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New and Updated State Estimates of the Regional Economic Accounts

Results of the 2024 Annual Update

By Ledia Guci and Nicholas Wetzler | December 19, 2024

On September 27, 2024, the U.S. Bureau of Economic Analysis (BEA) began releasing the results of the annual update of the Regional Economic Accounts (REAs). This update was released concurrently with the update of the National Economic Accounts (NEAs), which consist of the National Income and Product Accounts (NIPAs) and the Industry Economic Accounts, a reflection of the recent harmonization of the annual update of these accounts. The release featured new and updated quarterly and annual statistics on state personal income and gross domestic product (GDP) by state followed by annual statistics on personal consumption expenditures (PCE) by state released on October 3, 2024. County-level personal income and GDP statistics were also released later in the year. The results from these releases will be discussed in a forthcoming article in the *Survey of Current Business*.

With the 2024 annual update, the REAs incorporated the results of the annual update of the NEAs, which included methodology and presentation changes, as well as the incorporation of new and revised national data. Main methodology and presentation updates to the NEAs included improved classification of federal financial assistance for financially troubled multiemployer pension plans as authorized by the American Rescue Plan Act of 2021; replacement of data from the U.S. Census Bureau Annual Survey of State and Local Government Finances with data from Census' Value of Construction Put in Place (VPIP) Survey to estimate investment in new structures by state and local governments; and improved territorial adjustment for trade in services with Puerto Rico to better align the NIPAs with BEA's Puerto Rico GDP estimates.¹ In addition, the REAs incorporated more complete and detailed regional source data than those previously available.

The annual GDP by state and state personal income statistics were revised from 2019 to 2022, and new statistics based on more complete source data and the annual methodology were released for 2023.² PCE by state statistics were revised from 2019 to 2022, and new statistics released for 2023. Quarterly estimates of GDP and personal income by state were revised from the first quarter of 2019 through the first quarter of 2024, and new estimates were released for the second quarter of 2024.

This article focuses on the annual state estimates for 2023 as well as summarizes some of the impacts of the annual update on the REA estimates. Additional information on the annual update is available at "Information on 2024 Annual Updates to the National, Industry, and State and Local Economic Accounts."

New Statistics for 2023

This section provides analysis based on the latest data on GDP by state, state personal income, and PCE by state. These statistics offer valuable insights into the value of goods and services produced by industries, the incomes earned by households, and the composition of household consumption in each state. When considered together, they provide a deeper and more nuanced understanding of the variation in economic trends and outcomes across states.

GDP by state

Nationally, current-dollar GDP increased 6.6 percent in 2023, following a 9.8 percent increase in 2022 (table 1). Current-dollar GDP increased in all states and the District of Columbia in 2023. States with the largest increases were Florida (9.2 percent), Washington (8.7 percent), and South Carolina (8.4 percent). Additionally, 22 other states had above-average increases in current-dollar GDP in 2023 that ranged from 6.7 percent in Georgia and Oregon to 8.2 percent in Nebraska, Nevada, and North Carolina. Current-dollar GDP increased 6.5 percent in the District of Columbia.

Table 1. Gross Domestic Product by State, State Personal Income, and Personal Consumption Expenditures by State: 2021-2023

	Gross domestic product (GDP)					Personal income					Personal consumption expenditures (PCE)				
Region	Millions of current dollars			Percent change from preceding period		Millions of current dollars		Percent change from preceding period		Millions of current dollars			Percent change from preceding period		
	2021	2022	2023	2022	2023	2021	2022	2023	2022	2023	2021	2022	2023	2022	2023
United States	23,681,171	26,006,893	27,720,709	9.8	6.6	21,403,979	22,077,232	23,380,269	3.1	5.9	16,113,946	17,690,841	18,822,769	9.8	6.4
Alabama	260,018	284,949	304,936	9.6	7.0	254,960	262,236	276,926	2.9	5.6	198,896	215,683	227,475	8.4	5.5
Alaska	58,944	66,272	68,056	12.4	2.7	48,184	50,607	52,520	5.0	3.8	39,779	43,439	46,131	9.2	6.2
Arizona	436,779	484,052	522,767	10.8	8.0	414,355	434,339	464,775	4.8	7.0	335,779	373,625	400,705	11.3	7.2
Arkansas	154,053	168,606	178,606	9.4	5.9	160,037	168,535	176,809	5.3	4.9	119,286	128,944	135,761	8.1	5.3
California	3,423,958	3,660,416	3,870,379	6.9	5.7	3,009,557	3,003,826	3,166,135	-0.2	5.4	2,156,428	2,372,802	2,526,290	10.0	6.5
Colorado	445,836	494,673	529,627	11.0	7.1	416,727	447,854	470,606	7.5	5.1	315,812	350,970	374,880	11.1	6.8
Connecticut	296,801	321,686	345,912	8.4	7.5	294,632	306,718	325,346	4.1	6.1	205,529	220,974	235,580	7.5	6.6
Delaware	83,070	92,558	98,069	11.4	6.0	59,921	65,208	68,982	8.8	5.8	51,118	56,100	59,512	9.7	6.1
District of Columbia	156,538	165,768	176,502	5.9	6.5	65,429	67,776	72,525	3.6	7.0	53,102	57,900	62,490	9.0	7.9
Florida	1,298,631	1,465,281	1,600,811	12.8	9.2	1,358,786	1,436,107	1,553,426	5.7	8.2	1,119,615	1,259,026	1,361,251	12.5	8.1
Georgia	705,547	779,684	831,828	10.5	6.7	605,212	625,219	660,448	3.3	5.6	473,026	520,698	554,573	10.1	6.5
Hawaii	93,400	103,153	110,265	10.4	6.9	88,342	90,054	94,971	1.9	5.5	71,951	78,554	83,404	9.2	6.2
Idaho	99,839	112,290	120,958	12.5	7.7	105,545	110,794	116,675	5.0	5.3	75,917	85,222	90,908	12.3	6.7
Illinois	946,776	1,040,353	1,098,346	9.9	5.6	846,013	862,729	906,648	2.0	5.1	629,707	690,826	732,059	9.7	6.0
Indiana	425,864	473,493	499,503	11.2	5.5	390,237	402,920	420,260	3.2	4.3	291,764	322,556	339,863	10.6	5.4
Iowa	223,871	242,753	254,032	8.4	4.6	186,142	197,021	201,333	5.8	2.2	135,535	146,507	153,400	8.1	4.7
Kansas	191,738	212,612	228,232	10.9	7.3	173,400	183,034	194,414	5.6	6.2	125,168	137,055	145,110	9.5	5.9
Kentucky	238,429	261,541	279,708	9.7	6.9	233,355	237,781	250,569	1.9	5.4	185,708	201,503	213,960	8.5	6.2
Louisiana	267,264	298,425	314,989	11.7	5.6	254,297	255,687	269,140	0.5	5.3	195,955	210,713	221,485	7.5	5.1
Maine	79,194	86,493	93,270	9.2	7.8	81,589	85,708	90,868	5.0	6.0	71,498	78,323	84,093	9.5	7.4
Maryland	447,754	484,908	515,607	8.3	6.3	426,578	439,741	465,937	3.1	6.0	301,112	326,755	346,417	8.5	6.0
Massachusetts	649,511	695,612	736,296	7.1	5.8	585,962	601,910	634,296	2.7	5.4	416,511	453,804	483,803	9.0	6.6
Michigan	575,116	627,009	673,818	9.0	7.5	571,334	582,021	613,719	1.9	5.4	464,129	499,949	524,045	7.7	4.8
Minnesota	416,539	454,993	483,162	9.2	6.2	385,734	399,446	416,325	3.6	4.2	279,935	305,881	324,128	9.3	6.0
Mississippi	129,945	142,762	151,147	9.9	5.9	138,243	138,524	145,962	0.2	5.4	108,607	118,044	123,851	8.7	4.9
Missouri	366,442	400,265	430,114	9.2	7.5	349,483	364,499	387,905	4.3	6.4	277,716	303,002	322,804	9.1	6.5
Montana	60,400	68,702	73,255	13.7	6.6	65,254	69,132	73,620	5.9	6.5	53,398	59,027	62,603	10.5	6.1
Nebraska	150,836 201,706	167,480 227,321	181,285 245,979	11.0 12.7	8.2 8.2	124,781 191,330	131,989 198,485	141,151 211,575	5.8 3.7	6.9 6.6	89,805 146,207	98,107 162,963	103,226 172,658	9.2 11.5	5.2 5.9
Nevada New Hampshire	99,093	106,488	114,101	7.5	7.1	191,330	198,483	110,684	2.4	5.7	78,698	87,092	92,406	10.7	6.1
New Jersey	695,443	758,289	806,665	9.0	6.4	704,936	719,974	762,803	2.4	5.9	516,834	558,950	592,882	8.1	6.1
New Mexico	112,979	128,139	135,010	13.4	5.4	107,311	112,181	117,016	4.5	4.3	84,949	92,542	97,421	8.9	5.3
New York	1,923,413	2,052,759	2,172,010	6.7	5.8	1,509,255	1,524,707	1,611,169	1.0	5.7	1,065,900	1,164,642	1,248,145	9.3	7.2
North Carolina	662,147	728,499	788,103	10.0	8.2	602,410	630,559	670,051	4.7	6.3	469,121	517,820	553,487	10.4	6.9
North Dakota	63,839	73,780	76,043	15.6	3.1	51,327	55,488	56,475	8.1	1.8	38,407	41,392	43,728	7.8	5.6
Ohio	763,596	832,661	884,834	9.0	6.3	674,621	686,658	724,779	1.8	5.6	522,401	565,836	596,163	8.3	5.4
Oklahoma	217,787	245,976	256,689	12.9	4.4	217,545	233,290	245,439	7.2	5.2	155,815	170,223	179,981	9.2	5.7
Oregon	275,653	298,848	318,884	8.4	6.7	265,379	271,773	287,183	2.4	5.7	203,047	222,633	234,578	9.6	5.4
Pennsylvania	844,432	919,741	976,361	8.9	6.2	830,115	848,383	893,649	2.2	5.3	638,432	702,707	738,930	10.1	5.2
Rhode Island	67,228	72,869	77,574	8.4	6.5	69,014	70,450	74,046	2.1	5.1	53,667	57,577	61,338	7.3	6.5
South Carolina	272,385	301,945	327,420	10.9	8.4	276,440	287,548	308,078	4.0	7.1	223,780	247,404	264,656	10.6	7.0
South Dakota	62,985	69,069	74,034	9.7	7.2	60,078	63,440	66,620	5.6	5.0	41,367	45,219	47,927	9.3	6.0
Tennessee	441,953	488,670	523,032	10.6	7.0	400,468	417,369	443,472	4.2	6.3	298,705	329,584	351,525	10.3	6.7
Texas	2,088,972	2,436,925	2,583,866	16.7	6.0	1,779,913	1,891,499	2,020,899	6.3	6.8	1,348,634	1,491,530	1,595,278	10.6	7.0
Utah	232,562	261,081	281,329	12.3	7.8	194,316	205,519	219,332	5.8	6.7	146,579	164,190	174,396	12.0	6.2
Vermont	37,439	41,012	43,534	9.5	6.1	39,355	41,172	43,336	4.6	5.3	33,281	36,026	38,173	8.2	6.0
Virginia	615,985	666,682	719,897	8.2	8.0	579,894	604,997	643,579	4.3	6.4	417,695	455,315	486,123	9.0	6.8
Washington	687,702	742,910	807,865	8.0	8.7	570,161	589,077	632,296	3.3	7.3	405,370	444,527	472,900	9.7	6.4
West Virginia	86,551	98,290	102,152	13.6	3.9	87,124	88,939	93,505	2.1	5.1	73,960	79,792	84,235	7.9	5.6
Wisconsin	368,880	400,621	428,447	8.6	6.9	355,536	365,166	384,068	2.7	5.2	268,656	294,114	310,876	9.5	5.7
Wyoming	42,319	49,783	51,991	17.6	4.4	41,132	44,460	47,928	8.1	7.8	28,571	31,332	33,257	9.7	6.1

Price changes can significantly influence the economic view provided by current-dollar GDP statistics. Inflation-adjusted, or real, GDP presented a more moderate picture of economic growth in 2023, both nationally and across states (chart 1). At the national level, real GDP grew 2.9 percent. State-level real GDP growth ranged from 0.2 percent in Iowa to 7.8 percent in North Dakota, with the District of Columbia experiencing a 1.0 percent increase.

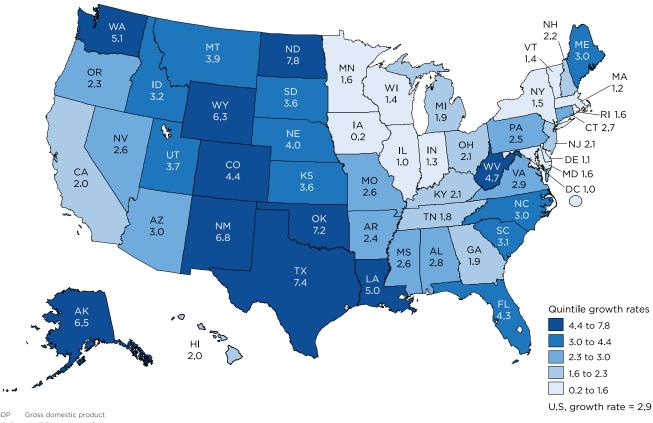


Chart 1. Percent Change in Real GDP: 2022-2023

Industries experienced varying price changes in 2023. For example, while most industries experienced price increases, the mining, quarrying, and oil and gas extraction industry and the agriculture, forestry, fishing, and hunting industry saw price declines. These falling prices contributed to a decrease in current-dollar GDP for these industries, even as production increased (reflected in real GDP growth), with particularly strong growth in the mining industry (chart 2).

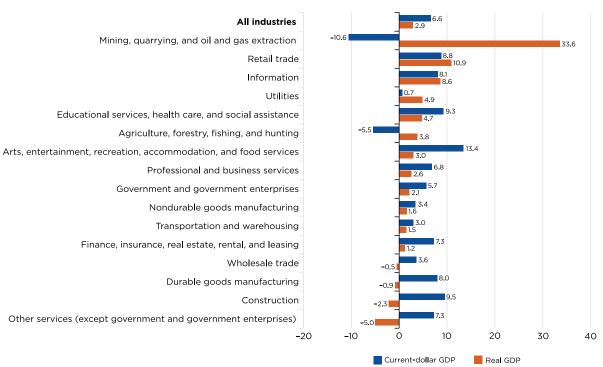


Chart 2. Percent Change in Current-dollar GDP and Real GDP by Industry, United States: 2022–2023

GDP Gross domestic product U.S. Bureau of Economic Analysis

In 2023, real GDP growth was driven by a diverse range of industries. Real GDP by industry, or real value added—a measure of an industry's contribution to GDP—grew most rapidly in mining, quarrying, and oil and gas extraction (33.6 percent), retail trade (10.9 percent), and information (8.6 percent). Together, these industries contributed 1.6 percentage points to national real GDP growth (chart 3). Other notable contributors included educational services, health care, and social assistance; professional and business services; and finance, insurance, and real estate, each contributing at least a quarter of a percentage point to national real GDP growth. In contrast, several industries experienced declines in real GDP, including construction, durable goods manufacturing, wholesale trade, and "other services" (except government and government enterprises).

The fastest growing industries nationally played a significant role in driving overall growth in the states with a specialization in those industries. Alongside North Dakota, Texas (7.4 percent) and Oklahoma (7.2 percent) were among the fastest growing states in real GDP. Mining, quarrying, and oil and gas extraction was by far the largest contributor to real GDP growth in all three states, adding 6.2 percentage points to real GDP growth in North Dakota, 3.7 percentage points in Texas, and 4.0 percentage points in Oklahoma. Retail trade was the second-largest contributor, accounting for 0.7 percentage point in each state.

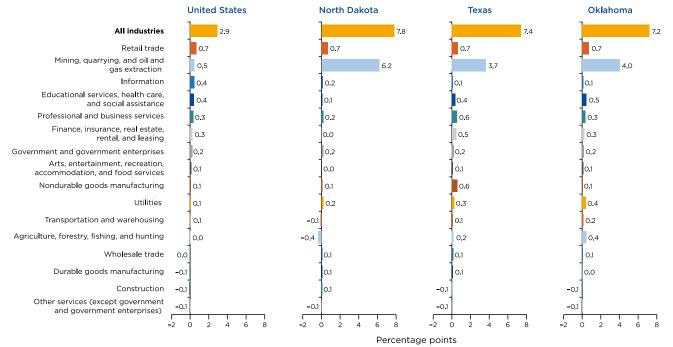


Chart 3. Contributions to Percent Change in Real GDP, Fastest Growing States: 2022–2023

GDP Gross domestic product U.S. Bureau of Economic Analysis After Iowa, Illinois (1.0 percent) and Delaware (1.1 percent) were among the slowest growing states. While real GDP grew for several industries in these states, including retail trade and information, other industries such as agriculture, forestry, fishing, and hunting; construction; and durable goods manufacturing subtracted from real GDP growth in these states resulting in slow overall growth (chart 4).

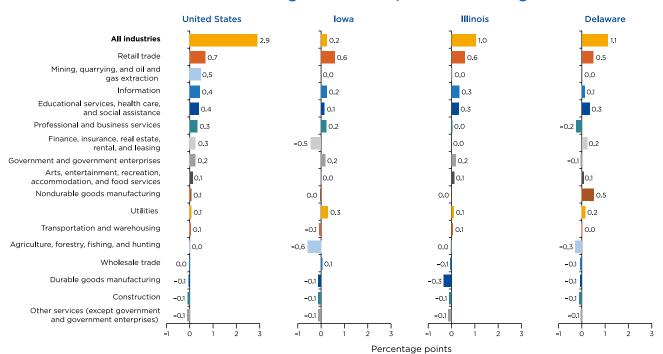


Chart 4. Contributions to Percent Change in Real GDP, Slowest Growing States: 2022-2023

GDP Gross domestic product U.S. Bureau of Economic Analysis

State personal income

Nationally, current-dollar personal income increased 5.9 percent in 2023, following a 3.1 percent increase in 2022 (table 1). Changes in state personal income ranged from 1.8 percent in North Dakota to 8.2 percent in Florida (chart 5). Along with Florida, Wyoming (7.8 percent), Washington (7.3 percent), South Carolina (7.1 percent), and Arizona (7.0 percent) were among the states with the largest increases in personal income. In addition to North Dakota, Iowa (2.2 percent) and Alaska (3.8 percent) were among the states with the smallest increases in personal income. In the District of Columbia, personal income increased by 7.0 percent.

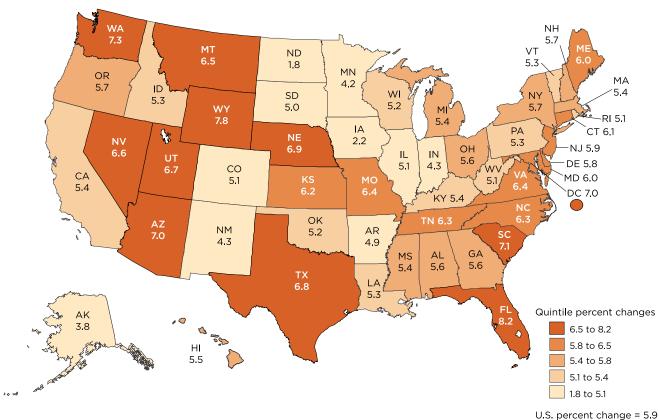


Chart 5. Percent Change in Personal Income: 2022-2023

At the national level, the increase in personal income resulted from a sizable increase in net earnings and property income—dividends, interest, and rent—and a more modest increase in personal current transfer receipts (chart 6). Net earnings, property income, and personal current transfer receipts increased by 5.2 percent, 10.8 percent, and 3.1 percent, respectively. Net earnings and property income increased in all states, while personal current transfer receipts declined in several states, most notably in Alaska (chart 7).

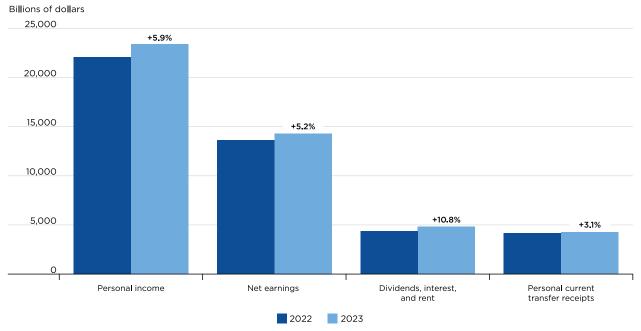
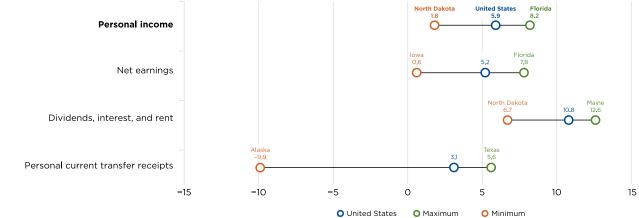


Chart 6. Personal Income and Its Components, United States: 2022-2023

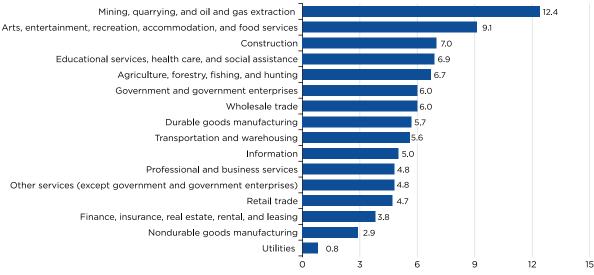
Increases in net earnings—comprised of compensation of employees and proprietors' income—were the leading contributor to the increase in personal income for many states. Net earnings increased across all states, with the increases ranging from 0.6 percent in Iowa to 7.8 percent in Florida.





Compensation of employees (wages and salaries plus supplements to wages and salaries), the largest component of net earnings as well as personal income, increased 5.6 percent at the national level. Across industries, compensation increased the fastest in mining, quarrying, and oil and gas extraction (12.4 percent) and arts, entertainment, recreation, accommodation, and food services (9.1 percent) (chart 8). Mining, quarrying, and oil and gas extraction was also the fastest growing industry in real GDP.

Chart 8. Percent Change in Compensation of Employees by Industry, United States: 2022–2023



Compensation increased by 8.0 percent in Florida and 6.6 percent in Wyoming, the fastest growing states in personal income (chart 9). The slowest growing states in personal income—Iowa and North Dakota—also had sizable increases in compensation, at 4.7 percent and 7.2 percent, respectively.

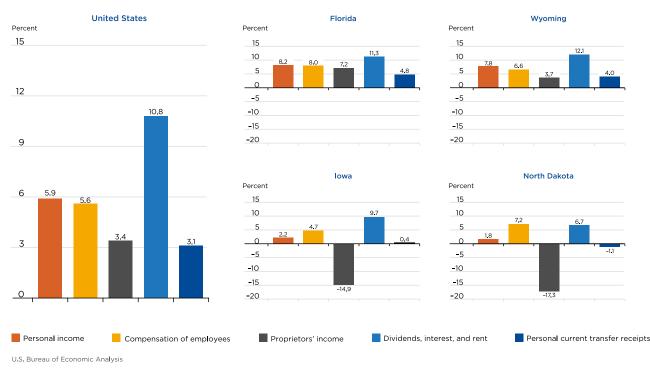


Chart 9. Percent Change in Personal Income and Its Components for Selected States: 2022-2023

Proprietors' income increased nationally 3.4 percent. In Florida and Wyoming, proprietors' income increased by 7.2 percent and 3.7 percent, respectively. Iowa and North Dakota had the largest declines in proprietors' income, –14.9 percent and –17.3 percent, respectively, driven by declines in farm proprietors' income.

Property income increased nationally 10.8 percent in 2023. Property income increased in all states and the District of Columbia, with the increases ranging from 6.7 percent in North Dakota to 12.6 percent in Maine (chart 7). Lastly, personal current transfer receipts increased 3.1 percent at the national level. Personal current transfer receipts declined in several states, with Alaska experiencing the largest decline in this component (–9.9 percent).

PCE by state

Nationally, current-dollar PCE increased 6.4 percent in 2023, following a 9.8 percent increase in 2022 (table 1). The states with the largest increases in PCE were Florida (8.1 percent), Maine (7.4 percent), Arizona (7.2 percent), and New York (7.2 percent) (chart 10). The states with the lowest increases were Iowa (4.7 percent), Michigan (4.8 percent), and Mississippi (4.9 percent). Florida was also the fastest growing state in personal income, and Iowa was among the slowest growing states in personal income. In the District of Columbia, PCE increased 7.9 percent.

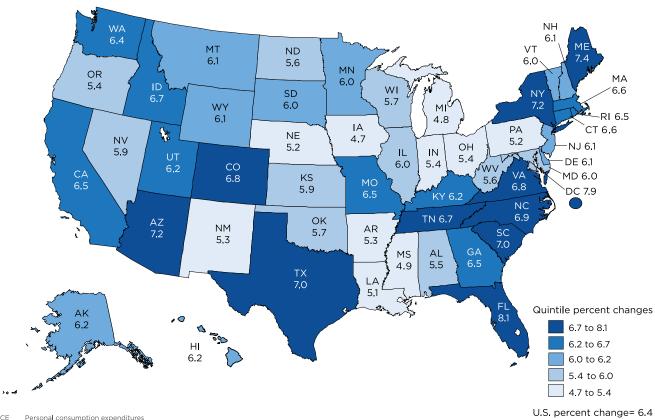


Chart 10. Percent Change in PCE: 2022-2023

PCE Personal consumption expenditures U.S. Bureau of Economic Analysis The PCE categories with the largest increases were food services and accommodations (10.4 percent), recreation services (9.2 percent), and health care (8.6 percent) (chart 11). Health care and housing and utilities were the largest contributors to PCE growth in both the fastest and slowest growing states (charts 12 and 13). Together, these two categories contributed 2.7 percentage points to national PCE growth and at least 3.0 percentage points to PCE growth in the fastest growing states. They also contributed 1.7 percentage points to PCE growth in Iowa, 1.8 percentage points in Michigan, and 2.1 percentage points in Mississippi.

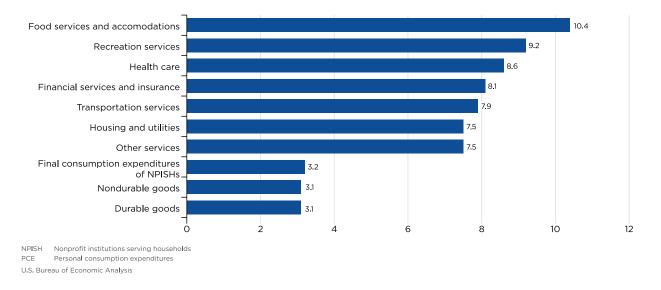


Chart 11. Percent Change in PCE by Major Category, United States: 2022–2023

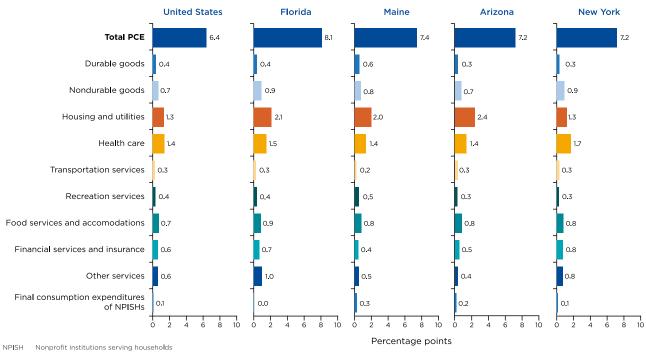


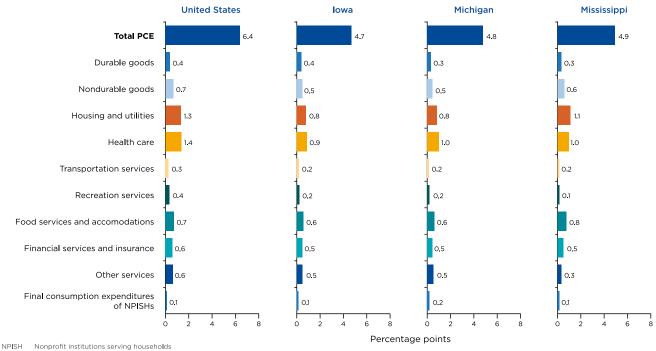
Chart 12. Category Contributions to Percent Change in Total PCE, Fastest Growing States: 2022–2023

 NPISH
 Nonprofit institutions serving households

 PCE
 Personal consumption expenditures

 U.S. Bureau of Economic Analysis

Chart 13. Category Contributions to Percent Change in Total PCE, Slowest Growing States: 2022–2023



 NPISH
 Nonprofit institutions serving households

 PCE
 Personal consumption expenditures

 U.S. Bureau of Economic Analysis

In addition to personal income, regional trends in population growth may help explain some of the regional differences in PCE growth. Typically, states with the largest increases in PCE tend to have faster growing populations, while states with slower increases or declines in PCE tend to have slow growing or declining populations. In 2023, population grew 0.5 percent nationally (chart 14). States with the highest population growth were South Carolina (1.7 percent), Florida (1.6 percent), and Texas (1.6 percent). These states were also among the states with large PCE increases. Population declined in eight states, with New York (-0.5 percent), Louisiana (-0.3 percent), Illinois (-0.3 percent), and Hawaii (-0.3 percent) experiencing the largest population declines. Of these, Louisiana was among the states with lowest PCE growth.

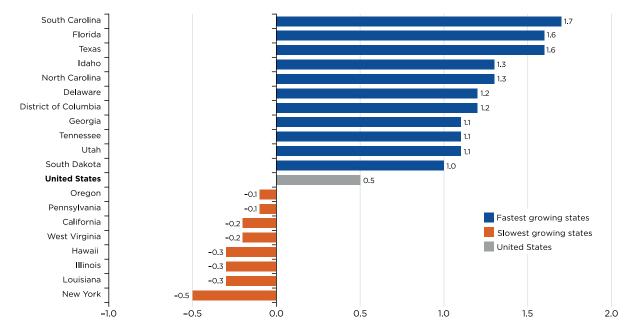


Chart 14. Percent Change in Population, Fastest and Slowest Growing States: 2022–2023

Updates to Previously Released Estimates

BEA released updated historical estimates for GDP by state, state personal income, and PCE by state measures. The updated estimates reflect the incorporation of the results of the 2024 annual update of the NEAs as well as the incorporation of newly available and revised regional source data. No methodological changes were made to the REA statistics, and no presentational changes were made to the published REA tables. This section highlights the major regional source data that were updated and provides a summary of the impacts of these updates on the annual state-level measures.

Updates to source data

BEA incorporated several newly available and revised regional source data, including annual source data that became available since the comprehensive update of the REAs in September 2023. A summary of the annual major data sources for each of the statistics is provided in table 2. These data include Census Bureau American Community Survey and Annual Survey of State and Local Government Finances, U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) and Occupational Employment Statistics, Internal Revenue Service (IRS) data, and U.S. Department of Agriculture farm statistics.

Component	Industry	Updated state data source	Years covered
GDP by state			
Compensation of employees	All industries	U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages	2019–2022 (revised) 2023 (new)
Taxes on production and imports less subsidies		U.S. Department of Transportation, Bureau of Transportation Statistics (federal highway excise taxes)	2023 (new)
	All industries	National Science Foundation, Business Research and Development Survey (R&D expenditures)	2022 (new)
	All industries	National Science Foundation, Higher Education Research and Development Survey (R&D expenditures)	2022 (new)
	Farms	U.S. Department of Agriculture, Economic Research Service (farm income and expenses)	2019–2022 (revised) 2023 (new)
Gross operating surplus	Mining	Energy Information Administration (oil, gas production and prices, and coal reports)	2023 (new)
	Utilities	Energy Information Administration (gas and electricity consumption)	2023 (new)
	Transportation and warehousing	U.S. Department of Transportation, Bureau of Transportation Statistics (financial reports)	2023 (new)
State and the second	Monetary Authorities-central bank, credit intermediation, and related services	Federal Deposit Insurance Corporation (branch office deposits)	2023 (new)
State personal income		U.S. Bureau of Labor Statistics, Quarterly Census of	2019-2022 (revised)
	Nonfarm industries	Employment and Wages	2023 (new)
Compensation of employees	Farm	U.S. Department of Agriculture, Economic Research Service (farm labor expenses)	2019–2022 (revised) 2023 (new)
	Military	U.S. Department of Defense (personnel and payroll data)	2023 (new)
Proprietors' income	Nonfarm industries	Internal Revenue Service (net profits of proprietorships and partnerships)	2022 (new)
r · · · · · ·	Farm	U.S. Department of Agriculture, Economic Research Service (farm income and expenses)	2019–2022 (revised) 2023 (new)
		Internal Revenue Service (income tax data)	2021-2022 (new)
Dividends, interest, and rent		Federal Deposit Insurance Corporation (deposits)	2023 (new)
		National Credit Union Administration (deposits)	2023 (new)
		Social Security Administration (Social Security benefits) Centers for Medicare and Medicaid Services (medical	2023 (new)
		benefits)	2023 (new)
Personal current transfer receipts		U.S. Department of Labor (unemployment insurance compensation)	2023 (new)
		U.S. Census Bureau, Annual Survey of State and Local Government Finances (state and local government social benefits)	2022 (new)
	All industries	U.S. Bureau of Labor Statistics, Occupational Employment Statistics (employee wage distributions)	2023 (new)
Contributions for	All industries	Private employer contributions for Old Age, Survivors, Disability, and Health Insurance (OASDHI) programs	2023 (new)
government social insurance	All industries	Social Security Administration (earnings and employment data)	2021 (new)
	All industries	Centers for Medicare and Medicaid Services (supplemental medical insurance enrollment data)	2023 (new)
Residence adjustment		Internal Revenue Service (wage data)	2021 (revised) 2022 (new)
PCE by state			2010 5322 5
Durable goods		U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages	2019–2022 (revised) 2023 (new)
Nondurable goods		U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages	2019–2022 (revised) 2023 (new)
Services		U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages	2019–2022 (revised) 2023 (new)
Housing and utilities		U.S. Census Bureau, American Community Survey (housing and utility expenditures)	2022 (new)
		Federal Deposit Insurance Corporation (banking services) National Credit Union Administration (credit union	2023 (new)
Financial services and insurance		services) Internal Revenue Service, Statistics of Income (financial	2023 (new)
		National Center for Education Statistics (education	2021 (new)
_		services) U.S. Census Bureau, Annual Survey of School System	2022, 2023 (new)
Other services		Finances (education services) Survey of International Air Travelers (net foreign travel	2022 (new)
		services)	2022 (new)

Table 2. Summary of Updated Major State-Level Data Sources

GDP Gross domestic product

PCE Personal consumption expenditures

R&D Research and development

Summary of revisions

BEA released updated annual GDP by state statistics for 2019–2022. The revisions to the GDP by state statistics for this period are largely due to the incorporation of updated national values and state source data. At the national level, current-dollar GDP was revised upward for all 4 years: 2019 (0.1 percent), 2020 (0.1 percent), 2021 (0.4 percent), and 2022 (1.0 percent) (table 3). The revisions to current-dollar GDP by state were less than 2.0 percent each year for most states. In general, revisions to later years tend to be larger, as new and more complete source data are incorporated into the statistics.

The revisions to current-dollar GDP by state in 2019 and 2020 were less than 1.0 percent in absolute value for all states. In 2021, the revisions to current-dollar GDP by state ranged from a downward revision of 0.4 percent in Vermont to an upward revision of 1.6 percent in Louisiana. The revisions to current-dollar GDP by state in 2022 ranged from an upward revision of 0.1 percent in Rhode Island to an upward revision of 2.6 percent in Delaware. Other states with revisions of 2.0 percent or greater were Hawaii (2.0 percent), Mississippi (2.0 percent), Nevada (2.0 percent), New Mexico (2.1 percent), Louisiana (2.2 percent), and Montana (2.4 percent).

	Gross	domestic	product	(GDP)		Personal	lincome	9	Personal	consumptio	n expenditu	ires (PCE)
Region	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
United States	0.1	0.1	0.4	1.0	0.0	0.0	0.1	1.2	0.1	0.1	0.4	1.0
Alabama	0.1	0.1	0.8	1.2	0.0	-0.1	0.9	1.5	0.1	0.2	0.5	0.3
Alaska	0.1	0.0	0.5	0.9	-0.1	-0.1	-0.1	0.5	0.1	0.2	0.4	0.1
Arizona	0.0	0.7	1.0	1.8	0.0	-0.1	1.1	1.0	0.1	0.1	0.4	1.3
Arkansas	0.0	0.2	1.4	1.6	0.0	-0.1	2.4	5.2	0.1	0.2	0.4	0.2
California	0.2	0.3	0.2	0.5	0.1	0.1	-0.1	-0.1	0.2	0.2	0.5	0.9
Colorado	0.0	-0.2	-0.3	0.7	0.0	-0.2	-0.3	1.3	0.1	0.1	0.4	1.2
Connecticut	0.3	0.8	0.3	0.7	0.0	-1.3	0.8	2.0	0.1	0.1	0.6	0.9
Delaware	0.0	-0.1	0.1	2.6	0.1	-0.5	1.3	1.2	0.0	0.1	0.3	1.0
District of Columbia	-0.1	-0.2	0.3	0.4	0.0	1.1	0.3	5.1	0.2	0.2	0.4	0.5
Florida	0.5	0.2	0.5	1.8	0.0	0.0	-1.3	-0.4	0.1	0.2	0.5	1.9
Georgia	0.0	0.4	0.6	1.6	0.0	0.0	-0.1	1.2	0.1	0.1	0.4	0.7
Hawaii	-0.1	0.3	0.3	2.0	0.0	-0.1	-0.7	1.2	0.1	0.2	0.4	-0.2
Idaho	-0.1	-0.1	1.1	1.3	-0.1	-0.2	2.4	0.9	0.2	0.1	0.6	1.0
Illinois	0.0	0.0	0.3	1.4	0.0	0.0	-0.9	1.3	0.1	0.2	0.4	1.0
Indiana	-0.2	0.2	0.7	0.7	0.0	0.1	0.6	1.1	0.1	0.2	0.6	1.3
Iowa	0.1	-0.4	1.4	1.9	0.0	0.1	0.3	2.2	0.1	0.1	0.3	0.7
Kansas	-0.5	-0.3	0.0	1.6	0.1	0.1	0.8	3.1	0.1	0.2	0.4	1.3
Kentucky	0.0	-0.1	0.2	1.0	0.1	0.1	0.4	1.5	0.1	0.2	0.4	1.0
Louisiana	0.2	0.0	1.6	2.2	0.0	-0.2	0.8	2.2	0.2	0.2	0.6	1.6
Maine	0.6	0.0	0.3	0.8	0.0	0.1	0.9	2.1	0.1	0.2	0.4	1.3
Maryland	0.0	0.0	0.2	1.0	0.0	0.1	0.0	1.6	0.1	0.2	0.4	0.7
Massachusetts	-0.1	0.6	0.6	0.6	0.0	0.1	0.4	1.9	0.2	0.2	0.5	1.2
Michigan	0.6	-0.1	-0.2	0.7	0.0	0.0	0.6	1.7	0.1	0.1	0.5	0.7
Minnesota	0.2	-0.2	0.8	1.6	0.1	0.1	1.0	1.5	0.1	0.0	0.3	1.2
Mississippi	0.6	0.4	1.2	2.0	0.0	-0.1	0.6	1.6	0.1	0.2	0.4	1.2
Missouri	0.1	0.0	0.4	0.9	0.0	0.1	1.0	2.0	0.1	0.2	0.4	0.9
Montana	-0.1	-0.3	0.7	2.4	0.0	-0.1	1.1	1.0	0.1	0.3	0.5	1.3
Nebraska	0.1	-0.1	1.0	1.5	0.1	0.1	1.4	4.4	0.2	0.1	0.6	0.7
Nevada	0.1	0.2	0.8	2.0	0.1	0.1	-0.4	0.6	0.2	0.4	0.6	0.7
New Hampshire	0.5	-0.1	0.0	1.4	0.0	-0.5	2.0	1.5	0.1	0.1	0.4	2.6
New Jersey	0.2	0.2	0.5	0.4	0.1	-0.7	0.0	0.7	0.2	0.2	0.5	0.4
New Mexico	0.0	0.2	1.1	2.1	0.1	-0.3	-0.9	1.7	0.2	0.2	0.5	1.0
New York	-0.3	0.4	0.6	0.2	0.1	0.7	0.1	2.8	0.3	0.1	0.6	1.1
North Carolina	-0.1	-0.1	0.4	1.8	0.0	0.0	0.5	1.4	0.1	0.0	0.3	1.2
North Dakota	0.6	0.4	1.0	1.6	0.1	-1.2	0.1	1.2	0.1	0.1	0.3	0.9
Ohio	0.0	0.1	0.5	0.8	0.0	-0.1	0.6	1.1	0.1	0.2	0.4	0.8
Oklahoma	0.4	0.5	0.0	1.3	0.0	-0.4	-1.2	3.1	0.1	0.2	0.4	0.7
Oregon	-0.1	-0.1	0.1	0.5	0.0	0.1	1.1	2.9	0.1	-0.1	0.1	0.7
Pennsylvania	-0.1	-0.1	0.0	0.9	0.0	-0.1	-0.4	1.4	0.1	0.1	0.4	0.9
Rhode Island	0.5	0.1	0.0	0.1	0.0	0.3	-1.2	1.3	0.1	0.1	0.4	-0.3
South Carolina	0.6	0.0	0.3	1.5	0.0	0.0	0.8	1.5	0.1	0.2	0.4	1.3
South Dakota	0.3	0.2	0.6	0.4	0.0	-0.1	2.5	2.3	0.1	0.2	0.5	1.4
Tennessee	0.0	0.4	0.9	0.6	0.0	0.1	0.9	1.5	0.1	0.2	0.3	1.0
Texas	0.3	0.2	0.1	1.4	0.0	-0.6	-0.5	0.6	0.1	0.1	0.4	1.2
Utah	0.0	0.0	0.2	1.8	0.0	0.0	2.0	2.2	0.0	-0.1	0.1	0.8
Vermont	0.4	-0.2	-0.4	0.4	0.0	0.3	-0.6	0.9	0.1	0.3	0.5	-0.1
Virginia	-0.1	0.1	0.3	0.5	0.0	-0.1	0.2	1.0	0.1	0.2	0.5	0.7
Washington	-0.1	-0.2	-0.1	0.7	0.0	0.0	-0.7	0.4	0.2	0.0	0.4	0.9
West Virginia	0.4	0.6	0.0	0.9	0.0	-0.4	-0.6	0.2	0.1	0.2	0.4	1.1
Wisconsin	-0.1	-0.1	0.0	1.1	0.0	0.0	0.1	0.8	0.1	0.2	0.4	1.3
Wyoming	0.1	0.1	0.3	1.4	0.0	-0.7	0.7	4.4	0.1	0.3	0.9	2.8

Table 3. Percent Revisions to Current-Dollar Gross Domestic Product by State, State Personal Income,
and Personal Consumption Expenditures by State: 2019–2022

State personal income statistics were revised from 2019–2022. Revisions to state personal income are largely due to updated and new QCEW and IRS data. At the national level, personal income remained virtually unchanged for 2019 and 2020 and was revised upward for 2021 (0.1 percent) and 2022 (1.2 percent) (table 3). The revisions to state personal income for these years were less than 2.0 percent for most states.

The revisions to state personal income in 2019 were very small and were within 0.1 percent in absolute value. In 2020, the revisions to state personal income ranged from a downward revision of 1.3 percent in Connecticut to an upward revision of 1.1 percent in the District of Columbia. The revisions to state personal income in 2021 ranged from a downward revision of 1.3 percent in Florida to an upward revision of 2.5 percent in South Dakota. Other states with revisions 2.0 percent or greater were New Hampshire (2.0 percent), Utah (2.0 percent), Arkansas (2.4 percent), and Idaho (2.4 percent). In 2022, the revisions to state personal income ranged from a downward revision of 0.4 percent in Florida to an upward revision of 5.2 percent in Arkansas. In addition to Arkansas, 13 other states and the District of Columbia had revisions of 2.0 percent or greater.

Lastly, PCE by state statistics were also revised from 2019–2022. The revisions to PCE by state are largely due to updated source data including the QCEW, housing data from the American Community Survey, and updated national PCE estimates from the NIPAs. National PCE was revised upward for all 4 years: 2019 (0.1 percent), 2020 (0.1 percent), 2021 (0.4 percent), and 2022 (1.0 percent). The revisions to PCE by state for these years were less than 2.0 percent for most states.

The revisions to PCE by state in 2019–2021 were less than 1.0 percent in absolute value for all states. In 2022, the revisions to PCE by state ranged from a downward revision of 0.3 percent in Rhode Island to an upward revision of 2.8 percent in Wyoming. In addition to Wyoming, New Hampshire had a revision larger than 2.0 percent.

Concepts, Definitions, and Corresponding Measures in the NIPAs

GDP by state, state personal income, and PCE by state are the state counterparts of the corresponding measures of GDP, personal income, and PCE in the NIPAs. The national totals in the state measures, however, differ slightly from the corresponding national measures in the NIPAs primarily because of differences in coverage that stem from different concepts of residence. Differences in source data, methods, and timing of the availability of source data may also contribute to this difference.

GDP by state

GDP by state is the market value of goods and services produced by the labor and property located in each state and the District of Columbia. It is calculated as the sum of incomes earned by labor and capital and the costs incurred in the production of goods and services.

The featured GDP measure in the NIPAs is calculated as the sum of goods and services purchased by final users (i.e., PCE plus gross private domestic investment plus government consumption expenditures and gross investment plus net exports). In principle, income earned should equal spending, but because of different data sources, the result is a difference referred to as the "statistical discrepancy." The GDP by state estimates, measured by the sum of incomes earned, are scaled to the GDP measure in the NIPAs to account for the statistical discrepancy.

In addition, U.S. GDP by state differs slightly from the GDP in the NIPAs and thus from GDP by industry in the annual industry accounts because U.S. GDP by state excludes federal military and civilian activity located overseas, which cannot be attributed to a particular state.¹

State personal income

State personal income is the income received by, or on behalf of, all persons that reside in each state and the District of Columbia from all sources: participation in production, ownership of a home or business, ownership of financial assets, and transfers from businesses and government.

State personal income differs slightly from the NIPA measure of personal income (table I). 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.²

The NIPA measure of personal income is broader. It includes the earnings of federal civilian and military personnel stationed abroad and the property income received by the federal retirement plans of these workers, all income earned by U.S. citizens living abroad for less than a year, the income of foreign nationals working at international organizations in the United States, and the income of foreign nationals only if they live and work in the United States for a year or more. State personal income excludes the income of U.S. citizens living abroad but includes the income of resident foreign nationals working in the United States, regardless of length of stay or residency.³

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 and the income of private U.S. citizens living outside the country for a year or more.

Table I. Relation of Personal Income in the NIPAs and the State Personal Income Accounts [Billions of dollars]

Component	2021	2022	2023
Personal income, NIPAs	21,419.5	22,088.9	23,402.5
Plus adjustments for:			
Coverage differences	-19.0	-17.5	-17.3
Federal workers abroad	-34.3	-39.1	-41.1
Wage and salary disbursements	-23.3	-26.4	-27.7
Supplements to wages and salaries ¹	-8.8	-10.1	-10.8
Dividends, interest, and rent ²	-4.6	-5.3	-5.4
Less: Personal contributions for social insurance	-2.4	-2.7	-2.8
Rest-of-the-world difference	15.3	21.6	23.8
Wages of private foreign nationals in U.S.	16.7	23.1	25.3
Wages of private U.S. residents abroad	-1.4	-1.5	-1.5
Use of more current source data	4.6	7.3	-3.5
Wage and salary disbursements	0.0	0.0	0.0
Farm proprietors' income	4.6	7.3	-3.5
Personal current transfer receipts	<0.1	< 0.1	<0.1
Statistical discrepancy ³	-1.1	-1.5	-1.4
<i>Equals:</i> State personal income ⁴	21,404.0	22,077.2	23,380.3

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.

4. State personal income was released September 27, 2024.

PCE by state

PCE by state is the value of the goods and services purchased by, and on behalf of, resident households in each state and the District of Columbia. In addition to out-of-pocket spending, PCE by state includes imputations for the consumption of goods and services without market transactions as well as the net expenditures of nonprofit institutions serving households (NPISHs). The two main imputations in PCE by state are for housing services for owner-occupied housing and financial services with no explicit charge. The net expenditures of NPISHs represent the value of the services that is unaccounted for by households' out-of-pocket purchases since the services by NPISHs are typically provided to households for less than the cost of the service.⁴

There are minor differences in coverage between the regional and national PCE statistics.⁵ PCE by state excludes the net expenditures abroad by U.S. residents, which consist of government and private employees' expenditures abroad less personal remittances in kind to nonresidents. These expenditures are included in national PCE, but they cannot be attributed to a particular state. PCE by state, however, does include the travel expenditures abroad by U.S. residents.

Residency adjustments

Residency definitions are important to the Regional Economic Accounts to align measures of income and consumption for meaningful comparisons within a given geography. PCE by state statistics use the residency concept of regional income statistics so state expenditures correspond to the same population used to measure state personal income.

Residency adjustments are made to both state personal income and PCE statistics; however, these adjustments serve different purposes. For state personal income statistics, a residence adjustment is made to reallocate income earned in places of work other than the recipients' place of residence. For the PCE by state statistics, a residency adjustment is made to reallocate expenditures made in states other than the households' state of residence.

- 1. See Gross Domestic Product by State Estimation Methodology on the BEA website.
- 2. See State Personal Income and Employment: Concepts, Data Sources, and Statistical Methods on the BEA website.
- 3. For a description of military coverage in state personal income, see "New Treatment of State Estimates of Military Compensation," *Survey* 85 (October 2005): 116.
- 4. For more information, see "Chapter 5. Personal Consumption Expenditures" in Concepts and Methods of the U.S. National Income and Product Accounts and "Personal Consumption Expenditures by State: Concepts, Data, and Methods" on the BEA website.
- 5. For a more detailed discussion on residency in the national and regional economic accounts, see "Personal Consumption Expenditures by State: Concepts, Data, and Methods" on the BEA website.

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The estimates of wages and salaries, supplements to wages and salaries, employee contributions for government social insurance, farm proprietors' income, personal current transfer receipts, the adjustment for residence, taxes on production and imports, and personal current tax receipts were prepared by the Compensation and Government Branch, under the supervision of John Laffman. Major responsibilities were assigned to Alexander Adams, Kendra Asher, and Peter Battikha. Contributing staff members were Suet Boudhraa, John Broda, Ernie Enriquez, Terence Fallon, David Guo, Hong Han, Karan Kassen, Paul Medzerian, Kekai Liu, Russell Moncrief, Krishna Parajuli, Jesse Park, Michael Partyka, Steven Penarrieta, Ross Stepp, Troy Watson, and Nicholas Wetzler.

The estimates of GDP by state, nonfarm proprietors' income, and property income (personal dividends, interest, rents, and royalties) were prepared by the Value Added and Quarterly Branch, under the supervision of Clifford Woodruff. Major responsibilities were assigned to Solomon Kublashvili, Matthew von Kerczek, and Zheng Wang. Contributing staff members were Michael Bentley, Lam Cao, Taylor Grant, Alex Holtschneider, W. Timothy McKeel, JD Montgomery, Ralph Rodriguez, Todd Siebeneck, Robert Tate, and Samuel Wheat.

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^{1.} For additional information on the annual update of NEAs, see Lisa S. Mataloni and Stephanie H. McCulla, "The 2024 Annual Update of the National Economic Accounts," *Survey of Current Business* (October 31, 2024). For a summary of NIPA methodologies, see "Updated Summary of NIPA Methodologies," *Survey* (November 15, 2024).

^{2.} BEA released preliminary state personal income and GDP by state statistics for 2023 on March 29, 2024. These statistics provide an early assessment of the state economies based on quarterly data.



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