

Industry Economic Accounts

Results of the Comprehensive Revision

Revised Statistics for 1997–2012

By Donald D. Kim, Erich H. Strassner, and David B. Wasshausen

ON JANUARY 23, 2014, the Bureau of Economic Analysis released revised statistics on real gross domestic product (GDP) by industry for 1997–2012 that reflect the results of the 2014 comprehensive revision of the industry economic accounts (IEAs). These accounts provide statistics on interactions among industries and the roles these industries play in the economy, including each industry's contribution to GDP.

Comprehensive revisions provide opportunities for the Bureau of Economic Analysis (BEA) to make changes to its economic accounts in order to increase the overall quality and usefulness of the accounts. As a result of this comprehensive revision, for the first time, the annual input-output (I-O) accounts and GDP by industry accounts are fully consistent with both the most recent comprehensive revision of the national income and product accounts (NIPAs) and the current 2007 benchmark I-O account.¹

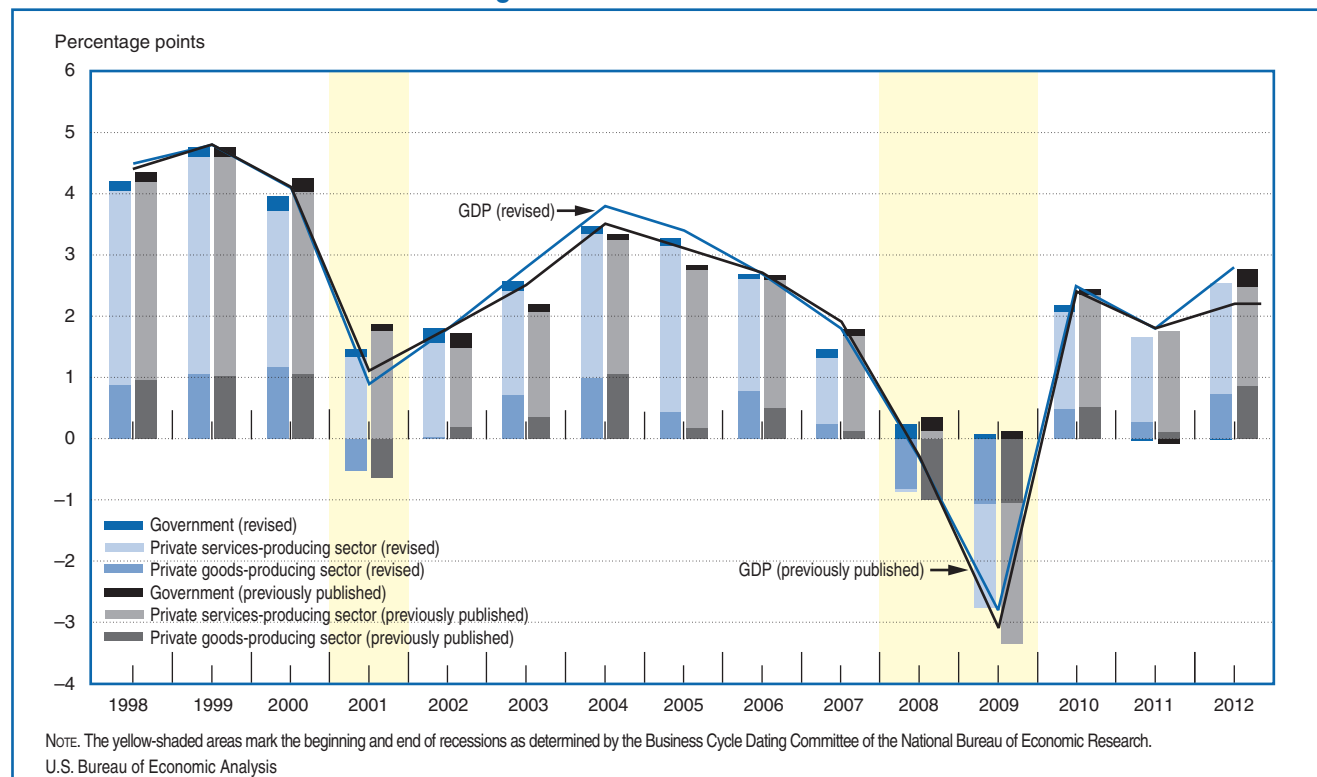
1. For additional details, see Stephanie H. McCulla, Alyssa E. Holdren, and Shelly Smith, "Improved Estimates of the National Income and Product Accounts: Results of the 2013 Comprehensive Revision," *SURVEY OF CURRENT BUSINESS* 93 (September 2013): 14–45.

The revised statistics show that economic growth in 2012 was widespread across industries; 20 of the 22 major industry groups contributed to the 2.8 percent increase in real GDP.² Among the leading contributors to real GDP growth were professional and business services; finance, insurance, real estate, rental, and leasing; mining; and manufacturing. In addition, although these statistics incorporate many significant statistical and definitional changes, the revised statistics confirm the broad shifts in the previously published statistics: the downturn in the private goods-producing sector in 2008; the 2009 declines in both private goods-producing industries and private services-producing industries; and the expansion of the private sector, particularly in information communications technology-producing industries, beginning with 2010 (chart 1).

2. The previously published advance statistics for 2012 were developed from summary source data using an abbreviated methodology.

Brian M. Lindberg prepared the tables and the chart for this article.

Chart 1. Contributions to Percent Change in Real GDP



The IEAs were compiled within an I-O framework that balances and reconciles industry production and commodity usage. The framework provides information on value added for 69 industries and commodities.

Comprehensive revisions, which occur approximately every 5 years, differ from annual revisions in the scope of improvements and in the number of years subject to revision. The 2014 comprehensive revision introduces three major types of improvements: (1) full consistency with both the 2007 benchmark I-O account and the most recent comprehensive revision of the NIPAs, (2) updated definitions and classifications, and (3) statistical changes that reflect the introduction of new and improved methodologies and the incorporation of newly available and revised source data. Combined, these improvements enable the accounts to accurately measure and capture the changing structure of the U.S. economy. Major changes introduced with this revision include the following:

- Integration with the 2007 benchmark I-O account and the 2013 comprehensive revision of the NIPAs;
- Updated industry and commodity definitions consistent with the 2007 North American Industry Classification System (NAICS);
- Capitalization of intellectual property products and other definitional improvements; and
- Incorporation of newly available and revised annual source data.

Integration of the benchmark I-O account

The 2014 comprehensive revision marks the first time that the benchmark I-O account and NIPAs are fully integrated with one another and with the time series of the annual industry accounts. Future benchmark I-O accounts will be revised to reflect revisions stemming from the NIPAs, and they will be published with the revisions to the time series of the IEAs.

Benchmark I-O accounts provide the most comprehensive information available on the production of goods and services by industries and the flow of these goods and services to industries for use in their production processes and to final users in the economy. These accounts, which are primarily based on data from the economic censuses, are used to establish the level of GDP for benchmark years and to provide critical information for estimating GDP for periods after benchmark years. Benchmark I-O accounts provide a comprehensive measure of the amount of total gross output by commodity that is sold as final expenditures in the economy. Thus, these accounts provide the basis

for a more detailed understanding of the NIPAs; the 2007 account was used to establish the level and the commodity composition of GDP by final use category and the level of some income components for 2007 in the 2013 comprehensive revision of the NIPAs.

In the past, benchmark I-O accounts have been released before the comprehensive revision of the NIPAs and have not been revised to reflect the results of comprehensive NIPA revisions. As a consequence, benchmark I-O accounts have not been fully consistent with the NIPAs or with the annual industry accounts. This has resulted in mixed usefulness of the benchmark I-O accounts. They have provided an accurate and detailed set of interindustry relationships to analyze structural changes, and they have been used to benchmark the NIPAs and annual industry accounts. However, their relevance has been somewhat diminished because they have lacked a time series dimension.

Integrating the benchmark I-O account into the time series allows for a higher degree of consistency among the NIPAs, the benchmark I-O accounts, and the annual industry accounts. For example, in using the fully integrated IEAs, data users will be able to track time series trends in a NIPA final expenditure category at a detailed commodity level in benchmark years and at a slightly higher level of commodity aggregation in nonbenchmark years. Users interested in more detailed statistics on outputs, inputs, and value added at the industry level will be able to crosswalk between a time series of benchmark statistics and a slightly higher level of industry aggregation in nonbenchmark years.

Changes in definitions

As part of the comprehensive revision of the IEAs, several major definitional changes were incorporated into both the IEAs and NIPAs that reflect a highly collaborative effort by IEA and NIPA staff.³ These changes include the following:

- The recognition of research and development (R&D) expenditures as capital;
- The capitalization of entertainment, literary, and other artistic originals;
- The expansion of the capitalization of the ownership transfer costs of residential fixed assets; and
- The use of an improved measure of transactions for defined benefit pension plans.

In 2007, the overall revision to value added stem-

3. For additional detail on the definitional changes, see Erich H. Strassner and David B. Wasshausen, "Preview of the 2013 Comprehensive Revision of the Industry Economic Accounts," *SURVEY* 93 (June 2013): 20–22.

ming from changes in definition was \$488.0 billion. The recognition of R&D as capital accounted for \$330.9 billion, just slightly over two-thirds of the total revision from changes in definition (table A). Expenditures for R&D and for entertainment originals were not previously treated as an investment. As a result of the new treatment of R&D, value added was boosted by the amount of business R&D investment and by the consumption of fixed capital (CFC) associated with R&D investment by nonprofit institutions serving households (NPISHs) and by general government. Gross output was revised up by a smaller amount. Gross output for businesses increased by the amount of their own-account R&D, but it was unaffected by purchases of R&D, which were reclassified from intermediate expenses to fixed investment. In addition, because gross output of NPISHs and of general government is measured as the sum of current operating expenses, their gross output was decreased by their purchases of R&D, but it increased by the additional capital services generated by the R&D investment. Unlike R&D, all fixed investment in entertainment originals is produced on own-account in a few selected private sectors; as a result, both the value added and gross output were revised up \$70.4 billion in 2007.

The expanded set of ownership costs that are now recognized as residential fixed investment increased value added by \$57.0 billion in 2007; gross output was unchanged because these costs were reclassified from intermediate expenses to fixed investment. The incorporation of the new accrual-based treatment of de-

financed benefit pension plans increased both value added and gross output by \$29.7 billion in 2007.

Classification changes

IEA statistics released as part of the 2014 comprehensive revision are classified and presented on the basis of the 2007 NAICS; previously, the statistics were classified and presented on a 2002 NAICS basis. Overall, changes stemming from the conversion to 2007 NAICS are small.⁴

With the release of the 2014 IEA comprehensive revision, BEA published 388 industries in the 2007 benchmark I-O account, compared with 426 industries in the 2002 benchmark I-O account. The manufacturing sector saw the biggest reduction; in 2007, BEA published 238 industries in manufacturing, compared with 279 industries in 2002. Retail trade, construction, and health care were among the larger expansions. For retail trade, BEA published 4 industries in 2007; in 2002, BEA only published a total retail trade aggregate. For construction, BEA published 12 industries in 2007, compared with 7 industries in 2002. For health care, BEA published 13 industries in 2007, compared with 8 industries in 2002.⁵

Statistical improvements and source data

Statistical improvements are changes in procedures in order to incorporate new and improved estimation methods and newly available and revised source data. A number of notable improvements in statistical methods were introduced with the release of the 2014 comprehensive revision of the IEAs, including the following:

- **Compensation.** For the first time, compensation by industry in a benchmark I-O account matches compensation by industry at the level of aggregation published in the NIPAs and the annual industry accounts.
- **Taxes on production and imports less subsidies.** Similar to compensation, taxes on production and imports less subsidies by industry now matches taxes on production and imports less subsidies by industry at the level of aggregation published in the NIPAs and the annual industry accounts.
- **Gross operating surplus.** Gross operating surplus in

A. Revisions to Value Added and Gross Output

[Billions of dollars]

	1997	2002	2007	2012
Value added				
Total revision.....	276.1	337.9	451.6	559.8
Definitional.....	288.9	385.7	488.0	526.0
Capitalization of research and development.....	207.0	244.4	330.9	396.7
Capitalization of entertainment, literary, and artistic originals.....	46.1	57.6	70.4	74.3
Expanded capitalization of ownership transfer costs of residential housing.....	26.4	46.1	57.0	42.3
Accrual treatment of defined benefit pension plans ...	9.3	37.7	29.7	12.6
Statistical.....	-12.8	-47.8	-36.4	33.8
Gross output				
Total revision.....	206.0	303.0	337.6	.....
Definitional.....	207.5	265.0	318.4	.....
Capitalization of research and development.....	152.1	169.7	218.3	.....
Capitalization of entertainment, literary, and artistic originals.....	46.1	57.6	70.4	.....
Expanded capitalization of ownership transfer costs of residential housing.....	0.0	0.0	0.0	.....
Accrual treatment of defined benefit pension plans ...	9.3	37.7	29.7	.....
Statistical.....	-1.5	38.0	19.2	.....

4. For additional detail on the classification changes, see Strassner and Wasshausen, 22–23.

5. In addition, BEA published a larger expansion of industry data in its detailed time series product on gross output by industry—beyond that published in the benchmark I-O account—for utilities, retail trade, and wholesale trade. See www.bea.gov/industry/gdpbyind_data.htm.

the 2007 benchmark I-O account reflects the improvements introduced into gross domestic income as part of the 2013 comprehensive revision of the NIPAs.

- **Construction.** For the 2007 benchmark I-O account, the output measure for maintenance and repair and the industry distribution for intermediate inputs and for own-account construction were improved.

- **Insurance.** For the insurance industry, improved source data from a variety of public- and private-sector institutions were incorporated into the statistics, and methodological improvements were expanded to include additional lines of insurance.

A list of principal source data used to estimate current-dollar output, intermediate inputs, and value added for the 2007 benchmark can be found in tables A and B in the article “Preview of the 2013 Compre-

hensive Revision of the Industry Economic Accounts” (pages 26–28). For a list of principal source data used to estimate current-dollar output and prices, see table H, and for the a list of the principal source data used to estimate value added by industry for the annual time series, see table I. A number of source data improvements were incorporated into the fully integrated annual industry accounts time series.

- Census Bureau Services Annual Survey (SAS) data was expanded to improve measures of gross output, including in the transportation and insurance industries.

- Bureau of Labor Statistics (BLS) producer price indexes replaced a variety of price indicators, including personal consumption expenditure price indexes and implicit price deflators based on average wages per employee.

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Real Value Added

Table B. Percent Changes in Real Value Added by Industry Group

	2007	2008	2009	2010	2011	2012
Gross domestic product	1.8	-0.3	-2.8	2.5	1.8	2.8
Private industries	1.5	-1.0	-3.2	2.4	1.9	3.0
Agriculture, forestry, fishing, and hunting	-13.5	6.6	13.1	1.9	-4.0	0.3
Mining	6.6	1.3	14.2	-5.9	9.9	14.0
Utilities	1.2	1.9	-6.5	10.3	1.7	1.8
Construction	-3.7	-8.5	-12.9	-5.0	0.0	4.0
Manufacturing	3.3	-4.0	-7.8	6.8	0.7	1.9
Durable goods	4.3	-1.4	-14.8	12.4	6.3	4.1
Nondurable goods	2.0	-7.1	0.8	1.1	-5.1	-0.5
Wholesale trade	3.3	-1.1	-12.8	3.2	1.5	2.6
Retail trade	-2.8	-4.0	-2.8	2.2	1.2	1.3
Transportation and warehousing	-1.3	0.2	-8.0	5.7	3.4	1.1
Information	9.7	4.4	-3.7	4.0	2.2	4.4
Finance, insurance, real estate, rental, and leasing	1.8	-3.6	4.0	1.6	1.1	2.2
Finance and insurance	-2.6	-12.9	15.7	-0.3	-0.7	2.3
Real estate and rental and leasing	4.4	1.6	-1.4	2.6	2.0	2.2
Professional and business services	2.4	4.5	-6.6	2.7	4.5	4.6
Professional, scientific, and technical services	3.1	7.4	-6.1	0.8	4.3	4.2
Management of companies and enterprises	-2.6	-0.3	-8.4	7.6	4.9	8.1
Administrative and waste management services	3.8	0.9	-6.5	4.3	4.7	3.7
Educational services, health care, and social assistance	1.0	5.4	2.2	0.4	1.4	2.5
Educational services	2.2	4.3	4.8	1.0	-0.1	1.0
Health care and social assistance	0.8	5.6	1.8	0.3	1.6	2.7
Arts, entertainment, recreation, accommodation, and food services	0.1	-2.3	-6.5	3.6	4.4	2.7
Arts, entertainment, and recreation	1.7	-0.5	-3.3	4.4	4.2	2.3
Accommodation and food services	-0.4	-3.0	-7.6	3.3	4.5	2.8
Other services, except government	-2.4	-3.6	-5.2	-1.8	-0.5	1.9
Government	1.1	1.8	0.5	0.7	-0.4	-0.2
Federal	0.9	2.7	3.0	2.5	0.2	-1.0
State and local	1.1	1.4	-0.6	-0.2	-0.6	0.2
Addenda:						
Private goods-producing industries ¹	1.1	-3.9	-5.4	2.6	1.4	3.7
Private services-producing industries ²	1.7	-0.1	-2.6	2.4	2.1	2.7
Information-communications-technology-producing industries ³	10.7	7.1	-2.3	4.4	4.7	7.2

1. Consists of agriculture, forestry, fishing, and hunting; mining; construction; and manufacturing.

2. Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

3. Consists of computer and electronic product manufacturing (excluding navigational, measuring, electromedical, and control instruments manufacturing); software publishers; broadcasting and telecommunications; data processing, hosting and related services; Internet publishing and broadcasting and Web search portals; and computer systems design and related services.

Real GDP increased 2.8 percent in 2012, reflecting growth in 20 of the 22 major industry groups. The leading contributors to the increase were professional and business services; finance, insurance, real estate, rental and leasing; mining; and manufacturing.

Mining exhibited the strongest growth, at 14 percent, due to an increase in oil and gas extraction, which was the strongest contributor to growth among 69 more detailed industries.

Construction increased 4 percent—its first significant increase since 2004, reflecting gains in both residential and nonresidential construction.

Durable-goods manufacturing increased 4.1 percent, reflecting growth in primary metals, other transportation equipment, and computers and electronic products manufacturing.

Retail trade increased 1.3 percent, reflecting an increase in motor vehicle and parts dealers.

Information's strong growth of 4.4 percent was widespread among the more detailed industries within this group.

Real estate and rental and leasing's increase of 2.2 percent was led by real estate. Real estate was the second largest contributor to economic growth in 2012 due largely to gains in residential real estate resulting from an improved housing market.

Professional, scientific, and technical services increased 4.2 percent, reflecting increases in computer systems design and related services and in miscellaneous, professional, scientific, and technical services.

Health care and social assistance increased 2.7 percent—its strongest growth since 2008, reflecting growth in ambulatory health care services.

Federal government exhibited the largest decrease, at 1.0 percent. Federal government enterprises and general government services both decreased.

Real Value Added

**Table C. Contributions to Percent Change
in Real GDP by Industry Group**
[Percentage points]

	2007	2008	2009	2010	2011	2012
Gross domestic product ¹	1.8	-0.3	-2.8	2.5	1.8	2.8
Private industries	1.32	-0.87	-2.78	2.08	1.65	2.54
Agriculture, forestry, fishing, and hunting	-0.14	0.06	0.12	0.02	-0.05	0.00
Mining	0.13	0.03	0.35	-0.13	0.23	0.35
Utilities	0.02	0.03	-0.11	0.18	0.03	0.03
Construction	-0.19	-0.42	-0.57	-0.19	0.00	0.14
Manufacturing	0.42	-0.51	-0.97	0.80	0.09	0.23
Durable goods	0.31	-0.10	-1.01	0.73	0.40	0.26
Nondurable goods	0.12	-0.41	0.04	0.07	-0.31	-0.03
Wholesale trade	0.19	-0.07	-0.79	0.18	0.09	0.15
Retail trade	-0.18	-0.24	-0.16	0.13	0.07	0.08
Transportation and warehousing	-0.04	0.00	-0.23	0.16	0.10	0.03
Information	0.45	0.21	-0.18	0.19	0.10	0.21
Finance, insurance, real estate, rental, and leasing	0.35	-0.72	0.75	0.32	0.21	0.43
Finance and insurance	-0.20	-0.92	0.93	-0.02	-0.05	0.15
Real estate and rental and leasing	0.55	0.20	-0.18	0.34	0.26	0.28
Professional and business services	0.27	0.51	-0.79	0.31	0.52	0.54
Professional, scientific, and technical services	0.21	0.49	-0.44	0.06	0.29	0.29
Management of companies and enterprises	-0.05	-0.01	-0.15	0.13	0.09	0.15
Administrative and waste management services	0.11	0.03	-0.19	0.12	0.14	0.11
Educational services, health care, and social assistance	0.07	0.40	0.17	0.04	0.12	0.20
Educational services	0.02	0.04	0.05	0.01	0.00	0.01
Health care and social assistance	0.05	0.36	0.12	0.02	0.12	0.19
Arts, entertainment, recreation, accommodation, and food services	0.01	-0.09	-0.24	0.13	0.16	0.10
Arts, entertainment, and recreation	0.02	0.00	-0.03	0.04	0.04	0.02
Accommodation and food services	-0.01	-0.08	-0.21	0.09	0.12	0.07
Other services, except government	-0.06	-0.08	-0.12	-0.04	-0.01	0.04
Government	0.14	0.24	0.07	0.10	-0.05	-0.02
Federal	0.04	0.11	0.13	0.11	0.01	-0.05
State and local	0.10	0.13	-0.05	-0.02	-0.06	0.02
Addenda:						
Private goods-producing industries ²	0.23	-0.83	-1.07	0.49	0.27	0.73
Private services-producing industries ³	1.09	-0.04	-1.70	1.59	1.38	1.81
Information-communications-technology-producing industries ⁴	0.60	0.40	-0.14	0.26	0.27	0.41

GDP Gross domestic product

1. The estimates of gross domestic product under the contributions columns are percent changes.

2. Consists of agriculture, forestry, fishing, and hunting; mining; construction; and manufacturing.

3. Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

4. Consists of computer and electronic product manufacturing (excluding navigational, measuring, electromedical, and control instruments manufacturing); software publishers; broadcasting and telecommunications; data processing, hosting and related services; Internet publishing and broadcasting and Web search portals; and computer systems design and related services.

NOTE: Percentage-point contributions do not sum to the percent change in real gross domestic product because the contribution of the "Not allocated by industry" line is excluded.

The acceleration in real GDP growth was due to stronger growth in both the private good-producing and services-producing sectors. Overall, 15 of the 22 major industry groups contributed to the faster growth.

The acceleration in mining contributed 0.12 percentage point to the faster real GDP growth. The acceleration was led by oil and gas extraction.

Construction contributed 0.14 percentage point to the acceleration in real GDP growth in 2012, or about 14 percent.

Durable-goods manufacturing slowed in 2012, contributing 0.26 percentage point after contributing 0.40 percentage point in 2011. The slowdown was due to slowdowns in motor vehicles, bodies and trailers, and parts and in machinery.

Nondurable-goods manufacturing was the leading contributor to the faster growth in real GDP. It subtracted 0.03 percentage point from growth in 2012 after subtracting 0.31 percentage point in 2011.

Transportation and warehousing slowed in 2012, contributing 0.03 percentage point to real GDP growth after contributing 0.10 percentage point in 2011. The slowdown was mostly due to a downturn in air transportation.

Finance and insurance was the second leading contributor to the faster growth in real GDP in 2012, contributing 0.15 percentage point after subtracting 0.05 percentage point. The upturn was due to faster growth in insurance carriers and related activities and to an upturn in securities, commodity contracts, and investments.

State and local government turned up in 2012 for the first time since 2008, reflecting flat growth in state and local general government services after a downturn in 2010 and a larger decrease in 2011.

Value-Added Prices

Table D. Percent Changes in Chain-Type Price Indexes for Value Added by Industry Group

	2007	2008	2009	2010	2011	2012
Gross domestic product	2.7	1.9	0.8	1.2	2.0	1.7
Private industries	2.8	2.2	0.4	1.3	2.3	2.1
Agriculture, forestry, fishing, and hunting	28.0	2.1	-21.2	14.2	28.5	1.4
Mining	7.8	26.3	-36.6	21.6	11.8	-8.0
Utilities	1.0	0.2	13.1	-2.5	0.9	-3.4
Construction	6.3	-0.1	1.5	-1.8	1.3	2.3
Manufacturing	-0.5	1.5	3.1	-0.3	4.4	3.9
Durable goods	-1.8	-2.4	3.1	-2.1	-1.3	1.7
Nondurable goods	1.1	6.5	3.1	1.6	10.9	6.3
Wholesale trade	2.1	3.2	7.5	2.3	3.1	3.2
Retail trade	2.8	1.8	1.2	0.9	1.7	2.4
Transportation and warehousing	1.8	3.2	2.7	0.9	1.5	4.2
Information	-1.4	-0.9	0.2	-0.7	0.2	0.4
Finance, insurance, real estate, rental, and leasing	2.0	1.2	-1.5	0.9	1.1	3.0
Finance and insurance	1.9	0.3	-7.7	3.8	1.5	4.2
Real estate and rental and leasing	2.1	1.6	1.8	-0.6	0.9	2.5
Professional and business services	5.0	1.2	1.4	1.3	1.1	1.5
Professional, scientific, and technical services	3.8	1.3	1.2	1.2	1.5	1.4
Management of companies and enterprises	11.7	1.3	3.2	0.8	0.3	0.6
Administrative and waste management services	3.8	1.0	1.0	1.8	0.5	2.0
Educational services, health care, and social assistance	4.1	2.2	3.7	2.2	1.4	1.9
Educational services	4.5	3.6	4.2	2.7	2.7	3.8
Health care and social assistance	4.1	2.0	3.6	2.1	1.2	1.6
Arts, entertainment, recreation, accommodation, and food services	4.2	3.0	4.4	-0.1	-0.3	3.3
Arts, entertainment, and recreation	3.9	2.1	2.4	-0.3	0.1	2.4
Accommodation and food services	4.3	3.4	5.1	-0.1	-0.5	3.6
Other services, except government	4.0	4.0	5.0	2.6	2.1	2.4
Government	4.1	3.2	2.6	2.8	1.6	1.2
Federal	3.8	2.4	1.8	3.1	1.8	0.6
State and local	4.3	3.6	3.0	2.7	1.5	1.5
Addenda:						
Private goods-producing industries ¹	3.0	3.8	-4.6	2.4	6.0	1.8
Private services-producing industries ²	2.7	1.6	1.9	1.0	1.2	2.2
Information-communications-technology-producing industries ³	-3.9	-3.2	-1.4	-1.8	-1.1	-0.6

1. Consists of agriculture, forestry, fishing, and hunting; mining; construction; and manufacturing.

2. Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

3. Consists of computer and electronic product manufacturing (excluding navigational, measuring, electromedical, and control instruments manufacturing); software publishers; broadcasting and telecommunications; data processing, hosting and related services; Internet publishing and broadcasting and Web search portals; and computer systems design and related services.

Growth in the GDP price index slowed modestly in 2012. The slowdown reflected a significant deceleration in prices for the goods-producing sector; prices for the services-producing sector picked up.

Value-added prices for agriculture, forestry, fishing and hunting industry group slowed, reflecting a substantial slowdown in prices for the farm industry.

Mining prices turned down, reflecting a downturn in oil and gas extraction prices, which was the leading contributor to the overall slowdown in GDP prices.

Utilities prices turned down in 2012, decreasing 3.4 percent, its largest decrease since 2002.

Construction prices accelerated in 2012, its largest increase since 2007.

Durable-goods manufacturing prices turned up in 2012, increasing for the first time since 2009. The upturn was widespread.

Nondurable-goods manufacturing prices slowed in 2012, reflecting a substantial deceleration in prices for petroleum and coal products—the second leading contributor to the overall slowdown in GDP prices.

Retail trade prices accelerated in 2012, its largest increase since 2007.

Transportation and warehousing prices increased 4.2 percent, its fastest pace since 2001.

Finance and insurance prices increased 4.2 percent, its fastest growth over 1998–2012. The acceleration reflected an upturn in Federal reserve banks, credit intermediation, and related activities.

Real estate and rental and leasing prices increased 2.5 percent, its fastest growth since 2006.

Prices for arts, entertainment, recreation, accommodation and food services turned up in 2012, reflecting an upturn in accommodation and food services and an acceleration in arts, entertainment, and recreation.

Revisions

This comprehensive revision of the industry economic accounts reflected a number of significant improvements, including full integration with the 2007 benchmark I-O account as well as with the results of the 2013 comprehensive revision of the NIPAs.¹ Although there were many significant statistical and definitional revisions incorporated into these statistics, including the capitalization of R&D, the overall industry narratives that underlie the business cycles in this period were unchanged. Additional notable improvements and sources of revision include the following:

- Capitalized expenditures on entertainment, literary, and artistic originals;
- Expanded the capitalization of ownership transfer costs;
- Reclassified transactions of defined benefit pension plans from a cash basis to an accrual basis;
- Improved sources and methods for estimating construction output;
- Improved sources and methods for estimating insurance output;
- Expanded use of Census Bureau service annual survey data, including for utilities, transportation, and insurance; and
- Expanded use of Bureau of Labor Statistics (BLS) producer price indexes (PPIs).

Table E presents historical revisions to the percent

1. See Stephanie H. McCulla, Alyssa E. Holdren, and Shelly Smith, “Improved Estimates of the National Income and Product Accounts: Results of the 2013 Comprehensive Revision,” *SURVEY 93* (September 2013): 14–45

Table E. Revisions to Percent Changes, 1998–2012

	Gross domestic product		Private goods-producing industries ¹		Private services-producing industries ²		Information-communications-technology-producing industries ³	
	Revised	Revision	Revised	Revision	Revised	Revision	Revised	Revision
1998	4.5	0.1	3.9	-0.4	4.9	0.0	19.1	-5.6
1999	4.8	0.0	4.9	0.1	5.4	0.0	15.7	-6.2
2000	4.1	0.0	5.5	0.5	3.9	-0.6	18.5	6.4
2001	1.0	-0.1	-2.5	0.6	2.0	-0.6	4.8	2.7
2002	1.8	0.0	0.1	-0.9	2.3	0.4	7.0	-8.5
2003	2.8	0.3	3.6	1.8	2.6	0.0	10.2	0.0
2004	3.8	0.3	4.9	-0.6	3.6	0.3	12.9	-7.3
2005	3.4	0.3	2.1	1.2	4.1	0.3	11.8	-0.6
2006	2.7	0.0	3.7	1.2	2.8	-0.3	9.2	0.9
2007	1.8	-0.1	1.1	0.4	1.7	-0.6	10.7	0.5
2008	-0.3	0.0	-3.9	1.1	-0.1	-0.2	7.1	1.0
2009	-2.8	0.3	-5.4	0.4	-2.6	0.8	-2.3	-1.4
2010	2.5	0.1	2.6	-0.3	2.4	-0.3	4.4	-7.0
2011	1.8	0.0	1.4	0.8	2.1	-0.3	4.7	0.3
2012	2.8	0.6	3.7	-1.0	2.7	0.4	7.2	0.7

1. Consists of agriculture, forestry, fishing, and hunting; mining; construction; and manufacturing.

2. Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

3. Consists of computer and electronic product manufacturing (excluding navigational, measuring, electromedical, and control instruments manufacturing); software publishers; broadcasting and telecommunications; data processing, hosting and related services; internet publishing and broadcasting and web search portals; and computer systems design and related services. Revisions reflect both statistical revisions and an improved definition of these industries.

changes to GDP, to private goods-producing industries, to private services-producing industries and to information-communications-technology-producing industries. Table F presents revisions to percent changes in real value added by industry group; revisions to real value added reflect revisions to real gross output and to real intermediate inputs. Table G presents these revisions by industry group for 2010–2012 and the sources of growth in real value added as well as sources of revision; for example, in 2010, the notable downward revision to real value added for retail trade reflected a notable downward revision to real gross output. Conversely, in 2011, a notable upward revision to real value added for mining reflected a notable downward revision to real intermediate inputs.

1997–2002

The growth in both private goods-producing and private services-producing industries was revised down slightly, but the average annual growth rate for real GDP was unrevised. Information-communications-technology-producing industries was revised down, but they continued to be a leading contributor to the overall increase in GDP.

- Average annual growth in real value added for wholesale trade was revised down, reflecting an improved methodology for estimating price indexes used to deflate gross margin output. The improved methodology results in a more stable price index and is more closely aligned with the NIPA implicit price deflator for wholesale sales.

2002–2007

Growth in the private goods-producing industries was revised up, primarily reflecting upward revisions to mining and to construction. As a result, growth in the private goods-producing industries slightly outpaced growth in the private services-producing industries in this business cycle expansion.

- The upward revision to real value added for mining primarily reflected upward revisions to gross operating surplus for the oil and gas extraction industry.
- The upward revision to real value added for construction reflected upward revisions to both gross output and the gross operating surplus. Upward revisions to gross output reflected improved estimates for residential maintenance and repair.

2008

The direction of growth in real value added was unchanged for 20 of the 22 major industry groups. The top four leading contributors to the decrease in real GDP (finance and insurance, construction, nondurable goods

Revisions

manufacturing, and retail trade) remained the top four. Although private goods-producing industries was revised up, it continued to contribute more to the decrease than the private services-producing industries.

- The downward revision to real value added for finance and insurance reflected downward revisions to all the underlying industries. The largest contributor to the downward revision was the securities, commodity contracts, and investments industry, which in turn reflected a notable downward revision to gross operating surplus. These revised value-added statistics more closely track value added for financial corporate business published in the NIPAs.

2009

The direction of growth in real value added was unchanged for 20 of the 22 major industry groups. The top four leading contributors to the decrease in real GDP (durable-goods manufacturing, wholesale trade, con-

struction, and professional, scientific and technical services) remained the top four. Although private services-producing industries was revised up, it continued to contribute more to the decrease in real value added than the private goods-producing industries.

- The upward revision to real value added for finance and insurance primarily reflected upward revisions to funds, trusts, and other financial vehicles, and to securities, commodity contracts, and investments, which reflected upward revisions to their gross operating surpluses.
- The downward revision to real value added for mining was widespread within the industry group. The leading contributor was the revision to oil and gas extraction that primarily reflected an upward revision to the implicit price deflator for gross output; the upward revision reflected updated detailed shares of gross output prepared as part of the 2007 benchmark I-O account.

Table F. Real Value Added by Industry Group

[Percent change from preceding period]

Line		Average annual rate of change				2008		2009		2010		2011		2012	
		1997–2002		2002–2007											
		Revised	Revision	Revised	Revision	Revised	Revision	Revised	Revision	Revised	Revision	Revised	Revision	Revised	Revision
1	Gross domestic product	3.2	0.0	2.9	0.2	–0.3	0.0	–2.8	0.3	2.5	0.1	1.8	0.0	2.8	0.6
2	Private industries	3.4	–0.1	3.0	0.2	–1.0	0.0	–3.2	0.6	2.4	–0.3	1.9	–0.1	3.0	0.1
3	Agriculture, forestry, fishing, and hunting	2.8	0.0	1.9	–0.7	6.6	–2.1	13.1	0.0	1.9	4.7	–4.0	9.6	0.3	4.0
4	Mining	0.5	0.5	0.8	5.0	1.3	5.0	14.2	–11.0	–5.9	3.2	9.9	9.9	14.0	10.3
5	Utilities	–0.2	–0.3	0.4	–0.9	1.9	–2.7	–6.5	2.5	10.3	0.2	1.7	–0.9	1.8	0.9
6	Construction	1.3	0.1	–0.1	1.8	–8.5	–1.9	–12.9	0.0	–5.0	–3.8	0.0	0.3	4.0	0.9
7	Manufacturing	2.7	–0.1	4.4	–0.1	–4.0	1.9	–7.8	1.4	6.8	–0.1	0.7	–1.8	1.9	–4.3
8	Durable goods	4.3	–0.8	6.2	0.1	–1.4	0.2	–14.8	1.5	12.4	–0.9	6.3	–0.5	4.1	–5.1
9	Nondurable goods	0.4	0.7	2.3	–0.2	–7.1	3.8	0.8	1.2	1.1	0.7	–5.1	–3.1	–0.5	–3.5
10	Wholesale trade	4.1	–2.6	4.7	0.5	–1.1	0.0	–12.8	0.5	3.2	–0.2	1.5	–1.5	2.6	–2.2
11	Retail trade	4.5	0.6	1.6	0.2	–4.0	1.7	–2.8	–0.9	2.2	–4.8	1.2	1.0	1.3	–2.5
12	Transportation and warehousing	–0.8	–1.5	4.8	–0.3	0.2	–0.7	–8.0	2.1	5.7	–0.9	3.4	–1.4	1.1	–0.3
13	Information	6.7	–0.8	6.3	0.1	4.4	2.8	–3.7	1.8	4.0	0.8	2.2	–3.7	4.4	–1.4
14	Finance, insurance, real estate, rental, and leasing	4.9	0.5	2.7	0.0	–3.6	–2.9	4.0	2.8	1.6	1.2	1.1	0.8	2.2	0.1
15	Finance and insurance	8.3	0.9	2.2	–0.1	–12.9	–6.3	15.7	7.3	–0.3	1.9	–0.7	–0.1	2.3	–1.3
16	Real estate and rental and leasing	3.0	0.4	3.0	0.1	1.6	–1.2	–1.4	1.4	2.6	0.6	2.0	1.1	2.2	1.0
17	Professional and business services	3.5	–0.1	2.8	–0.6	4.5	0.6	–6.6	–0.7	2.7	0.5	4.5	–0.3	4.6	2.8
18	Professional, scientific, and technical services	4.1	0.0	2.8	–1.1	7.4	2.2	–6.1	–0.1	0.8	–1.8	4.3	–1.0	4.2	3.0
19	Management of companies and enterprises	2.2	–0.2	–0.5	0.2	–0.3	–2.3	–8.4	–8.6	7.6	12.4	4.9	5.4	8.1	4.6
20	Administrative and waste management services	2.9	–0.3	4.9	0.0	0.9	–0.9	–6.5	2.5	4.3	–1.2	4.7	–2.1	3.7	1.3
21	Educational services, health care, and social assistance	2.6	0.1	2.8	0.2	5.4	0.8	2.2	0.2	0.4	–0.8	1.4	–0.3	2.5	2.1
22	Educational services	1.9	–0.1	2.8	2.3	4.3	2.0	4.8	1.6	1.0	2.8	–0.1	–1.2	1.0	0.8
23	Health care and social assistance	2.6	0.0	2.8	–0.1	5.6	0.6	1.8	0.0	0.3	–1.4	1.6	–0.2	2.7	2.3
24	Arts, entertainment, recreation, accommodation, and food services	2.6	0.0	2.1	–0.9	–2.3	2.7	–6.5	–0.3	3.6	–2.9	4.4	–1.0	2.7	–0.9
25	Arts, entertainment, and recreation	1.4	0.2	2.5	–0.4	–0.5	5.3	–3.3	0.0	4.4	–1.8	4.2	–1.3	2.3	–1.0
26	Accommodation and food services	3.0	–0.1	1.9	–1.1	–3.0	1.9	–7.6	–0.5	3.3	–3.2	4.5	–0.8	2.8	–0.8
27	Other services, except government	–0.2	–0.2	–0.6	–0.5	–3.6	0.6	–5.2	–0.9	–1.8	–2.6	–0.5	–1.8	1.9	1.7
28	Government	1.4	0.0	0.9	0.2	1.8	0.1	0.5	–0.4	0.7	0.1	–0.4	0.4	–0.2	0.2
29	Federal	0.2	0.0	1.2	0.6	2.7	0.0	3.0	–0.7	2.5	–0.4	0.2	0.4	–1.0	–0.5
30	State and local	2.0	0.0	0.8	0.1	1.4	0.1	–0.6	–0.2	–0.2	0.3	–0.6	0.4	0.2	0.5
Addenda:															
31	Private goods-producing industries ¹	2.3	–0.1	3.1	0.9	–3.9	1.1	–5.4	0.4	2.6	–0.3	1.4	0.8	3.7	–1.0
32	Private services-producing industries ²	3.7	–0.2	2.9	–0.1	–0.1	–0.2	–2.6	0.8	2.4	–0.3	2.1	–0.3	2.7	0.4
33	Information-communications-technology-producing industries ³	12.9	–2.1	11.0	–1.2	7.1	1.0	–2.3	–1.4	4.4	–7.0	4.7	0.3	7.2	0.7

1. Consists of agriculture, forestry, fishing, and hunting; mining; construction; and manufacturing.

2. Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

3. Consists of computer and electronic product manufacturing (excluding navigational, measuring, electromedical, and control instruments manufacturing); software publishers; broadcasting and telecommunications; data processing, hosting and related services; Internet publishing and broadcasting and Web search portals; and computer systems design and related services. Revisions for this series reflect both statistical revisions and an improved definition of information-communications-technology-producing industries.

Revisions

- The downward revision to real value added for management of companies and enterprises primarily reflected the incorporation of an improved price index used to deflate this industry's gross output. The PPI for management consulting services replaced a wage-based price index.

2010

The direction of growth in real value added was unchanged for 18 of the 22 major industry groups. Although information-communications-technology-producing industries was revised down notably, it continued to contribute positively to the increase in real GDP.

- The downward revision to real value added for retail trade primarily reflected the full incorporation of all available retail PPIs used to deflate gross margin output. BLS PPIs for gasoline stations and for department stores replaced sales-based price indexes, beginning

with 2002 and 2004, respectively. With the incorporation of these PPIs, the annual industry accounts now reflect the full incorporation of all available retail trade PPIs, which more accurately align with the measurement of gross margin output for the industry than sales-based price indexes.

- The downward revision to real value added for construction reflected downward revisions to current-dollar value added, which reflected downward revisions to compensation and gross operating surplus. The downward revision to compensation partly reflects the improved treatment of pension plans.
- The upward revision to management of companies and enterprises reflected the incorporation of an improved price index used to deflate this industry's gross output. The PPI for management consulting services replaced a wage-based price index.

Table G. Real Gross Output, Real Intermediate Inputs, and Real Value Added by Industry Group, 2010–2012

[Percent change from preceding period]

Line		Revised									Revisions to the percent changes (percentage points)								
		Real gross output			Real intermediate inputs			Real value added			Real gross output			Real intermediate inputs			Real value added		
		2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
1	Gross domestic product.....	.....	.....	.....	.....	.....	.....	2.5	1.8	2.8	.....	.....	.....	.....	.....	.....	0.1	0.0	0.6
2	Private industries	3.4	2.3	3.0	4.6	2.7	3.0	2.4	1.9	3.0	0.7	0.2	1.9	0.6	-0.3	-0.1	0.1		
3	Agriculture, forestry, fishing, and hunting.....	1.3	-4.1	-0.8	0.8	-4.1	-1.7	1.9	-4.0	0.3	2.7	0.5	1.2	-6.7	4.7	9.6	4.0		
4	Mining.....	2.8	7.5	11.5	33.0	1.1	4.3	-5.9	9.9	14.0	-2.4	-1.1	2.0	-19.3	3.2	9.9	10.3		
5	Utilities.....	6.3	-7.3	-0.7	-0.6	-23.4	-6.5	10.3	1.7	1.8	0.7	-2.6	4.9	1.1	0.2	-0.9	0.9		
6	Construction.....	-7.6	-3.3	3.7	-10.4	-7.1	3.3	-5.0	0.0	4.0	0.8	1.4	4.9	2.3	-3.8	0.3	0.9		
7	Manufacturing.....	5.6	3.2	2.8	4.9	4.5	3.3	6.8	0.7	1.9	-0.5	0.0	-0.7	1.1	-0.1	-1.8	-4.3		
8	Durable goods.....	9.8	6.7	6.3	8.1	7.0	7.8	12.4	6.3	4.1	-1.1	-0.3	-1.5	-0.3	-0.9	-0.5	-5.1		
9	Nondurable goods.....	1.9	0.1	-0.2	2.3	2.7	-0.1	1.1	-5.1	-0.5	0.1	0.3	-0.2	2.1	0.7	-3.1	-3.5		
10	Wholesale trade.....	12.2	5.0	1.6	39.8	13.1	-0.4	3.2	1.5	2.6	-1.5	-2.0	-4.6	-2.5	-0.2	-1.5	-2.2		
11	Retail trade.....	7.3	1.8	5.2	18.8	2.9	12.6	2.2	1.2	1.3	-3.5	0.3	-1.3	-1.2	-4.8	1.0	-2.5		
12	Transportation and warehousing.....	5.0	3.6	1.3	4.3	3.9	1.4	5.7	3.4	1.1	0.2	0.0	1.7	1.5	-0.9	-1.4	-0.3		
13	Information.....	4.3	3.7	4.7	4.7	5.7	5.2	4.0	2.2	4.4	1.2	-1.2	1.7	1.9	0.8	-3.7	-1.4		
14	Finance, insurance, real estate, rental, and leasing.....	1.2	0.7	2.0	0.4	0.0	1.6	1.6	1.1	2.2	2.8	1.6	5.1	2.9	1.2	0.8	0.1		
15	Finance and insurance.....	-0.7	-0.8	1.9	-1.1	-0.9	1.5	-0.3	-0.7	2.3	4.0	1.4	5.9	3.0	1.9	-0.1	-1.3		
16	Real estate and rental and leasing.....	2.6	1.8	2.1	2.5	1.2	1.8	2.6	2.0	2.2	1.4	1.5	3.3	2.3	0.6	1.1	1.0		
17	Professional and business services.....	3.6	4.4	3.3	5.2	4.2	0.9	2.7	4.5	4.6	1.5	1.0	3.1	3.7	0.5	-0.3	2.8		
18	Professional, scientific, and technical services.....	2.6	3.4	1.9	5.8	1.7	-2.0	0.8	4.3	4.2	0.5	0.2	5.0	3.7	-1.8	-1.0	3.0		
19	Management of companies and enterprises.....	6.5	7.2	8.9	4.8	10.5	9.9	7.6	4.9	8.1	6.8	5.3	-3.7	4.1	12.4	5.4	4.6		
20	Administrative and waste management services.....	4.1	5.0	2.6	3.8	5.5	0.5	4.3	4.7	3.7	0.4	0.2	2.8	4.1	-1.2	-2.1	1.3		
21	Educational services, health care, and social assistance.....	2.1	2.4	3.0	4.8	4.0	3.9	0.4	1.4	2.5	-0.2	-1.1	0.7	-2.7	-0.8	-0.3	2.1		
22	Educational services.....	5.5	1.6	3.8	13.1	4.2	8.1	1.0	-0.1	1.0	2.0	-2.2	-3.0	-5.2	2.8	-1.2	0.8		
23	Health care and social assistance.....	1.6	2.5	2.9	3.6	3.9	3.2	0.3	1.6	2.7	-0.6	-1.0	0.7	-2.4	-1.4	-0.2	2.3		
24	Arts, entertainment, recreation, accommodation, and food services.....	1.3	3.7	3.4	-1.5	2.7	4.3	3.6	4.4	2.7	-0.6	-0.6	1.9	-0.1	-2.9	-1.0	-0.9		
25	Arts, entertainment, and recreation.....	0.2	2.9	3.2	-5.1	1.1	4.6	4.4	4.2	2.3	0.4	0.3	4.1	3.4	-1.8	-1.3	-1.0		
26	Accommodation and food services.....	1.7	3.9	3.4	-0.3	3.2	4.2	3.3	4.5	2.8	-0.9	-0.8	1.6	-0.8	-3.2	-0.8	-0.8		
27	Other services, except government.....	0.4	0.5	2.6	4.2	2.0	3.6	-1.8	-0.5	1.9	0.7	-0.9	6.3	0.4	-2.6	-1.8	1.7		
28	Government	0.2	-1.7	0.3	-0.7	-4.0	1.1	0.7	-0.4	-0.2	-0.5	-0.1	-1.4	-1.2	0.1	0.4	0.2		
29	Federal.....	3.6	-2.0	-0.8	5.5	-5.4	-0.4	2.5	0.2	-1.0	0.0	0.0	0.8	-1.2	-0.4	0.4	-0.5		
30	State and local.....	-1.5	-1.5	0.8	-4.0	-3.2	2.0	-0.2	-0.6	0.2	-0.6	-0.1	-2.3	-1.2	0.3	0.4	0.5		
	Addenda:																		
31	Private goods-producing industries ¹	2.9	2.1	3.3	3.2	2.6	3.1	2.6	1.4	3.7	-0.1	0.2	0.1	-0.1	-0.3	0.8	-1.0		
32	Private services-producing industries ²	3.6	2.3	2.8	5.6	2.8	2.9	2.4	2.1	2.7	1.0	0.2	3.2	1.1	-0.3	-0.3	0.4		
33	Information-communications-technology-producing industries ³	6.1	5.4	5.7	8.5	6.3	3.8	4.4	4.7	7.2	-0.6	-0.5	8.2	-1.8	-7.0	0.3	0.7		

1. Consists of agriculture, forestry, fishing, and hunting; mining; construction; and manufacturing.

2. Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

3. Consists of computer and electronic product manufacturing (excluding navigational, measuring, electromedical, and control instruments manufacturing); software publishers; broadcasting and telecommunications; data processing, hosting and related services; internet publishing and broadcasting and Web search portals; and computer systems design and related services. Revisions for this series reflect both statistical revisions and an improved definition of information-communications-technology-producing industries.

Revisions

2011

The direction of growth in real value added was unchanged for 17 of the 22 major industry groups. The top two leading contributors to the increase in real GDP (durable-goods manufacturing and professional, scientific, and technical services) were revised down slightly, but they remained the top two contributors. Although private goods-producing industries was revised up and private services-producing industries was revised down, private services-producing industries continued to lead growth in real GDP.

- The upward revision to real value added for mining primarily reflected an upward revision to the oil and gas extraction industry, which reflected an upward revision to gross operating surplus. Newly available Treasury Department Statistics of Income (SOI) data on profits and proprietors' income replaced estimates based on a variety of sources, including estimates from the Census Bureau quarterly financial report (QFR) and quarterly employment data from BLS.
- The upward revision to real value added for agriculture, forestry, fishing, and hunting was more than accounted for by an upward revision to the farm industry. Current-dollar value added was revised up, reflecting an upward revision to gross operating surplus. Within gross operating surplus, both proprietors' income and corporate profits were revised up.
- The largest downward revision was to real value added for nondurable-goods manufacturing. Chemical product manufacturing and food and beverage and tobacco product manufacturing were the leading contributors in the sector. Downward revisions to both industries

reflected downward revisions to current-dollar value added and can be further traced to both compensation and gross operating surplus. Newly available SOI data replaced estimates based on a variety of sources, including the QFR.

2012

The direction of growth in real value added was unchanged for 19 of the 22 major industry groups. Private goods-producing industries was revised down, and private services-producing industries was revised up, reinforcing the fact that the private services-producing industries continued to lead growth in real GDP.

- The largest upward revision was to real value added for mining, reflecting upward revisions to all underlying industries. The oil and gas extraction industry showed the largest revision as a result of upward revisions to both current-dollar gross output and current-dollar value added. The revision to gross output reflected the incorporation of newly available data on oil and gas extraction from the Energy Information Administration, which replaced estimates based on the Federal Reserve Board's industrial production index. Revisions to current-dollar value added reflected the incorporation of updated source data, including updated Census Bureau QFR data.
- The downward revision to durable-goods manufacturing reflected widespread downward revisions throughout the sector, which reflected the incorporation of updated source data, including Census Bureau QFR data.

A Note on the Forthcoming Quarterly Statistics on GDP by Industry

On April 25th, 2014, BEA will release for the first time official statistics presenting both quarterly GDP and quarterly gross output beginning with the first quarter of 2005 and ending with the fourth quarter of 2013. These statistics will be fully consistent with results released as part of the 2014 comprehensive revision of the IEAs as well as the 2013 comprehensive revision of the NIPAs.

BEA has explored the idea of producing quarterly statistics on GDP by industry since 2003. Experimental quarterly GDP by industry statistics were first released in February 2010.¹ Subsequent prototype quarterly statistics reflecting newly available source data and improved methodologies have been developed and released in a multiphase process, and the most recent update (December 2012) covered the first quarter of 2007 through the second quarter of 2012.² The April 25th release will mark the final phase of bringing these highly useful statistics into regular quarterly production.

The most recent recession and the subsequent recovery emphasized the need for more high-quality, real-time information on U.S. economic performance at the industry level. BEA's annual statistics on the breakout of GDP by industry can be used to describe the leading contributors to business cycle dynamics over 2007–2012, but these annual statistics are unable to provide a picture of the dynamic U.S. economy as it evolves from quarter

to quarter. With the April 25th release and subsequent regular quarterly updates of quarterly GDP by industry and gross output by industry, BEA will provide a more detailed and precise view of the turning points in the economy. These newly available quarterly statistics will provide more timely information on accelerations, decelerations, and turning points in economic growth at the industry level, including key information about changes in the industrial infrastructure of the United States. Additionally, comparing gross output to GDP at the industry level may be telling, with possible implications for productivity analysis.

Quarterly statistics on GDP by industry and on gross output by industry will be available approximately 4 months after the end of the reference quarter, or approximately 1 month after BEA's third release of quarterly GDP published as part of the NIPAs. The third release of the NIPA quarterly GDP statistics is a critical input to quarterly GDP by industry because these statistics are prepared in a fully integrated input-output framework that are consistent with NIPA final demand. These statistics will supplement other timely quarterly data—such as employment, wages and salaries, consumer spending, business investment, industrial production, and price statistics—allowing for a more complete analysis of business cycle dynamics and the sources of U.S. economic growth. Quarterly GDP by industry statistics would also augment the existing quarterly NIPA statistics by providing a comprehensive accounting of consumer spending, investment, international trade, and industry performance on a quarterly basis.

1. See Carol A. Robbins, Thomas F. Howells, and Wendy Li, “[Experimental Quarterly U.S. Gross Domestic Product by Industry Statistics](#),” *SURVEY OF CURRENT BUSINESS* 90 (February 2011): 24–31.

2. For more information, see “[Note on the December 2012 Update of Prototype, Quarterly GDP by Industry Statistics](#)” on BEA's Web and Erich H. Strassner and David B. Wasshausen, “[Prototype Quarterly Statistics on U.S. Gross Domestic Product by Industry, 2007–2011](#),” *SURVEY* 92 (June 2012): 49–65.

Methodology for the Industry Economic Accounts

The estimation methodology used to construct the industry economic accounts (IEAs)—that is, the benchmark I-O account, the annual I-O accounts, and the GDP by industry accounts—can be described in 10 summary steps: (1) benchmark year domestic supply; (2) benchmark year final expenditures; (3) initial estimates of benchmark year value added and intermediate inputs; (4) reconciliation of value added and intermediate inputs; (5) benchmark year balancing; (6) annual domestic supply; (7) annual estimates of initial intermediate inputs and final expenditures; (8) annual estimates of initial value added by industry; (9) annual balancing; and (10) price and quantity indexes for GDP by industry and for KLEMS statistics.¹

Step 1. Benchmark year domestic supply. The domestic supply of each commodity is the total value of goods and services available for use as intermediate inputs by industries or as final uses. Domestic supply represents the value of goods and services (commodities) produced by domestic firms, plus imports and government sales, less exports, and changes in inventory. The output of most commodities and industries was based on receipts and shipments data from the economic censuses and are supplemented by a variety of other sources. Changes in private inventories by commodity were based on economic census data, data from the NIPAs, and information on corporate inventories by industry from the Treasury Department SOI. Exports and imports were based on international trade statistics from the Census Bureau and on data from the BEA's international transactions accounts.

Step 2. Benchmark year final expenditures. The estimation of final expenditures by commodity was primarily based on the commodity-flow methodology. In many cases, a predominant user of a commodity can be identified and a portion of that commodity can be assigned to flow to a particular final use for purchase by consumers or by business for investment. Class-of-customer data from the economic censuses or information developed from alternative sources—such as trade associations, private businesses, and other government agencies—was used to identify the purchaser of a commodity. The estimates of final uses of the federal government and of state and local governments were based on the estimates of total consumption and investment expenditures by type of purchase from the NIPAs.

1. For additional information on estimation methods, see Karen J. Horowitz and Mark A. Planting, *Concepts and Methods of the U.S. Input-Output Accounts* (2006) at www.bea.gov, and Nicole M. Mayerhauser and Erich H. Strassner, "Preview of the Comprehensive Revision of the Annual Industry Accounts: Changes in Definitions, Classification, and Statistical Methods," *SURVEY OF CURRENT BUSINESS* (March 2010): 21–34.

Step 3. Initial estimates of benchmark year value added and intermediate inputs. Value added by industry represents the costs incurred and the incomes earned in production, and it consists of compensation of employees by industry, taxes on production and imports less subsidies, and gross operating surplus. Intermediate inputs, or the secondary factors of production, consist of the energy, materials, and purchased-services inputs that are used in each industry's production process. Initial estimates of value added and of intermediate inputs by industry were prepared using economic census and annual survey data on business expenses, data from the NIPAs for the components of value added, the BLS quarterly census of employment and wages program for estimates of wages and salaries and of supplements to wages and salaries, and the Treasury Department SOI for taxes and other business income estimates.

Step 4. Reconciliation of value added and intermediate inputs by industry. The reconciliation of value added and of intermediate inputs by industry produces a combined measure of value added by industry, where the weights are determined by the relative variances of each initial estimate.² Two initial estimates of value added by industry at the 65 industry level are prepared: (1) a residual estimate of value added by industry that is calculated as the difference between gross output and intermediate inputs by industry and (2) a direct estimate of value added by industry that is calculated as the sum of the establishment-based distribution of gross domestic income from the NIPAs. In the reconciliation model, initial estimates of intermediate inputs by commodity and by industry and initial estimates of the components of gross operating surplus are assigned a reliability indicator from two sources: (1) coefficients of variation, which measure sampling errors, from the source data provided by the Census Bureau and the Internal Revenue Service and (2) qualitative reliability weights determined by criteria that indicate the relative quality of underlying data for which there are no coefficients of variation. The reconciliation method makes adjustments to the initial estimates based on the strengths and limitations of the data that underlie those estimates.³

Step 5. Benchmark year balancing. The benchmark

2. For a detailed description of the model used to reconcile value added by industry, see Dylan G. Rassier, Thomas F. Howells III, Edward T. Morgan, Nicholas R. Empey, and Conrad E. Roesch, "Integrating the 2002 Benchmark Input-Output Accounts and the 2002 Annual Industry Accounts," *SURVEY* 87 (December 2007): 14–22.

3. Essentially, the reconciliation produces a weighted average of the two initial estimates, in which initial estimates that are considered relatively weak are adjusted more than initial estimates that are considered relatively reliable. In other words, the reconciliation results for a given industry are closer to the initial estimate that has the highest relative quality.

Methodology for the Industry Economic Accounts

year use table is balanced using a biproportional adjustment procedure that sequentially adjusts the columns and rows of the use table to a set of predetermined controls, including reconciled value added by industry, final expenditures by commodity, and GDP as measured as the sum of final expenditures. Balancing also ensures that the sum of value added by industry equals GDP, intermediate inputs by commodity and final use of commodities are consistent with domestic supply, and intermediate inputs and value added by industry are consistent with gross output by industry.

Step 6. Annual domestic supply. A time series of annual domestic supply is prepared by calculating annual estimates of domestic output by commodity and industry, changes in private inventories, and estimates of exports and imports by commodity. Domestic output is estimated, where available, using annual survey data from the Census Bureau, but it is supplemented with a wide array of public and private sector data sources. Changes in private inventories are based on data from the NIPAs; exports and imports were based on international trade statistics from the Census Bureau and on data from the BEA's international transactions accounts.

Step 7. Annual estimates of initial intermediate inputs and final expenditures. The distribution of initial intermediate inputs and final expenditures by commodity are based on the most recent available annual use table. For years in which a use table has been previously published, the initial intermediate inputs and final expenditures for that year are based on previously published details; for years in which a use table has not been published, the most recent year that is available is used to create initial estimates for the most recent estimate year.⁴ Initial estimates for intermediate inputs are then updated based on broad business expense data from the Census Bureau annual surveys and from other sources. Intermediate inputs and final expenditures by commodity are later updated as part of balancing the use table to a set of control totals that include domestic supply, industry and commodity output from the make table, value added by industry, final expenditure by category, and GDP from the NIPAs.

Step 8. Annual estimates of initial value added by industry. Initial estimates of current-dollar value added by industry were prepared using distributions by industry

of gross domestic income from the NIPAs. Corporate data from the NIPAs were converted from an enterprise basis to an establishment basis using a cross-tabulation of employment data by company and establishment that is available for economic census years. Initial estimates of value added by industry are later updated as part of balancing the use table to a set of control totals that include domestic supply, industry and commodity output from the make table, initial value added and intermediate inputs by industry, final expenditure by category, and GDP from the NIPAs.

Step 9. Annual balancing. The annual use tables are balanced using a biproportional adjustment procedure that sequentially adjusts the columns and rows of the Use table to a set of predetermined controls, including initial value added and intermediate inputs by industry, final expenditures by category, and GDP as measured by the sum of final expenditures from the NIPAs. The balancing also ensures that the sum of value added by industry equals GDP, intermediate inputs by commodity and final use of commodities are consistent with domestic supply, and intermediate inputs and value added by industry are consistent with gross output by industry.

Step 10. Price and quantity indexes for GDP by industry and for KLEMS statistics. Price and quantity indexes for GDP by industry and KLEMS statistics are prepared in three steps. First, indexes are derived for gross output by deflating each commodity produced by an industry that is included as part of its gross output from the make table. Second, indexes for intermediate inputs are derived by deflating all commodities that are consumed by an industry as intermediate inputs, from the use table. Domestic and international sources of intermediate inputs are deflated separately through the use of the import proportionality, or comparability, assumption. Third, indexes for value added by industry are calculated using the double-deflation method in which real value added is computed as the difference between real gross output and real intermediate inputs within a Fisher index-number framework.⁵

4. For example, in this revision, the year 2012 is estimated for the first time using as initial estimates the use table for the year 2011. Next annual revision, 2012 will be re-estimated using as initial estimates the use table published in this revision for 2012.

5. For details on the Fisher index number framework for computing real value added by industry, see the technical appendix in Brian C. Moyer, Mark A. Planting, Mahnaz Fahim Nader, and Sherlene K.S. Lum, "Preview of the Comprehensive Revision of the Annual Industry Accounts: Integrating the Annual Input-Output Accounts and the Gross Domestic Product by Industry Accounts," SURVEY 84 (March 2004): 38–51. For details on computing contributions to growth by industry, see Brian C. Moyer, Mark A. Planting, Paul V. Kern, and Abigail M. Kish, "Improved Annual Industry Accounts for 1998–2003: Integrated Annual Input-Output Accounts and Gross Domestic Product by Industry Accounts," SURVEY 84 (June 2004): 21–57.

Principal Sources of Data

H. Principal Sources of Data for Industry and Commodity Output and Prices—Continues

Industry and commodity	Source data for annual current-dollar statistics	Source data for price indexes
Agriculture, forestry, fishing, and hunting		
Farms	U.S. Department of Agriculture (USDA) data and farm output from the national income and product accounts (NIPAs).	USDA prices received by farmer; Bureau of Labor Statistics (BLS) Producer Price Index (PPI).
Forestry, fishing, and related activities	For forestry, new NIPA farm output; for logging and forestry support activities, Census Bureau annual survey of manufactures (ASM), Census Bureau manufacturers' shipments, inventories, and orders survey (M3) data; for fishing, hunting and trapping, National Oceanic and Atmospheric Administration commercial landings and export value.	BLS PPI; NIPA personal consumption expenditures (PCE) price indexes; USDA/National Agricultural Statistics Service unit prices.
Mining		
Oil and gas extraction	Energy Information Administration (EIA) data on quantities produced and on prices.	BLS PPI and EIA.
Mining, except oil and gas	For coal mining, EIA <i>U.S. Coal Supply and Demand in Review</i> ; for Uranium, EIA <i>Uranium Marketing Annual Report</i> , for all other, U.S. Geological Survey (USGS) <i>Mineral Commodity Summaries</i> .	EIA, USGS, and BLS PPI.
Support activities for mining	For mining exploration, trade source data on drilling costs and footage drilled; all other support activities, USGS <i>Mineral Commodity Summaries</i> .	EIA, USGS, BLS PPI, and trade sources.
Utilities		
	For power generation and supply, EIA forms 861 and 826; for natural gas distribution, EIA <i>Natural Gas Monthly</i> ; for water, sewage and other systems, Census Bureau service annual survey (SAS).	BLS Consumer Price Index (CPI) and BLS PPI.
Construction		
Residential	Census Bureau construction spending (value-put-in-place) survey.	Census Bureau price deflator for new single-family houses under construction and BEA price index for multifamily home construction.
Nonresidential	Census Bureau construction spending (value-put-in-place) survey, U.S. Department of Defense (DOD) expenditures, USDA expenditures, and BLS occupational employment statistics.	BEA composite price indexes based on cost per square foot and on cost indexes from trade source data and Census Bureau price deflator for single-family houses under construction; BLS PPI.
Manufacturing		
	Census Bureau M3 shipments and inventories data, ASM data, and nonemployer survey data.	BLS PPI, NIPA price indexes based on DOD prices paid for military equipment, and NIPA hedonic price indexes.
Wholesale trade		
	Census Bureau monthly wholesale trade survey data and annual wholesale trade survey data.	BLS PPI and NIPA sales deflators.
Retail trade		
	Census Bureau monthly retail trade survey data and annual retail trade survey (ARTS) data.	BLS PPI and NIPA sales deflators.
Transportation and warehousing		
Air transportation	Bureau of Transportation Statistics (BTS) Air Carrier Financial Statistics (ACFS) and Air Carrier Traffic Statistics (ACTS) and BEA foreign trade statistics.	BLS PPI.
Rail transportation	For rail passenger, <i>Amtrak Annual Report</i> ; for rail freight, Department of Transportation (DOT) Surface Transportation Board (STB) selected earnings data.	BLS PPI.
Water transportation	For freight and passenger transportation except deep sea transportation, Census Bureau SAS data; for deep sea freight transportation, BLS quarterly census of employment and wages (QCEW) data; for deep sea passenger transportation, NIPA PCE.	For freight, BLS PPI; for passenger, BLS CPI.
Truck transportation	Census Bureau SAS data.	BLS PPI.
Transit and ground passenger transportation	Census Bureau SAS data and PCE for ground passenger transportation.	BLS PPI and PCE price indexes.
Pipeline transportation	Census Bureau SAS data, Federal Energy Regulatory Commission oil pipeline index, and EIA natural gas annual report.	BLS PPI.
Other transportation and support activities	Census Bureau SAS data, American Public Transportation Association, BTS, ACFS, STB, BLS QCEW, NIPA PCE, and trade source data for receipts.	BLS PPI and PCE price indexes.
Warehousing and storage	Census Bureau SAS data.	BLS PPI.
Information		
Publishing industries, except Internet (includes software)	Census Bureau SAS data.	BLS PPI and BEA price indexes for software.
Motion picture and sound recording industries	Census Bureau SAS data.	PCE price indexes.
Broadcasting and telecommunications	Census Bureau SAS data.	BLS PPI.
Data processing, Internet publishing, and other information services	Census Bureau SAS data.	BLS PPI and PCE price indexes.
Finance and insurance		
Federal Reserve banks, credit intermediation, and related activities	Census Bureau SAS data, Federal Deposit Insurance Corporation commercial bank call report data, Federal Reserve Board (FRB) data, National Credit Union Administration, Office of Thrift Supervision data, and NIPA measures of financial services indirectly measured.	BLS PPI, FRB-priced services, and PCE price indexes.
Securities, commodity contracts, and investments	Securities and Exchange Commission Focus Report and Census Bureau SAS data; BLS QCEW data for auxiliary industries.	BLS PPI, PCE price indexes based on BLS CPI and PPI.
Insurance carriers and related activities	For property and casualty insurance, life insurance, and reinsurance, private trade source data and Census Bureau SAS data; for medical and hospitalization insurance, private trade source data and NIPA statistics on medical and hospital insurance premiums.	BLS PPI and PCE price indexes.

Principal Sources of Data

H. Principal Sources of Data for Industry and Commodity Output and Prices—Table Ends

Industry and commodity	Source data for annual current-dollar statistics	Source data for price indexes
Funds, trusts, and other financial vehicles	NIPA imputed service charges for other financial institutions and Employee Benefits Security Administration data on pension funds.	PCE price indexes.
Real estate and rental and leasing		
Real estate	For residential dwellings, NIPA housing data and USDA data on farm housing; for nonresidential dwellings, new Internal Revenue Service (IRS) tabulations of business tax returns, NIPA rental value of buildings owned by nonprofits, and NIPA foreign trade statistics.	For residential dwellings, PCE price indexes and NIPA farm rents paid; for nonresidential dwellings, BLS PPI; for real estate managers and agents, BLS PPI and trade source data.
Rental and leasing services and lessors of intangible assets	For rental and leasing services, Census Bureau SAS data; for royalties, IRS tabulations of business tax returns.	BLS PPI, BTS and construction index, mining, crude oil receipts.
Professional, scientific, and technical services		
Legal services	Census Bureau SAS data.	BLS PPI and PCE price indexes.
Computer systems design and related services	Census Bureau SAS data.	BEA price indexes for software.
Miscellaneous professional, scientific, and technical services	Census Bureau SAS data.	BLS PPI and PCE price indexes.
Management of companies and enterprises	BLS QCEW data.	BLS PPI.
Administrative and waste management services	Census Bureau SAS data; BLS QCEW data for auxiliary industries.	BLS PPI and QCEW.
Educational services	PCE data for education services based on data from the Department of Education and data from BLS consumer expenditure survey.	PCE price indexes.
Health care and social assistance	Census Bureau SAS data.	PCE price indexes and BLS PPI.
Arts, entertainment, and recreation	Census Bureau SAS data.	PCE price indexes.
Accommodation and food services		
Accommodations	For hotels and motels, PCE; for all other traveler accommodations and bed and breakfasts, BLS QCEW data.	BLS PPI and PCE price indexes.
Food services and drinking places	Census Bureau ARTS data.	BLS PPI.
Other services, except government	For religious, grant making, civic, and other nonprofit services, for personal services, and for dry cleaning services, Census Bureau SAS data, PCE, and data from the National Center for Charitable Statistics; for repair and maintenance, BLS QCEW; for private household services, PCE.	PCE price indexes.
Federal		
General government	NIPA government expenditure statistics; for federal structures, DOD investment expenditures.	NIPA price indexes based on BLS PPI and CPI; for military facilities, DOD data on employment, prices for military construction, and construction cost indexes from trade sources.
Government enterprises	U.S. Postal Service receipts, EIA data for electric utilities, Overseas Private Investment Corporation, and Federal Housing Administration data; government agency data for specific federal enterprises.	BLS PPI.
State and local		
General government	NIPA government expenditure statistics.	BLS PPI and PCE price indexes.
Government enterprises	NIPA statistics on government enterprises based on the Census Bureau annual survey of government finances; for Alaskan ferries, waterports, and airports, Alaska Railroad Administration; for electric utilities, EIA data; for state and local government structures, Census Bureau construction spending (value-put-in-place) survey.	BLS PPI.

Principal Sources of Data

I. Principal Sources of Data for Value Added—Continues

Component of gross domestic income	Major source data	Distribution available in source data	Industry distribution
			Data or assumption if distribution is not available
Compensation of employees, paid			
Wages and salary accruals ¹	For most private industries, federal government civilians, and state and local government, Bureau of Labor Statistics (BLS) tabulations from the quarterly census of employment and wages (QCEW); for other private industries, a variety of sources; for military wages, Office of Personnel Management (OPM).	Establishment.	
Supplements to wages and salaries			
Employer contributions for employee pension and insurance funds	For health insurance, Department of Health and Human Services medical expenditure panel survey data; for private pension plans, Pension Benefit Guaranty Corporation and corporate financial data and Department of Labor tabulations of Internal Revenue Service (IRS) Form 5500; for federal retirement plans, outlays from the Treasury Department <i>Monthly Treasury Statement</i> ; for state and local government plans, Census Bureau annual survey of state and local government financial data; for other types of funds, trade association data and judgmental trend.	For pension plans, company; for the others, none.	BLS employer cost index and BLS QCEW.
Employer contributions for government social insurance	Tabulations from the Social Security Administration (SSA) and other agencies that administer social insurance programs.	None.	SSA and BLS tabulations.
Taxes on production and imports less subsidies			
Taxes on production and imports	For state and local government, Census Bureau data; for federal government excise taxes, Alcohol and Tobacco Tax and Trade Bureau collections and IRS data; for customs duties, Treasury Department <i>Monthly Treasury Statement</i> .	None.	
Subsidies	For federal government, U.S. Department of Agriculture (USDA) Commodity Credit Corporation subsidy payments and Office of Management and Budget (OMB) of the United States; for state and local government, Census Bureau and California administrative records.	None.	Payments are assigned to the industries receiving the subsidies.
Gross operating surplus			
Private enterprises			
Net interest and miscellaneous payments, domestic industries			
Corporate	Federal Financial Institutions Examination Council (FFIEC) call report data on commercial banks, trade association data, and IRS tabulations from corporate tax returns (Form 1120 series), adjusted for misreporting on tax returns and for conceptual differences.	Company.	Census Bureau company-establishment employment matrix.
Noncorporate	FFIEC call report data on commercial banks, Federal Reserve Board (FRB) mortgage debt times BEA interest rate for residential mortgage interest, IRS tabulations of tax return data from sole proprietorships (Form 1040 Schedule C) and partnerships (Form 1065), adjusted for misreporting on tax returns and for conceptual differences.	Company.	Assumed to be equivalent to an establishment distribution.
Business current transfer payments (net)	For government, OMB <i>Budget of the United States</i> and Census Bureau Census of Governments and annual surveys; for persons, IRS tabulations from business tax returns and information from government agency reports and trade sources.	Company.	Industry-specific payments are assigned to the industries; others are based on IRS company-industry distribution.
Proprietors' income with inventory valuation adjustment (IVA) and without capital consumption adjustment (CCA <i>di</i>)			
Farm	USDA farm income data.	Establishment.	
Nonfarm			
Proprietors' income without inventory valuation and capital consumption adjustments	Indicators of activity, such as construction spending (value put in place) for construction, trade, and services; for others, IRS tabulations of tax returns from sole proprietorships (Form 1040 Schedule C) and partnerships (Form 1065), adjusted for misreporting on tax returns and for conceptual differences.	Company.	Assumed to be equivalent to an establishment distribution.
Inventory valuation adjustment	BLS prices, Census Bureau monthly surveys and <i>Quarterly Financial Report</i> , and IRS inventory data.	Establishment/ company.	
Rental income of persons without capital consumption adjustment	Census Bureau data on housing units and rents from the american housing survey and the current population survey/housing vacancy survey, FRB mortgage debt data, BEA interest rate data, and USDA data; for royalties, judgmental trend, IRS tabulations of data from individual tax returns (Form 1040).	Establishment.	

1. Includes wages and salaries to the rest of the world and excludes wages and salaries received from the rest of the world.

Principal Sources of Data

I. Principal Sources of Data for Value Added—Table Ends

Component of gross domestic income	Major source data	Distribution available in source data	Industry distribution
			Data or assumption if distribution is not available
Corporate profits before tax with inventory valuation adjustment and without capital consumption adjustment, domestic industries			
Corporate profits before tax without inventory valuation and capital consumption adjustments	Census Bureau data from the <i>Quarterly Financial Report</i> , regulatory agency reports, and public financial statements and IRS tabulations from corporate tax returns (Form 1120 series), adjusted for misreporting on tax returns and for conceptual differences.	Company.	Census Bureau company-establishment employment matrix.
Inventory valuation adjustment	BLS prices, Census Bureau monthly surveys and <i>Quarterly Financial Report</i> , and IRS inventory data.	Establishment/company.	
Capital consumption allowances			
Corporate	BEA estimates of tax-return-based depreciation and IRS tabulations from corporate tax returns (Form 1120 series), adjusted for misreporting on tax returns and for conceptual differences.	Company.	Census Bureau company-establishment employment matrix.
Noncorporate	BEA estimates of tax-return-based depreciation and IRS tabulations of tax return data from sole proprietorships (Form 1040 Schedule C) and partnerships (Form 1065), adjusted for misreporting on tax returns and for conceptual differences.	Company.	Assumed to be equivalent to an establishment distribution.
Current surplus of government enterprises	For federal government, reports from various agencies and BEA consumption of fixed capital; for state and local governments, Census Bureau surveys of government finances.	Establishment.	
Consumption of fixed capital			
Households and institutions ²	Perpetual-inventory method, based on gross investment estimates and on investment prices.	Establishment.	
Government	Perpetual-inventory method, based on gross investment estimates and on investment prices.	Type of agency.	

2. Consists of owner-occupied housing and nonprofit institutions primarily serving households.