Comprehensive Revision of Gross Domestic Product by Metropolitan Area

Advance Statistics for 2013 and Revised Statistics for 2001–2012

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ECONOMIC GROWTH was widespread across metropolitan areas in 2013; real GDP increased in 292 of the nation's 381 metropolitan areas (chart 1), according to the advance statistics from the Bureau of Economic Analysis (BEA). For the United States as a whole, real GDP by metropolitan area—the sum of current-dollar GDP for all metropolitan areas deflated by a national price measure—increased 1.7 percent in 2013 after increasing 2.6 percent in 2012 (table 1).

GDP by metropolitan area—the metropolitan area counterpart to GDP in the national income and product accounts (NIPAs)—is the most comprehensive measure of overall economic activity in a metropolitan area. In September, BEA released advance current-dollar and chained-dollar (real) statistics on GDP by metropolitan area for 2013. Additional highlights for 2013 include the following:

- Finance, insurance, real estate, rental, and leasing contributed to growth in many metropolitan areas, especially in the Rocky Mountain and Far West regions.
- Nondurable-goods manufacturing growth was widespread.
- Professional and business services was one of the leading contributors to growth in many metropolitan areas.
- Natural resources and mining was a major contributor to strong growth in several metropolitan areas located on the Utica, Marcellus, and Niobrara shale formations. These formations stretch across several states.
- Government detracted from growth in many metropolitan areas.

After providing an overview on the importance of metropolitan areas to the nation, this article will discuss the industries that drove national economic growth and the metropolitan areas where these industries are concentrated. It will then examine patterns in per capita real GDP by metropolitan area before concluding with a discussion of revisions to the statistics on GDP by metropolitan area.

Metropolitan Area Size

Metropolitan areas produced 90.3 percent of the nation's GDP in 2013. Collectively, GDP of the five largest metropolitan areas accounted for 23.2 percent of national GDP in 2013. Metropolitan areas are also the driving force behind GDP most states. Among the single-state metropolitan areas, Urban Honolulu, HI, accounted for the largest percentage of GDP by state in 2013 (77.0 percent).

The size of metropolitan areas varies significantly. Most metropolitan areas (277) have populations under 500,000. GDP for these small metropolitan areas ranges from $31.6 billion (Anchorage, AK) to $1.9 billion (Grants Pass, OR). GDP for large metropolitan areas, which includes areas with populations greater than 500,000, ranges from $1.5 trillion (New York-Newark-Jersey City, NY-NJ-PA) to $14.0 billion (Deltona-Daytona Beach-Ormond Beach, FL).

Data Availability

Summary statistics on gross domestic product (GDP) by metropolitan area in current dollars and in real chained (2009) dollars for 2001–2013 as well as quantity indexes are presented in tables 1–6 in this article. More detailed statistics for metropolitan areas and the U.S. metropolitan portion can be accessed interactively on BEA's Web site.

The following annual statistics are available:

- Advance statistics on current-dollar GDP by metropolitan area, real GDP by metropolitan area in chained (2009) dollars, and quantity indexes for 2013 for 24 sectors based on the North American Industry Classification System (NAICS).
- Current-dollar and real GDP by metropolitan area and quantity indexes for 2001–2012 for 24 NAICS-based sectors and for 61 NAICS-based subsectors.
- Per capita real GDP by metropolitan area for 2001–2013

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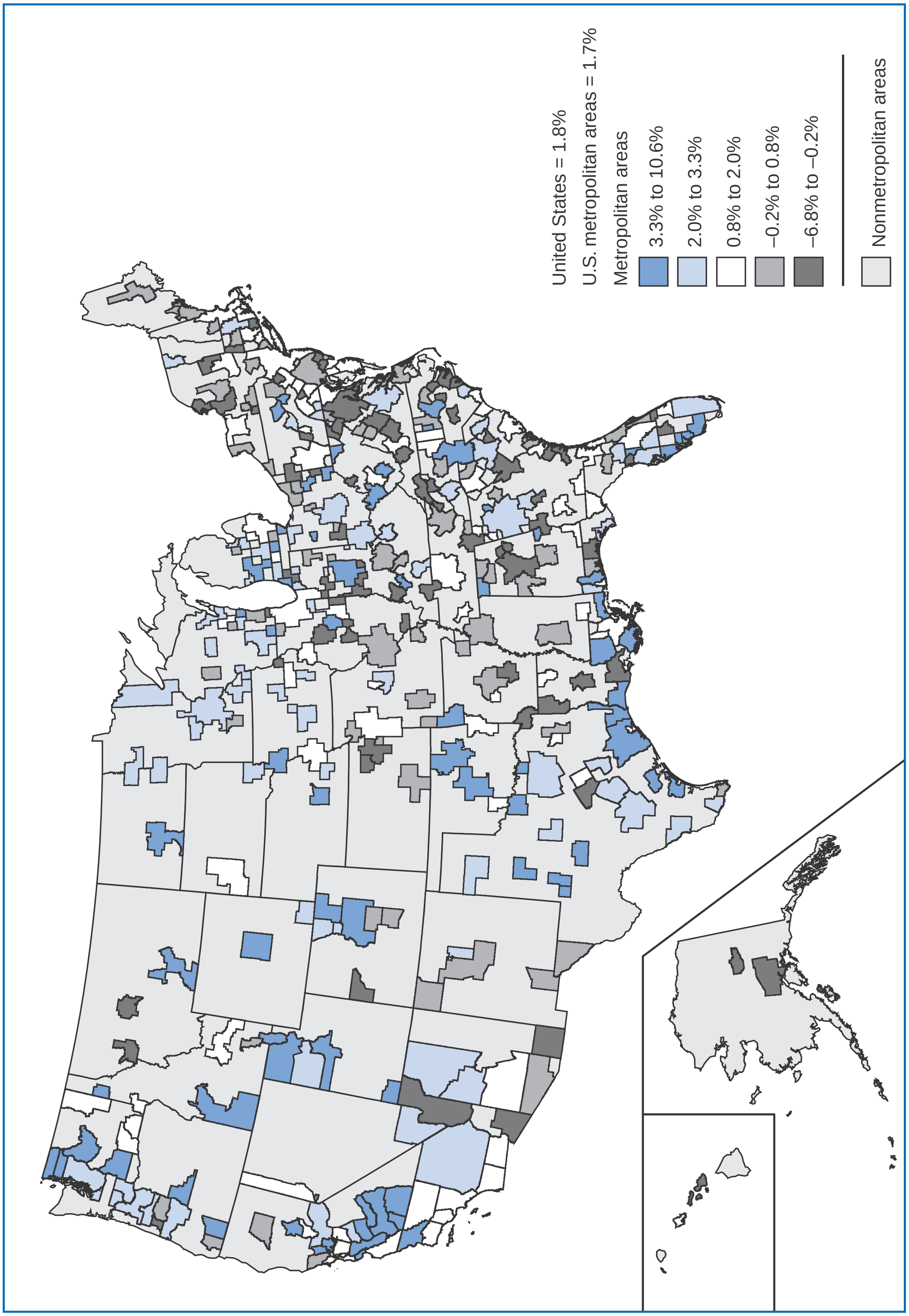
Chart 1. Percent Change in Real Gross Domestic Product by Metropolitan Area, 2013



U.S. Bureau of Economic Analysis

Widespread growth in some industries often has a greater effect on growth in small metropolitan areas where a large portion of total economic activity is supported by a few key industries. Some industries, such as mining, are much more geographically concentrated and can cause rapid growth or decline in related areas.

Metropolitan Area Growth

In 2013, increases in total GDP for the nation's metropolitan areas were led by growth in finance, insurance, real estate, rental, and leasing; nondurable-goods manufacturing; and professional and business services (table 2). One or more of these three industries contributed to growth in 370 of the 381 metropolitan areas nationwide. In contrast, government detracted from growth in 2013.

Finance, insurance, real estate, rental, and leasing. Finance, insurance, real estate, rental, and leasing contributed 0.36 percentage point to real GDP growth in metropolitan areas in 2013. The industry contributed to growth in 268 metropolitan areas in 2013. Growth in this industry accounted for more than half of real GDP growth in 61 metropolitan areas, and contributed more than 1 percentage point to growth in 55 metropolitan areas, most notably in the small metropolitan areas of Williamsport, PA (3.49 percentage points, State College, PA (3.02 percentage points), and Bloomington, IL (2.87 percentage points).

Growth in this industry was spread across both large and small metropolitan areas. This industry was the leading contributor to growth in 68 of the 277 small metropolitan areas and in 39 of the 104 large metropolitan areas.

Nondurable-goods manufacturing. Nondurable-goods manufacturing contributed 0.32 percentage point to real GDP growth in metropolitan areas in 2013. The rebound in nondurable-goods manufacturing from a decline in 2012 was widespread across the nation's metropolitan areas in 2013. Growth in this industry contributed to real GDP growth in 273 metropolitan areas. This industry's contribution was particularly strong in metropolitan areas with a concentration in petroleum and coal products manufacturing (which includes refineries), most notably in the small metropolitan areas of Beaumont-Port Arthur, TX (8.71percentage points), Lima, OH (8.51 percentage points), and Mount Vernon-Anacortes, WA (8.09 percentage points). Mount Vernon-Anacortes, WA, which grew 10.6 percent in 2013, was the nation's fastest growing metropolitan area primarily due to the large contribution from this industry.

Growth in this industry was even across both large and small metropolitan areas. This industry was the leading contributor to growth in 41 of the 277 small

Gross Domestic Product (GDP) by Metropolitan Area Statistics

Metropolitan (statistical) areas defined by the U.S. Office of Management and Budget are standardized county-based areas that have at least one urbanized area with a population of 50,000 or more and adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.

GDP by metropolitan area is the most comprehensive measure of overall economic activity in a metropolitan area—it is the metropolitan area counterpart to the nation's GDP. The methodology developed for these statistics is relatively simple and allows for the production of timely statistics.

GDP by metropolitan area is derived as the sum of the value added originating in all of the industries in the metropolitan area. Real GDP by metropolitan area is an inflation-adjusted measure based on national prices for the goods and services produced within that area. The statistics on real GDP by metropolitan area and on quantity indexes with a reference year of 2009 were derived by applying national chain-type price indexes to the statistics on current-dollar GDP by metropolitan area for 61 industry subsectors based on the 2007 North American Industry Classification System. Then, the chain-type price index formula that is used in the national accounts is used to calculate the statistics on total real GDP by metropolitan area and on real GDP by metropolitan area at more aggregated industry levels.

The statistics on GDP by metropolitan area are consistent with those on GDP by state released on June 11, 2014, which are based on the comprehensive revision of the national income and product accounts released in July 2013 and the national GDP by industry statistics released on January 23, 2014. The growth rate of real GDP in the nation's metropolitan areas usually differs from the real GDP growth rates in the national income and product accounts released annually in July, partly because of the inclusion of nonmetropolitan areas in the national statistics. The growth rates also differ because of differences in the timing of production cycles and the availability of data in preparing national and regional statistics, which preclude the incorporation of the immediately preceding annual NIPA revisions into the advance statistics on GDP by metropolitan area.

metropolitan areas and in 14 of the 104 large metropolitan areas.

Professional and business services. Professional and business services contributed 0.24 percentage point to real GDP growth in metropolitan areas in 2013. Professional and business services contributed to growth in 245 of the nation's 381 metropolitan areas in 2013, most notably in the small metropolitan areas of Fayetteville-Springdale-Rogers, AR-MO (3.33 percentage points) and Janesville-Beloit, WI (2.61 percentage points). This industry also contributed more than 1 percentage point to growth in 19 metropolitan areas.

Growth in this industry was balanced across both large and small metropolitan areas. This industry was the leading contributor to growth in 19 of the 277 small metropolitan areas and in 15 of the 104 large metropolitan areas.

Natural resources and mining. Although natural resources and mining was not a major contributor to growth for the nation, this industry contributed to strong growth in several small metropolitan areas. Mining in the Utica and Marcellus shale formations led to notable contributions to growth for natural resources and mining in Beckley, WV (11.49 percentage points), Wheeling, WV-OH (8.50 percentage points), and Charleston, WV (3.63 percentage points). Mining in the Niobrara shale formation contributed significantly to the 10.1 percent increase in total real GDP for Greeley, CO.[1]

Contributions to growth from this industry were concentrated in small metropolitan areas. The industry was the leading contributor to growth in 63 of the 277 small metropolitan areas and in 11 of the 104 large metropolitan areas.

1. The location of these formations can be found on a map released by the Energy Information Administration on its Web site.

Government. The government sector subtracted 0.12 percentage point from U.S. metropolitan area real GDP growth in 2013. This sector subtracted from growth in 292 metropolitan areas. The largest subtractions were in the small metropolitan areas of Hinesville, GA (4.12 percentage points), Jacksonville, NC (3.00 percentage points), and Warner Robins, GA (2.05 percentage points).

The slowdown in the government sector was widespread across both large and small metropolitan areas. This sector subtracted from growth in 211 of the 277 small metropolitan areas and in 81 of the 104 large metropolitan areas.

Per Capita Real GDP by Metropolitan Area

Per capita real GDP for the nation’s metropolitan areas was $52,093 in 2013, 6.1 percent higher than the national average (chart 2 and table 3).[2] The five metropolitan areas with the highest per capita real GDP in 2013 were Midland, TX; San Jose-Sunnyvale-Santa Clara, CA; Bridgeport-Stamford-Norwalk, CT; Casper, WY; and San Francisco-Oakland-Hayward, CA. Midland, TX, had the highest per capita real GDP in the nation at $129,193, which was 163.0 percent higher than the national average; a strong concentration in the mining industry contributed greatly to per capita real GDP in this area.

The five metropolitan areas with the lowest per capita real GDP in 2013 were Lake Havasu City-Kingman, AZ; Sebring, FL; The Villages, FL; Brownsville-Harlingen, TX; and McAllen-Edinburg-Mission, TX. Lake Havasu City-Kingman, AZ, had the lowest per capita real GDP in the nation at $17,336 which was 64.7 percent lower than the national average.

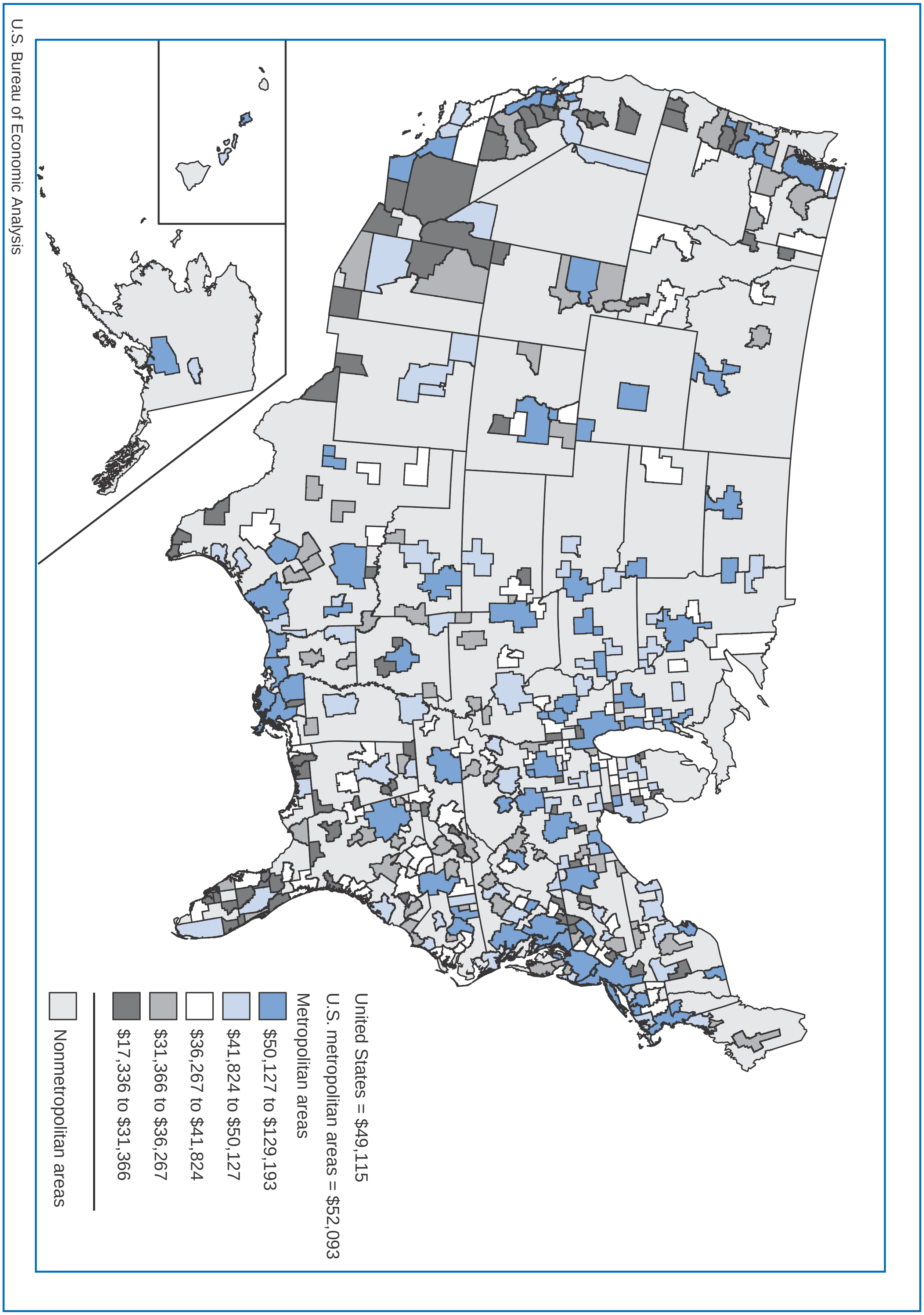
2. Per capita real GDP by metropolitan area was computed using Census Bureau midyear population estimates.

Advance Statistics on Gross Domestic Product (GDP) by Metropolitan Area for 2013

As with the previous releases of advance statistics, the 2013 advance statistics are based on source data that are incomplete or subject to further revision by the source agency. Revised statistics based on more complete data will be released in September 2015.

The advance statistics are prepared at the sector level of the North American Industry Classification System. The advance 2013 statistics use subsector-level industry detail for unpublished county wages for metropolitan areas from the Bureau of Labor Statistics Quarterly Census of Employment and Wages and the advance 2013 current-dollar statistics on GDP by state, which were released on June 11, 2014. The annual percent change in county wages from 2012 to 2013 was calculated and then applied to the county GDP statistics underlying the statistics on GDP by metropolitan area for 2012. These extrapolated statistics for all sectors were scaled to the advance statistics on GDP by state for 2013 by allocating the difference between the two measures among the counties. The resulting county statistics were then summed to their related metropolitan areas to yield GDP by metropolitan area.

Chart 2. Per Capita Real Gross Domestic Product by Metropolitan Area, 2013



Revisions

The statistics on GDP by metropolitan area for 2001–2012 that were released in September 2013 have been revised. The revised statistics incorporate the comprehensive revisions from GDP by industry (January 23, 2014), GDP by state (June 11, 2014), and local area personal income (November 21, 2013). Comprehensive revisions differ from annual revisions in scope and in the number of years subject to revision. Comprehensive revisions occur approximately every 5 years and incorporate more detailed methodological and statistical changes than annual revisions. In addition to the revisions that reflect revisions to the underlying source data, the revisions reflect significant changes that were introduced as part of this comprehensive revision and include the following:

- Updated industry definitions consistent with the 2007 North American Industry Classification System
- The recognition of research and development expenditures as capital, the capitalization of entertainment, literary, and other artistic originals
- The use of an improved accrual accounting treatment of transactions for defined benefit pension plans

Current-dollar statistics. The revisions to the current-dollar GDP statistics, measured as a percentage of the previously published statistics, were modest for most metropolitan areas (table 4). The mean absolute revision (MAR) was 3.7 percent for 2008–2012. The MARs were less than 13 percent for all metropolitan areas except Midland, TX (27.0 percent), Norwich-New London, CT (17.7 percent), Little Rock-North Little Rock-Conway, AR (17.1 percent), and Watertown-Fort Drum, NY (14.7 percent). The revisions to Midland, TX were mainly due to revisions to mining; revisions both Norwich-New London, CT, and Watertown-Fort Drum, NY, were mainly due to revisions in government. Revisions to Little Rock-North Little Rock-Conway, AR, were mainly due to revisions to information.

Real growth rates. The revisions to real GDP growth rates are measured as a percentage point difference from the previously published growth rate. The MAR of annual growth rates for metropolitan areas was 1.02 percentage points for 2008–2012. For 2008–2012, the MAR of annual growth rates was less than 5 percentage points for all metropolitan areas except Midland, TX (7.3 percent) and Casper, WY (5.9 percent) (table 5). Revisions to mining led to revisions in real GDP growth rates for both metropolitan areas.

Acknowledgments

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