

Regional Quarterly Report

GDP, personal income, and more...

By David G. Lenze

State personal income for 2018

State personal income grew 5.6 percent on average in 2018, up from 4.7 percent in 2017 (table A). Personal income growth accelerated in 43 states.¹ Inflation, as measured by the national price index for personal consumption expenditures, accelerated to 2.1 percent in 2018 from 1.8 percent in 2017. Personal income growth rates in 2018 ranged from 3.9 percent in Kentucky and Mississippi to 7.5 percent in Washington. Growth rates of per capita personal income, which adjusts for differential population growth, ranged from 3.6 percent in Kentucky to 7.1 percent in Wyoming.

Table A. Percent Change in Personal Income and Select Components by State

	2017						2018					
	Personal income	Compensation of employees ¹	Proprietors' income with IVA and CCAdj	Dividends, interest, and rent	Personal current transfer receipts	Contributions for government social insurance ¹	Personal income	Compensation of employees ¹	Proprietors' income with IVA and CCAdj	Dividends, interest, and rent	Personal current transfer receipts	Contributions for government social insurance ¹
United States	4.7	4.5	6.7	6.2	2.7	4.8	5.6	4.9	4.9	8.4	4.3	4.4
Alabama	3.4	2.8	9.4	3.6	3.5	3.9	4.6	4.2	4.3	7.5	3.6	4.8
Alaska	1.2	-0.3	5.4	1.2	4.6	0.6	4.3	3.4	6.8	6.7	2.8	2.3
Arizona	6.1	6.1	3.8	6.7	6.1	5.9	6.1	6.2	3.9	8.4	4.6	6.5
Arkansas	3.9	3.4	9.5	5.7	1.8	3.3	4.5	3.3	2.8	8.5	3.2	2.3
California	4.7	6.2	1.8	6.5	-1.8	5.1	6.1	6.0	3.0	8.3	5.1	6.1
Colorado	7.3	6.1	20.7	7.8	2.6	6.3	7.1	5.7	10.6	8.3	8.7	6.1
Connecticut	3.4	1.6	6.6	4.3	1.4	2.6	5.8	2.4	6.6	9.2	6.7	2.6
Delaware	4.7	3.6	2.7	7.3	6.0	3.6	5.4	3.4	5.9	7.8	4.8	4.4
District of Columbia	3.3	4.1	-4.4	4.0	1.6	3.7	4.9	5.0	2.4	7.8	2.3	4.7
Florida	6.5	5.5	10.1	9.1	4.5	5.0	6.2	5.6	3.0	9.0	4.8	5.7
Georgia	5.4	4.6	11.7	7.7	3.0	4.9	5.4	4.8	4.2	7.9	5.1	4.4
Hawaii	3.9	3.0	11.8	3.6	3.8	4.1	4.0	3.8	2.9	6.7	2.0	4.4
Idaho	5.7	6.3	-0.6	8.4	4.5	6.3	6.4	6.7	0.5	8.5	6.3	5.6
Illinois	2.9	3.3	-3.6	4.3	3.1	2.9	5.0	4.2	4.6	8.7	3.3	4.3
Indiana	3.8	4.1	0.4	5.9	2.5	3.9	4.8	4.2	2.9	8.1	4.2	4.1
Iowa	2.6	2.3	1.3	5.7	-0.5	2.7	6.0	3.7	11.2	8.1	8.8	4.1
Kansas	2.8	2.1	4.3	4.0	2.4	3.1	5.4	4.1	7.4	8.2	4.8	3.9
Kentucky	3.8	3.5	7.2	5.5	2.8	2.8	3.9	3.3	3.1	7.8	3.1	3.2
Louisiana	2.7	2.1	8.9	2.5	2.6	3.0	5.0	4.2	5.6	8.0	4.1	4.5
Maine	4.1	4.3	8.2	3.6	3.1	4.2	5.3	4.6	3.4	8.1	5.5	5.0
Maryland	2.9	2.7	0.3	4.4	2.0	2.8	5.0	3.8	4.6	7.3	5.1	4.3
Massachusetts	4.8	5.2	6.8	5.9	0.9	5.3	5.7	5.1	4.5	8.9	4.7	4.6
Michigan	3.4	3.9	7.2	4.1	0.0	4.0	4.9	4.0	4.9	8.5	4.5	4.8
Minnesota	4.0	3.8	3.3	5.7	3.4	4.2	5.5	4.5	3.6	8.6	6.3	4.5
Mississippi	2.2	2.5	8.9	1.8	0.4	2.8	3.9	2.9	3.9	7.0	3.5	2.3
Missouri	3.5	3.6	1.7	5.5	2.2	3.1	4.7	4.0	1.0	8.4	3.9	3.6
Montana	4.9	4.6	-2.1	6.7	7.8	7.7	5.8	4.6	10.3	8.2	3.7	5.6
Nebraska	2.6	4.8	-8.5	2.9	4.7	5.1	5.8	4.0	9.2	8.0	5.5	3.5
Nevada	6.2	4.0	23.6	8.3	4.2	4.1	7.0	6.6	5.8	8.7	6.0	5.9
New Hampshire	4.0	4.2	8.4	3.3	3.3	5.7	5.5	3.8	4.6	8.7	5.4	2.8
New Jersey	3.7	3.5	8.8	3.5	1.8	4.3	5.3	3.7	4.8	8.7	3.4	2.5
New Mexico	1.8	1.2	3.9	4.7	-0.2	1.6	5.4	4.8	1.1	7.3	5.9	4.0
New York	6.9	5.2	11.6	7.6	9.6	5.8	4.3	4.7	3.6	9.7	-1.2	3.6
North Carolina	4.7	4.3	8.3	5.3	3.9	3.9	5.5	5.4	1.2	8.0	4.6	3.3
North Dakota	0.4	2.1	-6.7	0.5	1.4	3.8	6.0	4.4	8.7	7.9	6.7	1.6
Ohio	3.8	3.8	5.7	5.4	2.3	5.8	4.7	3.8	6.1	8.0	2.8	2.5
Oklahoma	4.4	3.0	13.5	3.9	3.3	4.2	6.2	5.0	13.9	7.8	3.3	5.8
Oregon	5.4	5.4	7.6	8.0	2.5	7.3	6.2	5.5	3.9	8.3	5.9	3.5
Pennsylvania	3.0	3.9	-1.8	6.2	0.6	4.8	5.9	4.2	7.2	8.6	7.1	2.8
Rhode Island	3.6	3.0	0.4	2.7	3.4	3.4	4.8	2.8	4.5	8.3	2.6	2.9
South Carolina	5.5	5.6	8.0	7.4	3.1	5.6	5.2	4.3	2.8	7.6	5.5	4.6
South Dakota	3.1	4.4	-3.2	4.5	3.5	3.3	6.5	4.1	13.0	8.3	4.8	4.1
Tennessee	3.8	3.4	4.4	7.0	2.6	5.4	5.3	5.0	3.0	8.1	5.1	4.0
Texas	6.5	4.7	20.3	7.7	2.4	5.9	6.5	5.6	9.3	8.3	4.7	4.6
Utah	5.9	6.0	2.9	9.0	3.2	7.6	7.2	7.1	4.5	8.2	6.3	5.0
Vermont	2.5	1.9	8.8	2.6	1.3	4.5	4.5	3.2	1.7	8.5	4.3	2.0
Virginia	3.8	4.1	1.1	4.8	3.9	4.5	5.2	4.5	4.2	7.4	5.2	3.3
Washington	6.6	7.2	8.9	7.5	3.1	7.7	7.5	8.2	2.0	8.7	5.0	5.4
West Virginia	3.8	4.4	9.0	3.8	2.6	4.6	5.1	7.3	3.5	7.6	2.5	5.3
Wisconsin	4.0	4.0	2.9	4.4	4.3	4.3	5.1	4.3	-0.5	8.3	5.5	2.8
Wyoming	2.3	2.1	0.3	2.5	3.5	1.7	6.8	4.7	11.5	8.8	5.4	4.5

CCAdj

Capital consumption adjustment

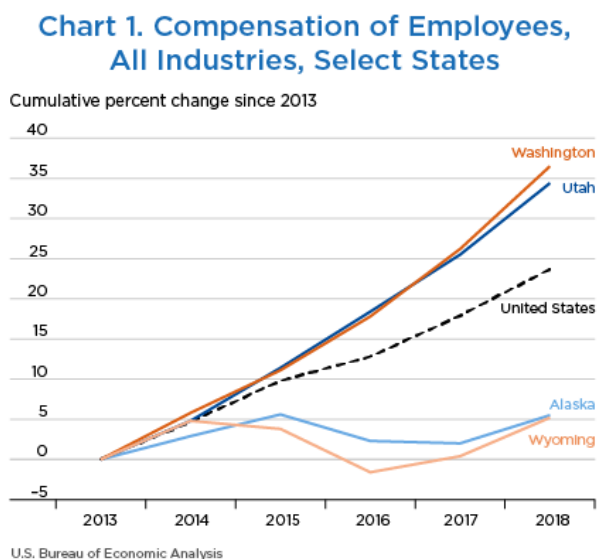
IVA

Inventory valuation adjustment

1. Compensation and contributions for government social insurance are by place of work.

Compensation of employees, the largest component of personal income, grew 4.9 percent on average in 2018, up from 4.5 percent in 2017, reflecting an acceleration in wage and salary employment growth to 1.7 percent from 1.3 percent.² Compensation growth was fastest in the state of Washington (8.2 percent) and slowest in Connecticut (2.4 percent), where employment grew 2.5 percent and 0.3 percent, respectively. Compensation growth was also relatively slow in Mississippi (2.9 percent) and Kentucky (3.3 percent).

Compensation of employees in Alaska grew 3.4 percent in 2018, following 2 years of decline (primarily in mining, construction, and professional services). Over the last 5 years (2013–2018), compensation has grown 5.5 percent in Alaska (compared to 23.7 percent for the United States). Only Wyoming has grown slower over that period (5.2 percent). Washington, the fastest growing of all states, grew 36.5 percent over the last 5 years (chart 1).



Proprietors' income, which represents the income earned from current production by unincorporated businesses that is received by persons, grew 4.9 percent for the United States in 2018, down from 6.7 percent growth in 2017. U.S. farm proprietors' income fell 14.5 percent (\$6.3 billion) in 2018 after increasing 10.7 percent (\$4.2 billion) in 2017. Almost all the decline in 2018 was outside the farm belt; inside the farm belt (Iowa, Kansas, Minnesota, Nebraska, North Dakota, and South Dakota), farm proprietors' income increased 22.4 percent (\$1.6 billion). Nonfarm proprietors' income grew 5.5 percent in 2018, down from 6.6 percent growth in 2017. Among states, nonfarm proprietors' income growth was fastest in Oklahoma (15.7 percent) and slowest in Idaho (2.5 percent).³

Dividends, interest, and rent increased 8.4 percent in 2018, up from 6.2 percent in 2017. Personal dividend income rose 8.6 percent, personal interest income rose 9.8 percent, and the rental income of persons increased 5.3 percent. In Arkansas, Connecticut, and Wyoming, dividends, interest, and rent contributed more to personal income growth in 2018 than any other component, including compensation of employees (table B).

Personal current transfer receipts, which consist primarily of Social Security, Medicare, and Medicaid benefits, grew 4.3 percent on average in 2018, up from 2.7 percent. Transfer receipts increased in all states except New York, where declines in medical benefits, income maintenance

benefits, and unemployment insurance compensation offset the increases in retirement and other transfer receipts. Growth was fastest in Iowa (8.8 percent), where medical benefits increased 14.8 percent.

Retirement and disability insurance benefits grew 6.6 percent in Alaska, faster than every other state. Over the last 5 years, retirement and disability payments ranged from 30.0 percent in Alaska to 13.3 percent in North Dakota. By comparison, such payments grew 21.0 percent for the United States.

Contributions for government social insurance, a subtraction in the derivation of personal income, grew 4.4 percent in 2018, down from 4.8 percent growth in 2017. The largest increase in contributions for government social insurance in 2018 was 6.5 percent in Arizona. The smallest increase was 1.6 percent in North Dakota.

Because state personal income is a place-of-residence concept, the compensation of employees and contributions for government social insurance, which are measured by place of work, must be adjusted to place of residence. The residence adjustment reduced personal income growth in the District of Columbia \$2.5 billion in 2018 (table B). At the same time, the residence adjustment contributed \$2.1 billion to Maryland's personal income growth and \$0.5 billion to Virginia's.

Table B. Change in State Personal Income by Component and by State, 2017-2018

	Change from previous year (millions of dollars)															
	2017								2018							
	Personal income	Compensation of employees ¹	Proprietors' income with IVA and CCAdj		Dividends, interest, and rent	Personal current transfer receipts	Contributions for government social insurance ¹	Adjustment for residence	Personal income	Compensation of employees ¹	Proprietors' income with IVA and CCAdj		Dividends, interest, and rent	Personal current transfer receipts	Contributions for government social insurance ¹	Adjustment for residence
			Farm	Nonfarm							Farm	Nonfarm				
United States	758,470	450,655	4,186	92,007	197,614	73,922	59,610	-304	942,929	514,381	-6,311	81,433	286,410	123,364	56,775	427
Alabama	6,469	3,165	392	764	1,212	1,549	584	-30	9,172	4,932	-56	635	2,637	1,645	746	126
Alaska	479	-91	-8	191	95	298	19	13	1,803	919	-1	244	531	191	72	-9
Arizona	17,135	10,412	-142	900	3,715	3,490	1,287	48	18,300	11,147	-199	1,012	4,992	2,775	1,519	92
Arkansas	4,624	2,281	631	42	1,580	501	293	-117	5,613	2,247	-93	307	2,488	936	214	-58
California	106,223	84,823	125	4,051	31,767	-5,966	8,335	-244	144,017	87,614	-821	7,770	43,100	16,796	10,358	-85
Colorado	21,174	11,112	-380	5,680	5,078	989	1,417	113	22,188	11,067	-121	3,399	5,860	3,420	1,469	30
Connecticut	8,498	2,259	45	1,808	2,332	443	436	2,048	15,073	3,389	-16	1,991	5,224	2,232	452	2,706
Delaware	2,147	1,105	187	-88	614	565	140	-96	2,594	1,074	29	193	709	480	176	285
District of Columbia	1,746	3,606	0	-352	390	103	370	-1,630	2,667	4,562	0	185	786	151	484	-2,533
Florida	61,683	28,046	558	5,125	22,767	8,398	3,311	99	62,303	30,287	-823	2,675	24,519	9,431	3,934	147
Georgia	23,813	13,155	551	3,500	5,971	2,288	1,709	57	25,208	14,611	-74	1,713	6,615	3,991	1,596	-52
Hawaii	2,811	1,397	84	567	567	433	238	0	3,032	1,788	-51	228	1,093	239	266	0
Idaho	3,911	2,345	-415	369	1,291	557	338	101	4,657	2,622	-130	170	1,405	827	319	82
Illinois	19,220	14,263	-277	-1,644	5,754	3,083	1,496	-464	34,465	19,169	635	1,691	12,044	3,372	2,270	-177
Indiana	11,055	7,293	-66	184	2,708	1,381	882	438	14,313	7,681	108	698	3,948	2,422	979	435
Iowa	3,780	2,065	448	-281	1,614	-131	318	383	9,006	3,443	812	607	2,420	2,237	499	-13
Kansas	3,927	1,788	-760	1,426	1,070	524	341	220	7,618	3,504	37	1,166	2,299	1,081	434	-35
Kentucky	6,684	3,788	465	343	1,601	1,177	402	-288	7,113	3,707	-171	542	2,395	1,376	470	-267
Louisiana	5,348	2,496	202	1,270	892	1,117	412	-214	10,261	5,085	-183	1,193	2,953	1,799	640	54
Maine	2,476	1,480	58	306	400	412	193	13	3,281	1,646	-40	206	940	738	240	31
Maryland	10,125	5,630	138	-23	2,981	984	735	1,149	18,253	8,109	-153	1,677	5,136	2,543	1,159	2,102
Massachusetts	21,381	15,198	18	2,609	5,337	607	1,781	-607	26,465	15,904	-7	1,868	8,512	3,104	1,632	-1,285
Michigan	14,964	10,886	169	1,927	3,311	-11	1,429	111	22,544	11,366	83	1,428	7,183	4,217	1,770	37
Minnesota	11,901	7,325	584	135	3,351	1,576	1,031	-39	16,933	9,065	-37	845	5,275	2,992	1,159	-48
Mississippi	2,326	1,497	673	-27	300	105	230	7	4,243	1,777	-29	334	1,207	993	190	151
Missouri	9,553	6,113	62	295	2,872	1,146	659	-275	13,079	7,103	-683	883	4,592	2,135	793	-157
Montana	2,210	1,121	-312	217	741	676	274	41	2,782	1,172	201	253	960	343	213	67
Nebraska	2,420	2,787	-1,785	752	551	656	390	-150	5,608	2,446	50	965	1,573	805	278	47
Nevada	8,155	3,245	33	1,685	2,614	933	399	43	9,770	5,559	-7	530	2,968	1,376	604	-52
New Hampshire	3,005	1,813	13	591	436	374	314	92	4,321	1,725	-7	367	1,187	629	163	583
New Jersey	20,641	10,861	-28	4,706	3,610	1,444	1,740	1,788	30,804	11,866	-39	2,787	9,333	2,740	1,071	5,188
New Mexico	1,481	578	8	177	752	-30	103	98	4,456	2,286	-246	299	1,219	1,151	261	8
New York	83,454	40,702	440	13,248	18,998	19,802	5,448	-4,287	55,909	39,341	-540	5,343	26,152	-2,670	3,531	-8,185
North Carolina	20,573	11,557	783	1,863	4,310	3,358	1,388	89	25,093	15,264	-952	1,354	6,870	4,057	1,226	-274
North Dakota	152	564	77	-357	43	76	139	-112	2,373	1,216	207	133	680	384	62	-186
Ohio	20,097	12,937	412	1,835	4,717	2,366	2,391	220	25,586	13,216	334	2,221	7,454	2,946	1,091	506
Oklahoma	7,178	2,836	41	2,555	1,203	1,065	516	-5	10,705	4,827	-271	3,300	2,495	1,093	740	2
Oregon	10,338	6,435	-570	1,792	3,116	922	1,223	-134	12,491	6,891	-85	760	3,526	2,217	631	-189
Pennsylvania	19,928	15,403	773	-1,999	7,017	816	2,466	384	40,342	17,200	-552	5,380	10,301	9,221	1,523	315
Rhode Island	1,912	967	19	-5	264	362	156	461	2,656	940	0	167	833	287	136	566
South Carolina	10,966	6,600	102	1,012	2,694	1,381	866	42	10,890	5,333	-135	561	3,001	2,503	760	387
South Dakota	1,315	1,006	-110	-81	444	225	101	-67	2,792	980	516	227	868	317	127	11
Tennessee	11,000	6,033	-81	1,848	2,883	1,500	1,222	38	15,955	9,084	-212	1,493	3,596	3,059	945	-121
Texas	83,071	37,782	460	29,082	16,569	4,754	5,752	175	87,805	47,619	-951	17,193	19,258	9,514	4,706	-121
Utah	7,614	5,125	-25	329	2,471	541	819	-9	9,879	6,436	-83	564	2,442	1,097	576	-1
Vermont	782	355	37	183	170	85	117	67	1,468	603	-68	115	578	279	54	15
Virginia	17,307	11,619	166	120	4,479	2,421	1,593	96	24,135	13,215	-191	1,317	7,231	3,341	1,236	458
Washington	27,105	17,858	410	2,468	7,013	1,879	2,569	47	32,640	21,899	-505	1,200	8,775	3,119	1,937	89
West Virginia	2,601	1,651	37	311	389	521	242	-66	3,591	2,848	-61	208	805	499	293	-415
Wisconsin	10,983	7,022	-69	599	2,321	2,025	957	41	14,445	7,766	-700	606	4,574	2,689	653	163
Wyoming	731	362	12	-4	237	154	43	11	2,234	832	-28	427	868	245	116	6

CCAdj

Capital consumption adjustment

IVA

Inventory valuation adjustment

Updates to previously released estimates

Each September, the Bureau of Economic Analysis (BEA) typically revises the preliminary estimates of annual state personal income released in March in order to incorporate the results of the annual update of the National Income and Product Accounts (NIPAs),⁴ to incorporate state source data that are more complete and more detailed than those previously available (table C), and to update the seasonal factors used for the quarterly estimates. In general, the estimates were revised from the first quarter of 2014 to the first quarter of 2019. In addition, personal interest income was revised from the first quarter of 1998 to the fourth quarter of 2013. The revisions to personal interest income result from an improvement in the estimation methodology and data sources.

Table C. Regional Source Data Used to Estimate State Personal Income and Personal Current Taxes

Annual estimates	
Wages and salaries by industry	
In general	QCEW wage data.
Farm	USDA farm labor expense data.
Agriculture and forestry support activities	USDA farm labor expense data.
Rail transportation	RRB state payroll and employment data; Census Bureau ACS Journey to work data.
Educational services	CBP payroll data; Official Catholic Directory data.
Membership associations and organizations	CBP payroll data; RRB payroll data.
Private households	Census Bureau ACS data; Census Bureau population data.
Military	DOD personnel data; Coast Guard personnel and payroll data.
State and local government	Census Bureau Annual Survey of Public Employment and Payroll data; CES employment data.
Employer contributions for employee pension and insurance funds by industry	
Rail transportation	FRA casualties data.
State and local government	Census Bureau Annual Survey of Public Pensions contributions, pension service charges, and membership data; actuarial data from the CAFRs for a sample of state and local government retirement systems; MEPS employer contributions for health insurance data (certain states only).
All other industries	NAIC earned premium data and NASI employers cost of self insurance data; MEPS employer contributions for health insurance data (certain states only).
Employer contributions for government social insurance by industry	
All industries	Census Bureau State Government Finances data; QCEW data on contributions to unemployment insurance funds; OES data on employee wage distributions; CPS industry data on hours worked.
Proprietors' income	
Farm	USDA gross income and expense data; USDA ARMS corporate farm income data; Census of Agriculture livestock purchased and corporate farm income data.
Nonfarm industries	IRS data on net profits of proprietorships and partnerships; USDA Rural Development net income of agricultural cooperatives; USDA RUS net margin, or profit, of cooperatives that have outstanding loans.
Residence adjustment	Census Bureau ACS Journey to work data; IRS wage data.
Dividends, interest, and rent	USDA gross rental value of farm dwellings; IRS income tax data on dividends, taxable interest, S Corporation distributions, gross rents and royalties, and net royalty income; ACS data on the aggregate value of dwellings and mobile homes; OPM federal civilian retirement payments data and DOD military retirement payments data; SSA Social Security benefits data; FDIC deposits data; NCUA deposits data.
Personal current transfer receipts	SSA data on Social Security benefits and Supplemental Security Income benefits; Census Bureau state and local government finance data on disability benefits, income maintenance benefits, state workers' compensation, and education benefits; CMS and DOD medical benefits data; DVA veterans benefits data; USDA SNAP data; USDA WIC data; IRS Refundable Earned Income Tax Credits and Child Tax Credit data; PBGC benefits data; DOL unemployment benefits data; DOE Pell Grants data; ACF TANF foster care and adoption assistance data; DOL black lung disability benefits data; Census Bureau population data; Department of the Treasury disability benefits for railroad employees; Railroad Retirement Board for unemployment compensation for railroad employees.
Employee and self-employed contributions for government social insurance	SSA Earnings and Employment Data for Workers Covered under Social Security and Medicare and other unpublished SSA data; California state temporary disability insurance data; Census Bureau state temporary disability insurance data; CMS supplemental medical insurance enrollment data; personal contributions for state unemployment insurance data from the states; DVA veterans' insurance premiums data.
Personal current taxes	IRS income tax data; Census Bureau quarterly tax collections and state tax collections data; Census Bureau state and local government finance data.
Quarterly estimates	
Wages and salaries by industry	
In general	QCEW wage data; CES employment data.

Annual estimates

Transportation and warehousing	DOT payroll data.
Military	DOD personnel data; Coast Gurard payroll data.
Personal current transfer receipts	DOL unemployment rate data; CMS medical benefits data.

ACF TANF	Administration for Children and Families, Temporary Assistance to Needy Families
ACS	American Community Survey, Census Bureau
ARMS	Agricultural Resource Management Survey
CAFR	Comprehensive Annual Financial Report
CBP	County Business Patterns, Census Bureau
CES	Current Employment Statistics survey, Bureau of Labor Statistics
CMS	Centers for Medicare and Medicaid Services
CPS	Current Population Survey, Census Bureau
DOD	Department of Defense
DOE	Department of Education
DOL	Department of Labor
DOT	Department of Transportation
DVA	Department of Veterans Affairs
FDIC	Federal Deposit Insurance Corporation
FRA	Federal Railroad Administration
IRS	Internal Revenue Service
MEPS	Medical Expenditure Panel Survey, Agency for Healthcare Research and Quality
NAIC	National Association of Insurance Commissioners
NASI	National Academy of Social Insurance
NCUA	National Credit Union Administration
OASDHI	Old-Age, Survivors, Disability, and Hospital Insurance, Social Security Administration
OES	Occupational Employment Statistics, Bureau of Labor Statistics
OPM	Office of Personnel Management
PBGC	Pension Benefit Guaranty Corporation
QCEW	Quarterly Census of Employment and Wages, Bureau of Labor Statistics
RRB	Railroad Retirement Board
RUS	Rural Utilities Service
SNAP	Supplemental Nutritional Assistance Program
SSA	Social Security Administration
USDA	U.S. Department of Agriculture
WIC	Special Supplemental Nutrition for Women, Infants, and Children

The NIPA estimate of U.S. personal income for 2018, after adjustment for differences in geographic coverage and the timing of the availability of source data, was revised up 1.4 percent (\$240 billion).⁵ This national estimate controls the state estimates.⁶ U.S. property income was revised up 0.9 percent (\$161 billion), and wages and salaries were revised up 0.3 percent (\$51 billion). Although the percent revisions to farm proprietors' income (-12.4 percent) and to the adjustment for residence (11.8 percent) were larger than the percent revisions to other components of personal income, they contributed only -\$5 billion and \$0.3 billion to the total revision.

The unweighted average revision to 2018 personal income in the 50 states and the District of Columbia was 1.4 percent (table D). The average absolute revision was 1.5 percent.

The largest upward revision for 2018 was for South Dakota (4.1 percent). As for the United States, property income contributed the most (1.1 percentage points) to the revision of personal income in South Dakota. In addition, farm proprietors' income and nonfarm proprietors' income each contributed 0.9 percentage point. These revisions are mostly due to the incorporation of new source data from the Internal Revenue Service for dividends, interest, and the income of nonfarm sole proprietorships and partnerships reported on 2017 income tax returns (table E). The revisions to farm proprietors' income were primarily due to the incorporation of 2018 state-level crop production data from the U.S. Department of Agriculture.

Table D. Revisions to Personal Income by State, 2014–2018

[Percent]

	2014	2015	2016	2017	2018
United States	0.0	0.0	0.0	0.3	1.4
Alabama	0.1	0.1	-0.1	-0.8	-0.2
Alaska	0.4	0.4	0.2	-0.7	-0.4
Arizona	0.1	0.1	0.5	1.0	1.6
Arkansas	0.8	0.8	1.1	1.1	1.6
California	0.0	-0.1	0.2	0.3	1.6
Colorado	0.1	0.0	0.0	1.4	2.8
Connecticut	-0.4	-0.4	0.0	0.1	2.5
Delaware	0.3	0.3	0.3	0.9	2.1
District of Columbia	-0.1	0.0	0.3	-1.0	0.2
Florida	-0.3	-0.4	-1.1	0.4	1.3
Georgia	0.5	0.4	0.1	0.7	1.6
Hawaii	-0.1	0.1	0.3	0.4	1.6
Idaho	0.3	0.3	0.6	0.8	1.7
Illinois	-0.1	-0.2	-0.4	-0.6	-0.2
Indiana	0.5	0.7	0.3	0.1	1.1
Iowa	0.1	0.1	0.2	0.8	2.7
Kansas	0.4	0.5	0.2	0.6	2.6
Kentucky	0.3	0.4	0.5	1.0	1.6
Louisiana	0.3	0.3	0.2	0.3	1.5
Maine	0.0	-0.1	0.2	0.2	1.4
Maryland	0.3	0.2	0.2	-1.0	0.7
Massachusetts	0.1	0.1	0.5	0.9	2.3
Michigan	0.2	0.3	0.4	0.3	1.8
Minnesota	0.6	0.7	0.9	0.9	2.0
Mississippi	-0.2	-0.2	-0.5	-0.5	-0.4
Missouri	0.5	0.6	1.7	1.6	2.4
Montana	0.2	-0.1	-0.5	0.1	0.9
Nebraska	0.2	0.2	0.0	-0.4	2.2
Nevada	-0.4	-0.4	0.4	0.8	2.0
New Hampshire	-0.4	-0.3	-0.6	-1.6	-0.2
New Jersey	0.1	-0.1	0.1	-0.7	0.9
New Mexico	0.0	0.0	0.1	-0.5	1.0
New York	-0.9	-0.8	-0.5	0.4	0.0
North Carolina	0.1	0.0	-0.1	-0.1	0.6
North Dakota	0.4	0.4	-0.4	0.7	2.1
Ohio	-0.1	-0.1	-0.2	-0.1	1.0
Oklahoma	0.1	0.2	-0.4	-1.6	0.2
Oregon	0.3	0.3	0.3	0.6	1.9
Pennsylvania	0.2	0.2	0.4	-0.4	1.6
Rhode Island	-0.1	-0.3	-0.6	-1.1	0.6
South Carolina	0.2	0.2	0.2	1.0	2.3
South Dakota	0.1	0.0	0.4	1.9	4.1
Tennessee	-0.4	-0.5	-0.5	-1.4	-0.6
Texas	-0.2	-0.2	-1.0	1.3	2.4
Utah	-0.1	0.0	0.4	1.3	2.2
Vermont	0.3	0.4	0.3	-0.3	1.1
Virginia	0.4	0.3	0.5	0.3	1.5
Washington	0.1	0.3	0.8	1.4	2.0
West Virginia	0.3	0.4	0.1	0.5	0.7
Wisconsin	0.4	0.3	0.3	0.7	1.6
Wyoming	0.0	-0.2	-1.6	-1.8	0.4
Average revision	0.1	0.1	0.1	0.2	1.4
Average absolute revision	0.3	0.3	0.4	0.8	1.5
Standard deviation of revision	0.3	0.3	0.6	0.9	1.0

Note. The revisions are calculated from the March 2019 release.

Table E. Contributions to the Revision to Personal Income by Component by State for 2018

	Percent revision	Contributions to the revision (percentage points)							
	Personal income	Wages and salaries	Supplements to wages and salaries	Farm proprietors' income	Nonfarm proprietors' income	Dividends, interest, and rent	Personal current transfer receipts	Contributions for government social insurance	Adjustment for residence
United States	1.4	0.3	0.1	0.0	0.1	0.9	-0.1	0.0	0.0
Alabama	-0.2	0.2	-0.4	-0.3	-0.1	0.5	-0.1	0.1	0.0
Alaska	-0.4	0.0	-0.1	0.0	-0.1	0.9	-1.3	-0.1	0.0
Arizona	1.6	0.0	0.4	-0.2	-0.4	1.2	0.5	0.0	0.0
Arkansas	1.6	0.1	0.0	-0.7	0.2	1.9	0.1	0.0	-0.1
California	1.6	0.5	0.3	-0.1	-0.3	1.0	0.2	0.0	0.0
Colorado	2.8	0.4	0.1	-0.2	1.1	1.3	0.2	0.1	0.0
Connecticut	2.5	0.1	0.3	0.0	1.0	0.7	0.3	0.0	0.3
Delaware	2.1	0.2	-0.4	0.1	0.3	1.2	-0.2	0.1	1.0
District of Columbia	0.2	1.8	1.1	0.0	-2.5	0.8	0.1	0.1	-1.1
Florida	1.3	0.1	0.3	0.0	0.1	1.1	-0.4	0.0	0.0
Georgia	1.6	0.4	0.1	-0.1	0.1	1.3	-0.1	0.0	0.0
Hawaii	1.6	0.4	0.3	0.1	0.4	0.6	0.0	0.1	0.0
Idaho	1.7	0.4	-0.1	-0.5	-0.1	1.7	0.3	0.0	0.0
Illinois	-0.2	0.1	0.1	0.2	-0.2	0.3	-0.6	0.0	0.0
Indiana	1.1	0.4	-0.2	0.2	-0.4	1.1	-0.1	0.0	0.2
Iowa	2.7	0.1	-0.2	0.9	-0.2	1.2	0.7	0.0	0.0
Kansas	2.6	0.1	0.0	0.1	1.2	1.0	0.1	0.0	0.1
Kentucky	1.6	0.3	0.5	0.1	-0.1	1.3	-0.2	0.0	-0.2
Louisiana	1.5	0.2	0.1	0.0	0.7	1.2	-0.6	0.1	0.0
Maine	1.4	0.2	0.5	0.1	-0.1	0.8	-0.1	0.1	0.0
Maryland	0.7	0.4	-0.3	0.0	-0.6	0.7	0.0	-0.1	0.4
Massachusetts	2.3	0.4	0.3	0.0	0.0	1.7	0.0	0.0	-0.1
Michigan	1.8	0.2	0.2	0.2	0.0	1.3	0.1	0.1	0.0
Minnesota	2.0	0.4	-0.3	0.2	-0.3	1.8	0.3	0.1	0.0
Mississippi	-0.4	0.1	0.2	-0.4	0.0	-0.1	-0.1	0.0	-0.1
Missouri	2.4	0.1	0.9	-0.4	-0.1	2.0	0.0	0.0	-0.1
Montana	0.9	0.5	0.4	-0.1	-0.1	0.9	-0.5	0.4	0.1
Nebraska	2.2	0.5	1.0	-0.9	0.9	0.6	0.3	0.1	0.0
Nevada	2.0	0.4	0.2	0.0	0.3	1.0	0.2	0.0	-0.1
New Hampshire	-0.2	0.1	0.2	0.0	-0.2	-0.1	0.0	-0.1	-0.3
New Jersey	0.9	0.3	0.1	0.0	-0.1	0.9	-0.1	-0.1	-0.2
New Mexico	1.0	0.3	-0.7	-0.2	-0.1	1.2	0.5	0.0	0.0
New York	0.0	0.4	-0.2	0.0	0.0	0.8	-1.1	-0.1	0.0
North Carolina	0.6	0.5	-0.1	-0.2	-0.1	0.6	-0.1	-0.1	0.0
North Dakota	2.1	0.3	-0.5	2.0	0.3	-0.5	0.4	-0.2	-0.2
Ohio	1.0	0.2	0.0	0.2	0.1	0.5	-0.1	-0.1	0.1
Oklahoma	0.2	0.3	-0.1	-0.1	-0.4	0.5	0.1	0.1	0.0
Oregon	1.9	0.4	-0.1	-0.2	-0.2	1.5	0.2	-0.2	0.0
Pennsylvania	1.6	0.2	0.0	0.0	-0.4	1.0	0.7	-0.2	0.0
Rhode Island	0.6	0.6	-0.1	0.0	0.0	-0.1	-0.5	0.2	0.9
South Carolina	2.3	0.5	0.7	-0.1	0.1	1.0	0.2	0.1	0.0
South Dakota	4.1	0.2	0.6	0.9	0.9	1.1	0.4	0.0	0.0
Tennessee	-0.6	0.2	-0.5	-0.2	-0.6	0.2	0.0	-0.1	0.1
Texas	2.4	0.2	0.1	-0.2	2.3	0.1	0.0	0.0	0.0
Utah	2.2	0.3	0.1	-0.1	0.0	1.5	0.1	-0.2	0.0
Vermont	1.1	0.3	-0.7	0.1	-0.1	1.0	0.2	-0.1	0.2
Virginia	1.5	0.4	0.1	0.0	-0.2	1.2	0.1	-0.1	-0.1
Washington	2.0	0.1	0.1	0.0	-0.3	1.7	0.2	-0.2	0.0
West Virginia	0.7	0.3	0.1	0.0	-0.1	0.2	0.5	-0.2	-0.6
Wisconsin	1.6	0.3	0.5	-0.3	-0.1	1.2	0.0	-0.1	0.0
Wyoming	0.4	0.3	0.1	-0.1	0.9	-1.0	0.1	-0.1	0.1

Improvements in estimation methodology and data sources

Personal interest income includes an imputation for depositors' services furnished without payment by financial intermediaries. Commercial banks, savings institutions, and credit unions often do not charge depositors an explicit fee for services such as check clearing and recordkeeping. These services are a type of interest income in kind. Previously, the imputation for savings institutions and credit unions was based on the property income method. Imputed

interest (that is, the implicit services provided) was measured by taking the difference between the interest earned on loans and the interest paid on deposits, using data from the Federal Deposit Insurance Corporation and the National Credit Union Administration. The new methodology will measure the implicit services of savings institutions and credit unions using the reference rate approach that was introduced for commercial banks in the regional economic accounts last year.⁷ This change brings the regional data sources and methodology into closer alignment with those used by the NIPAs.⁸ The effect on state personal income was less than 1.0 percent in most cases. There were only nine instances of a revision larger than 1.0 percent (in absolute value) from 1998 to 2013, the largest of which was a 1.5 percent downward revision to New Hampshire in 2012.

Personal Income in the NIPAs and State Personal Income

The level of personal income in the National Income and Product Accounts differs from the national total in the state personal income statistics because of differences in coverage and timing of the availability of source data.

The differences in coverage stem from different concepts of residence. For NIPA personal income, a U.S. resident has a center of economic interest in the country and resides, or expects to reside, in the country for a year or more. For state personal income, a resident is a participant in a U.S. regional economy, regardless of the individual's national citizenship or duration of residence.¹

In general, the NIPA measure of personal income is broader than state personal income:

- NIPA personal income includes the earnings of federal civilian and military personnel stationed abroad and the property income received by the federal retirement plans of these workers. The regional measure of personal income does not include this income.²
- NIPA personal income includes all income earned by U.S. citizens living abroad for less than a year. State personal income excludes the portion earned while an individual lives abroad.
- NIPA personal income includes the income of foreign nationals only if they live and work in the United States for a year or more. State personal income includes the income of resident foreign nationals working in the United States, including migrant workers, regardless of length of stay or residency.

The annual estimates of personal income in the NIPAs also diverge from the national totals of state personal income because of differences in the timing of the availability of source data. For example, farm proprietors' income in the NIPAs differs from farm proprietors' income in state personal income because the latter incorporates revised U.S. Department of Agriculture data that were not available until after the national estimate was released.

Both NIPA and state personal income include the income of U.S. residents employed by international organizations or by other countries while living in the United States, and both exclude the income of foreign nationals employed by their home governments. NIPA personal income also includes the income of foreign nationals working at international organizations in the United States.³ In addition, both measures exclude the income of private U.S. citizens living outside the country for a year or more.

State and National Estimates of Personal Income

[Billions of dollars]

	2016	2017	2018
Personal income in the NIPAs	16,121.2	16,878.8	17,819.2
Plus adjustments for:			
Coverage differences	-12.1	-12.3	-13.0
Federal workers abroad	-27.6	-28.0	-29.1
Wage and salary disbursements	-18.8	-19.3	-20.0
Supplements to wages and salaries ¹	-6.0	-6.0	-6.5
Dividends, interest, and rent ²	-4.7	-4.7	-4.7
Less: Personal contributions for social insurance	-1.9	-2.0	-2.1
Rest-of-the-world difference	15.5	15.7	16.1
Wages of private foreign nationals in U.S.	16.8	17.0	17.5
Wages of private U.S. residents abroad	-1.3	-1.3	-1.4
Use of more current source data	3.6	5.3	9.9
Wage and salary disbursements	0.0	0.0	0.0
Farm proprietors' income	3.6	5.3	9.9
Personal current transfer receipts	<0.1	<0.1	<0.1
Statistical discrepancy ³	-1.1	-1.7	-3.1
Equals: State personal income	16,111.6	16,870.1	17,813.0

1. Employer contributions for government social insurance and for employee pension and insurance funds for Federal workers stationed abroad.
2. Investment income received by federal retirement plans that is attributed to federal workers stationed abroad.
3. Includes revisions made in the NIPAs that are not yet reflected in state personal income concerning wages of border workers and foreign nationals working for international organizations.

-
1. See *State Personal Income and Employment: Concepts, Data Sources, and Statistical Methods* on the BEA website.
 2. For a description of military coverage in state personal income, see “[New Treatment of State Estimates of Military Compensation](#),” *Survey* 85 (October 2005): 116.
 3. For more information on the treatment of border workers in the residence adjustment, see *State Personal Income and Employment: Concepts, Data Sources, and Statistical Methods*.

Jeffrey L. Newman

Acknowledgments

The annual revision of state personal income was prepared by the Regional Income Division under the direction of Mauricio Ortiz, Chief. Joel Platt, Associate Director for Regional Economics, provided general guidance. The preparation of the revised estimates was a division-wide effort.

The annual 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 Berry, Melissa Braybrooks, John Laffman, and David Lenze. Contributing staff members were Daniel Corrin, Terence Fallon, David Guo, Hong Han, Michelle Harder, Nayana Kollanchara, Paul Medzerian, Russell Moncrief, Krishna Parajuli, Ross Stepp, and Troy Watson.

The quarterly estimates of state personal income and the annual estimates of nonfarm proprietors' income, property income (personal dividends, interest, and rents and royalties), personal current transfer receipts, employee contributions for government social insurance, and the adjustment for residence were prepared by the Regional Income Branch under the supervision of Lisa Ninomiya, Chief. Major responsibilities were assigned to Brian Maisano, Alexander Adams, and Matthew von Kerczek. Contributing staff members were Michael Bentley, Suet Boudhraa, Ernie Enriquez, Solomon Kublashvili, Toan Ly, Elizabeth McCormack, W. Timothy McKeel, and Jesse Park.

The annual estimates of personal current tax receipts were prepared by John Broda under the supervision of Zheng Wang.

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

BEA Updates Regional Economic Impact Tool

On August 29, 2019, BEA released its benchmark update of the Regional Input-Output Modeling System (RIMS II). The update incorporates BEA's new 2012 benchmark supply-use tables (also known as input-output tables), 2017 regional economic data, and new commuting patterns and personal spending rates.

The new supply-use tables (SUT) are based on the 2012 Economic Census and provide some of the most detailed data available on intra-industry relationships. These intra-industry relationships, including information on the share of imported goods and services, are utilized to develop the RIMS II model. The new SUT data shows a 1.5 percent increase in the overall import share and an 11 percent increase in the nondurable goods manufacturing share (table I).

Table I. Import Shares
[percent]

	2007	2012	Percent change
All industries	4.9	5.0	1.5
Manufacturing	13.2	14.6	10.4
Durable manufacturing	11.4	12.1	6.1
Nondurable manufacturing	15.1	16.8	11.0
Services	2.3	2.3	0.1

The national-level SUT data is complemented by county-level data from the Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW). QCEW data are used to regionalize the RIMS II model by determining which industries exist in a region and the ability of those industries to supply inputs to local firms. Updated commuting data from the Census Bureau American Community Survey (ACS) further regionalize the model by capturing the flow of workers commuting in and out of a region. The updated ACS data show that the average county's share of workers who both live and work in the same county decreased by 2.2 percent. The QCEW and ACS data allow RIMS II to better measure how a project will impact the local economy and local employees.

Table II. American Community Survey, 5-Year Commuting Patterns

	2006-2010	2011-2015	Percent change
Mean share of workers who live and work in the same county	0.79	0.77	-2.2

An updated personal spending rate in the model adjusts how much of any additional household earnings are spent in the local economy. The personal spending rate takes into account both state-level tax rates and national-level savings rates. Because the tax rates are state specific, different regions can have different spending rates. However, at the U.S. level, the RIMS II update shows that the 2017 spending rate decreased 1.9 percent from 2016 (table III).

Table III. U.S. Personal Spending Rates

	2016	2017	Percent change
Personal spending rate	83.4	81.8	-1.9

Updated RIMS II multipliers are available for 372 detailed industries and 64 industry aggregates and measure impacts in terms of output, value added, earnings, and employment. [They are available](#) for custom geographies down to the county level.

Hope Franklin, Thomas McComb, and Stanislaw J. Rzezniak

-
1. State personal income, which is measured in current dollars, is the sum of compensation of employees; proprietors' income with inventory valuation and capital consumption adjustments; dividends, interest, and rent; and personal current transfer receipts less contributions for government social insurance plus the adjustment for residence.
 2. Compensation ranged from 53 percent of state personal income in 2018 in Connecticut, Florida, Montana, and Wyoming to 68 percent in North Dakota. Compensation is measured by place of work.
 3. Nonfarm proprietors' income grew 2.4 percent in the District of Columbia.
 4. See "[The 2019 Annual Update of the National Income and Product Accounts](#)," *Survey of Current Business* 99 (August 2019).
 5. For more information about the adjustments, see "[Personal Income in the NIPAs and State Personal Income](#)."
 6. The components of NIPA personal income are estimated independently of the components of state personal income, oftentimes using data sources that are not available for states. To reconcile the sum of state estimates with the adjusted NIPA estimates, the state estimates are adjusted proportionately. In other words, the adjusted NIPA estimates control the sum of the state estimates.
 7. See David G. Lenze, "[Preview of the 2018 Comprehensive Update of the Regional Economic Accounts](#)," *Survey* 98 (August 2018).
 8. The NIPAs introduced the new data sources and methodology during the 2018 comprehensive update. See Jason W. Chute, Stephanie H. McCulla, and Shelly Smith, "[Preview of the 2018 Comprehensive Update of the National Income and Product Accounts: Changes in Methods, Definitions, and Presentations](#)," *Survey* 98 (April 2018).