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For information about BEA regional statistics, go to www.bea.gov.

Statistics, fourth quarter of 2008

Personal income declined in 41 states in the fourth quarter of 2008.¹ Earnings, the largest component of personal income, were weak in most regions, the exception being the Southwest, where strong mining earnings lifted personal income 0.3 percent (see page 56). Personal income declined in the other seven Bureau of Economic Analysis (BEA) regions. Nationally, current-dollar personal income fell 0.2 percent, the first decline since the first quarter of 1994. In the third quarter of 2008, personal income rose 0.2 percent.

The national price index for personal consumption expenditures fell 1.3 percent in the fourth quarter, the largest quarterly decline on record; declining oil prices were the main contributor.

Annual statistics, 2008

U.S. personal income growth slowed to 3.9 percent in 2008 from 6.0 percent in 2007, with all states except Alaska sharing in the slowdown. The U.S. growth was the slowest since 2003 (see page 58). Inflation, as measured by the national price index for personal consumption expenditures, rose to 3.3 percent in 2008, up from 2.6 percent in 2007. State growth rates ranged from 2.1 percent in Michigan to 9.6 percent in North Dakota.

Regional multipliers

Regional multipliers provided by BEA can be used to estimate the economic impact of a one-time or a sustained increase in economic activity in a particular region (see page 59). However, regional multipliers differ from macroeconomic multipliers used to assess the effects of fiscal stimulus on gross domestic product.

1. Personal income is the sum of net earnings by place of residence, property income, and personal current transfer receipts. Net earnings is the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income less contributions for government social insurance plus an adjustment to put place of work data on a place-of-residence basis.

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Quarterly State Personal Income—Regional Patterns

BEA regions

Southwest. Personal income fell in every region except the Southwest, which grew 0.3 percent. Net earnings and property income, which are both components of personal income, grew in that region while declining everywhere else. In contrast, the transfer receipts component declined in the Southwest, while growing everywhere else.

The Southwest's results were a consequence of two factors. First, the energy-producing sector (mining) in three of the four states in that region (Oklahoma, New Mexico, and Texas) continued to expand despite falling oil prices. Second, rental income and transfer receipts for the Southwest returned to more normal levels in the fourth quarter, as the region recovered from Hurricane Ike. Hurricane Ike depressed rental income (because of uninsured losses of residential and business property) and boosted transfer receipts (net insurance settlements paid to persons) in the third quarter, particularly in Texas (see the box "Special Hurricane Ike Adjustments" in the January 2009 SURVEY OF CURRENT BUSINESS).

Other regions. In the Great Lakes and Plains regions, net earnings subtracted more from personal income growth than property income subtracted. In other words, labor market conditions were more consequential than financial market conditions.

Net earnings subtracted 0.4 percent from growth in the Great Lakes and 0.6 percent in the Plains region, while property income subtracted only 0.2 percent in both regions.

In the New England, Mideast, Southeast, Rocky Mountain, and Far West regions, net earnings subtracted only 0.1 percent or 0.2 percent, while property income subtracted 0.4 percent or 0.5 percent.

States

The change in fourth-quarter state personal income ranged from a 0.9 percent rise in Alaska to a 1.8 percent fall in North Dakota. Declines in farm earnings reduced personal income growth by 0.5 percentage point or more in Nebraska, Iowa, South Dakota, and North Dakota, all of which are in the Plains Region.

Chart 1. Personal Income by BEA Region, 2008:IV

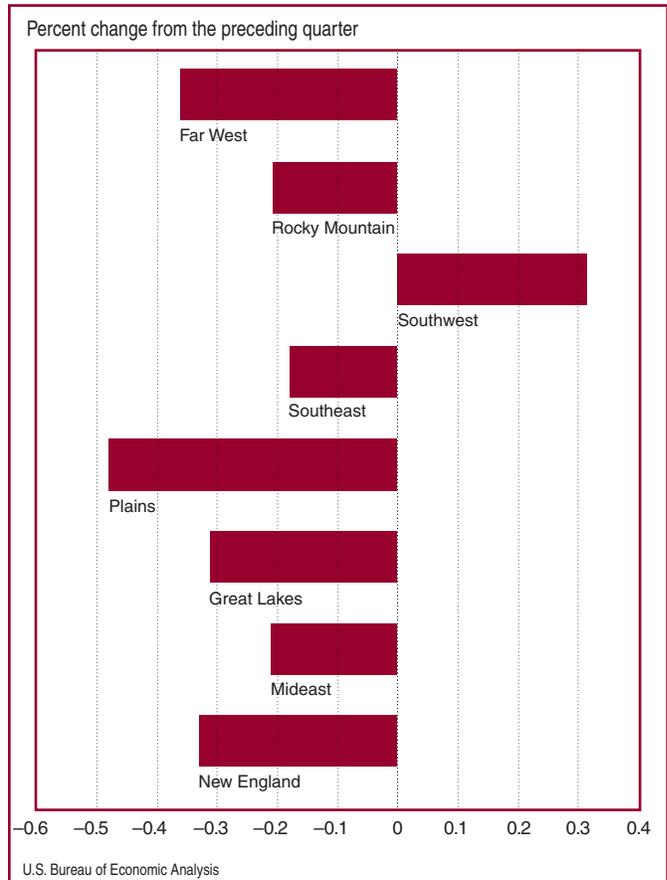
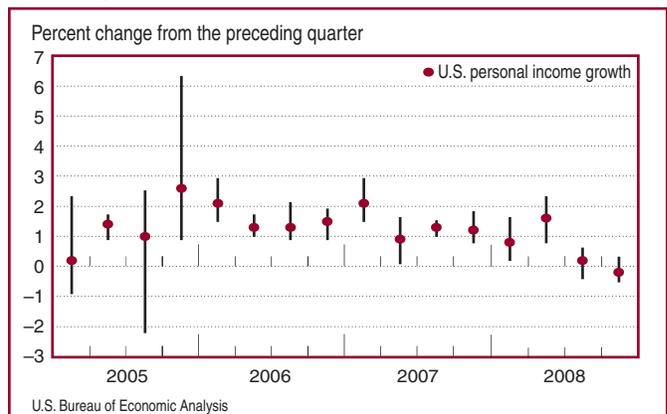


Chart 2. Range of Personal Income Growth for Eight BEA Regions



Quarterly State Personal Income—Earnings

Overview

Relatively large job losses reduced net earnings 0.3 percent nationally in the fourth quarter. However, lower interest rates reduced property income (dividends, interest, and rent) by an even greater amount (1.7 percent). Cushioning the decline in net earnings and property income: a rise in transfer receipts. Rising state unemployment insurance benefits contributed 0.1 percentage point to personal income growth while increases in other transfer receipts contributed another 0.2 percentage point.

Industries

The largest contributors by industry to the decline in personal income were the cyclically sensitive construction and manufacturing sectors as well as the trade sector, at both the wholesale and retail levels. Not every industry declined. Health care and professional services (such as legal, accounting, and engineering services), which typically were among the largest contributors to personal income growth during the economic expansion of 2001–2007, continued to grow in the fourth quarter.

**Contributions of Earnings to Percent Change
in Personal Income by Industry, 2008:IV**

[Percentage points, seasonally adjusted]

Retail trade	-0.13
Durable-goods manufacturing	-0.11
Construction	-0.10
Nondurable-goods manufacturing	-0.08
Wholesale trade	-0.05
Farm	-0.04
Real estate, rental, and leasing.....	-0.04
Accommodations and food services	-0.02
Transportation and warehousing	-0.01
Management of companies.....	-0.01
Other services.....	0.00
Forestry, fishing, and related activities	0.00
Administrative and waste services	0.01
Educational services	0.01
Finance and insurance.....	0.01
Arts, entertainment, and recreation	0.01
Information	0.01
Utilities.....	0.02
Federal, civilian	0.02
Military.....	0.03
Mining.....	0.03
State and local government	0.06
Professional and technical services	0.09
Health care and social assistance.....	0.11
Total	-0.20

NOTE: An industry's contribution to percent change in personal income equals the dollar change in that industry's earnings divided by personal income in the previous quarter times 100.

State Personal Income, 2008

U.S. personal income growth fell to 3.9 percent in 2008 from 6.0 percent in 2007. All states except Alaska shared in the slowdown. U.S. growth was the slowest since 2003. Inflation, as measured by the national price index for personal consumption expenditures, rose to 3.3 percent in 2008 from 2.6 percent in 2007.

State growth rates ranged from 2.1 percent in Michigan to 9.6 percent in North Dakota. The high end of the range included oil-producing states—such as Alaska, Wyoming, Oklahoma, and Texas—which benefitted from rising oil prices. Annual employment levels in 2008 in these states exceeded their 2007 levels.

At the low end, personal income growth was less than the 3.3 percent inflation rate in 13 states in 2008. These states include Florida, Arizona, Michigan, and Nevada, which had among the largest percentage declines in employment in 2008.

While much attention has focused on the direct effects of job losses on earnings and personal income growth, the weak labor and housing markets also had indirect effects through population growth. Changes in state population growth are primarily driven by changes in net migration (the difference between in migrants and out migrants). This is because there are only two possible sources of population change: natural increase (the difference between births and deaths), which tends to be stable year to year, and net migration. In 2008, interstate migration declined because the inducement to move (expanding labor markets) and the ability to move (robust housing markets) were hampered by the contracting economy (international migration was roughly constant). As a result, state population growth rates converged toward the national average, 0.9 percent per year

from 2000 to 2008.

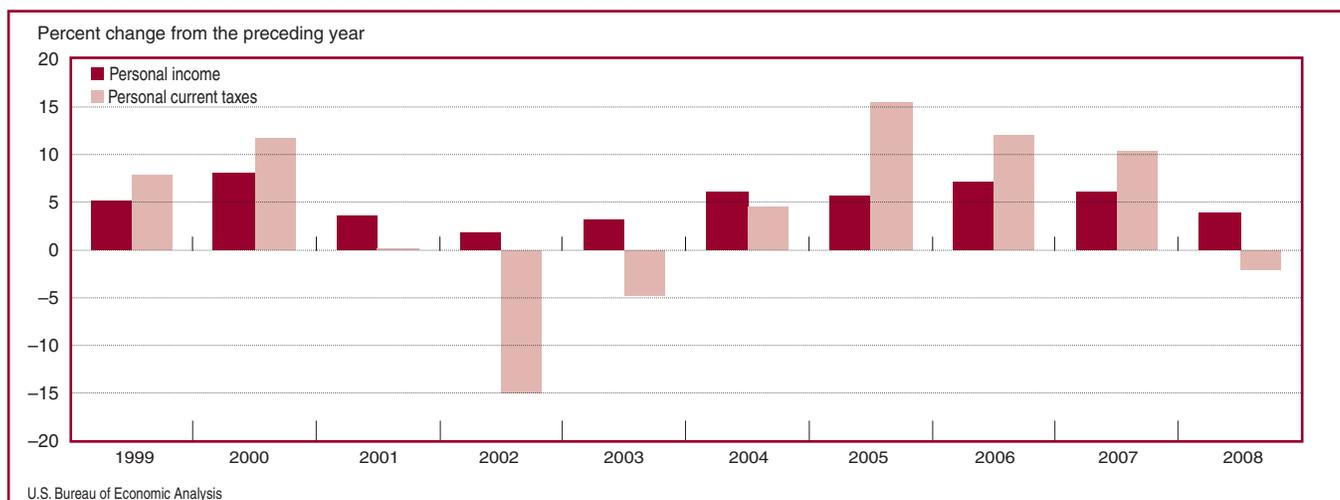
Florida, whose population growth relies on retiree migration from the Mideast and Great Lakes regions, actually registered domestic net outmigration for the first time in its history. California, which typically has domestic net outmigration, saw population growth rise from below the national average in 2007 to above the national average in 2008, as fewer people left the state.

Per capita personal income. Personal income divided by population grew 2.9 percent nationally in 2008, down from 4.9 percent in 2007. Across states, per capita personal income growth rates ranged from 0.4 percent in Arizona (down from 1.7 percent) to 9.0 percent in North Dakota (down from 11.9 percent).

Personal current taxes. These taxes (mainly taxes on income) fell 2.1 percent nationally (or \$32 billion) in 2008 after rising 10.3 percent in 2007. The drop was accounted for by federal income tax rebates from the Economic Stimulus Act, which rebated \$95 billion to taxpayers in 2008. The rebates were split between a \$66 billion cut in personal current taxes and a \$30 billion boost in transfer receipts (to persons with no or little income tax liability). State and local income taxes grew 2.6 percent in 2008 after growing 7.7 percent in 2007.

Disposable per capita personal income. Personal income less personal current taxes divided by population, grew 3.8 percent nationally in 2008, down from 4.3 percent growth in 2007. This measure represents the amount the average person has available for saving or for consumption. Across states, disposable per capita personal income growth rates ranged from 1.3 percent in Arizona (the same as in 2007) to 9.9 percent in North Dakota (down from 11.9 percent).

Chart 3. U.S. Personal Income and Personal Current Taxes



Regional Multipliers: What Are They And How Are They Used

The Bureau of Economic Analysis (BEA) makes regional multipliers available through its Regional Input-Output Modeling System (RIMS II). These multipliers allow users to estimate the extent to which a one-time or sustained change in economic activity will be supplied by industries in a region. For example, gross output multipliers may be used to estimate how much sales will increase in a local economy during the construction of a new sports complex, as businesses supply inputs to the construction process. RIMS II multipliers differ from macroeconomic multipliers used to assess the effects of proposed fiscal policies on gross domestic product. In addition, differences in industry-specific RIMS II multipliers are not meaningful or appropriate in the national context.

RIMS II multipliers are based on fixed interindustry relationships as measured in the national input-output (I-O) accounts produced by BEA. These relationships are adjusted to reflect the industrial structure and trading patterns in local regions. These adjustments are based on assumptions about the extent to which increases in demand for intermediate goods and services will be supplied by local businesses.¹ Thus, estimated impacts based on RIMS II multipliers are sensitive to assumptions made in regionalizing national I-O accounts.

To illustrate, consider the construction of a sports complex in a region for which the output multiplier for the construction industry is 2.00. The multiplier indicates that construction of a new \$10 million stadium is estimated to generate \$20 million in gross output, with the additional \$10 million coming from the output of local firms that supply inputs for the project. If the industry data indicate that this project will require \$4 million in ready-mix concrete and if the assumptions built into RIMS II indicate that only three-quarters of an increase in demand will be met by local suppliers, then the \$20 million estimate is based on only \$3 million in local concrete production. In other words, \$1 million has been assumed to “leak” out of the local economy to nonlocal

suppliers. However, if the assumption that local producers will provide \$3 million worth of concrete is too high or the construction company decides to purchase fewer local supplies, then this estimate, along with the \$20 million estimate for the entire project, is too high.

Not only are the estimated impacts sensitive to the assumptions about local supply, but they are also sensitive to at least two other assumptions. First, the RIMS II multipliers assume that patterns of purchases among industries are fixed. One implication is that if the local industry structure has notably changed since these relationships were quantified, the impact analysis may be misleading. Another implication is that the results provide only estimates of short-term economic effects. Second, the multipliers assume that excess capacity exists in a region and that local labor force is adequate to meet increases in demand. These assumptions imply that RIMS II multipliers provide estimates that are best seen as upper bounds on the total impacts.

An understanding of how RIMS II multipliers are created allows users to make the most appropriate use of them. A local Chamber of Commerce may use an output multiplier to estimate how much sales will increase in the local economy during the construction of a new sports complex. A local official may also be interested in the number of jobs that will be lost in the local economy because of the closing of a manufacturing plant. Although a RIMS II employment multiplier can be used to provide an estimate of short-term job losses, it should be understood that this estimate will not account for new jobs that laid-off workers may later find in the region.

This last feature of impact studies based on RIMS II multipliers is one of the major differences between the use of these types of multipliers and the use of macroeconomic multipliers. Macroeconomic multipliers are based on estimates of behavioral responses to changes in the gross domestic product expenditures categories. Unlike impact studies based on RIMS II multipliers that estimate the short-run effects of changes in local economic activity, macroeconomic studies based on macroeconomic multipliers estimate the effects that changes in national economic activity will produce after multiple periods of spending and adjustment over the long-term.

1. For a description of the actual assumptions used in RIMS II to adjust the industry and regional data to account for local trading patterns, see *Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II)* at www.bea.gov.

Alternative Measures of Household Income

Three widely used measures of household income are the Bureau of Economic Analysis measure of personal income, the Census Bureau's measure of money income, and the Internal Revenue Service's measure of adjusted gross income of individuals.¹

Personal income, in general, is a more comprehensive measure. For both the national and regional accounts, personal income is defined as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance. Because the personal income of an area represents the income that is received by, or on behalf of, all the persons who live in that area and because the estimates of the earnings component of personal income is made on a place-of-work basis, state personal income includes an adjustment for residence. Personal income includes the incomes of individuals, of nonprofit institutions that primarily serve individuals, of private noninsured welfare funds, and of private trust funds. The property income earned on life insurance and annuity reserves of life insurance carriers and earned on the assets of noninsured pension plans are also included in personal income.

Money income consists of income in cash and its equivalents before taxes and does not include the value of noncash benefits. It excludes, but personal income includes, employer contributions for employee pension and insurance funds, lump-sum payments except those received as part of earnings, certain in-kind personal current transfer receipts—such as Medicaid, Medicare, and food stamps—and imputed income.² Money income includes, but personal income excludes, personal contributions for government social insurance, distributions from government employee retirement plans and from private pensions and annuities, and income from regular interpersonal transfers, such as child support.

1. See John W. Ruser, Adrienne T. Pilot, and Charles Nelson, "Alternative Measures of Household Income: BEA Personal Income, CPS Money Income, and Beyond" on BEA's Web site at www.bea.gov; the Census Bureau's *Income, Poverty, and Health Insurance Coverage in the United States: 2006* report; the Internal Revenue Service's annual Individual Income Tax Returns; and Mark A. Ledbetter, "Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income: New Estimates for 2005 and Revised Estimates for 2004," *SURVEY OF CURRENT BUSINESS* 87 (November 2007): 35–41.

2. Imputations are added to personal income in both the national and regional measures so that a comprehensive account of total production and its distribution can be presented. See *State Personal Income: 2007 Methodology* at www.bea.gov/regional/pdf/spi2007/Complete_Methodology.pdf.

In addition, personal income at the national, state, and local area levels is presented annually on a per capita (average per person) basis. Money income at the national level is presented annually on a per capita basis and on a median household basis; median money income for states from the Current Population Survey is presented annually as 2- and 3-year averages.³ State personal income is not adjusted for inflation, but the national estimates of money income adjusted using the consumer price index are available.⁴

Adjusted gross income (AGI) consists of the taxable income before exemptions and the standard or itemized deductions that are reported by individuals on their federal income tax return. It includes, but personal income excludes, personal contributions for social insurance, gains and losses on the sale of assets, and taxable distributions from government employee retirement plans and from private pensions and annuities. AGI excludes, but personal income includes, the income of the recipients of taxable incomes who, legally or illegally, did not file an individual income tax return. In particular, AGI excludes the income of many individuals with low incomes who are exempt from filing tax returns. Additionally, adjusted gross income excludes certain types of income that are not taxed—such as tax-exempt interest and nontaxable transfer payments, including Medicare, Medicaid, and welfare benefit payments—and it includes the taxable portion of social security benefit payments.

3. These state-level estimates of median household income and poverty are available on the Census Bureau Web site, but they are no longer published in the report. The Census Bureau now focuses on annual estimates of median household income and poverty for states and geographic areas with populations of 65,000 or more from the American Community Survey. See *Income, Earnings, and Poverty Data From the 2007 American Community Survey* at www.census.gov/prod/2008pubs/acs-09.pdf.

4. BEA also presents national real per capita disposable personal income, deflated by its implicit price deflator for personal consumption expenditures.

Comparison of Alternative Per Capita Income Measures

(Dollars)

	Per capita income		
	2006	2007	2008
State personal income ¹	36,794	38,615	39,751
Money income ²	26,352	26,804	n.a.
Adjusted gross income ³	26,765	28,316	n.a.

n.a. Not available

1. Bureau of Economic Analysis, available at www.bea.gov.

2. Census Bureau, Current Population Survey, 2007 and 2008 Annual Social and Economic Supplements, available at www.census.gov. Census calculates per capita money income using the civilian noninstitutional population total as of March of the following year.

3. Internal Revenue Service (IRS), available at www.irs.gov. The IRS does not produce per capita adjusted gross income (AGI). The measures shown are derived by dividing aggregate IRS AGI (less deficit) by total population from the Census Bureau (also used by BEA in the calculation of state per capita personal income).

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