitkin County's high per capita personal income was also largely due to property income, which accounted for 61 percent of its personal income in 2015. Per capita personal income increased \$2,319 from 2014 to 2015 in Pitkin County. This increase, combined with a \$26,539 decline in the per capita personal income of Williams County, North Dakota, gave Pitkin the fourth-highest per capita personal income in the country.6

6. Earnings in the mining, quarrying, and oil and gas extraction industry fell 25 percent in Williams County in 2015. In prior years, Williams County had benefited from the development of the Bakken shale formation.

#### Table B. Personal Income Change by Component for U.S. Metropolitan and Nonmetropolitan Portions

		Percent	change		Dollar change (billions of dollars)				
	Personal income	Net earnings	Dividends, interest, and rent	Transfer receipts	Personal income	Net earnings	Dividends, interest, and rent	Transfer receipts	
2013–2014									
United States Metropolitan portion Nonmetropolitan portion	5.2 5.5 3.2	4.6 4.9 1.9	8.0 8.3 6.0	4.6 4.7 4.1	732.7 680.5 52.2	410.6 392.0 18.5	209.7 192.9 16.8	112.4 95.5 16.9	
2014–2015									
United States Metropolitan portion Nonmetropolitan portion	4.5 4.7 2.7	4.7 5.1 1.6	2.8 2.8 3.3	5.4 5.6 4.6	662.4 617.1 45.3	443.7 427.7 16.0	80.4 70.7 9.7	138.3 118.8 19.5	

- In contrast, net earnings (earnings by place of work plus the adjustment for residence less contributions for government social insurance) accounted for more than three-fourths of the personal income in Shackelford County and exceeded \$100,000 per person (table D). Mining, quarrying, and oil and gas extraction accounted for more than 80 percent of earnings in 2015 in Shackelford.<sup>7</sup>
- Both property income and net earnings contributed to New York County's high per capita personal income. The small and nonmetropolitan populations of Teton County (23,125 residents), Pitkin County (17,787), and Shackelford County (3,350) contrast sharply with New York County's 1.6 million residents in 2015.
- Wheeler County, Georgia, had the lowest per capita personal income of all counties in 2015 (chart 4). Its per capita personal income of \$16,007 was about a third of the national average of \$48,112 (table E). Part of the reason for its relatively low per capita personal income is the large share of its population living in group quarters—almost a third. Many of the group quarter residents are prisoners with little income. Union County, Florida, and Telfair County, Georgia, also have a relatively large number of prisoners with little income.

Per capita income in Issaquena, Mississippi, fell 40 percent—from \$30,810 in 2012 to \$18,598 in 2015. Farming accounts for most of the decline. Farm earnings were negative in 2015, the first time since 2008.

## **New Metropolitan Statistical Area**

The Office of Management and Budget (OMB) announced that Garfield County, Oklahoma, now quali-

7. Per capita personal income fell \$19,420 in Shackelford from 2014 to 2015. The decline can be accounted for by a 21 percent decline in mining, quarrying, and oil and gas extraction earnings.

Table C. Population and Jobs for U.S. Metropolitan and
Nonmetropolitan Portions

	Percent	change	Cha	nge
	2014	2015	2014	2015
Metropolitan portion				
Population Wage and salary jobs	0.9 2.1	0.9 2.2	2,505,948 2,631,033	2,516,408 2,741,335
Nonmetropolitan portion				
Population Wage and salary jobs	-0.1 1.0	0.0 0.5	-25,942 164,967	-4,989 81,665

Table D. Personal Income and its Major Components

[Dollars per person]

	Teton,	New York,	Shackelford,	Pitkin,	U.S.
	Wyoming	New York	Texas	Colorado	average
Personal income Net earnings by place of residence Dividends, interest, and rent Personal current transfer receipts	194,861 41,325 148,516 5,020	49,847		126,137 43,729 77,385 5,022	48,112 30,729 9,049 8,334

fies as a metropolitan statistical area (MSA). The new MSA, named Enid, Oklahoma, brings the total number of MSAs to 382. As one might expect for a region making the transition from nonmetropolitan status to metropolitan, the economic indicators for Enid are often above the nonmetropolitan and below the metropolitan average. In 2015, Enid had a population of 63,569 and a per capita personal income of \$44,985. Its per capita income was 18.8 percent above the nonmetropolitan average but 9.7 percent below the metropolitan average. Government accounted for 16.7 percent of earnings in Enid, followed by natural resources, which

#### Chart 3. Counties With the Highest Per Capita Personal Income for 2015



### Chart 4. Counties With the Lowest Per Capita Personal Income for 2015



## Table E. Personal Income and its Major Components

[Dollars per person]

	Wheeler,	Union,	Issaquena,	Telfair,	U.S.
	Georgia	Florida	Mississippi	Georgia	average
Personal income	16,007	2,809	18,598	19,306	48,112
Net earnings by place of residence	7,400		5,862	9,443	30,729
Dividends, interest, and rent	2,205		5,638	2,649	9,049
Personal current transfer receipts	6,403		7,097	7,215	8,334

accounted for 16.0 percent (table F). Mining accounted for most of the natural resource earnings. Business services in Enid accounted for only 8.6 percent of earnings, about half the metropolitan average of 17.9 percent.

## Updated Data Sources and Definitions

Along with the release of new estimates for 2015, BEA released revised estimates of local area personal income for 1998–2014. BEA typically revises the esti-

Table F. Earning	s by Industry	. Enid. (	OK MSA.	2015

	Earnings by place of work (billions of dollars)	Industry's share of area's total earnings (percent)
Natural resources 1         Construction         Manufacturing and utilities         Wholesale and retail trade         Transportation and warehousing         Information         Finance and insurance         Real estate and rental and leasing         Business services 2         Education, health care, and social assistance         Leisure, hospitality, and other 3         Government and government enterprises	0.323 0.166 0.206 0.336 0.100 0.015 0.065 0.038 0.174 0.217 0.140 0.337	16.0 8.2 10.2 11.7 5.0 0.8 3.2 1.9 8.6 10.8 6.9 16.7
Local government	0.129 <b>2.016</b>	6.4 <b>100.0</b>

Consists of farm; forestry, fishing, and related activities; and mining, quarrying, and oil and gas extraction.
 Consists of professional, scientific, and technical services; management of companies and enterprises; and administrative and support and waste management and remediation services.

 Consists of arts, entertainment and recreation; accommodation and food services; and other services (except public administration). mates for the preceding 2 years when it updates the local area personal income statistics in order to incorporate the results of the annual updates of the national income and product accounts (NIPAs) and the state personal income accounts and to incorporate local area source data that are more complete and more detailed than those previously available.<sup>8</sup> In addition, this year's revision introduced new source data and methodological improvements that entailed revisions to estimates of several components of personal income as far back as 1998, including the following.<sup>9</sup>

**Improved geocoding and editing of Internal Revenue Service returns.** Previously, BEA tabulated the universe of Internal Revenue Service Form 1065 (partnership returns) and Form 1040 Schedule C (sole proprietor returns) by county based primarily on the five-digit ZIP codes reported on the returns. When a five-digit ZIP code crossed county lines, the

#### **Data Availability**

The complete set of annual personal income and employment statistics for counties, metropolitan statistical areas, micropolitan statistical areas, metropolitan divisions, consolidated statistical areas, and the metropolitan and nonmetropolitan portions of states and for all years are available interactively on BEA's Web site.

The estimates were revised for 1998 forward.

The local area personal income and employment sta-

tistics are also available through members of the BEA User Group, which consists of state agencies and universities that help BEA disseminate the statistics in their states. A list of the BEA user groups is available on BEA's Web site.

For more information about the statistics, contact the Regional Income Division at 301–278–9321 or e-mail reis@bea.gov.

	Time series	Time lag
Personal Income Summary		
Personal Income, Population, Per Capita Personal Income (table CA1)	1969-2015	11 months
Personal Income and Employment by Major Component (table CA4)	1969-2015	11 months
Personal Income by Major Component and Earnings by NAICS Industry (table		
CA5N)	2001-2015	11 months
Personal Income by Major Component and Earnings by SIC Industry (table CA5)	1969-2000	*
Compensation of Employees by NAICS Industry (table CA6N)	2001-2015	11 months
Compensation of Employees by SIC Industry (table CA6)	1969-2000	*
Total Full-Time and Part-Time Employment by NAICS Industry (table CA25N)	2001-2015	11 months
Total Full-Time and Part-Time Employment by SIC Industry (table CA25)	1969-2000	*
Economic Profile (table CA30)	1969-2015	11 months
Personal Current Transfer Receipts (table CA35)	1969-2015	11 months
Farm Income and Expenses (table CA45)	1969-2015	11 months
Gross Flow of Earnings (table CA91)	1990-2015	11 months
BEA Regional Fact Sheets (BEARFACTS)	2015	11 months

\* The data in these tables are only revised as part of a flexible annual revision and as part of a comprehensive revision.

NAICS North American Industry Classification System SIC Standard Industrial Classification

<sup>8.</sup> See Stephanie H. McCulla and Shelly Smith, "The 2016 Annual Update of the National Income and Product Accounts," SURVEY OF CURRENT BUSINESS 96 (August 2016) and David G. Lenze, "Revisions to Annual State Personal Income" in the "Regional Quarterly Report," SURVEY 96 (October 2016).

<sup>9.</sup> These changes were discussed in David G. Lenze, "Preview of the 2016 Annual Revision of State and Local Area Personal Income Accounts" in the "Regional Quarterly Report," SURVEY 96 (July 2016). Additional details about the implementation of these changes at the state level are provided in the October 2016 "Regional Quarterly Report."

ZIP-code-to-county file assigned the entire ZIP code to a single county.<sup>10</sup>

Beginning with data for 2001, BEA now tabulates the IRS forms using an improved methodology. BEA first attempts to assign a return to a county based on the nine-digit ZIP code reported on the return (ninedigit ZIP codes do not cross county borders). About 95 percent of the Form 1065 returns and 35 percent of the Schedule C returns can be geocoded using their ninedigit ZIP codes. The remaining returns are geocoded using their five-digit ZIP codes. Since some five-digit ZIP codes comprise addresses in multiple counties, the amounts reported on the returns are allocated to those counties in proportion to the number of residential delivery addresses. Less than 1 percent of the returns cannot be geocoded by this new method. An important feature of this new method is the use of ZIP code to county look-up files (the ZIP+4 product and the Delivery Stats File) that are updated annually by the United States Postal Service.

BEA also eliminated the editing rule that deleted partnership returns that had zero ordinary business income. This rule excluded partnerships, mostly in the real estate industry, that had no ordinary business income, but may have had net rental real estate income (or other net rental income).

In tabulating the IRS returns, amounts for some in-

dustries, particularly at the county level, must be suppressed to avoid disclosure of confidential information (generally, when there are less than 20 returns).<sup>11</sup> For 2-digit NAICS industries at the county level, BEA now replaces the suppressed amount with an imputed value, which is consistent with higher level aggregations across industries and counties but also respects nondisclosure rules.

In addition, BEA increased the outlier threshold for individual returns from \$10 million to \$5 billion, allowing the tabulations to reflect more of the variance inherent in the source data than in the past.

**Improved allocation of state estimates of nonfarm proprietors' income to counties.** Previously, the state estimates of nonfarm proprietors' income were allocated to counties using net receipts (gross receipts and sales less returns and allowances) reported on Form 1065 and Form 1040 Schedule C. Beginning with estimates for 2001, BEA now uses net profits data (from the same forms) as the allocating series. Net profits are used in the estimation of nonfarm proprietors' income in the NIPAs and are used to allocate the national estimates to the states.

The county estimates are prepared in two steps. First, the state estimates for the 2-digit NAICS sectors are allocated to the counties using a 3-year moving average of the net profits data. Next, the resulting sectorlevel county estimates are allocated to 3-digit NAICS subsectors using the state estimates for the subsectors. The net profits data are not used to make estimates for

11. Formerly the suppression threshold was 10 returns.

#### Acknowledgments

The annual estimates of local area personal income were prepared by the Regional Income Division under the direction of Mauricio Ortiz, Chief. Methodological research and analysis of the estimates was provided by David G. Lenze. Joel D. Platt, Associate Director for Regional Economics, provided general guidance. The preparation of the revised estimates was a division-wide effort.

The estimates of wages and salaries, supplements to wages and salaries, and farm proprietors' income were prepared by the Compensation Branch, under the supervision of Marcelo F. Yoon, Chief. Major responsibilities were assigned to Peter Battikha, Michael L. Berry, John D. Laffman, Carrie L. Litkowski, and Paul K. Medzerian. Contributing staff members were Daniel R. Corrin, Terence J. Fallon, David Guo, Hong Han, Michelle A. Harder, Nayana S. Kollanthara, Nik Manohar, Krishna J. Parajuli, Ross A. Stepp, and Troy P. Watson.

The estimates of nonfarm proprietors' income, prop-

erty income, personal current transfer receipts, contributions for government social insurance, and the adjustment for residence were prepared by the Regional Income Branch, under the supervision of Lisa C. Ninomiya, Chief. Major responsibilities were assigned to Brian J. Maisano, James P. Stehle, Matthew A. von Kerczek, and Steven L. Zemanek. Contributing staff members were Suet M. Boudhraa, Ernie Enriquez, Solomon Kublashvili, Toan A. Ly, Elizabeth C. McCormack, Nathaniel R. Milhous, W. Timothy McKeel, and Jesse E. Park.

The public use tabulations and data files were assembled and the tables were prepared by the Data and Administrative Systems Group, under the direction of Elizabeth P. Cologer and Nicholas R. Empey. Major responsibilities were assigned to Jeffrey L. Newman, Michael J. Paris, and Callan S. Swenson. Contributing staff members were Melanie Carrales, Jake C. Dillion, Monique B. Tyes, and Jonas D. Wilson.

<sup>10.</sup> See Mauricio Ortiz and Lisa Ninomiya, "BEA's County-Level Personal Income and Employment Estimates: An Enhanced Geocoding Methodol-ogy," SURVEY 96 (March 2016).

3-digit subsectors for counties because the suppressions are too numerous.12

Incorporation of county source data for years prior to 2013. Census of Agriculture farm rent data were incorporated in monetary rental income of persons, affecting county estimates beginning with 2008. American Community Survey journey-to-work data were used to revise the residence-adjusted wages and salaries, which in turn are used to allocate the state estimates of workers' compensation (a component of personal current transfer receipts) to counties. County estimates have been revised beginning with 2001.

## **Magnitude of Revisions**

The improvements made to the nonfarm proprietors' income estimates accounted for almost all of the revisions to personal income prior to 2013. In general, the revisions were less than 1 percent of personal income for about one-third of the counties for 2001 to 2012 (table G). Larger revisions between 5 percent and 10 percent of personal income affected 7-9 percent of the counties, while only 2-3 percent of the counties had revisions of 10 percent or more.

The revisions for 2013 and 2014 also reflect the replacement of preliminary estimates of certain components of county personal income based on simple extrapolations with estimates based on recently released source data, as well as the improvements to the nonfarm proprietors' income and the revisions to the state and national personal income estimates. The distribution of revisions is similar to the revisions for 2001 to 2012, though the frequency of larger revisions is a bit higher.

### Source Data

The primary 2015 county-level data used by BEA to prepare the estimates of local area personal income presented in this article were wage and salary data from the Bureau of Labor Statistics, benefits paid by the Social Security Administration, Medicare enrollment and fee-for-service expenditure data from the Centers for Medicare and Medicaid Services, and Medicaid payments from state departments of social services. In addition, IRS tabulations of 2014 federal income tax returns were used, primarily for dividends, interest, nonfarm proprietors' income, and the residence adjustment.13

Other 2015 county-level data used by BEA to prepare estimates of various components of local area personal income include the following (table H):

- For local area farm income, farm cash receipts, government payments, crop production, livestock stocks, and crop insurance indemnity payments by county for 2015 from the USDA and state offices of agricultural statistics were used.
- For military earnings, the number of full-time military and coast guard personnel by county for 2015 from the Departments of Defense and Homeland Security was used.
- For state unemployment insurance compensation, county-level data for 2015 from state employment security agencies were used.
- •For a few small components of personal income, population (excluding population in group quarters) by county for 2015 from the Census Bureau was used to allocate state estimates to the counties.

13. For complete details about the estimation methodology and data sources, see Local Area Personal Income Methodology on BEA's Web site.

Pavisian (absolute value)								Num	ber of cou	nties							
Revision (absolute value)	1998	1999	2000	2001	2002 1	2003	2004	2005	2006	2007	2008 2	2009 <sup>3</sup>	2010	2011	2012	2013	2014
0.0–0.9 percent 1.0–4.9 percent	3,039 71	2,660 448	2,259 846	1,016 1,768	953 1,779	1,068 1,746	1,067 1,769	1,084 1,737	1,005 1,753	1,105 1,729	1,114 1,695	1,084 1,711	1,012 1,775	1,045 1,720	1,047 1,698	1,017 1,694	912 1,721
5.0-9.9 percent	0	2	5	252	287	220	209	220	259	209	205	236	231	251	260	266	308
10.0 percent or more Total	0 3.110	0 3.110	0 3.110	74 3.110	92 3.111	77 3.111	66 3.111	70 3.111	94 3.111	68 3.111	98 3.112	82 3.113	95 3.113	97 3.113	108 3.113	136 3.113	172 3.113

Table G. Revisions to County Personal Income, 1998–2014

For 2002 forward, the number of counties includes Broomfield County, CO.
 For 2008 forward, the number of counties reflects the division of the Skagway-Hoonah-Angoon Census Area, AK into the Skagway Borough and the Hoonah-Angoon Census Area.
 For 2009 forward, the number of counties reflects the division of the Wrangell-Petersburg Census Area, AK into the Petersburg Census Area and the Wrangell City and Borough.

<sup>12.</sup> It was also necessary to revise county nonfarm proprietors' income for 1998-2000, which are on a SIC basis. The revision was necessary because the state estimates for those years were revised. State estimates are produced on both an SIC and NAICS basis for 1998-2000. In the absence of new county-level source data for those years, the state revisions were allocated proportionately to the counties.

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#### Table H. County Source Data Used to Estimate Local Area Personal Income<sup>1</sup>

Wages and salaries by industry	
In general	BLS Quarterly Census of Employment and Wages data
Farm	USDA Census of Agriculture data.
Agriculture and forestry support activities	USDA Census of Agriculture data.
Rail transportation	. RRB payroll and employment data; Census Bureau Journey to Work (Census of Population) data.
Educational services	<ul> <li>Census Bureau County Business Patterns payroll data; State departments of education employment data; DOE Private School Universe Survey employment data; Official Catholic Directory number of teachers in religious orders data.</li> </ul>
Membership associations and organizations	
Private households	. Household population data: <sup>2</sup> Census Bureau <i>Journey to Work</i> (Census of Population) data.
Military	. DOD personnel data; DHS Coast Guard personnel and payroll data; Household population data. <sup>2</sup>
State and local government	. Census Bureau American Community Survey wage data; RRB payroll and employment data.
Employer contributions for employee pension and insurance funds by industry	
All industries	. BEA estimates of wages and employment. <sup>3</sup>
Employer contributions for government social insurance by industry	
All industries	. BLS state unemployment insurance programs employer contributions data.
Proprietors' income	
Farm	. USDA Census of Agriculture data; USDA National Agriculture and Statistic Service crop production and livestock
	<ul> <li>stocks data; Cash receipts from state offices of agricultural statistics; USDA Farm Service Agency and Natural Resource Conservation Service government payments to farmers data; USDA Risk Management Agency crop indemnity payments data.</li> <li>IRS data on net profits of sole proprietorships and partnerships.</li> </ul>
Residence adjustment	. Census Bureau Journey to Work (American Community Survey) employment and wage data; IRS wage data.
Dividends, interest, and rent	IRS income tax returns data on dividends, taxable interest, and gross rents and royalties; OPM federal civilian retirement payments data; DOD military retirement payments data; Census Bureau <i>Census of Housing</i> data on the aggregate gross rental value of owner-occupied single family dwellings and number of mobile homes; USDA gross rental value of farm dwellings data.
Personal current transfer receipts	SSA Social Security and Supplemental Security Income enrollees and benefits data; CMS data on the number of enrollees in the Medicare Hospital Insurance, Supplementary Medical Insurance, and Part D programs; CMS Medicare Advantage fee-for-services expenditure data; data from the Treasury Department's USASpending gov (higher education student assistance and railroad worker retirement benefits); Census Bureau <i>Small Area Income and Poverty Estimates</i> (persons and children age 0–17 in poverty and number of Supplemental Nutritional Assistance Program recipients); Census Bureau American Indian and Alaska Native Alone population, and household population data; <sup>2</sup> DOD Tricare payments data; IRS refundable income tax credit data; Number of unemployed persons from the BLS <i>Local Area Unemployment Statistics</i> program; DVA veterans pension, disability, life insurance, and readjustment benefits data and number of pension and disability beneficiaries; NSF federal fellowship benefits data; Federal Reserve Bank of New York data on the number of mortgage debtors, per debtor mortgage debt balance and percent of mortgage debt in delinquency; Medicaid payments, Children's Health Insurance Program enrollment, Supplemental Nutritional Assistance Program benefits, energy assistance payments, general assistance benefits, and family assistance benefits data from the state departments of social services; State unemployment insurance compensation data from the state employment security agencies.
Employee and self-employed contributions for government social insurance	<ul> <li>CMS Medicare Parts B and D enrollment data; Census Bureau American Community Survey veteran population data; Civilian population age 18 and over data.<sup>4</sup></li> </ul>

BEA prepares some county estimates by aggregating source data available by ZIP code.
 Household population for counties is calculated as the difference between the Census Bureau population and the Census Bureau population in group quarters estimates.
 See the Local Area Personal Income Methodology for the data sources used by BEA to estimate employment.
 Civilian population for counties is based on Census Bureau population, Coast Guard employment, and Department of Defense active duty military employment data, adjusted to a place of residence basis. BLS Bureau of Lconomic Analysis
 BLS Bureau of Labor Statistics CMS Centers for Medicare and Medicaid Services DHS Department of Homeland Security

DOD Department of Defense DOE Department of Education DVA Department of Veterans Affairs IRS Internal Revenue Service NSF National Science Foundation OPM Office of Personnel Management RRB Railroad Retirement Board SSA Social Security Administration USDA U.S. Department of Agriculture

#### **Alternative Measures of County Employment and Wages**

Three widely used measures of county employment and wages by place of work are (1) employment and payroll in the *County* Business Patterns (CBP) series from the Census Bureau, (2) employment and wages from the Quarterly Census of Employment and Wages (QCEW) program from the Bureau of Labor Statistics (BLS), and (3) wage and salary disbursements and employment from the Bureau of Economic Analysis (BEA). These measures differ in source data and coverage.

The CBP data are derived from Census Bureau business establishment surveys and federal administrative records. The QCEW data are tabulations of monthly employment and quarterly wages of workers who are covered by state unemployment insurance programs or by the unemployment insurance program for federal employees.1 The BEA estimates of employment and wages are primarily derived from the BLS data; the estimates for industries that are either not covered or not fully covered in the QCEW are also based on supplemental data from other agencies, such as the Department of Defense, the U.S. Department of Agriculture, and the Railroad Retirement Board.

The coverage of the Census Bureau data differs from that of the BLS data primarily because the Census Bureau data exclude most government employees and because the BLS data cover civilian government employees.<sup>2</sup> The CBP data also exclude several private industries that are partly covered by the QCEW: crop and animal production; rail transportation; insurance and employee benefit funds; trusts, estates, and agency accounts; and private households. However, the CBP data cover the employees of educational institutions, membership organizations, and small nonprofit organizations in other industries more completely than the BLS data.<sup>3</sup> In addition, the Census Bureau reports employment only for the month of March; the BLS employment data are quarterly and annual averages of monthly data.

In 2001, both BLS and BEA began to include employees of Indian tribal councils in local government. These employees were previously included in the relevant private industries.<sup>4</sup> In the Census Bureau data, these employees are still classified in private industries.

BEA estimates of employment and wages differ from the BLS data because BEA adjusts the estimates to account for employment and wages that are not covered or that are not fully covered by the unemployment insurance programs. BEA adds estimates of employment and wages to the BLS data to bridge small gaps in coverage for nonprofit organizations that do not participate in the unemployment insurance program (in several industries), for students and their spouses employed by colleges or universities, for elected officials and members of the judiciary, for interns employed by hospitals and by social service agencies, and for insurance agents classified as statutory employees. In addition, BEA uses supplemental source data to estimate most, or all, of the employment and wages for the following: farms, farm labor contractors and crew leaders, private households, private elementary and secondary schools, religious membership organizations, rail transportation, and military. BEA also adjusts for employment and wages subject to unemployment insurance, but not reported by employers. Other adjustments to wages include estimates for unreported tips, judicial fees paid to jurors and witnesses, compensation of prison inmates, and marriage and license fees paid to justices of the peace.5

The Census Bureau released 2014 data for total employment and payrolls for counties on its Web site on April 21, 2016. BLS released county data on total employment and average weekly pay for 2015 on its Web site on June 8, 2016. BEA released estimates for 2015 and revised estimates for 2013-2014 of total wage employment and total wage and salary disbursements for counties on its Web site on November 17, 2016.

5. For a detailed description of the sources and methods used to prepare the estimates, visit www.bea.gov/regional/methods.cfm.

#### National Totals of BEA County Estimates of Wages and Salaries and **CBP Payrolls and QCEW Wages**

[Billions of dollars]

	2013	2014	2015
Total CBP payrolls	5,621.7	5,940.4	n.a.
Plus: Differences in coverage: QCEW civilian government wages 1 Other differences, net 2	1,046.9 4.0	1,076.8 –0.2	1,116.9 n.a.
Equals: Total QCEW wages	6,672.6	7,017.0	7,384.9
Plus: BEA adjustments: For unreported wages and unreported tips on employment tax returns	80.3	84.7	87.8
Privaté	228.4	240.4	251.3
Government Other BEA adjustments 3	130.3 –3.0	128.2 -1.5	127.7 –3.2
Equals: BEA estimates of wages and salaries 4	7,108.6	7,468.8	7,848.6

1. Adjusted to remove the wages of Indian tribal councils that are included in the Census Bureau's total payroll

2: Includes differences of coverage in private education, membership organizations, and government 3: Adjusted to remove wage and salary of employees of U.S. companies stationed overseas and to re conclusion.

is and to reflect undates to QCEW data.

to QCEW data. 4. Consists of the earnings of persons who live in the United States and of foreign residents working in the United States. The regional total differs from the national estimate; see "Personal income in the NIPAs and State Personal Income, Surver or Current Business 95 (October 2016); 10. Nore. Details may not equal totals due to rounding. n.a. Not available

BEA Bureau of Economic Analysis

CBP County Business Patterns QCEW Quarterly Census of Employment and Wages

Liz McCormack

<sup>1.</sup> The QCEW data account for 94 percent of BEA's wages and salaries.

<sup>2.</sup> The Census Bureau data cover only those government employees who work in government hospitals, federally chartered savings institutions and credit unions, liquor stores, and wholesale liquor establishments, and university publishers. The BLS data in most states exclude state and local elected officials, members of the judiciary, state national and air national guardsmen, temporary emergency employees, and employees in policy and advisory positions

<sup>3.</sup> The BLS data do not cover certain religious elementary and secondary schools because a Supreme Court decision exempts some of these schools from unemployment compensation taxes. The BLS data also exclude college students (and their spouses) who are employed by the school in which they are enrolled and student nurses and interns who are employed by hospitals as part of their training. In half of the states, the BLS data only include nonprofit organizations with four or more employees during 20 weeks in a calendar year.

<sup>4.</sup> For example, employees of casinos owned by tribal councils were included in "Amusement, Gambling, and Recreation Industries."